
Testimony and Interrogation of Minors

Assumptions About Maturity and Morality

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This article examines the legal histories and social contexts of testimony and interrogation involving minors, developmental research on suggestibility and judgment, interactions between development and legal/sociological contexts, and the reasoning behind how minors are treated in different legal contexts. The authors argue (a) that young witnesses, victims, and suspects alike possess youthful characteristics that influence their ability to validly inform legal processes, some of which were recently recognized by the Supreme Court as they apply to the juvenile death penalty, and (b) that consideration should be given to reforming current practices in the context of juvenile interrogation.

Keywords: juvenile interrogation, false confession, immaturity of judgment, Miranda

A surge in the prosecution of child abuse and juvenile crime cases over the past 20 years has created a need for psychological research to inform questions regarding the competency and credibility of children and adolescents involved in the justice system. Such research can further the understanding of the extent to which, and the situations in which, communicating with children and adolescents is a valid diagnostic tool for “divining the truth [which] is generally seen to be the critical function of legal proceedings” (Haugaard & Reppucci, 1992, p. 29). Two forms of reports from minors have been used to seek truth and justice: (a) testimony from witnesses and/or victims and (b) interrogation and confession evidence from suspects. However, as research has explored the developmental competence of young people to provide reliable reports in legal contexts, and policy has responded to this research, the majority of research paradigms have proved to be limited in their scope and focused primarily on examining and designing protections to compensate for the developmental deficiencies of young witnesses or victims. The parallel need for examining and responding to the developmental competence of young suspects in interrogation has received relatively little attention. In this article, we examine the legal histories and social contexts of testimony and interrogation and the application of developmental research on the constructs of suggestibility and judgment to these contexts. Developmental differences are conceived as occurring across age groups, as opposed to between groups of people of the same age. A 13-year-old is predictably less mature than an 18-year-old, whether that

13-year-old is a victim, a witness, or a suspect. Our assumption is that “kids are kids” no matter the context in which they find themselves; being suspected of committing a crime does not make a child an adult. Readers are encouraged to question why this assumption has generally been neglected in the context of interrogation of young suspects and to consider specific recommended procedural reforms.

The problem of false convictions, a significant portion of which arise from false confessions (15% to 25% of innocent defendants exonerated by DNA evidence had confessed; Kassin & Gudjonsson, 2004), has made headlines in large part because of the success of the Innocence Project (see www.innocenceproject.org), an organization that has assisted inmates trying to prove their innocence since 1992. Likewise, a number of leading social scientists have explored the psychology of false confessions. For instance, Kassin (2005) recently described how *innocence* puts *innocents* at risk within the interrogation context. We focus on how the developmental differences of juvenile suspects interact with this context and on what current legal policy indicates about how these juveniles are perceived in the larger society.

The Message Is Clear . . .

Among the Innocent Project’s featured cases are those of Antron McCray, Kevin Richardson, Yusef Salaam, Raymond Santana, and Kharey Wise, who were wrongfully convicted in 1989 of a highly publicized brutal attack, which became known as New York’s “Central Park jogger case” (see www.innocenceproject.org/case/display_cases.php?sort=last_name/). After prolonged periods of police interrogation, each boy (all were between 14 and 16 years old at the time) gave a detailed videotaped confession, was convicted, and served between six and eight years in prison (except Wise, who was tried as an adult and served 11.5 years). Twelve years after the convictions, Matias Reyes, a convicted murderer and rapist,

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admitted that he alone was responsible for the attack on the Central Park jogger, and DNA testing corroborated his confession.

The cases of these five boys exemplify a pattern that has emerged within various studies of false confessions; that is, a disproportionate number of false confessions are provided by juveniles. For example, in a database of 125 proven false confessions, 33% involved confessions from juveniles, most of whom confessed to brutal murders (Drizin & Leo, 2004). Further, in a more recent review of exonerations between 1989 and 2004 (Gross, Jacoby, Matheson, Montgomery, & Patil, 2005), 42% of the cases of juvenile exonerees involved false confessions, compared with 13% of the cases of adult exonerees. Among the youngest of these juvenile exonerees (12- to 15-year-olds), 69% confessed to homicides and rapes that they did not commit.

Because human subject review boards balk at allowing researchers to replicate the pressures of the interrogation process in laboratory experiments, it has been difficult to design studies that directly test the effect of suggestive interviewing techniques on the likelihood that someone will take responsibility for committing a crime that she or he did not commit. However, for experimental research purposes, Kassin and Kiechel (1996) developed a behavioral laboratory paradigm, referred to as the *Alt key methodology*, that involves leading participants to believe erroneously that they caused a computer to crash by hitting the *Alt* key, telling them that there is indisputable evidence that they did so, and asking them to sign a confession in which they admit to doing so. Other researchers have added to this methodology; for example, Redlich and Goodman (2003) increased the consequences of confession by telling participants that they would have to spend 10 additional hours

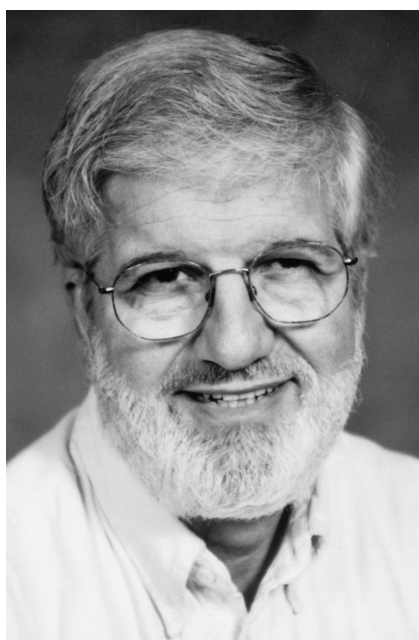
retyping the lost information into the computer. Although the *Alt* key design may be criticized on grounds of ecological validity in that it might be quite easy to get participants to confess to crashing a computer but it might not be that easy to get suspects to confess to criminal activity, the design is useful for revealing differences in patterns of interrogative suggestibility between groups. Redlich and Goodman used the *Alt* key methodology to assess relative likelihoods of false confessions between different age groups, including 12- and 13-year-olds, 15- and 16-year-olds, and young adults. These authors found marked developmental differences: The 12- and 13-year-olds were more likely to confess (78% compliance rate) than were the 15- and 16-year-olds (72% compliance rate), who were more likely to confess than were the young adults (59% compliance rate). Moreover, two thirds of the 12- and 13-year-olds and about half of the 15- and 16-year-olds simply picked up the pen and signed the statement without question; only one third of the young adults did so. These data chorus a unified message: *Youth is a risk factor for providing a false confession*. It is time to listen to this message, examine the reasons it is so, and do something about it.

The Time Is Right . . .

There is solid reason to believe that the time is right for reform, as the U.S. Supreme Court recently acknowledged that developmental differences exist between youths and adults and that these developmental differences are identifiable even in those youths who engage in criminal behavior. Specifically, in *Roper v. Simmons* (2005), the Court held that the Eighth and Fourteenth Amendments forbid the execution of offenders who were under the age of 18 when their crimes were committed. Before this ruling, the Court held in *Stanford v. Kentucky* (1989), that the execution of 16- and 17-year-old offenders was not constitutionally barred. The Court concluded in *Simmons* that since *Stanford*, a national consensus had formed against the execution of juvenile offenders and that the practice violates society's "evolving standards of decency" (p. 1). Such "evolving standards of decency" reflect an understanding that developmental differences exist between youths and adults that make youths less culpable for their actions and that limit the potential deterrent effect of the death penalty. The Court characterized these developmental differences as "susceptibility to immature and irresponsible behavior" (p. 2) and "vulnerability and comparative lack of control over their immediate surroundings" (p. 2). These very developmental differences are the same developmental differences that put youths at risk for providing unreliable reports in legal contexts; therefore, in the following sections, we review these developmental differences in detail and discuss their interaction with investigative and interrogative contexts.

Review of Legal History and Contexts of Testimony and Interrogation

A brief review of relevant Supreme Court decisions and of techniques used to question minors reveals how the char-



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acterization of young people has shifted between *paternalistic logic* models, which portray youths as children in need of protection and thus deprive them of certain rights when being questioned, and *liberationist logic* models, which depict youths as autonomous individuals entitled to the same rights and challenges as adults when being questioned. The paternalistic characterization implies that the diagnostic value of testimonial and confession evidence is compromised by the developmental immaturity of the informant, whereas the liberationist depiction implies that the diagnostic value of such evidence should not be doubted just because an informant is young.

Testimonial Evidence From Young Witnesses

Whose testimony is considered legitimate? In general, courts recognize the cognitive and psychosocial immaturity of young witnesses and victims, and concern about the interviewing practices used with children is a typical challenge to children's testimony in child sexual abuse cases (Goodman, Quas, Bulkley, & Shapiro, 1999). Courts insist that any potential witness must possess certain characteristics in order to testify, including the capacity to observe, sufficient intelligence and adequate memory to store information, the ability to communicate, the ability to differentiate truth from falsehood, and the understanding that punishment follows false testimony (American Jurisprudence, 1960). Case law and statutory requirements concerning the competence of child witnesses are found in each of the 50 states. Although these requirements differ from state to state, in general the statutes have historically fallen into one of two categories: (a) those presuming incapacity below a specified age and (b) those requiring an understanding of the oath involved. A growing number of states, however, have started following

the Federal Rules of Evidence (Perry & Wrightsman, 1991), under which trial judges assess and rule on the competence of children to testify and other protections prevent the improper inclusion of child witnesses (Meyers, 1987).

The case of *State of New Jersey v. Michaels* (1994), in which the court overturned a conviction because of a "tainted" suggestive interview and required that taint hearings be held before children were allowed to testify at trial, exemplifies a trend toward instituting further requirements with regard to the testimony of minors. On the basis of this ruling, attorneys can request taint hearings, which are similar to competence hearings and include a specific focus on suggestibility, when they are concerned about the interviewing practices used with children (Schaaf et al., 2002). Dugas (1995) noted that the decision in *Michaels* "provides persuasive authority for other courts to extend the due process protection to alleged child sexual and physical abusers" (p. 1215). Other states, including Delaware, Massachusetts, New York, Ohio, Wisconsin, and Pennsylvania, have adopted their own forms of taint hearings.

What do interviews look like? Many jurisdictions have established multidisciplinary child advocacy centers, which are supposed to reduce the number of interviews, provide a child-friendly environment, and maximize the validity of the information obtained from children by using forensically sound, developmentally appropriate interviewing techniques that address the cognitive and psychosocial limitations of young witnesses (Myers et al., 1994). An evaluation of the California Child Victim Witness Project (Myers et al., 1994), which exemplifies this approach, confirmed that the accuracy and completeness of children's reports increased, and the stress of the children decreased, when developmentally appropriate interviewing techniques were used. See Poole and Lamb (1998) for a review of the theory-driven interviewing protocols that have been developed and used by child advocacy centers to minimize the unreliability of children's reports.

Although the U.S. Supreme Court has not ruled that states must require interviews of child victims or witnesses to be videotaped, some states have developed their own statutes to facilitate implementation of the procedure (McGough, 1995). The Supreme Court of Florida observed,

Experts generally agree that contacts between a child and an expert evaluating the child for sexual abuse should be videotaped to ensure the trustworthiness of the communications and to ensure that the expert did not lead the child during the evaluation . . . In rendering this decision, we can only hope that in the future greater care will be taken to properly preserve testimony in this type of case and that judges will carefully adhere to the trustworthiness and reliability requirements set forth in [our statutes]. (*State v. Townsend*, 1994, p. 960)

Confession Evidence From Young Suspects

Whose confession evidence is considered legitimate? Initially, in *Haley v. Ohio* (1948), the Supreme Court espoused a paternalistic rationale for youths who were suspects, recognizing the effects of youthful immaturity on the validity of confession evidence. The



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Court reversed the conviction of a 15-year-old on the basis of his confession, stating that

when, as here, a mere child—an easy victim of the law—is before us, special care in scrutinizing the record must be used He cannot be judged by the more exacting standards of maturity . . . [We] cannot believe that a lad of tender years is a match for the police in such a contest. (pp. 599–601)

This paternalistic line of reasoning was echoed 14 years later in *Gallegos v. Colorado* (1962), in which the Court ruled that

[a] 14-year-old boy, no matter how sophisticated, . . . is not equal to the police in knowledge and understanding A lawyer or an adult relative or friend could have given the petitioner the protection which his own immaturity could not Without some adult protection against this inequality, a 14-year-old boy would not be able to know, let alone assert, such constitutional rights as he had. (p. 54)

In this case, the Court recognized that consultation with an adult could help ensure the voluntariness of youthful suspects' confessions.

Following *Haley* (1948) and *Gallegos* (1962), procedural safeguards were developed to ensure accurate fact-finding, which included mandating that Miranda warnings be issued before initiating custodial interrogations (*Miranda v. Arizona*, 1966). Miranda warnings are given by police officers in the United States to suspects whom they have arrested and intend to question. They are a means of protecting a criminal suspect's Fifth Amendment right not to be subjected to coerced self-incrimination. It is important to note that the Court ruled that suspects may also waive their rights, provided the waiver is "knowing, voluntary, and intelligent" (p. 475). With regard to juvenile adjudication, Miranda protections were extended to adoles-

cents through state courts' interpretations of the *Kent v. U.S.* (1966) and *In re Gault* (1967) Supreme Court decisions (Oberlander & Goldstein, 2001).

Miranda warnings are an example of *due process*, which is a legal concept that ensures the government will respect all of a person's legal rights, instead of just some or most of those legal rights, when the government deprives a person of life, liberty, or property. Due process has also been interpreted as placing limitations on laws and legal proceedings in order to guarantee fundamental fairness, justice, and liberty. *In re Gault* (1967) and *In re Winship* (1970) instituted constitutional due process privileges against self-incrimination, for the right to counsel, and for the criminal *beyond a reasonable doubt* standard of proof for juveniles. It is interesting, as is discussed later in this article, that although procedural safeguards were instituted to protect young suspects, research exists that casts doubt on the effectiveness of these procedures in the context of juvenile interrogations. Furthermore, by emphasizing criminal procedural regularity, *Gault* and *Winship* dramatically altered the traditional paternalistic rehabilitative ideal of the juvenile justice system and established an adversarial model of intervention. "As a consequence, the Court redefined delinquents as a subgroup of criminal defendants, rather than as a category of dependent children in need of services . . . the Court shifted juvenile courts' focus from 'real needs' to 'criminal deeds'" (Feld, 1999, p. 107).

Within the context of adultlike criminal proceedings in the juvenile justice system, minors themselves are perceived as adultlike criminals. This perception is reflected in the Supreme Court's decision in *Fare v. Michael C.* (1979), which championed the adult *totality of the circumstances* approach to assessing the admissibility of confessions as a function of whether they are made "knowingly, intelligently, and voluntarily," as opposed to the *per se* approach, which recognizes that "the vast majority of juveniles will not understand their rights when advised of them" (Grisso, 1980, p. 1137) and should thus be afforded the extra protection of the presence of an interested adult, such as an attorney, when being interrogated. The *totality of the circumstances* approach "is intended to allow a full consideration of the circumstances attendant to a juvenile's maturity or immaturity" and "permits a court to exercise discretion in making an evaluation of the juvenile's competency" (Grisso, 1980, p. 1137). In espousing the *totality of the circumstances* approach in this case, the Court explicitly declined to give youths special aids to invoke their legal rights and denied the assertion that young people lacked the competency to validly waive their Miranda rights and be interrogated without an advocate present. Appellate courts (the courts that hear cases in which trial courts have already made a decision) have not assigned controlling weight to any of the multitude of factors included in the *totality* approach (such as characteristics of the juvenile and circumstances surrounding interrogation); therefore, the judicial discretion of trial judges is left virtually unlimited and unreviewable by appellate courts (Feld, 1999). The lack of clear guidelines creates a situation in which judges "exclude only the most egregiously obtained confessions and

then only haphazardly” (Feld, 1999, p. 118) and suggests that there is an understanding that being suspected of committing a crime makes one an adult or makes one competent to be treated as an adult when being interrogated.

Whereas in the 1960s and 1970s, following *Gallegos* (1962), many police stations implemented procedural requirements to provide juveniles with contact with an interested adult for consultation on waiver of Miranda rights, more recent cases, such as *Commonwealth v. King* (1984), have narrowed these requirements, finding that only the opportunity to consult, not consultation itself, is mandatory because adolescents are “capable and mature” (see Oberlander & Goldstein, 2001, p. 463). Overall, on the basis of *Kent* (1966) and *In re Gault* (1967), adolescents have legal autonomy, independent of parents or guardians or attorneys, to waive their Miranda rights. Furthermore, in the past, convictions of adults and juveniles were routinely reversed when it was determined upon appeal that a judge had erroneously admitted a coerced confession into evidence, yet because of the more recent U.S. Supreme Court ruling in *Arizona v. Fulminante* (1991), the error of a wrongly admitted confession may be judged as “harmless” and not “prejudicial” and therefore not as grounds for a new trial.

What do interrogations look like? As described in the textbook (Inbau, Reid, Buckley, & Jayne, 2001) used in the interrogation training offered by John E. Reid & Associates, Inc. (see www.reid.com), the confrontational process of interrogation is preceded by a neutral information-gathering investigation to determine whether the suspect is innocent or guilty. Sometimes this determination is based on reasonable information, such as that provided by witnesses or physical evidence. At other times, this determination is based on an investigator’s human judgment. John E. Reid & Associates train investigators to fine-tune their judgment in response to the verbal and behavioral cues presented by suspects in a preinterrogation interview, referred to as the Behavioral Analysis Interview. The preinterrogation interview is intended to determine whether suspects are displaying deceptive behaviors, which, according to Reid, are indicative of guilt.

If suspects do display “guilty” behaviors, they are read the Miranda warnings, and if they waive their rights, the “interview” becomes an “interrogation.” Police use a wide variety of methods to deliver Miranda warnings, ranging from delivering them in a rote and rapid fashion to giving an explanation of the warnings and asking for the suspect to repeat or paraphrase them. Assessing comprehension of Miranda rights is not required, but some police officers follow procedures for doing so (Oberlander & Goldstein, 2001). Leo (1996b) observed methods that detectives use to overcome Miranda protections, such as offering sympathy, presenting themselves as an ally, and minimizing the importance of the process by describing it as a formality.

Once a detective and a suspect come together for interrogation, the fact-finding phase of the criminal investigation is closed; the paramount goal of interrogation is to

get a confession, as suspects in interrogation are assumed to be guilty. The interrogation tactics taught by Reid & Associates, all of which are legal for use with adults and youths, include opening with a direct, accusatory statement, developing themes that psychologically justify the crime (“minimization”), interrupting all denials, presenting false evidence, ensuring that a passive suspect does not withdraw, showing sympathy and understanding, offering a face-saving alternative construal of the crime (“alternative-questioning”), getting the suspect to recount details of his or her involvement in the crime (sometimes “hypothetically”), and finally, converting the statement into a full written or oral confession (Inbau et al., 2001).

“The Reid Technique” has been widely disseminated. According to the firm’s Web site (John E. Reid & Associates, Inc., 2004, paragraph 2), “When asked which vendors they rely on most for building their own interviewing and interrogation skills and that of staff, a whopping 80% of security pros cited John E. Reid and Associates, Inc.” In a sample of detectives and investigators from three large metropolitan and suburban police agencies, the majority (66%, 83%, and 88%) reported that they attended the Reid training, and many (45%, 46%, and 74%) also suggested that they received training about the Reid technique within their departments (Meyer, Owen, & Reppucci, 2005, 2006). Leo (1996a) observed 182 live and videotaped interrogations and found that detectives used, on average, 5.62 techniques per interrogation and that these techniques were commonly “Reid-like.”

Researchers who have attended the Reid training note that no special instructions are given for interrogating youths; rather, the method advocated is to follow that for interrogating adults (Meyer, Owen, & Reppucci, 2005, 2006). Similarly, the Reid training manual states that when interrogating a juvenile, “the same general rules prevail as for adults” (Inbau et al., 2001, p. 99). These instructions appear to remain salient in the minds of investigators, as law enforcement officers report that they use the same Reid techniques as often with children and adolescents as they do with adults (Meyer, Owen, & Reppucci, 2005, 2006). This lack of provisions for questioning young suspects stands in stark contrast to the specialized interviews used to question young witnesses and victims.

Also of interest given the recent Abu-Ghraib prison scandal in Iraq is that “The Reid Technique” is being exported abroad (Siegle, 2003); the firm has been awarded contracts for training from NATO and the Bavarian and Berlin law enforcement communities in Germany and has conducted training programs in the United Arab Emirates, Singapore, Japan, Mexico, Canada, Belgium, and South Korea. In a discussion of psychological tactics, or “mind-to-mind combat,” that Reid-trained interrogators use in Iraq, one individual stated, “The whole tactic of interrogation is outwitting the subject, You try to minimize, rationalize and justify their behavior” (Siegle, 2003). These very tactics, used to question wartime enemies, are used to question juvenile suspects.

Summary

To review, (a) whereas specific legal policies addressing testimony exist for young people, policies regarding the admission of confession evidence are the same for youth and adult defendants; and (b) although the process of interviewing young witnesses and victims looks different from the process of interviewing adults, the process of interrogation looks the same regardless of whether the suspect is a youth or an adult.

Review of Developmental Research

Because their fundamental purpose is to protect the diagnostic value of evidence, we use the aforementioned criteria for testimony (i.e., abilities related to observation, memory storage, communication, and differentiation between truth and falsehood; *American Jurisprudence*, 1960) to frame our discussion of research addressing relevant developmental differences among children, adolescents, and adults. We offer an account of developmental factors that may influence these capabilities in ways that distinguish children, adolescents, and adults from each other. We focus on two developmental factors: suggestibility and judgment. We then apply this framework, examining the interaction of these developmental factors with interrogative contexts. The goal is not to extend blindly the developmental knowledge about children in investigative contexts to adolescents in interrogative contexts, but rather (a) to outline the relevant similarities and differences among children, adolescents, and adults and (b) to understand how these differences interact with legal contexts and possibly jeopardize the diagnostic value of evidence.

Regarding adolescents, writing for the majority in *Roper v. Simmons* (2005), Justice Kennedy concluded that three general differences between adolescents and adults demonstrate that juvenile offenders cannot be classified among the worst offenders. Two of these three differences are particularly applicable to the diagnostic validity of evidence from youths. First, Justice Kennedy recognized the comparative immaturity and irresponsibility of adolescents as evidenced by their reckless behavior, citing Arnett's (1992) *Reckless Behavior in Adolescence: A Developmental Perspective*. We discuss this factor as immaturity of judgment. Second, Justice Kennedy acknowledged that adolescents are more vulnerable than adults to outside influences and pressures and demonstrate less control over their own environments, citing Steinberg and Scott's (2003) *American Psychologist* article, "Less Guilty by Reason of Adolescence: Developmental Immaturity, Diminished Responsibility, and the Juvenile Death Penalty." We discuss this factor as it relates to suggestibility.

Suggestibility

Suggestibility is the tendency to be vulnerable to outside influences and pressures. It is understood as the degree to which the encoding, storage, retrieval, and reporting of events (i.e., abilities to observe, remember, communicate, and distinguish truth from falsehood) can be influenced by developmental factors. A vast body of research concerning

suggestibility in children has informed the development and implementation of procedural safeguards designed to reduce the elicitation of unreliable reports from developmentally incompetent, young witnesses and victims during interviewing. In the most general of terms, research findings have demonstrated that child witnesses and victims are more likely than adults to provide unreliable reports when questioned suggestively (Cassel, Roebbers, & Bjorkland, 1996; Ceci, 1994; Ceci & Bruck, 1993; Dunn, 1995; Leo, 1994; Memon, Holley, Wark, Bull, & Koehnken, 1996). As Crossman, Scullin, and Melnyk (2004) described, suggestive questioning involves asking specific or forced-choice questions (e.g., Peterson & Bell, 1996; Peterson & Biggs, 1997), using repeated and linguistically complex questions (e.g., Bruck, Ceci, & Hembrooke, 2002; Carter, Bottoms, & Levine, 1996; Poole & White, 1991), delaying questioning for lengthy periods of time (e.g., Melnyk & Bruck, 2004), emphasizing the interviewer's authoritative status (Ceci, Ross, & Toglia, 1987; Tobey & Goodman, 1992), and using cues and/or props (e.g., Gee & Pipe, 1995; Salmon & Pipe, 1997; Wilson & Pipe, 1989), intimidation (e.g., Carter et al., 1996), and reinforcement (e.g., Garven, Wood, & Malpass, 2000).

Bruck and Ceci (2004) recently acknowledged that although most of the suggestibility studies have been designed with young children as participants because of the contemporary forensic concern over false reports of abuse by preschoolers, new research is revealing that older children and adolescents are also suggestible. Bruck and Ceci cited studies that failed to find differences in suggestibility between younger and older children (Bruck & London, 2003; Finnälä, Mahlberga, Santtilaa, & Niemib, 2003; Zaragoza, Payment, Kichler, Stines, & Drivdahl, 2001) as well as studies that found that older children were more suggestible than younger children (Finnälä et al., 2003; Zaragoza et al., 2001).

Other research has focused on young suspects and indicates that juvenile suspects are more vulnerable than adult suspects to interrogative pressure. In particular, *interrogative suggestibility*, defined as "the tendency of an individual's account of events to be altered by misleading information and interpersonal pressure within interviews" (Singh & Gudjonsson, 1992, p. 155), is negatively related to age and positively related to the likelihood of false confession (Gudjonsson, 1984, 1989, 1990, 1991, 1992, 2003). Identifying the relationship between these findings and those from the suggestibility research focused on child witnesses and victims should inform Ceci and Bruck's (1993) call to action:

We conclude that there are solid reasons to assume that preschoolers are not the only age group that can be influenced by suggestive interviewing techniques. Thus, it is also important to extend the research to develop new paradigms for middle childhood and even adolescence to examine the magnitude, boundary conditions, and factors involved in the suggestibility of individuals of these age groups, which have been neglected today as the preschool age group was during the first half of this century. (pp. 16–17)

Effect of age on observing and remembering.

Children differ from both adolescents and adults in their cognitive abilities to encode, store, and retrieve memories (Brainerd & Ornstein, 1991; Ceci & Bruck, 1993), children are prone to making source misattributions (Ackil, 1996, 1998; Ackil & Zaragoza, 1995; Parker, 1995; Poole & Lindsay, 1995), and children demonstrate developmental differences in forgetting, retention, and relearning curves (Brainerd, Reyna, Howe, & Kingma, 1990). Piaget (1929/1979) recognized these cognitive differences in young children and recommended, long before the intense forensic interest in children's testimony surfaced, that examiners "counterprobe" (suggest the alternative response to the one initially provided by the child) children as a means of assessing the stability of cognitive attainment. Neuropsychological studies (Lee, 2004) indicate that these cognitive developmental differences could be embedded in the maturation of the frontal and medial temporal lobes, which are both important for mnemonic functions and which continue to develop through mid-adolescence.

Despite research showing that the functional efficiency of the frontal lobe does not reach full maturity until mid-adolescence (Chelune & Baer, 1986; Levin et al., 1991; Rosselli & Ardila, 1993), many studies have shown that adolescents do not demonstrate observable cognitive deficiencies in observing and remembering (Ceci & Bruck, 1993). Therefore, the concern over whether adolescents might not be able to observe or remember relevant information for interrogation is not as salient as the concern over whether children can observe and remember information for eyewitness questioning.

Effect of age on verbal abilities involved in communication.

Research has shown that morpho-syntactical language (wording with multiple parts, negatives, and double negatives) decreases the reliability of children's reports (Carter et al., 1996; Perry et al., 1995; Roberts & Lamb, 1999; Saywitz, Jaenicke, & Camparo, 1990; A. G. Walker, 1994). In addition, both children and adolescents have difficulty understanding some lexical language, including legal terminology (Grisso, 1981, 1997; Grisso & Schwartz, 2000; A. G. Walker, 1994), which impedes their ability to communicate effectively in investigative and interrogative contexts.

Effects of authority figures on children's communication and ability to distinguish truth from falsehood.

Investigative interviews involve the presence of authority figures, and research has shown that social contexts in which leading questions and misinformation are repeatedly posed to witnesses and victims by unfamiliar authority figures create situations in which children respond with unreliable reports (Ceci, 1994; Ceci & Bruck, 1993; Ceci et al., 1987; Dunn, 1995; Leo, 1994; Quas, Schaaf, Alexander, & Goodman, 2000; Tobey & Goodman, 1992). For instance, Tobey and Goodman (1992) found that when children were questioned by either a neutral interviewer or a police officer, the children in the police condition gave fewer accurate statements and more inaccurate statements than the children in the neutral condition.

Likewise, although the stereotypic rebellious adolescent might not be associated with an increased tendency to comply with authority, within the legal context, adolescent suspects, like child witnesses, often demonstrate such a tendency (Grisso et al., 2003) and differ in their susceptibility to adult deception as a function of the adult's perceived power (Bugental, Shennum, Frank, & Ekman, 2001). Research suggests that although juvenile offenders are not more likely than adult offenders to change their reports in response to leading questions, they are more susceptible than adult offenders to negative feedback from authority figures, because they demonstrate an increased tendency to change their previous answers in response to the negative feedback (Gudjonsson, 2003; Richardson, Gudjonsson & Kelly, 1995).

Immaturity of Judgment

Researchers interested in juvenile culpability and competence to stand trial have identified developmental tendencies that are particularly characteristic of adolescents. Together these characteristics comprise a psychological construct known as "immaturity of judgment," which includes increased susceptibility to social desirability effects, impulsivity, and the tendency to exhibit diminished capacities in future orientation and risk perception and appreciation (Cauffman & Steinberg, 2000; Fried & Reppucci, 2001; Grisso et al., 2003; Halpern-Felsher & Cauffman, 2001; Nurmi, 1991; Scott & Grisso, 1997; Scott, Reppucci, & Woolard, 1995; Steinberg & Cauffman, 1996; Steinberg & Scott, 2003).

Scott and Grisso (1997) reviewed the process of decision making in terms of cognitive capacity and judgment factors, which include attitudes toward risk and temporal perspective. Regarding cognitive capacity, these authors presented arguments from proponents of broader self-determination rights for minors that indicate that by about age 14, adolescents' cognitive decision-making abilities are similar to those of adults. Scott and Grisso critiqued these arguments on the grounds that the studies cited tended to have small *Ns* and were conducted in the laboratory, used homogeneous middle-class participants, and rarely compared the decision making of minors with that of adults. They concluded, "This format yields little useful data about how decisions are made in informal unstructured settings in which decision-makers must rely on their own experience and knowledge in making choices" (p. 160). Regarding judgment factors, Scott and Grisso described how factors such as attitude toward and perception of risk and temporal perspective lead adolescents to make choices different from those of adults. "Whereas cognitive competence affects the process of decision-making, immature judgment is reflected in outcomes, in that developmental factors influence values and preferences, which in turn shape the cost-benefit calculus" (p. 161).

The American Medical Association et al.'s (2004) *amici curiae* brief to the Supreme Court in the *Roper v. Simmons* (2005) case described how adolescents differ from adults in the subjective values that each attaches to various perceived consequences in the process of making

choices. In their decision making, adolescents, compared with adults, focus more on opportunities for gains and emphasize short-term consequences; simultaneously, they focus less on protection from losses and discount future consequences. Cauffman and Steinberg (2000) studied the construct of judgment in more than 1,000 adolescents and adults and found that the most dramatic change in behavior with regard to "temperance" (the ability to limit impulsivity and evaluate situations before acting) occurred between 16 and 19 years of age. Indeed, both the American Medical Association et al. (2004) and the American Psychological Association and Missouri Psychological Association (2004) amici curiae briefs to the Supreme Court for the *Simmons* case described how adolescent brains are not fully developed in regions related to reasoning, risk taking, and impulse control (e.g., Durston et al., 2001; Giedd et al., 1999; Sowell et al., 2003).

Immaturity Within the Procedural Contexts of Interrogation

Preinterrogation Interview

The preinterrogation interview is considered part of the investigatory phase and is explicitly designed to identify deceptive and guilty behavior as a basis for deciding whether a suspect should move forward into interrogation. Unfortunately, much research has shown that people in general are poor lie detectors and that police, particularly those trained in the Reid techniques (John E. Reid & Associates, Inc., 2004), are prone to see deception and make false-positive errors during this interview (Kassin, 2005; Kassin & Gudjonsson, 2004). Reid's textbook (Inbau et al., 2001) identifies delays in response, lack of self-confidence, gaze aversion, unnatural posture changes, self-manipulations, placing hands over one's mouth, noncontracted denials, and qualifying phrases such as "I swear" as deceptive behaviors. It is not surprising that police trained in these techniques do not perform better than chance at detecting deception, because empirical studies have shown that these techniques are not diagnostic of truth or deception (DePaulo et al., 2003). Moreover, because adolescents often have a hard time understanding legal terminology (Grisso, 1981, 1997; Grisso & Schwartz, 2000; A. G. Walker, 1994), it should be expected that they would delay their responses as they struggle to understand the questions posed. In addition, the fact that adolescents often exhibit less confidence than adults (Ofshe, 1989) suggests further reason for concern over the diagnostic value of the techniques associated with the preinterrogation interview when it is used with youths. Indeed, adolescents may exhibit many of the behaviors labeled "deceptive," such as self-manipulations, gaze aversion, and qualifying phrases, simply because they are young.

The potential for misguided judgment regarding a suspect's "deception" during the preinterrogation interview is a crucial point of concern, as "deception" frequently equals "guilt" in the minds and forthcoming behaviors of interrogators. Given that Reid's verbal and behavioral indicators of deception are naturally displayed by adoles-

cents, the rate of false-positive identifications of guilt likely increases when suspects are young.

Miranda Rights

Interrogations are functionally and methodologically distinct from the preinterrogation interviews in that the purpose of these interviews is to determine whether suspects are guilty by way of interviewers' judgment, whereas the goal of interrogations is to prove that suspects are guilty by way of suspects' confession evidence. In recognition of the adversarial nature of interrogation, the Supreme Court ruled in *Miranda v. Arizona* (1966) that any statement stemming from a custodial police interrogation of a criminal suspect would be presumed involuntary and inadmissible unless police provided the suspect with the following warnings: (a) the right to remain silent; (b) the intent to use the suspect's statements against the suspect in court; (c) the right to an attorney before and during questioning; and (d) the right to a court-appointed attorney for indigent suspects. It is important that the Court also ruled that suspects may waive their rights provided they do so in a knowing, voluntary, and intelligent manner. However, research indicates that young people have cognitive difficulty understanding the legal lexicon and concepts involved in Miranda rights (Brennan & Brennan, 1988; Saywitz et al., 1990; A. G. Walker, 1994; Warren-Leubecker, Tate, Hinton, & Ozbek, 1989). Grisso (1980, 1981, 1983, 1998; Grisso et al., 2003) has conducted several studies to determine whether juveniles are competent to validly waive their constitutional rights "knowingly, intelligently, and voluntarily." The results demonstrate that the majority of juveniles in pretrial proceedings waive their rights and often do not comprehend the rights that they are waiving. For instance, Grisso (1981) found that on a structured interview that determines how well respondents paraphrase Miranda warnings by having them define six critical words and give true-false answers to 12 rewordings of the warnings, a significantly larger percentage of juveniles than of adults did not understand the warnings well enough to waive them "knowingly and intelligently."

Young peoples' diminished capacity to understand their Miranda rights is reflected in statistics showing that more than 90% of juveniles whom police interrogated waived their rights (Ferguson & Douglas, 1970; Grisso, 1981). Moreover, the presence of an "interested adult" (a parent, guardian, or friend), which is required by some states to protect young suspects, does not lower the rate of waiver, as these adults often urge the youths to cooperate with police (Oberlander & Goldstein, 2001).

Overall, these findings indicate that young people have a diminished capacity to understand the lexicon of their constitutional rights, a situation that sacrifices due process, sets Miranda safeguards up for failure, and erodes the possibility of protection within the forthcoming interrogation. This conclusion directly contradicts the rationale behind *Fare v. Michael C.*'s (1979) adherence to the adult standard of the *totality of the circumstances* approach and suggests that the *per se* approach would be the more appropriate alternative to addressing the competence of

young people to waive their Miranda rights “knowingly and intelligently.” The fact that Miranda rights exist as a procedural safeguard indicates that there is good reason for suspects to need protection or advocacy, specifically in the form of a lawyer, during interrogation.

Interrogation

Interviewer bias drives suggestive questioning techniques. Suspects in interrogation are assumed to be guilty on the basis of previous investigatory efforts and judgments made during the preinterrogation interview (Kassin, 1997, 2005; Kassin & Gudjonsson, 2004). This fact is indicative of what Bruck, Ceci, and Melnyk (1997) term interviewer bias, which they claim “characterizes those interviewers who hold a priori beliefs about the occurrence of certain events and, as a result, mold the interview to elicit statements from the interviewee that are consistent with these prior beliefs” (p. 293). The hallmark of interviewer bias, expressed by narrow attempts to gather only confirmatory evidence and to avoid all avenues that may produce disconfirmatory evidence, is fundamentally embedded within police interrogations because suspects are assumed to be guilty once they “fail” the preinterrogation interview. An illustration of this phenomenon was provided by Kassin and Gudjonsson (2004), who described an interaction between the president of John E. Reid & Associates, Inc. and an audience member at a conference who asked whether Reid’s persuasive methods did not at times cause innocent people to confess; Reid’s reply was, “No, because we don’t interrogate innocent people” (p. 36).

Regarding the interviewing of young victims and witnesses, Bruck et al. (1997) identified the following as biased interviewing techniques: (a) neglecting to ask questions that might provide alternate explanations to the questions, (b) neglecting to inquire about events that are inconsistent with the investigator’s hypothesis, (c) neglecting to challenge the authenticity of the report when it confirms the investigator’s hypothesis, and (d) ignoring inconsistent or bizarre evidence. Research indicates that children who are interviewed in biased conditions make inaccurate reports about events that are consistent with the hypotheses of the biased interviewers (Ceci, Leichtman, & White, 1991; Clarke-Stewart, Thompson, & Lepore, 1989, as cited in Goodman & Clarke-Stewart, 1991). Furthermore, “bias is the major mechanism that drives the intensity and number of suggestive techniques used” (Bruck et al., 1997, p. 294), which is problematic given that research has shown that when interviewers use a mix of suggestive questioning techniques, the unreliability of children’s reports increases in excess of the magnitude that would be expected by an additive model (Garven et al., 2000; Leichtman & Ceci, 1995). Law enforcement personnel are explicitly trained to use these suggestive components of biased questioning in the guilt-presumptive context of interrogation.

Perceptions of competency and credibility.

Interviewer bias, as described by Bruck et al. (1997), may

be even more severe in the context of interrogation than in the context of victim or witness interviews, as is reflected in the alternative judgments regarding the competency and credibility of young people in these different legal contexts. These judgments are factors in determining whether potential witnesses possess the ability to understand that punishment follows false testimony, which is a requirement for testifying. Although this criterion is clearly one of competency in that it involves a level of comprehension that might be cognitively underdeveloped in some youngsters, it also relates to the concept of credibility. Haugaard and Reppucci (1992) differentiated between competency and credibility, identifying the central question of competency to be whether children define the truth in ways similar to the ways in which adults define it, and that of credibility to be whether children are more or less likely than adults to be perceived as honest by adults. Summarizing the beliefs of police officers, therapists, attorneys, jurors, and judges concerning the competency and credibility of child witnesses who testify in legal proceedings, Perry and Wrightsman (1991) maintained that “a commonly held opinion is that children are poor at remembering the relevant details of an event. On the other hand, adults believe that children generally are honest and therefore are likely to tell the truth, as they understand it, when they serve as legal witnesses” (p. 52). In other words, these investigators do not have faith in the competency of child witnesses but do have trust in their credibility.

Such is not the case when the same questions regarding credibility and competency revolve around adolescents who are being interrogated. Whereas police are particularly likely to trust child victims (Perry & Wrightsman, 1991), with juvenile suspects they arrive at the interrogation room with an opinion formed in the preinterrogation interview that the suspect is likely to lie and thus is not credible (Kassin, 1997, 2005). Moreover, within the interrogation context, police report that they do not recognize the developmental differences between adolescents and adults that they recognize in other contexts, and they therefore regard adolescents as competent (Meyer, Owen, & Reppucci, 2006). In sum, whereas child witnesses are believed to be sometimes incompetent but generally credible, juvenile suspects are considered to be competent and dishonest. Further, detectives assume that suspects who have reached the point of interrogation are not only dishonest but also guilty (Kassin, 1997, 2005).

The fact that law enforcement officers are often biased in their assumptions of credibility and guilt during interrogation creates a particular environment in which questioning occurs. Whereas investigative interviewers may have preconceived opinions regarding the events about which witnesses or victims are being questioned, they usually do not hold a negative stereotypic opinion about the character of the witnesses or victims. It stands to reason that interviewer bias only increases when the bias concerns not just the events under question but the morality or culpability of the person being questioned.

Questioning Techniques Exacerbate Suggestibility

The paramount goal of interrogation is to get a confession. In order to obtain the confession, law enforcement officers are trained to use (Inbau et al., 2001), and *do* report using (Meyer, Owen, & Reppucci, 2006), subtle and psychologically coercive techniques, reminiscent of the hallmarks of a biased interview described above, with youths and adults. These techniques include opening with a direct, accusatory statement that the suspect is guilty, presenting false evidence, preventing the suspect from speaking, interrupting all denials, minimizing the moral seriousness of the crime, presenting reasons for why the suspect committed the crime, and using leading and alternative questioning (i.e., presenting two alternative answers to a question, either of which, if endorsed by the suspect, would be indicative of guilt; Inbau et al., 2001). Kassin and Gudjonsson (2004) reduced these techniques to an interplay of three processes (physical custody and isolation, confrontation, and minimization) that they described as “situational risk factors” for false confessions. As each of these situational risk factors interacts with the immaturity of adolescents, the risk for false confessions is compounded.

Physical custody and isolation: Effects on judgment and suggestibility. The Inbau et al. (2001) textbook advises interrogators to remove suspects from familiar surroundings and deny them access to known people and settings in order to increase their anxiety and stress, thereby increasing their incentive to extricate themselves from the situation by means of confession. It is conceivable that this drive to escape from the immediate context is especially salient in adolescents, whose immaturity in judgment includes the tendency toward impulsivity as well as diminished capacities in future orientation and risk perception and appreciation. In addition, stress impedes judgment because it negatively impacts the abilities to weigh costs and benefits and to override impulses with rational thought (Furby & Beyth-Marom, 1992; Spear, 2000). Moreover, adolescents are more susceptible to stress than are adults (Furby & Beyth-Marom, 1992; Spear, 2000), which means that adolescents’ already skewed cost-benefit analyses are vulnerable to further distortion. Confession is often presented as the only means by which escape from the present situation is possible. Therefore, to the extent that adolescents value the present more than the future and are stressed in the current condition, the likelihood that they will confess in exchange for the hoped-for departure from the situation increases.

In addition, research has shown that fatigue and sleep deprivation, which often accompany prolonged periods of isolation, can heighten suggestibility and impair decision-making abilities in complex tasks (Blagrove, 1996; Harrison & Horne, 2000). Thus it is not surprising that whereas the average police interrogation lasts for less than two hours (Leo, 1996a), the mean length of the interrogations in a study of documented false confessions cases was found to be 16.3 hours (Drizin & Leo, 2004). It should be expected that prolonged and exhausting periods of interrogation

would particularly impede the capacity of younger suspects to communicate effectively, as the verbal tasks involved in interrogation are especially cognitively demanding of younger suspects (Grisso, 1981, 1997; Grisso & Schwartz, 2000; A. G. Walker, 1994).

Minimization: Effects on judgment. Inbau et al.’s (2001) textbook describes the process of minimization as “theme development” and teaches police how to provide moral justifications or excuses (e.g., suggesting that the suspect’s action was spontaneous, accidental, provoked, brought on by peer pressure, or drug induced) to make confession seem like an expedient means of departure from the current situation. The idea of what “departure from the situation” looks like is indirectly shaped by the minimization process, because research indicates that minimization tactics may lead people to infer that leniency in sentencing will follow from confession, even in the absence of an explicit promise (Kassin & Gudjonsson, 2004). Indeed, Drizin and Leo (2004) reported that one of the most common reasons given by juvenile false confessors for providing confessions was the belief that doing so would allow them to go home.

As adolescents are frequently more susceptible to authority figures, they may also be more open than adults to the rationale that detectives express through the minimization process. Moreover, adolescents’ truncated future orientation and risk perception/appreciation could make the departure from the current situation that much more attractive and the minimized “themes” that much more tempting to endorse. In the Central Park jogger case, each boy bought into the “theme” developed by the police by placing his cohorts at center stage of the crime and minimizing his own involvement; each boy said afterward that he thought he would go home after confessing.

Confrontation: Effects on suggestibility. The process of confrontation involves challenging suspects with techniques such as opening with a statement that expresses the suspect’s guilt, interrupting all denials, and presenting false evidence (e.g., a fingerprint, a blood or hair sample, an eyewitness identification, or a failed polygraph test). Scholars (Kassin, 2005; Kassin & Gudjonsson, 2004) have noted that presenting false evidence, in particular, increases the risk that innocent people will confess to and internalize blame for acts they did not commit, as has been demonstrated in laboratory studies (e.g., Horselenberg, Merckelbach, & Josephs, 2003; Kassin & Kiechel, 1996; Meyer & Youngjohn, 1991; Redlich & Goodman, 2003).

Children’s and adolescents’ suggestibility with authority figures might make them less likely than adults to correct misinformation presented by police, which means that they might be more vulnerable to the presentation of false evidence. Indeed, in their study on taking responsibility for an act not committed, Redlich and Goodman (2003) found a significantly stronger false-evidence effect on the likelihood of false confession with both their 12- and 13-year-old and 15- and 16-year-old participants than with their adult participants.

Confession

People falsely confess for a variety of reasons. Kassin and Gudjonsson (2004) classified false confessions into three main categories: voluntary, compliant, and internalized. Voluntary false confessions are given without much pressure from police and might be driven by, among other motives, a craving for notoriety, a desire to protect the real criminal, or a breakdown in reality, such as that which might accompany a serious mental illness. Compliant false confessions are induced by interrogation and given for instrumental reasons, such as the desire for escape from the current situation or for the gain of an implied reward. Internalized false confessions happen in response to highly suggestive interrogation tactics and involve the suspects' private acceptance of the belief that they committed the crime. We are primarily concerned with illustrating why child and adolescent suspects could differentially be vulnerable to giving compliant and internalized false confessions.

Compliant false confessions. Adolescents might be more likely than adults to provide compliant false confessions because of their immaturity in judgment. Juvenile false confessors often indicate that they confessed because they believed they would get to go home (Drizin & Leo, 2004), which is reflective of their willingness to comply to get what they want. This belief illustrates the power of the minimization tactic during interrogation in eliciting compliant false confessions. A painful example of this phenomenon is evidenced in the case of Allen Jacob Chesnet, a 16-year-old with learning disabilities who falsely confessed to murder. In an interview after he was released, Chesnet stated, "They kept telling me 'I know you did it so why are you lying to me.' They had me so upset I wasn't thinking right . . . [I]f I said, yeah, I did it, I could go home. If I said I didn't do it, I could go to jail so I said I did it and I want to see my parents and everything" (Drizin & Leo, 2004, p. 967, quoting from an ABC TV broadcast of 20/20 on March 15, 2002). Such confessions can have devastating consequences. Not only did Chesnet spend six months in an adult county jail, but he also was stabbed once and raped twice while incarcerated (Drizin & Leo, 2004).

Internalized false confessions. Laboratory studies have shown that even college-age participants who confessed to a prohibited act that they did not commit internalized the belief that they had done it (e.g., Kassin & Kiechel, 1996). Although the ecological validity of some laboratory studies can be questioned, there are cases that sadly illustrate the phenomenon of internalized false confessions. For instance, 14-year-old Michael Crowe confessed to stabbing his sister Stephanie to death after being persuaded that he had a split personality consisting of a "bad Michael" who had killed Stephanie and a "good Michael" who had blocked out the incident. At first, Michael denied killing his sister. But after two days of questioning, Michael finally admitted to murdering her. "All I know is I'm positive I killed her . . . She was like a threat to me. Everything I did she could match. That wasn't

right. . . . She made me feel worthless" (CourtTV, 2002). Exemplifying the use of interrogation tactics of confrontation that could lead to internalized false confessions, the investigators in this case told Michael that his hair was found in Stephanie's grasp, her blood was in his bedroom, and he had failed a lie-detector test. All of these claims were false but were legal to make; further, as noted before, police report using claims such as these just as often with children as they do with adolescents and adults. On the eve of Michael's trial, DNA tests ordered by a defense attorney found Stephanie's blood on clothes worn by a 33-year-old mentally ill homeless man, Richard Tuite, who was seen wandering in the neighborhood the night of the murder. The charges against Michael were eventually dropped, and Tuite is now serving a prison sentence for the crime.

Adolescents may be more likely than adults to provide internalized false confessions because of an increased trust in authority figures and the misinformation presented by them through suggestive and confrontational questioning techniques. The youngest suspects might be particularly vulnerable to internalized confessions, because research has shown that when children in the third and fourth grades are instructed to create their own misinformation, as they are asked to do during interrogation by describing how one hypothetically could have committed a crime, they are more suggestible to their own confabulations than are adults; these children later claimed to remember seeing evidence they had previously been forced to confabulate (Ackil, 1998). Although one might contend that Ackil's (1998) findings are irrelevant to the subject of interrogation because they relate to young children as opposed to adolescents, in a following section we describe cases in which a 7-year-old and an 8-year-old confessed to crimes that they did not commit. In addition, although one should note that the memories in Ackil's study involved actions that had been witnessed as opposed to personally executed, and that confabulations may not have as acute an effect on memory when they concern one's own deeds, Redlich and Goodman (2003) did find a significant relationship between internalization and hypothesizing about a possible scenario in which a misdeed was committed (confabulation). Although Redlich and Goodman did not find a significant relationship between age and likelihood of confabulation, nor one between age and likelihood of internalization, the youngest participants in their study were five years older than those in Ackil's study.

These findings might be reflective of Bruck et al.'s (1997, p. 312) hypothesis that "perhaps, cognitive factors [e.g., susceptibility of memory to confabulations] are more predictive of false beliefs [e.g., internalized false confessions], whereas psychosocial factors [e.g., immaturity of judgment] are more predictive of false reports [e.g., compliant false confessions]." To stretch the above hypothesis a step further: Children might be especially vulnerable to providing internalized false confessions, whereas adolescents might be particularly vulnerable to giving compliant false confessions.

Consequences of Confession

Confession evidence is extremely influential in trial, essentially dooming a confessor to a conviction and incarceration in most circumstances, because confessions tend to overwhelm alibis and other forms of exculpatory evidence (Kassin & Gudjonsson, 2004). In actual cases, when defendants who had falsely confessed pled not guilty and proceeded to trial, jury conviction rates ranged from 73% (Leo & Ofshe, 1998) to 81% (Drizin & Leo, 2004). Drizin and Leo (2004) described confession evidence as “inherently prejudicial and highly damaging to a defendant, even if it is the product of coercive interrogation, even if it is supported by no other evidence, and even if it is ultimately proven false beyond any reasonable doubt” (p. 959).

Young defendants are increasingly being tried as adults in criminal courts, which usually convict defendants who have confessed (Feld, 1999). Most states automatically transfer juveniles to these courts for rape and murder, crimes that are associated with higher rates of false confessions (Drizin & Leo, 2004; Gross et al., 2005). Unfortunately, juveniles in adult court might be at an increased risk for conviction, because research indicates that immaturity might make them less competent than adults to defend themselves in trial settings (Grisso et al., 2003). When given a test designed to measure their understanding of court proceedings and their ability to use the type of reasoning needed to mount a defense, one third of 11- to 13-year-olds and one fifth of 14- and 15-year-olds performed as poorly as mentally ill adults who had been found incompetent to stand trial, which suggests that these youths lack the cognitive capacities relevant to legal competence to stand trial (Grisso et al., 2003). Further, older adolescents who scored at adult levels on measures of cognitive understanding of court proceedings nonetheless tended more than adults to make choices that reflected the influences of psychosocial immaturity. For example, although older adolescents were more likely than younger adolescents to recognize potential risks and the negative consequences that could ensue from taking such risks, their perception of the likelihood that these consequences would actually occur was not significantly different than that of younger adolescents. Grisso et al. (2003) concluded that

psychosocial immaturity may affect a young person's decisions, attitudes, and behavior in the role of a defendant in ways that do not directly implicate competence to stand trial, but that may be quite important to how they make choices, interact with the police, relate to their attorneys, and respond to the trial context. (p. 361)

Therefore, it is conceivable that false confessions from juveniles who have been transferred to adult court might be more incriminating than false confessions from adults, as juveniles are less equipped than adults to assist counsel and make important decisions in their defense.

Sociological Context

Cases

Scholars have argued that false confessions and the corresponding wrongful convictions are more likely to occur in

serious cases because there is more pressure on police to solve such cases (Gross, 1996). In support of this theory, Drizin and Leo (2004) and Gross et al. (2005) found that the vast majority of false confessions (about 80%) in their samples occurred in murder cases. The political context of Allen Jacob Chesnet's high-profile false confession case is sadly illustrative of this phenomenon; the district attorney was in the midst of an election when, several weeks after Chesnet's arrest, police learned that his blood did not match the blood stains found in the apartment. However, Chesnet was not released until months after this and other evidence confirmed his innocence, after the district attorney had won the election. Fisher (1996), in a book detailing a series of juvenile false confession cases from the 1950s, described the politics surrounding high-profile cases from an investigator's perspective:

As a former investigator myself, I could identify with Ted Botula and felt his frustration. As an experienced homicide cop, he probably realized that, when an innocent person like Helen Zubryd is brutally murdered in her own house, citizens get scared. A madman was on the loose, and it was Botula's job to catch him. This murder must have put Botula's boss, District Attorney Boyle, on the spot. If Botula solved the case, he would be a hero. If he didn't, he would look like an incompetent political appointee. The heat was on because, if the county detectives looked bad, so did the D.A., and if the D.A. came off looking ineffective, they might all be looking for jobs after election day. (p. 10)

The media have paid especially close attention to criminal cases involving juveniles as suspects (Glassner, 2000; Males, 1996, 1998), although contrary to popular belief, the overall rate of juvenile crime did not increase during the 1990s (Sickmund, Snyder, & Poe-Yamagata, 1997). Males (1998, p. 32) described how the media mischaracterized youth violence as “skyrocketing” when, in fact, it was falling, citing headlines such as *People Magazine's* “KIDS Without a Conscience,” *Newsweek's* “Wild in the Streets!”, *U.S. News & World Report's* “Teenage Wolf Packs!”, the *Los Angeles Times's* “Mayhem!”, as well as *Time's* and *U.S. News & World Report's* “Teenage Time Bombs.” A recent study found that 48% of all reports about children on the CBS, ABC, and NBC evening newscasts concerned juvenile crime and violence, whereas only 4% of the stories concerned children's health and economic issues, even as youth homicide rates have been declining (Glassner, 2000). Moreover, the media have characterized juvenile violence as being more prevalent than adult violence, when in fact, crime statistics show that the opposite is true (Males, 1996, 1998; Meyer, Reppucci, & Owen, 2006). Meanwhile, even as the media have painted a dangerous picture of youthful suspects, they have narrated how forensic interviewing of child witnesses and victims has evolved to account for their suggestibility (e.g., the *New York Times's* “Getting to the Truth in Child Abuse Cases: New Methods” [Goldberg, 1998] and the *Los Angeles Times's* “McMartin Preschooler: ‘I Lied’” [Zirpolo, K. as told to Nathan, D., 2005]).

The spotlight on juvenile crime might disproportionately load pressure on law enforcement to obtain confessions from juvenile suspects. As research indicates that

people have believed the media's erroneous characterization of juvenile crime (nearly two thirds of poll respondents believed that juvenile crime was on the increase; Center on Juvenile and Criminal Justice, 2000), investigators, as media consumers, might have misguided perceptions of juveniles, which could increase the discussed level of character judgment in the interrogation room. The latter point is reflected in one of the common reactions from police who filled out surveys on police perceptions of juveniles and juvenile interrogation, "The juveniles I interrogate aren't kids; they're monsters" (Meyer, Owen, & Reppucci, 2006).

Suspects

Bruck and Melnyk's (2004) review of individual differences and suggestibility indicates that the factors that heighten the risk of false confessions from youths could be exacerbated among minorities from low socioeconomic status (SES) backgrounds, who, according to demographic statistics on arrest rates (S. Walker, 2004), are more likely than other people to be suspected of committing a crime. Though most of the studies reviewed by Bruck and Melnyk involved preschool and elementary-school participants, it is conceivable that these individual differences continue into adolescence. Bruck and Melnyk reported that children from lower SES backgrounds were more suggestible than children from higher SES backgrounds (McFarlane, Powell, & Dudgeon, 2002) and that independent of SES, African American children were more suggestible than Caucasian children (Geddie, Fradin, & Beer, 2000). Related research by Richardson and Kelly (1995) suggests that adolescent suspects with lower intellectual abilities are more suggestible. Further, Grisso (1981) found that age was a better predictor of comprehension of Miranda rights when it was combined with IQ. These are particularly relevant findings because in a sample of more than 6,000 youths involved with the juvenile justice system, the average IQ was found to be 81 (Bove, Goldstein, Appleton, & Thomson, 2003). Together, these studies suggest that to the extent that participants in research samples are not from low SES backgrounds and are unrepresentative of minority youths and those with low IQs, then approximations of levels of comprehension are likely overestimated, whereas levels of suggestibility are likely underestimated in those populations most at risk for being interrogated. Indeed, Gross et al. (2005) recently found an interaction between age and race in which 85% of the exonerees who had falsely confessed and who were younger than 18 at the time of arrest were African American. Although this disparity in part reflects general racial patterns in juvenile justice in America, Gross et al. described how this bias does not fully account for the rate of discrepancy. More research is needed to understand why such a large percentage of the false confessions from juveniles came from African American suspects, because it could be due to differences in comprehension and suggestibility between demographic groups or, alternatively, to investigators' unique judgments of and behavior toward young African Americans or to an interaction between the two factors.

Same Kids, Different Laws

Whereas the developmental research on children and adolescents has converged on the notion that the immaturity of both sets of young people interferes with their ability to provide reliable reports in particular legal contexts, the responses of the lawmakers to the two groups have diverged, with protections being institutionalized for witnesses and victims and deinstitutionalized for suspects. The double standard for the provision of protections to young people in the testimonial and interrogative legal contexts reflects an unfounded bias in the law's choice of whom to treat as a child. This bias appears more incoherent when one considers the alarming convergence of age between these two groups of minors; the age at which juveniles are being interrogated is becoming younger and younger (Feld, 1999). In 2000, 2.4 million juveniles were formally arrested, 32% (758,208) of whom were age 14 or younger (Snyder, 2002). Within Drizin and Leo's (2004) sample of 125 proven false confessions, seven children under the age of 14 were the victims of interrogation-induced confessions.

Anecdotal examples can be found in the 1998 Ryan Harris murder case, in which two Chicago boys, ages 7 and 8, were interrogated without any adult advocates present and falsely confessed to the sexual assault and killing of 11-year-old Harris (Kotlowitz, 1999). The boys were given candy and a McDonald's Happy Meal, told to hold the interrogator's hand "because we're all friends," and subsequently gave their confessions. The charges were soon dropped after a lab report revealed that Harris's clothing contained ejaculate, which preadolescent boys could not have produced. Ultimately, Floyd Durr, a convict accused of several sexual attacks on young girls, was indicted for the murder; however, news follow-ups several months later suggested a long-term negative impact on both the boys and their families (Kotlowitz, 1999).

Concern about the reliability of young suspects' confessions has been primarily based on research highlighting the developmental deficiencies of adolescents, whereas concern about the reliability of young witnesses' testimony has been based on research defining the developmental deficiencies of young children. As these cases involving very young suspects demonstrate (see Drizin & Leo, 2004, for additional cases), the supposed age-based boundary dividing who is likely to be a victim and who is likely to be a suspect is becoming less applicable.

The double standard is further elucidated when the horizon of analysis is extended beyond the criminal justice context. Minors' abortion rights exemplify the acknowledgment of the need to balance the constitutional rights of minors with the need to protect them from their own immaturity of judgment. The Supreme Court has struck down parental consent statutes that do not allow for judicial bypass (an alternative means by which an adolescent may demonstrate either that she is mature enough to make the abortion decision or that it is in her best interests to obtain an abortion) and has upheld parental notification statutes and waiting periods as long as they contain necessary bypass procedures (Schmidt & Reppucci, 2002). Other

paternalistic laws inhibit young people's abilities to marry, drink, drive, decline life-saving medical treatment, enter contracts, or convey property. These laws tend to be based on the *immaturity of judgment* construct and recognize that although youths should be afforded some constitutional rights, they have competencies different from those of adults that require the state to burden the exercise of constitutional rights for paternalistic reasons. These laws are designed to protect youths from their own limitations (Feld, 1999). However, once the very youth who is not allowed to drive becomes a suspect, the law shifts to a liberationist stance and grants him or her the right to make autonomous legal decisions to waive Miranda rights and the right to counsel without assistance or special procedures. Within the context of interrogation, the state has chosen not to provide paternalistic procedures to monitor and restrict juveniles' freedom to waive their Miranda rights.

How might we explain this inconsistent application of legal policy by which lawmakers have emphasized youthful immaturity in many contexts and simultaneously ignored it in the interrogative context? Scholars (for a review, see Enright, Levy, Harris, & Lapsey, 1987) have long recognized that theoretical activity does not take place in a sociocultural vacuum. Broughton (1983) argued that understanding adolescence would require a historical perspective, because images of youth and theories of adolescence shift in light of historical transformations. These divergent theories have met the particular sociological needs of the historical times. For example, Enright et al. (1987) discussed how during times of economic depression, theories of adolescence portray teenagers as immature, psychologically unstable, and in need of prolonged participation in the education system, whereas during times of war, the psychological competence of youths is emphasized and their need for education is downplayed. On the basis of their findings, Enright et al. advised scholars to ask themselves, "What are our current ideological stereotypes of youth and what societal/economic conditions are we trying to aid by holding such views?" (p. 555). We believe Enright et al.'s question should be asked with respect to the contemporaneous divergence in theoretical approaches and images of youth: What motivation would lead us to conceive of and treat one group of young people (suspects) so differently from another (victims and witnesses) in the parallel pursuit of reliable evidence?

Fearful perceptions and moral outrage.

The juvenile justice system is an example of a context in which historical cultural shifts in perceptions of youth have been revealed in shifts in policy; the conceptualization and function of the juvenile justice system can largely be attributed to changes in social-structural ideas and cultural perceptions of youth (Feld, 1999). For instance, Meyer, Reppucci, and Owen (2006) argue that heightened fears of social disorder have masked a rational, objective analysis of the problem of youth crime and aggression and stimulated an ill-advised adoption of exceptionally punitive criminal sanctions and school disciplinary policies for youths. Scott and Grisso (1997) described how juvenile

justice policies present adolescent offenders as indistinguishable from adults and reject the importance of youthful immaturity in the legal response to youth crime. The authors illustrated how courts began to chip away at the foundations of the juvenile justice system in the 1960s, when procedural regularities in delinquency proceedings were introduced by *In re Gault* (1967), and how contemporaneous developments have accelerated this process "as policymakers at both the state and federal level respond to public fear and anger at what is perceived to be an epidemic of youth violence" (Scott & Grisso, 1997, p. 137). The media attention to youth crime that we detailed earlier is an example of the sociological determinants of this fear. Although the mechanisms by which fear drives judgment¹ and the specific form that policies have taken in deference to it² are beyond the scope of this article, the point is that neither the development of nor the reaction to fear is rational. We believe that the current divergent application of law and policy in response to young suspects versus young witnesses and victims is yet another artifact of the fear of youth crime and the parallel perception of youths as adult "superpredators," which are echoed in the popular saying "Old enough to do the crime, old enough to do the time" (Feld, 1999; Males, 1996). "After 20 years of official declarations, professional pronouncements, psychological speculations, and media hyperbole regarding 'teenage violence wild in the streets'" (Males, 1996, p. 44), it appears as if a persistent judgmental moral reaction to youths has interfered with reasoning about their developmental capacities and created a condition in which two different sets of rules, one for victims and witnesses and the other for suspects, govern the determination of whether a young person should be treated as an adult.

¹ Haidt's (2001) social intuitionist model supposes that "moral judgment is generally the result of quick, automatic evaluations (intuitions)" (p. 814) rooted in social and cultural influences; such a model potentially sheds light on the mechanism by which fear in the form of moral judgment begets irrational thought. Haidt maintained that "moral reasoning does not cause moral judgment: rather, moral reasoning is usually a post hoc construction, generated after a judgment has been reached" (p. 814). Further, socio-moral violations, such as crime, can be quite threatening and have been identified as elicitors of the moral emotion of "disgust" (Haidt, Rozin, McCauley, & Imada, 1997, p. 121), which is an element of fear and, as a gut reaction, might guide reasoning. "Disgust makes us step back, push away, or otherwise draw a protective line between the self and the threat" (Haidt et al., 1997, p. 127), which might explain why our society has been so quick to push juveniles away to adult prisons and so slow to explore the experiences of suspects and consider the parallels to those of witnesses and victims.

² There has been a 71% increase in juvenile cases transferred to adult courts between 1985 and 1994 and a 100% increase from 1994 to 1998 (Salekin, 2002). Once these cases are transferred, courts impose draconian sentences on juveniles. Scott and Grisso (1997) reviewed studies which have shown that adolescents charged with serious offenses are convicted at about the same rate as adults and, when convicted, receive sentences of similar severity. Several studies (McNulty, 1996; Rudman, Hartstone, Fagan, & Moore, 1986) showed that criminal courts imprison youths more often and with longer sentences than do juvenile courts. Moreover, a 1993 California Department of Corrections study found that juveniles were consistently confined 60% longer than adults convicted of the same crimes (one year longer, on average; Males, 1996).

Changing tide? Writing for the majority in the *Roper v. Simmons* (2005) case, Justice Kennedy acknowledged the contemporary legislative punitive trend in the justice system and noted simultaneously a promising point as he explained the importance of the fact that no state that had previously prohibited capital punishment for juveniles reinstated it “in light of the general popularity of anticrime legislation, *Atkins*, supra, at 315 [*Atkins v. Virginia*, 2002], and in light of the particular trend toward cracking down on juvenile crime in other respects” (p. 12). Perhaps the divergence in policies described by Justice Kennedy tells us something about how certain society feels about its characterization of juvenile offenders as adults; when life and death are at stake, people stop to think. The verdict from the *Simmons* case, and the “evolving standards of decency” criterion whereby it was held, could be reflective of a changing tide in society’s moral judgment of juveniles. This case might foreshadow a shifting awareness in society’s consciousness toward an acceptance of the principle, which has been documented in developmental psychological research, that although adolescents are not as developmentally deficient as children, they are immature enough that when deceit detection and coercive questioning techniques are used throughout an interrogation, adolescents become disproportionately vulnerable to providing unreliable reports or false confessions.

Conclusion and Recommendations

The American Medical Association et al.’s (2004) amicus brief to the Supreme Court in the *Simmons* (2005) case involved illustrating how different groups of people demonstrate similar disabilities that should exclude them from the death penalty:

This Court had concluded that both adolescents who are under age 16 and mentally retarded persons exhibit characteristics—“disabilities in areas of reasoning, judgment, and control of their impulses,” *Atkins v. Virginia* (2002)—that categorically disqualify them from the death penalty. Offenders at age 16 and 17 exhibit those characteristics as well. (p. 3)

Similarly, in this article, we have illustrated how adolescents demonstrate the same characteristics putting them at risk for providing unreliable reports that have been recognized in children, and we have shown how these characteristics emerge as a function of their interaction with the context of investigative and interrogative questioning. As children increasingly face interrogation, our argument becomes less complicated to make, because children exhibit the same characteristics across similar contexts.

The underlying notion behind current policy regarding testimony and interrogation appears to be that youths are not as mature as adults until they break the law; that is, committing a crime somehow demonstrates maturity. However, our analysis suggests that young witnesses, victims, and suspects alike possess youthful characteristics that directly influence their ability to validly inform the legal process and the pursuit of justice. These characteristics have been acknowledged in youthful witnesses and victims for over a decade and were recently acknowledged in

youthful offenders by the Supreme Court’s decision in *Roper v. Simmons* (2005); this acknowledgment needs to be extended to youthful suspects as well.

Given the high-profile nature of the majority of known cases involving false confessions, an effort to understand the forces that create incentives that are indifferent to the diagnostic quality of confession evidence is warranted. Future research should focus on unpacking the ways in which law enforcement copes with external pressures to obtain confessions. As we work toward an understanding of these forces, we must challenge elements within the current system that facilitate the exacerbation of such processes. Therefore, Kassin (2005) recently proposed scrutinizing interrogation questioning techniques and mandating that interrogations be videotaped. As our analysis suggests, the urgency of the need for these reforms is especially high in regard to interrogations involving juveniles, whom research indicates are at an increased risk of providing false confessions.

Regarding the need to scrutinize interrogation questioning techniques, we believe that advocates for reform, be they social scientists, legal scholars, or policymakers, should make an effort to include law enforcement in the process of resolving the problem of false confessions. Research on the developmental needs of young children has already been used to shape the training of investigators to question young victims and/or witnesses; similarly, research on the developmental needs of adolescents should be applied to training investigators to question young suspects.

Regarding mandated videotaping, the videotaping of investigative interviews of young witnesses and victims provides procedural precedent for videotaping interrogations of young suspects. Concerns with videotaping interviews of young witnesses and victims have included the notion that defense attorneys could be handed too much ammunition to use in attacking the testimony and the idea that the recording shifts the focus away from the child’s account to the interviewer’s mistakes. However, Myers et al. (1994) found little support for either of these concerns in an evaluation of videotaping for the California Pilot Project. The professionals surveyed believed that when interviews were conducted competently, there was nothing to hide.

Likewise, concerns with videotaping interrogations, including the notions that police would reject the policy, that it would be too costly, and that it would inhibit guilty suspects from talking to police and confessing, are unfounded. A National Institute of Justice study (Geller, 1993) as well as more recent interviews with officials from departments that voluntarily videotape interrogations (Sullivan, 2004) revealed that the majority of law enforcement officers whose departments videotape interrogations find the practice useful. Moreover, Sullivan’s respondents (a) indicated that videotaping does not inhibit suspects from talking to police or confessing and (b) explained ways in which videotaping interrogations can actually *save* money (e.g., saving costs of lengthy contested pretrial and trial hearings on what occurred during custodial interrogations,

because recordings make extensive testimony unnecessary). It is important that as advocates continue to work together to promote policies that mandate videotaping, attention be paid to camera perspective, because Lassiter and his colleagues (Lassiter & Irvine, 1986; Lassiter, Slaw, Briggs, & Scanlan, 1992) demonstrated that an “equal focus” perspective (one showing both suspect and investigators) facilitates more informed attributions of voluntariness and guilt than does a perspective in which the camera is focused only on the suspect, which can lead jurors to underestimate the amount of pressure exerted by invisible investigators.

In addition, given that research casts severe doubt on the degree to which juveniles are competent to waive their Miranda rights “knowingly and intelligently,” we believe that serious consideration should be given to adopting the *per se* approach, which advocates mandating that juveniles be afforded the protection of an advocate during interrogation. Further, this advocate should be an attorney, as opposed to a parent, because studies in both the United States and the United Kingdom (Oberlander & Goldstein, 2001) have shown that parents often do little to encourage their children to assert their constitutional rights.

We hope that the Supreme Court’s decision to recognize the developmental immaturity of young defendants in *Roper v. Simmons* (2005) reflects a triumph of reason over fear and signals an expansion of such recognition to young suspects. As our review suggests, such suspects are at risk for dangerously advancing through each investigative and adjudicative crossroads—the preinterrogation interview, the waiver of Miranda rights, the interrogation and confession, and the trial and conviction—en route to incarceration for crimes that they did not commit. Lest we overlook the gravity of the issue under consideration, we must pay attention to the human cost of our current policies; for, as avowed by advocates, “The prospect of innocents languishing in jail . . . for crimes that they did not commit should be intolerable to every American, regardless of race, politics, sex, origin, or creed” (Innocence Project, 2006, paragraph 5).

REFERENCES

- Ackil, J. K. (1996). The cognitive consequences of answering questions about fictitious events: An exploration of age differences in suggestibility (Doctoral dissertation, Kent State University, 1996). *Dissertation Abstracts International*, 56, 5789.
- Ackil, J. K. (1998). Memorial consequences of forced confabulations: Age differences in susceptibility to false memories. *Developmental Psychology*, 34, 1358–1372.
- Ackil, J. K., & Zaragoza, M. S. (1995). Developmental differences in eyewitness suggestibility and memory for source. *Journal of Experimental Child Psychology*, 60, 57–83.
- American jurisprudence. (1960). Rochester, NY: Lawyers Co-Operative.
- American Medical Association, American Psychiatric Association, American Society for Adolescent Psychiatry, American Academy of Child & Adolescent Psychiatry, American Academy of Psychiatry and the Law, National Association of Social Workers, Missouri Chapter of the National Association of Social Workers, & National Mental Health Association. (2004, July). *Amici curiae brief submitted to Roper v. Simmons*, 543 U.S. 551 (2005). Retrieved February 17, 2006, from <http://www.abanet.org/crimjust/juvjus/simmons/ama.pdf>
- American Psychological Association, & Missouri Psychological Association. (2004, July 19). *Amici curiae brief submitted to Roper v. Simmons*, 543 U.S. 551 (2005). Retrieved February 17, 2006, from <http://www.apa.org/psyclaw/roper-v-simmons.pdf>
- Arizona v. Fulminante, 111 U.S. 1246 (1991).
- Arnett, J. (1992). Reckless behavior in adolescence: A developmental perspective. *Developmental Review*, 12, 339–373.
- Atkins v. Virginia, 536 U.S. 304 (2002).
- Blagrove, M. (1996). Effects of length of sleep deprivation on interrogative suggestibility. *Journal of Experimental Psychology: Applied*, 2, 48–59.
- Bove, A. W., Goldstein, N. E., Appleton, C., & Thomson, M. (2003, April). *Gender differences in IQ among juvenile offenders*. Paper presented at the annual conference of the International Association of Forensic Mental Health Services, Miami, FL.
- Brainerd, C. J., & Ornstein, P. A. (1991). Children’s memory for witnessed events: The developmental backdrop. In J. L. Doris (Ed.), *The suggestibility of children’s recollections* (pp. 10–20). Washington, DC: American Psychological Association.
- Brainerd, C. J., Reyna, V. F., Howe, M. L., & Kingma, J. (1990). The development of forgetting and reminiscence. *Monographs of the Society for Research in Child Development*, 55, 1–93.
- Brennan, M., & Brennan, R. (1988). *Strange language*. Wagga Wagga, New South Wales, Australia: Riverina Literacy Centre.
- Broughton, J. (1983). The cognitive developmental theory of adolescent self and identity. In B. Lee & G. Noam (Eds.), *Developmental approaches to the self* (pp. 189–213). New York: Plenum Press.
- Bruck, M., & Ceci, S. J. (2004). Forensic developmental psychology: Unveiling four scientific misconceptions. *Current Directions in Psychology*, 13, 229–232.
- Bruck, M., Ceci, S. J., & Hembrooke, H. (2002). The nature of children’s true and false narratives. *Developmental Review*, 22, 520–554.
- Bruck, M., Ceci, S. J., & Melnyk, L. (1997). External and internal sources of variation in the creation of false reports in children. *Learning and Individual Differences*, 9, 289–316.
- Bruck, M., & London, K. (2003, April). *Memory and suggestibility during middle childhood*. Paper presented at the biennial meeting of the Society for Research in Child Development, Tampa, FL.
- Bruck, M., & Melnyk, L. (2004). Individual differences in children’s suggestibility: A review and synthesis. *Applied Cognitive Psychology*, 18, 947–996.
- Bugental, D. B., Shennum, W., Frank, M., & Ekman, P. (2001). “True lies”: Children’s abuse history and power attributions as influences on deception. In V. Manusov & J. H. Harvey (Eds.), *Attribution, communication behavior, and close relationships: Advances in personal relations* (pp. 248–265). Cambridge, England: Cambridge University Press.
- Carter, C. A., Bottoms, B. L., & Levine, M. (1996). Linguistic and socioemotional influences on the accuracy of children’s reports. *Law and Human Behavior*, 20, 335–358.
- Cassel, W. S., Roebbers, C. E. M., & Bjorklund, D. F. (1996). Developmental patterns of eyewitness responses to repeated and increasingly suggestive questions. *Journal of Experimental Child Psychology*, 61, 116–133.
- Cauffman, E., & Steinberg, L. (2000). (Im)maturity of judgment in adolescence: Why adolescents may be less culpable than adults. *Behavioral Sciences & the Law*, 18, 741–760.
- Ceci, S. J. (1994). Cognitive and social factors in children’s testimony. In B. Sales & G. R. VandenBos (Eds.), *Psychology in litigation and legislation*. Washington, DC: American Psychological Association.
- Ceci, S. J., & Bruck, M. (1993). Suggestibility of the child witness: A historical review and synthesis. *Psychological Bulletin*, 113, 403–439.
- Ceci, S. J., Leichtman, M., & White, T. (1991). Interviewing preschoolers: Remembrance of things planted. In D. P. Peters (Ed.), *The child witness: Cognitive, social, and legal issues* (pp. 104–120). Dordrecht, the Netherlands: Kluwer Academic.
- Ceci, S. J., Ross, D. F., & Toglia, M. P. (1987). Suggestibility of children’s memory: Psycholegal implications. *Journal of Experimental Psychology*, 116, 38–49.
- Center on Juvenile and Criminal Justice. (2000). *Dispelling the myth: An analysis of youth and adult crime patterns in California over the past 20 years*. Retrieved September 16, 2004, from <http://www.cjcj.org/pubs/myth/myth.html>
- Chelune, G. J., & Baer, R. A. (1986). Developmental norms for the

- Wisconsin Card Sorting Test. *Journal of Clinical and Experimental Neuropsychology*, 8, 219–228.
- Clarke-Stewart, A., Thompson, W., & Lepore, S. (1989, May). *Manipulating children's interpretations through interrogation*. Paper presented at the biennial meeting of the Society for Research in Child Development, Kansas City, MO.
- Commonwealth v. King, 17 Mass. 602 (1984).
- CourtTV. (2002). The interrogation of Michael Crowe. Retrieved September 16, 2004, from www.courtstv.com/movie/crowe
- Crossman, A. M., Scullin, M. H., & Melnyk, L. (2004). Individual and developmental differences in suggestibility. *Applied Cognitive Psychology*, 18, 941–945.
- DePaulo, B. M., Lindsay, J. J., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin*, 129, 74–112.
- Drizin, S. A., & Leo, R. A. (2004). The problem of false confessions in the post-DNA world. *North Carolina Law Review*, 82, 891–1007.
- Dugas, C. (1995, July). *State of New Jersey v. Michaels*: The due process implications raised in interviewing child witnesses. *Louisiana Law Review*, 1205–1234.
- Dunn, A. R. (1995). Questioning the reliability of children's testimony: An examination of the problematic events. *Law & Psychology Review*, 19, 203–215.
- Durston, S., Hulshoff, H. E., Casey, B. J., Giedd, J. N., Buitelaar, J. K., & Engeland, H. (2001). Anatomical MRI of the developing human brain: What have we learned? *Journal of the American Academy of Child & Adolescent Psychiatry*, 40, 1010–1020.
- Enright, R. D., Levy, V. M., Harris, D., & Lapsley, D. K. (1987). Do economic conditions influence how theorists view adolescents? *Journal of Youth and Adolescence*, 16, 541–559.
- Fare v. Michael C., 442 U.S. 707 (1979).
- Feld, B. (1999). *Bad kids: Race and the transformation of the juvenile court*. Oxford, England: Oxford University Press.
- Ferguson, B. A., & Douglas, A. C. (1970). A study of juvenile waiver. *San Diego Law Review*, 7, 204–224.
- Finnilä, K., Mählberg, N., Santtilä, P., & Niemelä, P. (2003). Validity of a test of children's suggestibility for predicting responses to two interview situations differing in degree of suggestiveness. *Journal of Experimental Child Psychology*, 85, 32–49.
- Fisher, J. (1996). *Fall guys: False confessions and the politics of murder*. Carbondale: Southern Illinois University Press.
- Fried, C. S., & Reppucci, N. D. (2001). Criminal decision making: The development of adolescent judgment, criminal responsibility, and culpability. *Law and Human Behavior*, 25, 45–61.
- Furby, L., & Beyth-Marom, R. (1992). Risk taking in adolescence: A decision-making perspective. *Developmental Review*, 12, 1–44.
- Gallegos v. Colorado, 370 U.S. 49, 54 (1962).
- Garven, S., Wood, J. M., & Malpass, R. S. (2000). Allegations of wrongdoing: The effects of reinforcement on children's mundane and fantastic claims. *Journal of Applied Psychology*, 85, 38–49.
- Geddie, L., Fradin, S., & Beer, J. (2000). Child characteristics which impact accuracy of recall and suggestibility in preschoolers: Is age the best predictor? *Child Abuse & Neglect*, 24, 223–235.
- Gee, S., & Pipe, M. E. (1995). Helping children to remember: The influence of object cues on children's accounts of a real event. *Developmental Psychology*, 31, 746–758.
- Geller, W. A. (1993). *Videotaping interrogations and confessions* (National Institute of Justice Research in Brief). Washington, DC: U.S. Department of Justice.
- Giedd, J. N., Blumenthal, J., Jeffries, N. O., Castellanos, F. X., Liu, H., Zijdenbos, A., Paus, T., Evans, A. C., & Rapoport, J. L. (1999). Brain development during childhood and adolescence: A longitudinal MRI study. *Nature Neuroscience*, 2, 861–863.
- Glassner, B. (2000). *The culture of fear: Why Americans are afraid of the wrong things*. New York: Basic Books.
- Goldberg, C. (1998, September 8). Getting to the truth in child abuse cases: New methods. *New York Times*, p. F1.
- Goodman, G., Quas, J., Bulkley, J., & Shapiro, C. (1999). Innovations for child witnesses: A national survey. *Psychology, Public Policy, and Law*, 5, 255–281.
- Goodman, G. S., & Clarke-Stewart, A. (1991). Suggestibility in children's testimony: Implications for child sexual abuse investigations. In J. L. Doris (Ed.), *The suggestibility of children's recollections* (pp. 92–105). Washington, DC: American Psychological Association.
- Grisso, T. (1980). Juveniles' capacities to waive Miranda rights: An empirical analysis. *California Law Review*, 68, 1134–1166.
- Grisso, T. (1981). *Juveniles' waiver of rights: Legal and psychological competence*. New York: Plenum Press.
- Grisso, T. (1983). Juveniles' consent in delinquency proceedings. In G. B. Melton, G. Koocher, & M. J. Saks (Eds.), *Children's competence to consent* (pp. 131–148). New York: Plenum Press.
- Grisso, T. (1997). The competence of adolescents as trial defendants. *Psychology, Public Policy, and Law*, 3, 3–32.
- Grisso, T. (1998). *Forensic evaluation of juveniles*. Sarasota, FL: Professional Resource Press.
- Grisso, T., & Schwartz, R. J. (Eds.). (2000). *Youth on trial: A developmental perspective on juvenile justice*. Chicago: University of Chicago Press.
- Grisso, T., Steinberg, L., Woolard, J., Cauffman, E., Scott, E., Graham, S., Lexcen, F., Reppucci, N., & Schwartz, R. (2003). Juveniles' competence to stand trial: A comparison of adolescents' and adults' capacities as trial defendants. *Law and Human Behavior*, 27, 333–363.
- Gross, S. (1996). The risks of death: Why erroneous convictions are common in capital cases. *Buffalo Law Review*, 44, 469–525.
- Gross, S., Jacoby, K., Matheson, D., Montgomery, N., & Patil, S. (2005). Exonerations in the United States 1989 through 2003. *Journal of Criminal Law and Criminology*, 95, 523–560.
- Gudjonsson, G. H. (1984). A new scale of interrogative suggestibility. *Personality and Individual Differences*, 5, 303–314.
- Gudjonsson, G. H. (1989). Compliance in an interrogation situation: A new scale. *Personality and Individual Differences*, 10, 535–540.
- Gudjonsson, G. H. (1990). One hundred alleged false confession cases: Some normative data. *British Journal of Clinical Psychology*, 29, 249–250.
- Gudjonsson, G. H. (1991). The effects of intelligence and memory on group differences in suggestibility and compliance. *Personality and Individual Differences*, 12, 503–505.
- Gudjonsson, G. H. (1992). *The psychology of interrogations, confessions, and testimony*. London: Wiley.
- Gudjonsson, G. H. (2003). *The science of interrogations and confessions: A handbook*. Chichester, England: Wiley.
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, 108, 814–834.
- Haidt, J., Rozin, P., McCauley, C., & Imada, S. (1997). Body, psyche, and culture: The relationship between disgust and morality. *Psychology and Developing Societies: A Journal*, 9, 107–131.
- Haley v. Ohio, 332 U.S. 596, 601 (1948).
- Halpern-Felsher, B. L., & Cauffman, E. (2001). Costs and benefits of a decision: Decision-making competence in adolescents and adults. *Applied Developmental Psychology*, 22, 257–273.
- Harrison, Y., & Horne, J. A. (2000). The impact of sleep deprivation on decision making: A review. *Journal of Experimental Psychology: Applied*, 6, 236–249.
- Haugaard, J. J., & Reppucci, N. D. (1992). Children and the truth. In S. Ceci, M. D. Leichtman, & M. E. Putnick (Eds.), *Cognitive and social factors in early deception* (pp. 29–45). Hillsdale, NJ: Erlbaum.
- Horselenberg, R., Merckelbach, H., & Josephs, S. (2003). Individual differences and false confessions: A conceptual replication of Kassir & Kiechel (1996). *Psychology, Crime & Law*, 9, 1–18.
- Inbau, F. E., Reid, J. E., Buckley, J. P., & Jayne, B. C. (2001). *Criminal interrogation and confessions* (4th ed.). Gaithersburg, MD: Aspen.
- Innocence Project. (2006). *About the Innocence Project*. (2006). Retrieved February 17, 2006, from <http://www.innocenceproject.org/about/>
- In re Gault, 387 U.S. 1 (1967).
- In re Winship, 397 U.S. 358 (1970).
- John E. Reid & Associates, Inc. (2004). *Loss prevention & corporate security*. Retrieved February 17, 2006, from http://www.reid.com/training_programs/r_lpcs.html
- Kassin, S. M. (1997). The psychology of confession evidence. *American Psychologist*, 52, 221–233.
- Kassin, S. M. (2005). On the psychology of confessions: Does innocence put innocents at risk? *American Psychologist*, 60, 215–228.
- Kassin, S. M., & Gudjonsson, G. H. (2004). The psychology of confes-

- sions: A review of the literature and issues. *Psychological Science in the Public Interest*, 5, 33–67.
- Kassin, S. M., & Kiechel, K. L. (1996). The social psychology of false confessions: Compliance, internalization, and confabulation. *Psychological Science*, 7, 125–128.
- Kent v. U.S., 383 U.S. 541 (1966).
- Kotlowitz, A. (1999, February 8). The unprotected. *The New Yorker*, 42–53.
- Lassiter, G. D., & Irvine, A. A. (1986). Videotaped confessions: The impact of camera point of view on judgments of coercion. *Journal of Applied Social Psychology*, 16, 268–276.
- Lassiter, G. D., Slaw, R. D., Briggs, M. A., & Scanlan, C. R. (1992). The potential for bias in videotaped confessions. *Journal of Applied Social Psychology*, 22, 1828–1851.
- Lee, K. (2004). Age, neuropsychological, and social cognitive measures as predictors of individual differences in susceptibility to the misinformation effect. *Journal of Applied Cognitive Psychology*, 18, 997–1019.
- Leichtman, M. D., & Ceci, S. J. (1995). The effects of stereotypes and suggestions on preschoolers' reports. *Developmental Psychology*, 31, 568–578.
- Leo, R. A. (1994). Police interrogation and social control. *Social & Legal Studies*, 3, 93–120.
- Leo, R. A. (1996a). Inside the interrogation room. *Journal of Criminal Law and Criminology*, 86, 266–303.
- Leo, R. A. (1996b). Miranda's revenge: Police interrogation as a confidence game. *Law & Society Review*, 30, 259–288.
- Leo, R. A., & Ofshe, R. J. (1998). The consequences of false confessions: Deprivations of liberty and miscarriages of justice in the age of psychological interrogation. *Journal of Criminal Law and Criminology*, 88, 429–496.
- Levin, H. S., Culhane, K. A., Hartmann, J., Evankovich, K., Mattson, A. J., Harward, H., Ringholz, G., Ewing-Cobbs, L., & Fletcher, J. M. (1991). Developmental changes in performance on tests of purported frontal lobe functioning. *Developmental Neuropsychology*, 7, 377–395.
- Males, M. A. (1996). *The scapegoat generation: America's war on adolescents*. Monroe, ME: Common Courage Press.
- Males, M. A. (1998). *Framing youth: Ten myths about the next generation*. Monroe, ME: Common Courage Press.
- McFarlane, F., Powell, M., & Dudgeon, P. (2002). An examination of the degree to which IQ, memory performance, socio-economic status and gender predict young children's suggestibility. *Legal and Criminological Psychology*, 7, 227–239.
- McGough, L. S. (1995). For the record: Videotaping investigative interviews. *Psychology, Public Policy, and Law*, 1, 370–386.
- McNulty, E. W. (1996). The transfer of juvenile offenders to adult court: Panacea or problem? *Law & Policy*, 18, 61–76.
- Melnik, L., & Bruck, M. (2004). Timing moderates the effects of repeated suggestive interviewing on children's eyewitness memory. *Applied Cognitive Psychology*, 18, 613–631.
- Memor, A., Holley, A., Wark, L., Bull, R., & Koehnken, G. (1996). Reducing suggestibility in the child witness. *Applied Cognitive Psychology*, 10, 503–518.
- Meyer, J. R., Owen, J. A., & Reppucci, N. D. (2005, March). *The effect of coercive and deceptive interrogation techniques on the reliability of young suspects' reports*. Paper presented at the meeting of the American Psychology and Law Society, La Jolla, CA.
- Meyer, J. R., Owen, J. A., & Reppucci, N. D. (2006). *Police interrogation practices and perceptions of youth interrogative suggestibility: A comparison of multiple police departments*. Manuscript in preparation.
- Meyer, J. R., Reppucci, N. D., & Owen, J. A. (2006). Criminalizing childhood: The shifting boundaries of responsibility in the justice and school systems. In K. Freeark & W. S. Davidson (Eds.), *The crisis in youth mental health: Vol. 3. Issues for families, schools, and communities* (pp. 219–247). Westport, CT: Greenwood.
- Meyer, R. G., & Youngjohn, J. R. (1991). Effects of feedback and validity expectancy on response in a lie detector interview. *Forensic Reports*, 4, 235–244.
- Meyers, J. (1987). *Child witness law and practice*. New York: Wiley.
- Miranda v. Arizona, 384 U.S. 436 (1966).
- Myers, J., Saywitz, K., Gordon, S., Stewart, D., Pizzini, S., & Walton, T. (1994). *Child victim witness investigative pilots: Research and evaluation final report*. Sacramento: California Attorney General's Office.
- Nurmi, J. E. (1991). How do adolescents see their future? A review of the development of future orientation and planning. *Developmental Review*, 11, 1–59.
- Oberlander, L. B., & Goldstein, N. E. (2001). A review and update on the practice of evaluating Miranda comprehension. *Behavioral Sciences and the Law*, 19, 453–471.
- Ofshe, R. K. (1989). Coerced confessions: The logic of seemingly irrational action. *Cultural Studies Journal*, 6, 6–15.
- Parker, J. (1995). Age differences in source monitoring of performed and imagined actions in immediate and delayed tests. *Journal of Experimental Child Psychology*, 60, 84–101.
- Perry, N., McAuliff, B. D., Tam, P., Claycomb, L., Dostal, C., & Flanagan, C. (1995). When lawyers question children: Is justice served? *Law and Human Behavior*, 6, 609–625.
- Perry, N., & Wrightsman, L. (1991). In the eye of the beholder: Reactions to children as legal witnesses. In N. E. Walker & L. S. Wrightsman (Eds.), *The child witness: Legal issues and dilemmas* (pp. 23–54). Newbury Park, CA: Sage.
- Peterson, C., & Bell, M. (1996). Children's memory for traumatic injury. *Child Development*, 67, 3045–3070.
- Peterson, C., & Biggs, M. (1997). Interviewing children about trauma: Problems with "specific" questions. *Journal of Traumatic Stress*, 10, 279–290.
- Piaget, J. (1979). *The child's conception of the world* (J. & A. Tomlinson, Trans.). New York: International Universities Press. (Original work published 1929)
- Poole, D. A., & Lamb, M. E. (1998). *Investigative interviews of children: A guide for helping professionals*. Washington, DC: American Psychological Association.
- Poole, D. A., & Lindsay, D. S. (1995). Interviewing preschoolers: Effects of nonsuggestive techniques, parental coaching, and leading questions on reports of nonexperienced events. *Journal of Experimental Child Psychology*, 60, 129–154.
- Poole, D. A., & White, L. T. (1991). Effects of question repetition on the eyewitness testimony of children and adults. *Developmental Psychology*, 27, 975–986.
- Quas, J. A., Schaaf, J. M., Alexander, K. W., & Goodman, G. S. (2000). Do you really remember it happening or do you only remember being asked about it happening? Children's source monitoring in forensic contexts. In P. K. Roberts & M. Blades (Eds.), *Children's source monitoring* (pp. 197–226). Mahwah, NJ: Erlbaum.
- Redlich, A. D., & Goodman, G. S. (2003). Taking responsibility for an act not committed: The influence of age and suggestibility. *Law and Human Behavior*, 27, 141–156.
- Richardson, G., Gudjonsson, G. H., & Kelly, T. P. (1995). Interrogative suggestibility in an adolescent forensic population. *Journal of Adolescence*, 18, 211–216.
- Richardson, G., & Kelly, T. P. (1995). The relationship between intelligence, memory and interrogative suggestibility in young offenders. *Psychology, Crime & Law*, 1, 283–290.
- Roberts, K. P., & Lamb, M. E. (1999). Children's responses when interviewers distort details during investigative interviews. *Legal and Criminological Psychology*, 4, 23–31.
- Roper v. Simmons, 543 U.S. 551, 125 S.Ct. 1183 (2005).
- Rosselli, M., & Ardila, A. (1993). Developmental norms for the Wisconsin Card Sorting Test in 5- to 12-year-old children. *The Clinical Neuropsychologist*, 7, 145–154.
- Rudman, C., Hartstone, E., Fagan, J., & Moore, M. (1986). Violent youth in adult court: Process and punishment. *Crime & Delinquency*, 36, 75–96.
- Salekin, R. T. (2002). Juvenile transfer to adult court. In B. L. Bottoms, M. B. Kovera, & B. D. McAuliff (Eds.), *Children, social science, and the law* (pp. 203–232). Cambridge, England: Cambridge University Press.
- Salmon, K., & Pipe, M. E. (1997). Props and children's event reports: The impact of a one year delay. *Journal of Experimental Child Psychology*, 65, 261–292.
- Saywitz, K., Jaenicke, C., & Camparo, L. (1990). Children's knowledge of legal terminology. *Law and Human Behavior*, 14, 523–535.
- Schaaf, J., Alexander, K., Goodman, G., Ghetti, S., Edelstein, R., & Castelli, P. (2002). Children's eyewitness memory: True disclosures and false reports. In B. L. Bottoms, M. B. Kovera, & B. D. McAuliff

- (Eds.), *Children, social science, and the law* (pp. 342–377). Cambridge, England: Cambridge University Press.
- Schmidt, M. G., & Reppucci, N. D. (2002). Children's rights and capacities. In B. L. Bottoms, M. B. Kovera, & B. D. McAuliff (Eds.), *Children, social science, and the law* (pp. 76–105). Cambridge, England: Cambridge University Press.
- Scott, E. S., & Grisso, T. (1997). The evolution of adolescence: A developmental perspective on juvenile justice reform. *The Journal of Criminal Law and Criminology*, 88, 137–189.
- Scott, E. S., Reppucci, N. D., & Woolard, J. L. (1995). Evaluating adolescents' decision making in legal contexts. *Law and Human Behavior*, 19, 221–244.
- Sickmund, M., Snyder, H. N., & Poe-Yamagata, E. (1997). *Juvenile offenders and victims: 1997 update on violence*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, U. S. Department of Justice.
- Siegle, M. (2003, December 2). John E. Reid in Iraq: Mind to mind combat. *The Daily Herald*. Retrieved September 16, 2004, from http://www.reid.com/reid_in_iraq.html
- Singh, K., & Gudjonsson, G. H. (1992). Interrogative suggestibility among adolescent boys and its relationship with intelligence, memory, and cognitive set. *Journal of Adolescence*, 15, 155–161.
- Snyder, H. N. (2002, November). *Juvenile arrests 2000: OJJDP Juvenile Justice Bulletin*. Washington, DC: Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, U. S. Department of Justice.
- Sowell, E. R., Peterson, B. S., Thompson, P. M., Welcome, S. E., Henkenius, A. C., & Toga, A. W. (2003). Mapping cortical change across the human life span. *Nature Neuroscience*, 6, 309–315.
- Spear, L. P. (2000). The adolescent brain and age-related behavioral manifestations. *Neuroscience & Biobehavioral Reviews*, 24, 417–463.
- Stanford v. Kentucky, 492 U.S. 361 (1989).
- State of New Jersey v. Michaels, 136 N.J. 299, 642 A.2d 1372 (1994).
- State v. Townsend, 635 So.2d 949, 959–960 (1994).
- Steinberg, L., & Cauffman, E. (1996). Maturity of judgment in adolescence: Psychosocial factors in adolescent decision making. *Law and Human Behavior*, 20, 249–272.
- Steinberg, L., & Scott, E. (2003). Less guilty by reason of adolescence: Developmental immaturity, diminished responsibility, and the juvenile death penalty. *American Psychologist*, 58, 1009–1018.
- Sullivan, T. P. (2004). *Police experiences with recording custodial interrogations*. Chicago: Northwestern University School of Law, Center on Wrongful Convictions.
- Tobey, A., & Goodman, G. S. (1992). Children's eyewitness memory: Effects of participation and forensic context. *Child Abuse & Neglect*, 16, 779–796.
- Walker, A. G. (1994). *Handbook on questioning children: A linguistic perspective*. Washington, DC: American Bar Association Center on Children and the Law.
- Walker, S. (2004). *The color of justice: Race, ethnicity and crime in America* (3rd ed.). Belmont, CA: Wadsworth/Thomson Learning.
- Warren-Leubecker, A., Tate, C., Hinton, I., & Ozbek, I. (1989). What do children know about the legal system and when do they know it? First steps down a less traveled path in child witness research. In S. Ceci, D. Ross, & M. Toglia (Eds.), *Perspective on children's testimony* (pp. 158–183). New York: Springer-Verlag.
- Wilson, J. C., & Pipe, M. E. (1989). The effects of cues on young children's recall of real events. *New Zealand Journal of Psychology*, 18, 65–70.
- Zaragoza, M., Payment, K., Kichler, J., Stines, L., & Drivdahl, S. (2001, April). *Forced confabulation and false memory in child witnesses*. Paper presented at the biennial meeting of the Society for Research in Child Development, Minneapolis, MN.
- Zirpolo, K. as told to Nathan, D. (2005, October 30). McMartin pre-schooler: "I lied." *Los Angeles Times*. Retrieved February 17, 2006, from <http://www.latimes.com/travel/destinations/pacific/latm-mcmartin44oct30,0,285518.story?coll=la-home-magazine>