

CHAPTER 12

Children and the Law

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INTRODUCTION	1	IMPLICATIONS FOR INTERVIEWS WITH ALLEGED VICTIMS, WITNESSES, AND SUSPECTS	26
THE DEVELOPMENTAL SCIENCE OF CHILDREN AND THE LAW	3	Best Practice When Interviewing Alleged Victims of Child Abuse	27
Neurophysiological Development	3	Interrogating Young Suspects	29
Cognitive Development	4	Post-Adjudication Issues With Respect to Young Offenders	31
Conceptual Understanding	8	Juvenile Sex Offenders	32
Metacognition, Reasoning, and Logic	12	IMPLICATIONS OF DEVELOPMENTAL SCIENCE FOR FAMILY AND DEPENDENCY COURT	32
Development of Language and Communication	15	Developmental Considerations in Dependency Court	33
Socioemotional Development	18	Developmental Considerations in Family Court	34
Social Relationships With Parents, Other Adults, and Peers	18	Summary	35
Suggestibility and Contamination: The Confluence of Social and Cognitive Factors	20	CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH	35
Children's Deception	22	REFERENCES	37
Summary	24		
FEATURES OF LEGAL CONTEXTS	24		

INTRODUCTION

In this chapter, we use the word *children* when referring to infants, toddlers, preschoolers, school-aged children, youth, and adolescents. Together, they are characterized by an extremely diverse and broad array of emerging cognitive, social, and emotional abilities. This fact in itself complicates researchers' understanding of children's involvement, participation, and understanding of their roles in legal contexts, as well as expectations of them. The situation is further complicated when considering developmental delays that may potentiate or be a consequence of children's involvement in the legal system and to recognize the diverse ways in which increasing numbers of young people are so involved.

In the past, legal decisions affecting children were often made without their knowledge or participation. This was due, in many cases, to a shallow understanding of children's capabilities and strengths, an overemphasis on their

perceived cognitive and social limitations, and more general disregard for psychological research, as Munsterberg (1908) lamented more than a century ago. Despite initial skepticism (Cairns, 1935; Wigmore, 1909), applied psychology is belatedly attaining some of the promise Munsterberg anticipated, perhaps especially in relation to children and the law.

Indeed, as developmental psychology emerged as a distinct discipline early in the 20th century, applied issues were at the forefront: Psychologists regularly provided parents, teachers, and pediatricians with advice, even in cases where the advice was not always well-informed by empirical research (Clarke-Stewart, 1998; Sears, 1975). By the middle of the 20th century, however, developmentalists shifted their focus to basic research questions, apparently fearing that a concern with applied issues at the expense of a solid empirical foundation made developmental psychology less credible as a science. Increases in our understanding of children's abilities have prompted another shift

2 Children and the Law

in thinking with respect to children and the law. In the face of widespread beliefs that children should be as actively involved in decisions affecting their lives as their abilities allow, many developmental psychologists have sought to improve decision making and outcomes for children and families within all aspects of the legal system.

Thousands of published studies have revealed much about children's abilities in the legal realm and have provided a more accurate and realistic view of their limitations. Moreover, research has become increasingly "convincing" to non-psychologists because basic laboratory research has been complemented by methods that have clear ecological validity, yielding findings that are better understood, accepted, and applied in legal contexts. Lawyers, judges, social workers, jurors, parents, and others must make important (often life-transforming) decisions about children every day and there is increasing recognition that psychological research can and should guide many of these crucial decisions.

As Bruck, Ceci, and Principe (2006) observed, the numbers of children experiencing contact with the legal, social service, and child welfare systems around the world represent "a large and growing legal constituency, one that possesses a special set of constraints involving basic developmental competencies, including cognitive, social, and emotional, that may constrain their effective participation" (p. 777). For example, although the exact number of child-abuse victims in the United Kingdom has not been calculated, more than 66,000 children were the subjects of child protection plans and were thus considered to be at risk for physical, emotional, or sexual abuse and neglect in 2012 (National Society for Prevention of Cruelty to Children, 2013). In the United States, about 3 million investigations of suspected child maltreatment are carried out annually (Gelles & Brigham, 2011) with nearly 800,000 children classified as victims of maltreatment in 2007 (U.S. Department of Health and Human Services, Administration on Children, Youth, and Families, 2009). The situation is alarming elsewhere as well. In 2008, approximately 236,000 child maltreatment investigations were conducted in Canada, with approximately 36% of these cases substantiated by child-protection workers (Trocmé et al., 2010). Between 2001–2002 and 2005–2006, the number of child-protection notifications in Australia almost doubled from 138,000 to 267,000 (Australian Institute of Health and Welfare, 2007).

Of course, children often assume other roles than victims in the legal system, with many of them considered suspects and defendants and others classed as witnesses. In England

and Wales, 241,737 juveniles were arrested in fiscal year 2009–2010, accounting for 17% of all arrests during that same period (Ministry of Justice, 2012) and law enforcement agencies in the United States arrested approximately 2.1 million juveniles in 2008 (Puzzanchera, 2009). Following arrest, 66% of those referred to court initially appeared in juvenile court and 10% were referred to adult criminal court, with other young suspects later referred to criminal court as well.

Family breakdowns and divorce also draw children into legal contexts. In the United States, the numbers of relationships that end in divorce or separation vary greatly according to ethnicity and race, but it has been estimated that about half of the children in the country spend part of their childhoods in single-parent families—a substantial number of these children drawn into legal proceedings to determine where and with whom they should live (Amato & Dorius, 2010). Unfortunately, large (though smaller) proportions of children are drawn into such proceedings in other countries such as the United Kingdom as well (Dunn & Layard, 2013).

With so many young people drawn into and affected by the legal system, it is crucial for researchers and practitioners both to recognize that diverse developmental factors—cognitive, emotional, and social—can seriously compromise the effective participation of young people in legal contexts (Bruck et al., 2006) and to explore practices that might facilitate participation and ameliorate the potentially negative effects on the children involved. Regardless of whether youth are participating in the legal system as victims, witnesses, or suspects, the primary goal is typically to obtain information from them via interviews conducted by adults. Although the legal and child protection systems have been responsive to developmental research with policies and protocols for interviewing young people who are victims or witnesses to crime, research has not similarly affected practice where juveniles are suspected of committing crimes. The age of criminal responsibility (i.e., adult responsibility) is very low in many countries. For example, in the United States, some states automatically exclude certain offenses from juvenile court discretion, even with children as young as 10 years of age (see Fagan, 2008, for a review). Furthermore, adolescent suspects are allowed to be questioned in the same manner as adult suspects. Criticizing the fact that young suspects are often treated in less developmentally appropriate ways than young victims and witnesses, Owen-Kostelnik, Reppucci, and Meyer (2006), wrote, "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” (p. 286).

Indeed, although legal and social service interventions are often justified by reference to children’s vulnerability and dependency, the interventions themselves are seldom informed by reference to developmental theory or the results of scientific research. Instead, political, ideological, and cultural values may guide the development of policies such as those that allow the prosecution of juvenile offenders in adult courts (e.g., “get tough on crime” policies) or emphasize family preservation rather than the termination of parental rights when children have been severely and persistently abused by their parents. It is unfortunate that policy makers sometimes fail to take advantage of a burgeoning and increasingly sophisticated understanding of child development in this way because improved public policy and law would surely emerge if policies and practices were better informed by developmental research.

In this chapter, we discuss the developmental factors that affect children’s legal participation in relation to child maltreatment, divorce, and juvenile justice. Children may be victims, witnesses, suspects, and affected parties and their developmental characteristics are the same regardless of their roles. Unfortunately, in legal contexts, knowledge of child development has been unevenly applied, with far more attention paid to developmental science where child victims are concerned. Accordingly, we show how applied and basic psychological research can help inform practice in legal contexts, with researchers helping guide practitioners and the latter in turn offering insights and asking questions that foster a more complete understanding of developmental processes.

We begin the chapter with a review of developmental trajectories in the principal domains of development known or likely to affect children in legal contexts. Much of the initial research was conducted in experimental contexts, but an increasing proportion of the research on the development of memory processes and the factors affecting what children remember, forget, and report is now being conducted in settings that afford a more straightforward generalization to performance in legal contexts. Children’s legal participation is not only affected by memory, so we also describe, in turn, emergent understanding of such key concepts as time and numerosity, the development of metacognition, reasoning, and logical thinking, the growth of language and communicative skills, and crucial aspects of social and emotional development, with an emphasis on the development and significance of affective relationships, first with parents and later also with peers. Both

social and cognitive factors are important when seeking to understand the phenomenon of suggestibility, as we show at the end of this section on foundational constructs. In the second major section, we turn attention to the implications of normative developmental processes for children in a variety of legal contexts. We begin with discussion of the implications of developmental differences for investigative interviews, both with alleged victim/witnesses and with children who are suspected of having committed offenses, before focusing attention on the implications of the developmental literature for behavior and practices in family and dependency court. Our review is not exhaustive. The “children and the law” literature has not given equal treatment to all research areas, and our review follows suit. Furthermore, some aspects of child development (e.g., physiological development) are less relevant to children’s legal involvement and performance than other aspects (e.g., cognitive development). Some relevant topics (e.g., juvenile sentencing policies) are covered in-depth by other chapters in this *Handbook* (see Cauffman, Shulman, Bechtold, & Steinberg, Chapter 16, this *Handbook*, Volume 4). Thus, our intent is to provide a broad overview of the field and discuss evidence concerning several research topics central to the study of children and the law. The chapter ends with an examination of the key questions to which researchers should turn their attention in the years to come if they are to fully realize the potential to contribute fully and informatively to knowledge and practices concerning children and the law.

THE DEVELOPMENTAL SCIENCE OF CHILDREN AND THE LAW

In this section, we review developmental trajectories in the principal domains of development (neurophysiological, cognitive, communicative, and socioemotional) known or likely to affect children in legal contexts.

Neurophysiological Development

Infants and young children show very clear limitations and emerging abilities in many domains that are directly linked to the physiological development of the brain. Human brain development is marked by a very long period of post-natal development shaped by both physiological changes and experience. At birth, the gross structures of the brain are adult-like and almost all the neural cells are present although much neural development has yet to take place

4 Children and the Law

(M. H. Johnson, 2011). For the most part, this postnatal development involves increases in the numbers of synaptic connections, resulting in a doubling of the brain's size by the first birthday, following which many connections are pruned as the brain is resculpted by experience. In general terms, the primary sensory systems mature first, followed over the first year of life by changes in the neural mechanisms that allow increasing attentional control over the sensory systems. Higher-level association areas, especially in the cortex, develop later (Casey, Galvan, & Hare, 2005). The prefrontal cortex, which is especially important for many of the cognitive processes that underlie reasoning, decision making, self-control, planning, and memory, undergoes dramatic changes toward the end of the first year and then again between the ages of 4 and 6 years (Drumney & Newcombe, 2002) but continues to improve in function and capacity until early adulthood (Olson & Luciana, 2008). Not surprisingly, therefore, we see children of 4 years able to control their behavior well enough to take turns in a game or sit still when asked whereas those of 12 to 16 still have difficulty inhibiting impulsive actions when the immediate benefits are appealing and reflection is not prompted (Dansereau, Knight, & Flynn, 2013). fMRI studies consistently show that the structural and functional maturation of the prefrontal cortex is not complete until the early 20s (e.g., Blakemore & Choudhury, 2006; Casey, Tottenham, Liston, & Durston, 2005; Sowell, Thompson, Holmes, Jernigan, & Toga, 1999).

Similarly, face perception is initially under subcortical control, and although it becomes more sophisticated later in infancy (de Haan, Humphrey, & Johnson, 2002), it continues to develop at least until early adolescence (M. H. Johnson, Grossmann, & Cohen-Kadosh, 2009). The fact that changes in cortical thickness continue until at least 19 years of age, with the magnitude of these changes, rather than the thickness per se, predicting adult IQ (Shaw et al., 2006), underscores the more general point that neurological development is a slow process, shaped by both maturation and experience, that continues from birth until early adulthood. These developmental changes have obvious implications for the cognitive, memory, linguistic, and socioemotional changes described in later sections, and thus need to be accorded attention when seeking to understand developmental changes in relation to children and the law. In legal contexts, it is important to recognize that important abilities associated with attention, problem solving, and decision making, balancing short- and long-term goals, and processing different sources of information and experience are *emerging* abilities and that children and youth behave and

make decisions that are constrained or potentiated by their neurocognitive status.

Other important developmental shifts in the second decade of life are associated with puberty. Puberty is, of course, a biological transitional event but apart from the reproductive maturation of boys and girls, puberty is also associated with increases in emotionality (K. Lewin, 1939), emotional lability (Larson & Lampman-Petratis, 1989), sensation-seeking (Steinberg et al., 2008), inadequate inhibitory self-control (Greenberger, 1982), and, more generally, many aspects of brain development (Blakemore, Burnett, & Dahl, 2010) and risky behavior (B. J. Ellis et al., 2012). These characteristics appear to be associated with the immature status of the limbic system in adolescence; a number of studies have documented that the structural and functional maturation of the limbic system is typically incomplete until mid-adolescence (e.g., Giedd, 2008; J. F. Schneider & Vergesslich, 2007). Sensation or thrill-seeking behavior coupled with a lack of inhibitory control may lead youth to engage in risky behavior, including delinquent or criminal acts (B. J. Ellis et al., 2012). Furthermore, because adolescents have difficulty regulating their emotions, disagreements or other interpersonal interactions may escalate to a point where legal intervention is needed.

As noted in an amicus brief submitted to the U.S. Supreme Court when it was considering the constitutionality of the death penalty for juveniles (*Roper v. Simmons*, 2005): "Research shows that adolescent brains are more active in regions related to aggression, anger, and fear, and less active in regions related to impulse control, risk assessment, and moral reasoning than adult brains" (p. 12). This basic neuroscience research thus confirms what research psychologists have learned about adolescent behavior (see also Hollenstein & Lougheed, 2013).

Cognitive Development

Many aspects of children's cognitive development affect legal participation. We focus here on aspects of children's memory; metacognition, reasoning, and logic; and language and communication because these areas of research have been especially influential in understanding and enhancing children's performance in legal contexts.

Children's Memory

The ability to describe experiences (e.g., what has been seen and heard) is critical in legal contexts, and psychologists' understanding of memory development has grown

dramatically in the past few decades (Bauer & Fivush, 2014). Contemporary students of children's memory have paid special attention to the use of ecologically valid methodologies to address specific questions that arise in legal and forensic contexts, thereby doing more than simply applying findings obtained in traditional theory-driven laboratory research (Hintzman, 2011). Features of our experiences and surroundings "capture" our attention and interact in ways that are not fully understood, with both conscious and unconscious mental processing then allowing some memories to be accessed again in the future (Berntsen, 2009; Erdelyi, 2010). The processes involved in remembering experiences can operate independently and in complex ways. For example, information can be "forgotten" (lost from conscious memory) and later remembered; older memories can be confused with more recent memories; and specific memories can be recalled on one occasion but not on others. In short, memory is a reconstructive process (Erdelyi, 1996). Experiences are more likely to be remembered when they make sense, which means that younger children may sometimes not store information because they do not understand what has occurred. Information about events is also more likely to be stored when associations to other experiences are readily available—experiences come to mind that share some features, or perhaps have contrasting features. Again, this places children at a disadvantage relative to adolescents and adults, because they have had fewer experiences with which to make associations or to prompt recall.

Unlike those studying memory in adults, students of children's memory have extensively addressed such factors as differences between the memories of participants and observers, dynamic changes in memory that occur as children grow older, and possible barriers to "disclosing" well-remembered events. Memory research of particular interest to legal contexts includes research concerning infantile amnesia, language, forgetting, the amount and accuracy of information provided, the stability and consistency of memory, and the effects of stress on memory. Each will be covered in turn.

Infantile Amnesia and Early Memories

For many years, it was thought that the ability to remember experiences was closely related to the development of language (see Hayne, 2004). This conclusion seemed plausible: When children learn to speak, they become able to name and describe their experiences using impressive vocabularies, and begin to locate memories "in time" by linking personal experiences to other events and concepts,

thus forming their own personal histories. Language would thus be necessary in order to fully remember experiences and to communicate them in a coherent way to others. This view is consistent with the observation that, as adults, humans have virtually no recollection of very early years of life, and that the events we do remember tend to date from the age at which we first learned to master language. This is referred to as the paradox of infantile amnesia. It is considered paradoxical because individuals cannot remember their early experiences as well as later ones even though young children and infants nevertheless can remember their experiences. For example, 3-year-olds can recount details of events that occurred 1 year earlier, but are likely to have forgotten those events by adulthood (e.g., Bruck, Ceci, Francoeur, & Renick, 1995; Fivush, Gray, & Fromhoff, 1987; Quas & Schaaf, 2002). Many researchers have shown that even babies remember events for brief periods of time. Babies quickly learn that they can make a mobile above their cots move by kicking their feet: Several studies have shown that 2-month-olds remember the "kick-to-make-the-mobile-move" experience for 1 to 3 days; 3-month-olds for 6 to 8 days; and 6-month-olds for 15 to 16 days (Hayne, 2004). Thus, language appears unnecessary for memory formation.

Evidence shows infantile amnesia with respect to nonemotional and positive events such as the birth of a sibling as well as negative or stressful experiences such as distressing medical procedures or emergency room visits (e.g., Peterson & Parsons, 2005; Sheingold & Tenney, 1982; Usher & Neisser, 1993). For instance, Quas et al. (1999) tested children's memories of an invasive medical procedure that occurred when the children were between 2 and 7 years of age. The procedure (voiding cystourethrogram, or VCUG), designed to identify potential kidney disease, involves filling the bladder with fluid containing an X-ray-visible dye and then taking X-rays while the child urinates. When children were interviewed between 1 and 5 years after the VCUG, no children who had been 2 years old at the time of the procedure had any memory of the procedure. However, half of the children aged 3, and most children aged 5, remembered some details. Thus, although the procedure involved invasive genital contact and was quite distressing for most children, those who were between 2 and 3 years of age when it took place evinced no memory for it later. Focusing on nontraumatic experiences, similarly, Bauer and Larkina (2013) showed that 5- to 7-year-olds remembered only 60% whereas 8- to 9-year-olds remembered only 40% of the memories they described at 3 years of age.

6 Children and the Law

Researchers and practitioners must, therefore, treat accounts dating to very early experiences, and claims that these experiences can be somehow accessed, with great suspicion. If older children or adults are asked to describe events that occurred prior to Age 3 or 4 (that is, during the phase of infantile amnesia), it is *highly unlikely* that their reports will be based on clear or detailed memories of the events in question. Instead, memories stemming from the first few years of life are likely to have been reconstructed based on what “probably” or “might” have happened rather than episodic accounts of what “did” happen. These memories can be reconstructed based on conversations with others (e.g., siblings, peers, parents), interviewer and therapist suggestions, childhood photographs, or from vague memories and beliefs that have been reinterpreted over time and possibly mixed with current knowledge and beliefs (e.g., Fivush, McDermott Sales, Goldberg, Bahrick, & Parker, 2004; Peterson, 2012). Although older children and adults cannot remember events that occurred in infancy or toddlerhood (see Bauer, 2006a, 2006b; Pillemer & White, 1989), many people hold inaccurate beliefs about early memory capabilities. In a study of adults’ perceptions of children’s eyewitness abilities, almost two-thirds (64%) agreed with the statement, “If a child has been repeatedly and painfully sexually abused as an infant, he or she can remember it” (Quas, Thompson, & Clarke-Stewart, 2005).

Unlike those of infants and toddlers, older children’s memories can be studied more easily because they can speak. A common procedure for researchers studying children’s memory for legal purposes is to “stage” or record (as with the studies of children’s medical procedures such as the VCUG) events about which the children are questioned sometime later. Because the events in question are documented in detail and objectively verifiable, it is possible to compare what is later recalled to what actually happened to determine the accuracy of memory.

How well human beings remember experiences and how quickly they forget them has direct implications for any expectations about how much children should be able to tell about their experiences, including in legal contexts. Should children be expected to remember many specific details about their experiences, especially if the events were brief, confusing, and/or happened a long time ago? Research indicates that children (like adults) remember a fraction of their experiences. For example, in one study, La Rooy, Pipe, and Murray (2005) asked 5-year-old children about a 15-minute interaction with a “friendly pirate” in a staged “pirate show” during which the children performed a series of activities such as “feeding the bird,” “painting

the map,” and “finding the treasure,” involving a total of 60 actions and associated objects. When the children were interviewed immediately after the pirate visit, at a time when recall was expected to be the best, they only recalled 15 pieces of information on average; this amounted to a mere 25% of the available details. When the children were interviewed again 6 months later, they recalled 8 pieces of information or only 13% of the details.

Studies reveal that age is the most important determinant of children’s memory capacity. As children develop, they are progressively able to remember their experiences for longer and longer periods of time—from a few days in infancy to several years by the time they are 5 years old. For example, Goodman, Hirschman, Hepps, and Rudy (1991) studied children’s memory for an inoculation at a medical clinic, finding that the 3- to 6-year-old children were able to remember some details following a 1-year delay. Other studies have confirmed that young children can remember their experiences for long delays of a year or more (Bruck et al., 1995; Fivush et al., 1987; Pipe, Sutherland, Webster, Jones, & La Rooy, 2004; Quas & Schaaf, 2002).

Forgetting

Memory declines over time. Over 100 years ago, Ebbinghaus (1964/1885) documented this phenomenon in a series of experiments in which he tested his own memory for lists of nonsense (i.e., made-up) words. Specifically, his studies, and many conducted since, revealed that forgetting is most rapid soon after a to-be-remembered event; as more time passes, the amount of forgetting decreases, until there is very little further forgetting. Jones and Pipe (2002) documented the rate of forgetting among children by asking 5- and 6-year-olds about a staged school-based event, either immediately, or 1 day, 1 week, 1 month, or 6 months later. The children were asked to provide a free-recall account of what they could recall before they were given cued recall prompts to elicit additional information. The average rate of forgetting was very similar to the rate of forgetting measured in other experimental contexts (Ebbinghaus, 1964/1885): Forgetting was rapid following brief delays but the amount of forgetting decreased after longer delays. Also, in this and other studies, forgetting was accompanied by gradual increases in the number of errors (Bruck, Ceci, & Hembrooke, 2002; La Rooy, Pipe, & Murray, 2007; Melnyk & Bruck, 2004). Because children, like adults, forget information and because residual memories become increasingly fallible, the most accurate accounts are likely to be gathered soon after an event. Thus, it is crucial to interview child victims and witnesses as soon as

possible after target events. This is especially important where young children are concerned, because they tend to forget more rapidly than older children and adults: The basic finding that younger children forget more quickly than older children is underscored by the results of laboratory experiments in which children memorize and recall lists of words (Brainerd, Reyna, Howe & Kingma, 1990).

Event characteristics affect forgetting, too. Several researchers have shown that the amount of correct information recalled about experienced events does not necessarily decrease dramatically with the passage of time. Children's recall of medical treatments or procedures (Ornstein, Gordon, & Larus, 1992; Peterson, 1999) and natural disasters (Ackil, Van Abbema, & Bauer, 2003; Fivush et al., 2004) may remain relatively stable, for example. Perhaps because such events are personally significant, children's memories may be kept "alive" by more frequent opportunities to talk and think about the events. These opportunities for memory "rehearsal" ensure that memories are "consolidated" or made stronger over time, but also provide opportunities for contamination. For example, if misinformation is introduced in a conversation with a friend about a past experience it can be incorporated into future recollections (see La Rooy, Lamb & Pipe, 2009, for a review).

Amount and Accuracy of Information Reported

As mentioned above, the amount and accuracy of children's event reports depend, in part, on the salience and significance of the events themselves. In one experiment, 5- and 6-year-old children participated in a staged event directly, observed another child in the same event, or were told a story about that event (Murachver, Pipe, Gordon, Owens & Fivush, 1996). Children's memory was tested a few days later. Children who *experienced* the event produced more complete and accurate accounts of what happened than children who had only seen or heard a story about what happened (also see Baker-Ward, Hess, & Flannagan, 1990). Also, the completeness and accuracy of children's memory accounts depend at least partly on how well they comprehend their experiences and can associate or "link" them in memory with other experiences. For example, children's prior knowledge of medical experiences or what happens during a routine medical exam facilitates children's recall of specific health checks (see Ornstein, Baker-Ward, Gordon, & Merritt, 1997, for a review). Prior knowledge may help children encode events because they are better able to process and understand the events at the time. Also, this knowledge may be used subsequently to generate cues linking the events with other experiences,

thus facilitating retrieval (Hershkowitz, Lamb, Orbach, Katz, & Horowitz, 2012).

Once children begin to recall and talk about their experiences, their abilities are often impressive, although significant developmental changes continue, especially through early childhood. Young children typically recall significantly less information than older children, particularly in response to very general prompts such as "Tell me what happened," and although their recall responses are not less accurate than those of older children, they may omit information that adults consider important (see Lamb, Hershkowitz, Orbach, & Esplin, 2008; Ornstein et al., 1997, for reviews). Four- and 5-year-olds typically receive more specific prompts from interviewers (Lamb et al., 2008) to which they respond less accurately than older children do (Bjorklund, Bjorklund, Brown, & Cassel, 1998; Goodman, Quas, Batterman-Faunce, Riddlesberger, & Kuhn, 1994). Nevertheless, field research shows that children as young as 4 years of age provide proportionally as much information in response to open-ended questions as older children, although the brevity of their responses often necessitates that interviewers prompt for additional information, preferably using children's prior responses as cues to trigger further recall (Lamb et al., 2003). Field research involving investigative interviews with 3- to 6-year-olds has shown that the youngest children provide most information when prompted using a series of recall-based specific questions, with more open-ended questions, ideally incorporating references to previous responses to cue further relevant retrieval, becoming increasingly useful as children grow older (Hershkowitz et al., 2012).

Regardless of age, the accuracy of information retrieved from memory varies depending on *how* it is elicited. Studies conducted in both experimental and field contexts over nearly four decades have consistently shown that information elicited using open-ended recall prompts (e.g., "Tell me what happened") is more likely to be accurate than information elicited using more focused prompts, especially those that present the respondent with options from which to choose a response ("Was it red or black?"; "Did it hurt?") or those that imply an expected response ("It hurt, didn't it?") (e.g., Dent & Stephenson, 1979; Hutcheson, Baxter, Telfer, & Warden, 1995; Lamb & Fauchier, 2001; Oates & Shrimpton, 1991).

Stability and Consistency of Memory

How stable are memories? What changes may happen over time? As discussed, children can only recall a small

8 Children and the Law

amount about their experiences initially, and what they do recall either decreases or remains stable as time goes by. Because more information is encoded into memory than they realize, correct new event details are sometimes remembered days, weeks, or even years later. What they remember about their experiences is therefore dynamic (Erdelyi, 1996, 2010; La Rooy et al., 2009). Thus, when La Rooy et al. (2005) reinterviewed 5- and 6-year-old children about a staged event the day after their first interview, all 40 children reported new accurate information in this second interview. In another study, La Rooy et al. (2007) conducted repeated interviews after a 6-month delay and found that 81% of the children recalled additional information the second time that they were questioned. Similarly, Hamond and Fivush (1991) reinterviewed preschoolers about a trip to Disneyworld and found that, although most of the information provided in the second interview was accurate, most of it (75%) was also new (i.e., not reported in the first interview). This phenomenon—called *reminiscence*—is also very common in adults and has been documented in studies dating back more than a century (Ballard, 1913). For example, Gilbert and Fisher (2006) asked adults who had witnessed a videotaped mock crime (bank robbery) to recall what they could remember immediately and then reinterviewed them after 48 hours: 98% of the participants reported new details that they had not reported 2 days prior.

Such well-established features of memory (i.e., instability, inconsistency) are quite troublesome when children testify in legal contexts. When new information is not mentioned initially but recalled later in time, it is often greeted suspiciously because competing explanations appear plausible; perhaps the new information is fabricated or inaccurate and this explains why it was not reported at earlier time points. In fact, jurors often rely on consistency as an indicator of veracity, and inconsistencies (including the addition of new details to subsequent retellings) are commonly viewed as troubling inaccuracies (Leippe, Manion, & Romanczyk, 1992; Quas et al., 2005). In legal contexts, witnesses, including children, are often cross-examined about earlier statements that are inconsistent with later testimony in the hopes of impeaching witness credibility (see below for a discussion of the research on cross examination).

While the accuracy of information added subsequent to an initial statement may vary for several reasons, including the way that information is elicited (La Rooy et al., 2009), the better remembered an event is, the more likely it is that new details are accurate (La Rooy et al., 2005). Interviewers and fact finders should remember that inconsistencies

in the form of new information (as opposed to blatant contradictions) are a normal function of memory and are not uncommon when children or adults recount true experiences (Fivush, Hamond, Harsch, Singer, & Wolf, 1991; Goodman, Quas, & Ogle, 2010; Hamond & Fivush, 1991; La Rooy et al., 2009; Peterson, Moores, & White, 2001).

Stress and Memory

Whether or not the stressfulness of experienced events affects memory has also elicited controversy. The relations between stress and memory are inconsistent, with some studies suggesting enhanced performance by stressed children (e.g., Buchanan & Lovallo, 2001; Goodman, Hirschman, et al., 1991) and others showing detrimental effects of stress (e.g., Quas, Bauer, & Boyce, 2004). Results may vary depending on whether one is talking about stress at encoding or stress at retrieval (see “Features of Legal Contexts” below for a discussion of the effects of stress at retrieval), but memories of stressful or even traumatic experiences are subject to the same basic encoding, storage, and retrieval principles as are memories for more mundane events, meaning that (a) humans can forget traumatic events, just as we can forget other experiences; (b) traumatic or stressful experiences are not necessarily remembered in richer detail just because the events were traumatic; and (c) *all* memories can be contaminated by suggestion (e.g., Howe, Toth, & Cicchetti, 2006). Some researchers theorize that stress may narrow children’s focus to central aspects of distressing events so that they remember these central aspects (e.g., the identity of the assailant) well but remember peripheral aspects (e.g., the color of the assailant’s shirt) in less detail (see Christianson, 1992). However, this hypothesis has not been well supported empirically.

Conceptual Understanding

To be effective legal participants, children need to understand certain concepts, which include those pertaining to time and numerosity as well as those related to the distinction between fantasy and reality.

Time

When children are witnesses in criminal cases, a critical issue is the need to establish *when* target events occurred. Although legal requirements are sometimes relaxed in cases involving young children (Poole & Lamb, 1998), the prosecution must generally specify alleged events that occurred at designated times in order to provide defendants

with sufficient opportunity to challenge the allegations (e.g., provide alibis, etc.). Furthermore, when children's testimony includes temporal information such as the time of day when an offense occurred, it may be possible for investigators to solicit further information.

Unfortunately, as Piaget (1927/1971) concluded long ago, children have difficulty conceptualizing time. The ability to make accurate temporal judgments improves gradually with age (e.g., Fivush & Mandler, 1985; see Friedman, 2008, 2014, for reviews; Tartas, 2001), especially in middle childhood (i.e., 8–10 years). However, even adolescents do not fully understand some temporal concepts, and even adults can struggle when asked to date autobiographical events (Wright, Gaskell, & O'Muircheartaigh, 1997), despite being given temporal cues (Friedman & Lyon, 2005). Such judgments require knowledge of conventional time patterns (e.g., days of the week, months, seasons), which are acquired gradually over many years (Friedman, 2014).

Although children have difficulty accurately locating events in time even in adolescence or adulthood, they are able to order or sequence events and to make judgments of relative recency at earlier ages (e.g., which one happened a longer time ago). Friedman and Lyon (2005) thus found that by about 6 years, children were able to accurately order two staged events but most children (even the oldest) were unable to judge correctly whether one of the events occurred before or after Halloween.

Researchers have rarely studied the temporal judgments of children in legal settings. In one study examining children's responses to open-ended prompts about suspected abuse, sequencing was often referenced by 4- to 8-year-old children during forensic interviews, with children as young as 4 years structuring narrative accounts of allegedly experienced events and using the appropriate relational vocabulary (e.g., next, before, after; Lamb et al., 2003). After examining 250 forensic interviews of 4- to 10-year-old alleged victims of sexual abuse, Orbach and Lamb (2007) later revealed age-related increases in children's references to temporal attributes of events using the appropriate relational terminology, both spontaneously and in response to requests for temporal information. Sequencing was the most commonly referenced temporal category. Although references to both sequences and temporal locations increased with age, there was a marked shift in the number of references to both temporal categories at Age 10.

Even when children have a firm grasp of time concepts, they must understand the questions that interviewers ask if they are to respond accurately. Temporal terms may

be problematic for children, perhaps because words like “before,” “after,” “first,” and “last” have multiple meanings, including both spatial and temporal. Context also matters: When placed in the context of familiar daily activities, children may be able to make temporal judgments that they are incapable of making in other contexts. For example, children can specify backward sequences of familiar daily activities (“Before we went to sleep, we watched TV”) earlier than they can specify backward sequences of the months of the year (“November is the month before December”). Although children as young as 3 years might know some temporal terminology and be able to recite commonly rehearsed temporal patterns (e.g., the days of the week or months in a year), they may not grasp how these concepts fit together into a temporal pattern or how to apply this knowledge in context.

Numerosity

In 2002, a kidnapping in Orange County, California made headlines. Five-year-old Samantha Runnion was abducted from her front yard. Her 5-year-old friend, witnessed the crime and provided police with a relatively detailed description of the suspect and his vehicle (T. Lewin, 2002). Based on DNA evidence, Alejandro Avila was eventually convicted for the sexual assault and murder. One year prior to Samantha's abduction, Avila had been acquitted of molesting two 9-year-old girls (*People v. Avila*, 2001) in part because the girls had difficulty judging the frequency of past alleged abuse and answering temporal questions about these events. For example, during the trial, the judge asked one of the alleged victims “how many times” Avila had performed a particular sexual act. The child responded, “I don't know. Fifty times out of the whole entire year. I don't really do numbers.” The judge proceeded to follow up with several yes/no questions (e.g., “More than once?” “More than five times?”). When explaining the acquittal, one juror said, “They weren't consistent on their story. We know that they were young and we understand they are children but the story was like did he touch you three times, yes, did he touch you five times, yes, did he touch you 50 times, yes. Everything was yes, yes, yes” (Riverside Press Enterprise, 2002). (For a full description of the case, see Lyon and Saywitz, 2006.)

In Avila's case, the alleged victims' difficulties making judgments about numerosity (i.e., event frequency) appeared to damage their credibility with jurors. Many victims of child maltreatment are abused on multiple occasions (e.g., Connolly & Read, 2006), however, so many children will need to testify about repeated events. Some details may

10 Children and the Law

vary across abusive episodes while some aspects of the events may remain highly similar. In many jurisdictions, children are required to “particularize” specific incidents in some detail (Guadagno, Powell, & Wright, 2006). That is, judgments about the frequency of abusive events may be needed to determine whether suspects can be charged, and estimates of the number of times particular offenses occurred may affect the type of charges. Also, establishing event frequency helps investigative interviewers proceed with effective questioning strategies, because interviews should proceed differently depending on whether interviewers are asking children to describe multiple or single incidents of abuse. When discussing multiple incidents, children may resort to “generic” language describing what *usually happens* rather than describing what *happened* during a particular incident using “episodic” language (Brubacher, Malloy, Lamb, & Roberts, 2013; Powell, Roberts, & Guadagno, 2007). It is important for interviewers to encourage children to respond episodically by isolating instances and using appropriate prompts to elicit details about each. This may be facilitated by knowledge concerning the number and timing of incidents.

Despite the fact that children are regularly asked to make numerosity judgments in forensic interviews and in courtroom testimony, there has been very little empirical research on this topic (Lyon & Saywitz, 2006). Previous research examining children’s ability to make numerosity judgments has largely focused on children’s judgments of stimuli in laboratory settings (e.g., words, sounds) rather than their judgments of event frequency, with the latter types of judgments having more relevance to legal settings (e.g., Chalmers & Grogan, 2006; McCormack & Russell, 1997).

A study conducted by Sharman, Powell, and Roberts (2011) represents an important exception. The researchers invited 4- to 8-year-olds to participate in laboratory events one time or multiple times (6 or 11 times depending on condition). When children experienced a single event, they were highly accurate in reporting that it only happened once. When they experienced repeated events, they were also highly accurate in claiming that it happened “more than once.” However, for children who experienced repeated events, performance declined considerably when they were asked to provide a more specific estimate of the number of events that they had experienced. For instance, only 9% of the children who experienced 6 events and none of the children who experienced 11 events answered the question about event frequency correctly. As expected, children’s performance improved with age.

Sharman et al. (2011) asked children about staged events, which may not be as salient or emotional to children as legally relevant experiences. Also, the events were scheduled at regular intervals, which is unlikely to be the case for legally relevant experiences. Thus, Sharman et al.’s findings may not provide an accurate picture of children’s abilities to make such judgments in the “real world.” However, Malloy, Brubacher, Lamb, and Benton (2013) examined transcripts of investigative interviews with 4- to 8-year-old suspected victims of child sexual abuse to see how they responded to the question, “Did that happen one time or more than one time?” Only eight children (12%) gave an inappropriate response (e.g., responses that used incorrect terminology or involved implausible numbers), with 4- to 6-year-olds more likely to respond inappropriately. The 7- to 8-year-olds did not provide any inappropriate responses. As they grew older, children were also more likely to use numbers and quantifiers spontaneously in their narratives about abuse, especially in reference to people, objects, and time (e.g., dates, duration). Children who alleged multiple incidents of abuse were more likely to spontaneously mention event frequency during their interviews, although these researchers had no way of knowing whether the children’s references were accurate.

Wandrey, Lyon, Quas, and Friedman (2012) also explored children’s abilities to make legally relevant judgments about event frequency, but (unlike Malloy et al., 2013) they had access to data that made it possible to objectively verify children’s responses, thus enabling them to study their accuracy. Specifically, 6- to 10-year-old maltreated children judged how many times they had attended court hearings and the number of placements that they had experienced after being removed from home. The children often gave surprisingly inaccurate answers, although they were better at reasoning about more extreme values (e.g., when the number of actual experiences differed substantially from the number of experiences that they were asked about; “Did you come to the court building more than 10 times?” versus “Did you come to the court building more than five times?” when they had visited twice). One-third (35%) of the children provided inaccurate responses to the basic event frequency question often recommended, “Did that happen one time or more than one time?”

It is crucial for interviewers and legal professionals to recognize both that children may fail to answer or give implausible or inappropriate responses to questions concerning event frequency and numerosity, even when they are able to use numbers and quantifiers correctly in some contexts and that “inaccurate responses to time and number

questions may say little about whether the event actually occurred” (Wandrey et al., 2012, p. 100). Unfortunately, children rarely mention event frequency spontaneously, meaning that interviewers may need to prompt children for this information. Further research on this topic may help future interviewers question children about event frequency in ways that better recognize and operate within children’s developmental limitations.

Fantasy and Reality

Fantasy and pretend play are normative and developmentally appropriate behaviors for children. However, children’s belief in fantastical characters or their judgments about fantasy versus reality may be used to discredit their testimony as victims/witnesses. Children are often portrayed as confused about and unable to distinguish between fantasy and reality, and their belief in fantastical characters is often seen to exemplify their difficulties in this area (see Woolley & Ghosaini, 2013, for a review), with “a disproportionate amount of attention” paid to children’s tendency to believe in fantastical beings. Three- and 4-year-olds are also prone to erroneously label real events or entities as “pretend,” presumably because they are relying on their limited knowledge and experience when making such judgments. Like adults, children over 6 years of age can discriminate easily between imagined and experienced events (Carrick, Rush, & Quas, 2013; Lindsay & Johnson, 1987; Roberts, 2000). Studies show that even 3-year-olds can make some “fantasy versus reality” judgments accurately (e.g., they are aware that imaginary objects cannot simply appear in real life and that pretend actions are not real actions; Estes, Wellman, & Woolley, 1989; Flavell, Flavell, & Green, 1987; Woolley & Wellman, 1993). For example, Carrick and Quas (2006) presented preschoolers (3- to 5-year-olds) with real versus fantastical emotional images from children’s storybooks (e.g., a mother yelling at a child versus a cat yelling at kittens; mice dancing in clothes versus people celebrating) and then asked children to indicate whether the scenes depicted “could happen in real life.” Regardless of how realistic the images were, children were more likely to say that the positive images “could happen in real life.” Thus, it appeared that children’s judgments were, at least in part, desire-based (also see Samuels & Taylor, 1994).

Motivation, context, and experience all affect children’s fantasy-reality judgments. For instance, using the storybook picture paradigm described above, Carrick and Ramirez (2012) investigated the role of motivation in 3- to 5-year-olds’ fantasy and reality judgments: When children

were provided with incentives to be accurate (i.e., a prize for each correct judgment), their accuracy judging fantastic emotions improved. In false memory studies, children are more likely to claim to have experienced false events that are positive in emotional valence (e.g., hot-air balloon rides) than false events that are negative (e.g., getting stitches after a fall; Ceci, Loftus, Leichtman, & Bruck, 1994). Regarding context, children are more likely to judge characters as real in religious stories than in nonreligious stories (Vaden & Woolley, 2011). Similarly, children were more likely to judge a novel entity as real when it was supposedly used by doctors (and thus introduced in a scientific context) rather than collected by dragons (and thus introduced in a fantastical context). Children’s ability to use context when make fantasy-reality judgments also improves between the ages of 3 and 5 (Woolley & Van Reet, 2006).

Children’s adverse life experiences play a role in their ability to correctly distinguish between fantasy and reality as well. Specifically, Carrick, Quas, and Lyon (2010) predicted that maltreated children’s personal experiences with negative events and their negativity biases in processing social information would lead them to be more realistic than nonmaltreated children when distinguishing between fantasy and reality. Again, after showing preschool children storybook pictures depicting different emotions (happiness, fear, anger, and neutral/control), the researchers asked, “Can this happen in real life?” Maltreated children failed to demonstrate the response bias found in previous work: They did not claim that negative real events could not happen and instead were more likely than nonmaltreated children to correctly report that these events were possible. Maltreated children were more inaccurate, however, when it came to the frightening images, reporting that frightening fantastical images could happen in real life.

Harris (2012) noted that “testimony” from trusted others can encourage children to embrace fantastical beliefs and is often needed to convince children of things that cannot be seen but *do* exist (e.g., germs; Harris, Pasquini, Duke, Asscher, & Pons, 2006). Parents and family members often go to great lengths to foster and reinforce children’s beliefs in fantasy (e.g., the character “Santa Claus” known to children in many countries), even providing “evidence” consistent with these beliefs (e.g., return letters from “Santa Claus”). Woolley, Boerger, and Markman (2004) found that such evidence helped convince older children (4- to 5-year-olds) of a novel character’s existence (the Candy Witch). When providing event reports, children are more likely to provide false information about

12 Children and the Law

fantastical characters (e.g., Tooth Fairy) when they believe in those characters than when they do not (Principe & Smith, 2008a, 2008b).

According to Piaget (1945), children who commonly engage in fantasy and pretend play are in the “preoperational” stage of development (Ages 2 to 7) during which they have trouble using concrete logic and conducting mental operations and so perhaps use magical thinking to explain concepts and events that they do not yet understand (e.g., how planes fly, the physical transformation of objects; Rosengren & Hickling, 1994). However, beliefs in fantastical characters, magical thinking, or the existence of imaginary companions do not, in themselves, mean that children cannot provide accurate and reliable reports of witnessed or experienced events. We later discuss interviewing techniques that should be avoided with very young children to minimize the risk that they may confuse fantasy and reality.

Metacognition, Reasoning, and Logic

Several more complex aspects of thinking, reasoning, and cognitive development affect children’s ability to participate in legal contexts.

Metacognition

Legal participation may be difficult when children have immature metacognitive skills, relatively poor comprehension monitoring, and overestimate their mnemonic abilities (Flavell, 1981; Saywitz, Jaenicke, & Camparo, 1990). Children may, for example, downplay the likelihood that they will forget information or overestimate the number of items that they can remember (e.g., Flavell, Friedrichs, & Hoyt, 1970; Kreutzer, Leonard, & Flavell, 1975). Metacognitive and metalinguistic awareness and skills develop more fully after 5 years of age, meaning that preschool children are seldom able to monitor their comprehension as effectively as older children or adults (Markman, 1977, 1979) and younger children’s deficiencies may be exacerbated by the associated situational stresses, complexity, and unfamiliarity of forensic interviews and courtroom testimony (see “Features of Legal Contexts”). Such failures to recognize miscomprehension may help explain why children rarely ask for clarification of interview questions (Malloy, Katz, Lamb, & Mugno, in press; Saywitz, 1995; Saywitz, Snyder, & Nathanson, 1999). Also, when interviewers misrepresent what children say, they tend not to be corrected, and thus the mistakes, rather than the correct information, may be reported by the children later (Roberts & Lamb, 1999).

Reasoning and Logic

Developmental researchers have long been aware that there are dramatic increases in the ability to engage in logical thinking and problem solving during childhood. For example, during middle childhood, children’s thought becomes more organized and flexible, but generally when focused on more concrete, rather than abstract, problems. According to Piaget (1957), children in the concrete operational stage (i.e., approximately 7 to 11 years of age), develop several cognitive skills including seriation (ordering objects on quantitative dimensions) and more sophisticated classification skills (grouping objects into hierarchies). Once children can simultaneously consider more than one aspect of a problem, they are able to engage in much more sophisticated reasoning.

However, many developmental changes in reasoning and logic that are critical to legal decision making only take place between approximately 11 and 15 years of age (e.g., Neimark & Lewis, 1967; Saarni, 1973). Regardless of their legal roles (e.g., defendants, adolescents involved in custody battles), youth may be asked to reason about and make important and potentially life-altering decisions (e.g., whether to accept plea deals or help develop appropriate postdivorce parenting plans). Many of these legal decisions involve the calculation of risk and/or the evaluation of alternative scenarios, and the ability to engage in such complex decision making does not develop until adolescence.

By the time of Piaget’s “formal operational” stage, adolescents have an understanding of risk and probability that is roughly comparable to that of adults (Acredolo, O’Connor, Banks, & Horobin, 1989; Schlottmann, 2001; Schlottmann & Wilkening, 2011) but their ability to understand risk and probability is not accompanied by an equivalently sophisticated ability to use that information (M. Gardner & Steinberg, 2005; van Leijenhorst, Westenberg, & Crone, 2008). Older teenagers appear less capable than adults at using information about risk (e.g., estimating the probability of being caught following a transgression) because they tend to overvalue the possible benefits (for instance, of shoplifting) while simultaneously underestimating the potential costs (for example, of being caught; W. Gardner & Herman, 1990; Halpern-Felsher & Cauffman, 2001).

Research using several laboratory paradigms (e.g., gambling tasks, computerized driving games; Cauffman et al., 2010; M. Gardner & Steinberg, 2005; Steinberg et al., 2008) has shown that adolescents are more impulsive and less future-orientated than adults, even young adults

(e.g., Steinberg et al., 2009). When they consider the future consequences of their actions, they tend to focus on potential short- rather than long-term consequences, perhaps because their greater sensitivity to rewards than risks makes their judgments immature (Cauffman & Steinberg, 2000; B. J. Ellis et al., 2012; Steinberg & Cauffman, 1996; Steinberg et al., 2008; Steinberg et al., 2009). Shulman and Cauffman (2013) examined over 2,000 10- to 30-year-olds and found that, relative to preadolescence and adulthood, a self-reported bias toward rewards was elevated during adolescence. Further, even after controlling for key variables (e.g., intelligence, SES), adolescents' reward bias was more strongly correlated with their criminal behavior than was the bias of adults. Shulman and Cauffman (2013) suggested that the findings were consistent with the "dual systems" model of adolescent development in which increased risk-taking in middle adolescence is explained by the development of reward sensitivity *before* the ability to manage impulses effectively and exercise self-control (Steinberg, 2010).

Older adolescents are better able than children and younger adolescents to appraise the future consequences of their behavior (e.g., Crone & van der Molen, 2004; Spear, 2000) and to perform other complex executive functions (e.g., Leon-Carrion, García-Orza, & Pérez-Santamaría, 2004; Luciana, Conklin, Hooper, & Yarger, 2005) although these skills do not fully develop until late adolescence and early adulthood, probably because they depend on the structural and functional maturation of the prefrontal cortex. Legal decision making and legal reasoning abilities improve with age (e.g., Grisso et al., 2003; Peterson-Badali & Abramovitch, 1993; Redlich, Silverman, & Steiner, 2003), although inadequate safeguards are in place for youth with emergent decision-making skills. Immature reasoning may be even more common among youth involved in the justice system, who are disproportionately affected by mental health issues and impairments in intellectual ability (e.g., Cauffman, 2004; Closson & Rogers, 2007; Quinn, Rutherford, Leone, Osher, & Poirier, 2005; Redlich, 2007).

When apprehended, suspects must decide (a) whether to submit to police questioning (which in the United States means deciding to waive Miranda rights) (b) whether to confess (truthfully or falsely) when interrogated, and (c) whether to plead guilty or proceed to trial, all of which are "high stakes" decisions. Several of the basic psychological principles that influence young people's ability to make mature decisions about their behavior and make them ineligible for the death penalty (see Cauffman,

Shulman, Bechtold, & Steinberg, Chapter 16, this *Handbook*, Volume 4) also increase their vulnerability in the interrogation room, as discussed below.

In the United States, the *Miranda v. Arizona* (1966) Supreme Court decision reaffirmed that suspects in custodial interrogations must be apprised of their rights to remain silent and to have legal counsel before anything they say can be admissible in court proceedings. The *In Re Gault* (1967) decision extended these rights to adolescents. Suspects can waive their Miranda rights but must do so in a "knowing, intelligent, and voluntary" manner. However, even adults of average intelligence who understand their Miranda rights may fail to comprehend the basic implications or relevance of their Miranda rights to their own case (see Kassin et al., 2010) with stress impairing Miranda comprehension by adults (Scherr & Madon, 2012).

Whereas adults frequently waive their Miranda rights (or equivalent rights in other jurisdictions) and submit to police questioning, adolescents are especially likely to misunderstand or to waive those rights and rarely ask for attorneys to be present (Goldstein, Condie, Kalbeitzler, Osman, & Geier, 2003; Grisso, 1980, 1981, 1997; Grisso et al., 2003; Malloy, Shulman & Cauffman, 2014; Viljoen, Klaver & Roesch, 2005). This is of particular concern with respect to youth with intellectual impairments and those younger than Age 14 (see Kassin et al., 2010). Adolescents who understood their legal rights poorly are more likely to report having waived them than those who understood them better (Viljoen et al., 2005). Although older youth (15 years of age and over) appear to have a factual understanding of their rights, they may still fail to recognize their relevance or to reason appropriately about their significance. For example, although adolescents may understand the right to have an attorney present when they are interrogated, they may withhold information from their attorneys or fail to express disagreements with them because they misunderstand their attorneys' roles (Viljoen et al., 2005).

Basic knowledge of the right to remain silent and receive legal advice does not necessarily mean that youth have the capacity or skills to reason about waiving these rights. For example, youth often fail to consider the evidence against them or the nature of the allegations when making hypothetical waiver decisions (Abramovitch, Peterson-Badali, & Rohan, 1995). Viljoen et al. (2005) found that, while 15- to 17-year-old juvenile defendants used the strength of the evidence against them to decide whether to make statements to the police, 11- to 14-year-olds did not. Thus, it is important to bear in mind developmental factors when considering

whether suspects have sufficient reasoning skills to waive rights in a “knowing” and “intelligent” manner as required by law.

An overwhelming majority of juveniles waive their Miranda rights (Feld, 2006; Grisso & Pomicter, 1977) and must then decide whether to confess. Grisso et al. (2003) presented community and justice-system-involved juveniles and young adults with vignettes describing police interrogation situations and asked participants to indicate what would be the “best choice” for the suspects: confess, remain silent, or deny involvement in hypothetical crimes. Over half of the 11- to 13-year-olds but only one-fifth of the adults reasoned that the “confess” option was the most sensible choice, highlighting juveniles’ general propensity to confess. Viljoen et al. (2005) found that 55% of the juvenile defendants they studied had confessed when questioned as suspects by the police, with confessors significantly younger than those who had remained silent. Furthermore, juveniles (and adults) sometimes reason that their best option is to confess *falsely*. Consider the case of DNA exoneree Jeffrey Deskovic. Jeffrey was 16 years old when the police in his hometown of Peekskill, New York, thought that his behavior following a crime was suspicious (e.g., he was displaying too much emotion about a classmate’s death). Over the succeeding months, he was interrogated several times, with only segments of the interrogations recorded, and confessed when told by police that DNA at the scene showed that the victim had been raped. Eager to terminate the interrogations and reasoning that the DNA evidence would exclude him, he confessed to this serious crime. The DNA evidence did exclude him, but he was convicted nonetheless and spent 16 years in prison before his exoneration in 2006. Indeed, when presented with hypothetical interrogation situations, 25% of male juvenile offenders report that they would choose to confess falsely in at least some circumstances (Goldstein et al., 2003), underscoring why false confessions are so problematic.

Numerous false confessions have been documented around the world. Over the last 30 years, advances in DNA testing have exonerated over 300 individuals in the United States, and in 25% of these cases, false admissions contributed to the wrongful convictions (Innocence Project, <http://www.innocenceproject.org/>). Although false confessions occur at all ages, young people are disproportionately likely to confess falsely. For example, in a study of individuals whose innocence had been verified using DNA evidence, Gross, Jacoby, Matheson, Montgomery, and Patel (2005) found that, whereas only 13% of the

adults had confessed falsely, 42% of the juveniles had done so, with the youngest exonerees (12- to 15-year-olds) confessing to murder or rape 69% of the time. In another study of “proven false confession cases,” Drizin and Leo (2004) found that 33% involved false confessions by juveniles, with 55% by juveniles who were 15 or younger. The U.S. National Registry of Exonerations reported that, over a 25-year period, 38% of juvenile exonerations, but only 11% of adult exonerations, involved false confessions (Gross & Shaffer, 2012).

Self-report data also speak to the frequency with which juveniles confess falsely (e.g., Gudjonsson, Sigurdsson, Sigfusdottir, & Asgeirsdottir, 2008; Viljoen et al., 2005). In a large study conducted in several European countries, youth were asked about their interrogation and false confession experiences. Of the 11.5% (2,726) interrogated by the police, 14% claimed to have falsely confessed (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, 2006). Among 193 male adolescents (14- to 17-year-olds) incarcerated for serious crimes in the United States, Malloy et al. (2014) found that 17% claimed to have falsely confessed to the police at least once.

Laboratory studies confirm that juveniles are more likely than adults to take responsibility for acts they have not committed. Redlich and Goodman (2003) accused adolescent and adult research participants of causing a computer to crash by hitting the “Alt” key, after warning them that they would have to enter data for 10 hours if they pressed this key. Young adults were the least likely to take responsibility for crashing the computer (59%); 12- and 13-year-olds were the most likely (78%); 15- and 16-year-olds fell in between (72%). Young participants may have reasoned that signing the confession represented the best way out of the situation or they may have done so in order to comply with adult authority figures.

Suspects must also decide whether to plead guilty or go to trial. In the United States, an estimated 95% of convictions are resolved by pleas (Cohen & Reaves, 2006), yet considerably more research and public attention has focused on trial dynamics than on the plea-bargaining process and there is a well-documented “trial penalty” (i.e., harsher penalties for those who do not plead but are convicted at trial; Ulmer & Bradley, 2006). When deciding whether to plead guilty, there are several factors that defendants might logically consider (e.g., the strength of evidence against them, the likelihood of conviction at trial, the proposed plea sentence compared to the sentence if convicted at trial, etc.) and there is some evidence that children as young as 10 years of age consider the strength

of the evidence against them when making plea decisions (Peterson-Badali & Abramovitch, 1993), although Viljoen et al. (2005) found in a field study that evidence strength was considered by older adolescents (15- to 17-year-olds) only. However, seemingly irrelevant characteristics such as race, gender, and age are correlated with plea decisions as well (Ball, 2006; Viljoen et al., 2005). Grisso et al. (2003) found that age was negatively associated with the willingness to plead guilty in hypothetical situations: Only half of adults but almost three-quarters of 11- to 13-year-olds accepted plea bargains. Moreover, adolescents reasoned in a less sophisticated way about plea agreements, focusing on the absolute length of the plea sentence rather than the alternative sentences or the probability of conviction.

Most research on guilty pleas has not differentiated true from false guilty pleas. In fact, research on the propensity of youth to plead guilty falsely has lagged substantially behind research on their tendency to confess falsely (Redlich, 2010). However, the decision to plead guilty falsely has enormous implications as well: The right to jury trials and the associated legal protections (e.g., the right to confront and cross-examine witnesses) are relinquished when defendants plead guilty. Plea “bargains” typically involve decisions to accept lesser sentences than might result from conviction at trial, so the abilities to reason about risk, probability, and long-term consequences are paramount. Redlich (2010) has argued that innocent individuals deciding whether to make deals are faced with “Hobson’s choices” (i.e., the illusion of a free choice): They can take deals in exchange for reduced sentences or remain in jail and face more punitive sentences at trial.

On the one hand, youth may be particularly likely to plead guilty falsely. As explained below, the situations in which plea decisions are rendered may bear some similarities to the contexts in which youth decide to confess falsely (e.g., pressure from adult authority figures). On the other hand, research on immature decision making and risk proneness suggests that youth may be *unlikely* to plead guilty falsely because they are willing to take their chances at trial, even when positive outcomes are improbable. Unfortunately, very little research on the prevalence of false guilty pleas exists. Malloy et al. (2014) found that 25% of 193 incarcerated male adolescents (aged 14 to 17) reported having entered false guilty pleas whereas 17% reported making false confessions to the police. Similarly, Redlich, Summers, and Hoover (2010) found that false guilty pleas were more common than false confessions in a sample of mentally ill adult offenders, another population at disproportionate risk for false confession.

Although cases involving false guilty pleas have been documented (Redlich, 2010) and many individuals report having pled falsely, much remains to be learned in this area. More research is needed on the implications of the developing reasoning and logic skills of youth for their decisions to plead guilty both truthfully and falsely. Pleas are difficult to withdraw, and thus wrongful convictions based on pleas are difficult to discover and overturn (Redlich, 2010). Also, many youth may choose to plead guilty falsely after having confessed falsely. In fact, Malloy et al. (2014) found that, of the 17% of youth who reported making false confessions, 42% had also pled guilty falsely. As discussed below, “high stakes” plea decisions are further complicated by the sophisticated terminology and complexity of plea colloquies and tender-of-plea forms.

Development of Language and Communication

To be full and active participants in the legal process, individuals must understand and appreciate the language used in different legal contexts and communicate effectively with individuals playing various legal roles (e.g., judges, lawyers, social workers, evaluators, forensic interviewers). Although miscommunication can and does occur with all age groups, effective communication may present a significant challenge for many children and adolescents involved in the legal system.

At a basic level, interlocutors may misunderstand very young children’s statements, in part because young children do not always articulate individual sounds consistently or appropriately (Reich, 1986). Also, compared to adults, young children’s vocabularies are more limited and idiosyncratic and less descriptive (Dale, 1976; de Villiers & de Villiers, 1999). For example, children may say that they have never visited an alleged perpetrator’s house, but answer differently if they are asked whether they have been to the alleged perpetrator’s “apartment” (A. G. Walker & Kenniston, 2013). Preschoolers, in particular, may use words before they know their conventional adult meaning, use words that they do not understand at all or only understand in certain contexts, and understand poorly some apparently simple concepts such as “any” and “some.” Indeed, children under 6 often understand narrowly some words like “touch” that may be important for forensic interviews. Bruck (2009) found that children failed to report touches in laboratory analogue situations because they classified the “touching” as rubbing or scratching instead.

Children may also struggle with legal jargon or terminology. For example, Cooper, Wallin, Quas, and Lyon

(2010) examined 4- to 14-year-olds' knowledge of legal terms. Half of the children were child maltreatment victims who had experience with the dependency court system, yet the youngest children (4- to 7-year-olds) understood very few legal terms (e.g., attorney, judge, foster parent) with one-fifth of them providing no correct information about any of the terms. There was substantial room for improvement among the 11- to 14-year-olds, too, indicating that even adolescents may need or benefit from assistance in understanding legal terms and the various roles of legal professionals.

Saywitz et al. (1990) also explored children's knowledge of legal vocabulary by asking 5-, 8-, and 11-year-old children to define 35 legal terms likely to be heard by children during legal proceedings. As expected, there were age-related improvements in children's performance, with the 11-year-olds accurately defining 25 terms on average, while the 8- and 5-year-olds accurately defined only 15 and 6 terms, respectively. Compared to the 11-year-olds, younger children were more likely to commit auditory discrimination errors ("Jury is like the stuff ladies wear on their fingers and ears and around their neck," mistaking "jury" for "jewelry") and homonym errors ("Charges are something you do with a credit card"), although they were asked about the legal context in particular. Both types of errors have the potential to damage children's testimonial credibility.

Unfortunately, adults often overestimate children's linguistic capacities and use words, sentence structures, or concepts that are developmentally inappropriate and exceed the children's competencies (Evans, Lee, & Lyon, 2009; A. G. Walker & Kenniston, 2013; Zajac & Hayne, 2003). Several decades of research findings make clear that the accuracy of children's eyewitness accounts is influenced by the linguistic style and the complexity of the language addressed to them by questioners (Carter, Bottoms, & Levine, 1996; Imhoff & Baker-Ward, 1999; Perry et al., 1995; Zajac, Gross, & Hayne, 2003). When testifying, children may be asked to negate adult statements (e.g., "Is it not true that . . .?") or to confirm multifaceted "summaries" of their accounts. They may become confused when responding to syntactically complex or ambiguous compound sentences (Evans et al., 2009; N. E. Walker & Hunt, 1998). For example, consider the questions, "Did you say that when they were playing this game called Bingo that you knew that somebody was going to hurt people and when that happened you hid? Do you remember that?" and "Do you recall telling us that your mother had cleaned up after you throwing up back

in April when you testified?" Both of these complex questions were asked of children participating in actual criminal trials (Evans et al., 2009; A. G. Walker, 1993).

Children must also develop the social or pragmatic aspects of communication to provide rich and useful accounts in legal contexts. In part, providing coherent and structured narratives is learned through social interaction (Nelson & Fivush, 2004). Learning how to participate effectively in conversations may still be in process at the time that children are interviewed for forensic purposes. Young children are still developing their metalinguistic abilities—coming to know what listeners want to know, and how to report information coherently, monitor the success of their communication, and modify strategies as necessary to ensure that the listeners have understood (Lamb & Brown, 2006; Saywitz & Snyder, 1996). Children must learn how to stay on topic and how to adapt their speech appropriately to different audiences (e.g., unfamiliar interviewers who do not know their family members and were not present during the events in question). They must learn to "read between the lines" and avoid interpreting some questions literally (e.g., "Do you remember his name?" "Can you tell me where he touched you?"; A. G. Walker & Warren, 1995; Warren, Woodall, Hunt, & Perry, 1996). The challenge for interviewers is to obtain organized accounts that are sufficiently rich in descriptive detail to permit the children's testimony to be understood. Interviewers' word choices and the complexity of their utterances may profoundly influence the course and outcome of legal interactions with children, too.

As children grow older, the length, informativeness, and complexity of their narratives increase (see Fivush, 1997; Saywitz & Camparo, 1998; W. Schneider & Pressley, 1997), but even very young children provide temporally organized and coherent narratives (e.g., Flin, Boon, Knox, & Bull, 1992; Hershkowitz et al., 2012; Lamb et al., 2003).

Young children are used to being questioned by adults who are already knowledgeable about the topics of conversation (Lamb, Orbach, Warren, Esplin, & Hershkowitz, 2007), but alleged victims of abuse are often the sole sources of information about the suspected events. As a result, interviewers need to communicate their needs and expectations clearly, motivating children to provide as much information as they can. One of the goals of the "presubstantive" portions of forensic interviews is to ensure that children understand the unique demands of forensic interview contexts (e.g., Sternberg, Lamb, Esplin, Orbach, & Hershkowitz, 2002). If children fail to appreciate that the interviewers have little, if any, knowledge

of the alleged events, or attribute superior knowledge to them (e.g., Ceci, Ross, & Toglia, 1987), they may fail to report all they know or defer to the interviewers' interpretation of events, as potentially revealed through leading or suggestive questions. Children are cognizant of differences between knowledgeable and naïve adults and vary their responses and trust in these individuals accordingly (Koenig & Harris, 2005; Welch-Ross, 1999).

Even when interviewers have attempted to communicate that they do not know what the children experienced, they may, by using the wrong sorts of questions, inadvertently encourage young children to respond as though they were being tested. For example, forensic interviewers frequently ask very specific questions (e.g., "Did he touch you?"). Young children (those under 6) have special difficulty answering specific questions, and may exhibit a response bias (e.g., Ahern, Lyon, & Quas, 2011; Fivush, Peterson & Schwarzmueller, 2002; Peterson, Dowden, & Tobin, 1999), or a reluctance to give "don't know" responses when they would be appropriate (Bruck & Ceci, 1999; G. Davies, Tarrant, & Flin, 1989; Poole & White, 1991; Saywitz & Snyder, 1993). Children do not provide more "don't know" responses to complex as opposed to simple questions (Carter et al., 1996). In fact, Waterman, Blades, and Spencer (2000, 2001, 2004) showed that 5- to 9-year-olds often attempted to answer impossible (nonsensical) or unanswerable (where the information has not been provided) questions, especially if they were phrased as yes/no rather than wh- questions and even when they accurately judged that the questions were nonsensical. The type of questions asked and their context thus determine whether questions enhance or degrade the reliability of children's reports. Detailed preinterview instructions focused on reminding children that the interviewers were not present at the target events can increase children's (at least 6-year-olds') tendency to give "don't know" responses to unanswerable questions (Waterman & Blades, 2013).

Older children's and adolescents' linguistic and communicative abilities may also be challenged in legal situations. For example, only 5% (3/66) of the 11- to 14-year-olds in Cooper et al.'s (2010) study of children involved in dependency court proceedings provided correct answers about five of the seven legal terms that they were asked to define, and one-fifth provided no correct definitions. Brennan and Brennan (1988) showed that fewer than two-thirds of the questions addressed to 6- to 15-year-olds in court were comprehensible to their peers. Regardless of age (kindergarten to university), Perry and colleagues (1995) found that students were more accurate answering

simple rather than complex questions about witnessed events. Furthermore, the kindergarteners often failed to recognize that they misunderstood the complex questions. Examining felony child sexual abuse cases, Evans et al. (2009) demonstrated that neither defense *nor* prosecution attorneys varied the length or complexity of their sentences directed to children despite the fact that the age range of the alleged child victims varied widely (i.e., 5 to 15 years). Even mental health professionals and trained investigative interviewers ask children developmentally inappropriate or complex questions in investigative interviews (Korkman, Santtila, Drzewiecki, & Sandnabba, 2008; Plotnikoff & Woolfson, 2009).

In order to assist in and make legal decisions, adolescents must be able to understand the relevant language, interactions, and proceedings; appreciate their significance; and communicate effectively with lawyers and other professionals. Although some studies show that adolescents feel comfortable disclosing information to their attorneys (e.g., Grisso et al., 2003), others report substantial amounts of distrust in attorneys by adolescents (e.g., Catton, 1978). Viljoen et al. (2005) found that 31% of juvenile defendants would not tell or were unsure about telling their attorneys what really happened.

Youth may also have difficulty making reasoned decisions about whether to waive their rights or enter a plea agreement, in part because both involve complex language. In one study, the warnings or cautions concerning Miranda rights offered to 122 juvenile Americans ranged in length from 64 to 1,020 words ($M = 214$) and the reading level required ranged from 7-year-old to post-college (Rogers, Hazelwood, Harrison, Sewell, & Shuman, 2008), leading the researchers to conclude, "The most obvious and far-reaching conclusion from the current data is that typical juvenile Miranda warnings are far beyond the abilities of the more than 115,000 preteen offenders charged annually with criminal offenses" (p. 75).

When alleged offenders plead guilty, they must answer questions designed to ascertain whether any additional promises were made (i.e., beyond the plea agreement), whether they understand their legal rights and the consequences of pleading guilty, and whether they are incapacitated in any way. However, there is no standard manner in which these questions are asked and there are no requirements regarding their comprehensibility (Redlich, 2010). Kaban and Quinlan (2004) found that youth involved in the juvenile justice system were able to define very few (an average of 2) of 36 terms contained in the Massachusetts tender-of-plea form or plea colloquies

in that state. Even youth who were instructed about court proceedings were able to define only five items correctly, on average.

In sum, linguistic competence is a substantial concern in legal contexts, regardless of whether those contexts involve victims or suspects, or 4-year-olds or teenagers. In every case, a failure to recognize the capacities of the individuals involved may seriously compromise communication and deny those children the justice they deserve.

Socioemotional Development

In addition to developmental changes in children's memory, thinking, and communicating, aspects of social and emotional development affect children's participation in legal contexts as well.

Rapport and Trust

Children are often reticent with strangers and most adults thus recognize the need to establish rapport when initiating conversations with unfamiliar children, especially when the topics are stressful or embarrassing as when they are being questioned about alleged instances of abuse (Collins, Lincoln, & Frank, 2002; Goodman, Bottoms, Schwartz-Kenney, & Rudy, 1991; Lamb et al., 2007; Sternberg et al., 1997). When questioned by unfamiliar adults or authority figures, some children may be reluctant to describe personally meaningful experiences that are intimate or embarrassing (e.g., Saywitz, Goodman, Nicholas, & Moan, 1991), and a substantial proportion of children are reluctant to disclose their abuse (see London, Bruck, Ceci, & Shuman, 2005, 2007, for reviews). Establishing rapport may help facilitate communication with children and encourage them to affirm and describe traumatic experiences in clinical (Boggs & Eyberg, 1990; Morgan & Friedemann, 1988), evaluative (Kanfer, Eyberg, & Krahn, 1992; Powell & Lancaster, 2003), or investigative (Aldridge & Wood, 1998; Goodman & Bottoms, 1993; Powell & Thomson, 1994) interviews. However, many forensic interviewers fail to make more than perfunctory efforts to establish rapport before broaching the substantive issue under investigation (Sternberg, Lamb, Esplin, & Baradaran, 1999; Warren et al., 1996).

Social Relationships With Parents, Other Adults, and Peers

As detailed by Thompson (2006; see also Thompson, Chapter 6, this *Handbook*, this volume), scholars have

long recognized that the attachments (i.e., close, enduring bonds) formed to parents are among the most critical achievements of the first year of life, and that attachment formation depends on reciprocal interactive processes that foster infants' abilities to discriminate their parents from other adults and to develop emotional ties to them (Lamb, Thompson, Gardner, & Charnov, 1985). By the middle of the first year of life, children's attachments are consolidated and characterized by the onset of separation anxiety and separation protest. Infants who receive sensitive, responsive care from specific adults tend to become securely attached to them (Dozier, Zeanah, & Bernard, 2013). Even relatively low levels of responsive parenting lead to the development of infant-parent attachments, although some of these attachments may be classified as "insecure" or "disorganized." Disorganized attachments, which are more common among children who have experienced maltreatment, put children at risk for a host of negative outcomes (see Cicchetti & Toth, Chapter 13, this *Handbook*, this volume). However, it is more advantageous for children to form insecure attachments than to fail to form attachment relationships at all because these enduring ties play essential formative roles in later social and emotional functioning (Thompson, 2006).

Infants and toddlers need regular interaction with their "attachment figures" in order to foster and maintain their attachments (Lamb & Kelly, 2009) and help them develop the abilities to appropriately regulate their behavior, emotions, and physiology (Hofer, 2006). Extended separations from either parent are undesirable because they unduly stress developing attachment relationships. Even though fathers typically spend less time with their infants than mothers do (e.g., Pleck, 2010), most infants form meaningful attachments to both of their parents at roughly the same age (6 to 7 months; Lamb & Lewis, 2010). Most infants come to "prefer" the parents who take primary responsibility for their care (typically their mothers), but relationships with secondary caregivers are still important.

Children's attachment relationships with parents play a crucial role in shaping children's socioemotional development (Lamb & Lewis, 2011). For example, these attachments influence perceptions of self, perceptions and expectations of others, social competence with peers, and emotional expressiveness (S. C. Johnson, Dweck, & Chen, 2007; Lucas-Thompson & Clarke-Stewart, 2007). Disrupted parent-child attachments have adverse effects on children's development and adjustment, and children who are deprived of meaningful relationships with one of their parents are at greater risk psychosocially, even

when they are able to maintain relationships with their other parent (e.g., Lamb & Kelly, 2009). Such data are, of course, extremely relevant when legal professionals are making decisions about children's living arrangements following their parents' separation.

In addition to the critical influence that attachment relationships have on child development, children's attachments to parents have implications for their behavior and decision making in legal contexts. For example, much attention and debate have focused on how and when children disclose adult wrongdoing (e.g., child maltreatment that is often perpetrated by adults who are close to them). London et al. (2005, 2007) and London, Bruck, Wright, and Ceci (2008) concluded that a majority of children delay disclosure of child sexual abuse for long periods of time, often until adulthood, with some children failing to disclose at all. Children may disclose reluctantly, fail to provide detailed accounts of their experiences, or recant prior allegations of abuse (Goodman-Brown, Edelstein, Goodman, Jones, & Gordon, 2003; Hershkowitz, Horowitz, & Lamb, 2007; Malloy, Lyon, & Quas, 2007; Pipe, Lamb, Orbach, & Cederborg, 2007). In laboratory analogue studies, children often deny or fail to disclose even the minor wrongdoings of adults (e.g., spilling something, breaking a toy, playing with a forbidden toy; Bottoms, Goodman, Schwartz-Kenney, & Thomas, 2002; Lyon, Malloy, Quas, & Talwar, 2008; Pipe & Wilson, 1994).

Whether children disclose adult wrongdoing also depends on the adults' identity. Due to their attachments to and dependency on known and trusted adults, especially parents, children appear less likely to disclose their wrongdoings. For example, several studies have demonstrated that children are less likely to disclose and more likely to delay disclosing abuse by family members than less familiar adults (see London et al., 2008; Lyon, 2009; Paine & Hansen, 2002, for reviews), and more likely to recant abuse allegations made against parent figures (e.g., Malloy et al., 2007). If nonoffending caregivers (typically mothers) react unsupportively to abuse disclosure, recantation is more likely (Elliott & Briere, 1994; Malloy et al., 2007), highlighting the important influence parents exert, even indirectly, on what children are willing to reveal (and maintain) in legal contexts.

Similar findings are evident in laboratory contexts. In one study, 6- to 10-year-old children witnessed either research assistants or parents steal books. In both conditions, the "thieves" told the children that the thefts were secret and encouraged them to lie and blame another research assistant. When the thief was the research

assistant, most children (81%) levied an accusation against him or her. However, when the parents stole, 56% of the children accused the research assistant rather than the parents, thus appearing more willing to lie to protect parents (Tye, Amato, Honts, Devitt, & Peters, 1999). Also, responding to hypothetical vignettes, children were less likely to endorse disclosure of wrongdoing by parents rather than strangers (Lyon, Carrick, & Quas, 2010). This may be, in part, related to developmental changes in children's understanding of family loyalty and obligation (Leibig & Green, 1999). In sum, both naturalistic field studies and experimental research indicate that, when parents are implicated in wrongdoing, children are less forthcoming with interviewers than when other individuals are implicated.

Children may be more reluctant to report parents' transgressions because they expect negative consequences to befall their parents, others close to them, or even themselves. Adults who claim that they were abused as children often report that they considered the potential effects of disclosure on themselves and others when deciding whether and when to disclose (Anderson et al., 1993; Fleming, 1997). Child victims have also reported fears and expectations of harmful outcomes as reasons for delayed disclosure (Goodman-Brown et al., 2003; Hershkowitz, Lanes, & Lamb, 2007; Sas & Cunningham, 1995). Malloy, Brubacher, and Lamb (2011) found that nearly half of the alleged victims whose interviews they studied mentioned at least one expected consequence of disclosure, with children who alleged abuse by parent figures no more likely to mention expected consequences. However, children who alleged abuse by parent figures were more likely to mention expected consequences for *others* (e.g., siblings, mothers) and to mention serious consequences for themselves (e.g., physical harm, death). Clearly, these motivations and expectations may affect children's statements when they are questioned in Family or Dependency Court about their preferences and beliefs (see below).

Peer Relationships

Although parents remain important influences on child development through adolescence, children are increasingly eager to spend time with other children, and these relationships become more important with age. This can have important implications. For example, in many of the infamous daycare cases, "co-witness" information had a powerful influence on children's reports, leading many children to acquiesce to suggestions about adult misbehavior (Garven, Wood, Malpass, & Shaw, 1998). Indeed,

information from peers spread through the “rumor mill” may be reported in detail when children are asked to recount staged events (e.g., Principe, Kanaya, Ceci, & Singh, 2006), creating false beliefs that nonexperienced events occurred (Principe, Haines, Adkins, & Guiliano, 2010).

Beginning in middle childhood, children shift from using parents to using peers as primary reference sources and this trend accelerates during the period between 10 and 14 years of age. The latter period is thus marked by a sharp shift from focus on behavior that may elicit approval from parents to that which might elicit approval from peers (Nickerson & Nagle, 2005; Steinberg & Silverberg, 1986). This transition is often accompanied by anxiety and concern on the part of adolescents about their own identities and social standing (Erikson, 1968). As at other points in the life cycle, such uncertainty increases the extent to which individuals look to others for guidance and approval. The increased desire to gain social approval parallels the focal shift from parents to peers, a shift that leads children and adolescents to be particularly focused on obtaining approval from peers who, like the adolescents themselves, have much less mature and effective means of judging the appropriateness and suitability of behavior.

Adolescents are more affected than younger children or adults by peer pressure, taking more chances and making more risky decisions when in groups rather than alone (e.g., M. Gardner & Steinberg, 2005). Some choices may have minimal long-term consequences, but other choices (e.g., deciding to commit illegal acts or engage in other risky behaviors) reveal the potentially problematic nature of the susceptibility of youth to peer influence. In multiple studies examining adolescents’ self-reported false confessions to the police, the desire to protect someone else has been the most common reason reported by youth for falsely confessing (Malloy et al., 2014; Viljoen et al., 2005). Thus, not only are youth at risk for engaging in illegal behavior with peers, but they may also put themselves at risk of prosecution by covering up for others’ bad behavior and attempting to spare them the consequences.

Compliance, Obedience, and Approval Seeking

Young children are typically motivated to earn social approval from others, especially adults whom they respect or like, such as parents and teachers, and other authority figures, like police officers. As indicated above, peers become increasingly important to children and adolescents, but this tends to broaden the range of people from whom they seek to gain approval, and these motivations can powerfully affect children’s behavior when they are questioned.

For example, if children infer that interviewers would prefer particular responses, they may tailor their accounts in order to appear cooperative (Ceci, Kulkofsky, Klemfuss, Sweeney, & Bruck, 2007; Melnyk, Crossman, & Scullin, 2007). Ceci and his colleagues (2007) found, for example, that preschoolers are less likely to accept false suggestions made by 7-year-old children rather than by adults. In the forensic context, therefore, interviewers must be sensitive to children’s perceptions of their knowledge and status.

Although adolescents are often portrayed as rebellious, they are more obedient to authority than adults and this may be of particular consequence during interrogations or when considering the legal advice of parents and lawyers. Not only are there clear linear age differences in adolescents’ willingness to take responsibility for acts they have not committed, but there are similar developmental differences in the willingness to question authority (Redlich & Goodman, 2003). Thus, the majority (65%) of 12- and 13-year-olds took responsibility by signing confessions without questioning the researchers, but this tendency decreased with age (46% of the 15- and 16-year-olds and 33% of the young adults asked at least one question before signing confessions).

Suggestibility and Contamination: The Confluence of Social and Cognitive Factors

Suggestibility is “the degree to which children’s encoding, storage, retrieval, and reporting of events can be influenced by a range of social and psychological factors” (Ceci & Bruck, 1993, p. 404). Social factors, such as the interviewers’ superior status, and cognitive factors, including those relating to pretense or imagination, profoundly influence children’s suggestibility and susceptibility to misinformation (Ceci & Bruck, 2006). Initial laboratory-based research appeared to produce inconsistent findings regarding the suggestibility of young children. Goodman and her colleagues showed that children as young as 3 to 4 years of age could successfully resist misleading questions suggesting actions that were very different from those that had occurred or been witnessed (Goodman & Aman, 1990; Goodman, Aman, & Hirschman, 1987; Goodman et al., 1991; Goodman, Rudy, Bottoms, & Aman, 1990). When the suggestive pressure was more persistent, however, preschoolers appeared especially susceptible to suggestion (e.g., Ceci et al., 1987; King & Yuille, 1987). Leichtman and Ceci (1995) showed that preschoolers who were repeatedly led to believe that a person was very clumsy acquiesced more easily over a 10-week period to

allegations consistent with the clumsy stereotype than children who were given neutral information about the person. Specifically, the combination of suggestive interviewing and negative stereotyping led 30% of the 5- to 6-year-olds and 46% of the 3- to 4-year olds to agree that they had seen the person misbehave, although half of the youngest children did not acquiesce to suggestions.

Children may, under certain conditions, come to provide elaborate accounts of entire events that they never experienced (e.g., Bruck et al., 2002; Ceci, Huffman, Smith, & Loftus, 1994; Ceci, Loftus, et al., 1994; Quas et al., 2007; Strange, Garry & Sutherland, 2003). For example, Ceci, Huffman, et al. (1994) asked 3- to 6-year-olds to repeatedly imagine experiencing fictitious events (e.g., getting their fingers caught in a mousetrap and having this injury treated). Many children later claimed to have experienced these events, and even after debriefing, some of the children refused to accept that the events were only imagined. Bruck, Hembrooke, and Ceci (1997) found that, when subjected to such techniques as repeated suggestion, instructions to imagine or pretend, and selective reinforcement in a series of interviews, preschool children assented to 95% of the false events mentioned (e.g., claiming that they witnessed the theft of food at daycare) by the third interview session.

Findings concerning suggestibility and false reporting are not limited to children, however, with several studies demonstrating that adults, too, may come to produce detailed “memories” of entirely fictitious events (see Loftus, 1997, 2003, for reviews). Nevertheless, it is clear that suggestive questioning played a major role in leading preschoolers in several multi-accuser cases to believe falsely that they had been abused. For example, Garven et al. (1998) showed that the techniques used in the *McMartin Preschool* case (offering positive or negative consequences for making or not making allegations of abuse, posing the same questions repeatedly, and suggesting that other children had already disclosed) led 3- to 6-year-old children to respond inaccurately when questioned about staged events. The children who were interviewed using a combination of highly suggestive techniques (e.g., repeated suggestive questions plus rewards for making allegations) produced significantly more false accusations than children who were interviewed using only one suggestive technique. In fact, after being interviewed with multiple suggestive questioning techniques for only 4.5 minutes, children acquiesced to the false accusations nearly 60% of the time, whereas those interviewed using only one suggestive technique acquiesced 17% of the

time. Garven, Wood, and Malpass (2000) later showed that children interviewed suggestively using reinforcement made false allegations about mundane events (e.g., that a man said a bad word) 35% of the time, whereas those interviewed without such reinforcement made false allegations 12% of the time. Children who were reinforced also alleged fantastic events (e.g., that a man took a child on a helicopter ride) more often than children in the control group. In Leichtman and Ceci’s (1995) study, very few children who were interviewed nonsuggestively made claims about the “bad deeds” of a classroom visitor even when negative stereotypes (i.e., clumsiness) about him had been introduced beforehand.

Researchers have largely been unsuccessful in their efforts to identify reliable individual differences in suggestibility (see Bruck & Melnyk, 2004, for a review). Although this line of study may help researchers understand the mechanisms underlying suggestibility, it also signals that, rather than attempting to identify “suggestible” children, it is important to recognize that children enter the forensic interview or courtroom with different abilities and characteristics and having had different experiences. Children inevitably vary with respect to how much information they provide, how long it takes them to build rapport, how acquiescent they are to adult authority and suggestion, and how shy they appear when talking with new adults. Findings concerning individual differences underscore the need for interviewers to adhere to best practice guidelines.

Cross-examination, one of the most feared parts of legal involvement, has also been examined experimentally because it underscores children’s vulnerabilities when questioned suggestively, coercively, and confusingly. In both analogue (Zajac & Hayne, 2003, 2006; Zajac, Jury, & O’Neill, 2009) as well as courtroom (Zajac & Cannan, 2009) settings, cross-examination has negative effects on the accuracy of children’s testimony. Zajac and Hayne (2003) interviewed 5- and 6-year-olds about a visit to a police station using both direct and cross-examination. During the cross-examination, interviewers used several techniques often observed in actual court cases (e.g., complex, leading, irrelevant questions; challenges to children’s certainty; expressions of disbelief), and most (over 85%) of the children changed at least some answers that they had provided during direct testimony. The changes occurred regardless of whether children’s original responses were accurate or inaccurate. Some changes were considered small alterations in specific details, whereas others represented total retractions of children’s original reports. In fact, nearly a third of the children changed all of their

original responses! In a later study, Zajac and Hayne (2006) reported that 9- to 10 year-old children changed fewer accurate than inaccurate answers, although they still changed 40% of correct answers under cross-examination, suggesting that the accuracy of older children's testimony is also compromised during cross-examination.

Cross-examination style questioning also affects the accuracy of 5- to 10-year-old children's accounts of both neutral and transgressive events (Fogliati & Bussey, 2013) and following both short (1 week) and longer (6 month) delays (O'Neill & Zajac, 2013). In comparable studies of adult witnesses, participants also made many changes to their previous statements and altered both correct and incorrect answers when cross-examined (Valentine & Maras, 2011); adults' accuracy decreased in real courtroom cross-examinations as well (Zajac & Cannan, 2009). Interestingly, however, aggressive cross-examination of young witnesses does not always achieve the desired results. Evans et al. (2009) found that convictions rather than acquittals were more likely when American defense lawyers asked more complex questions, whereas the complexity of the questions asked by prosecutors was not associated with the likelihood of conviction. Whether the same results would be obtained in other jurisdictions is unknown.

Children's changing responses can involve either changed memories or simply acquiescence—the tendency to agree when asked leading questions (e.g., Greenstock & Pipe, 1997; Pipe & Wilson, 1994). Acquiescence increases when a power imbalance exists between the person asking the questions and the person answering them (Ceci et al., 1987), and this is certainly the case when adults, especially adults in positions of authority (e.g., police officers, judges), question children. At least in the experimental laboratory, however, information suggested by interviewers is often incorporated by eyewitnesses into their memories of experienced events (Ackil & Zaragoza, 1995; Ceci & Bruck, 1993, 1995) especially when preschool children are involved (Brady, Poole, Warren & Jones, 1999; Cassel & Bjorklund, 1995; Ceci & Bruck, 1993; Ceci & Crotteau-Huffman, 1997; Leichtman & Ceci, 1995; Quas et al., 1999) and the suggestions are repeated (Mitchell & Zaragoza, 1996). In addition, Endres, Poggenpohl, and Erben (1999) and Orbach and Lamb (2001) showed that suggestive prompts led preschoolers to contradict information that they had provided earlier.

The contaminating effects of option-posing (e.g., Yes/No) and suggestive utterances are aggravated when they are repeated. That is, children contradict themselves at a

higher rate when option-posing questions are asked again (Andrews & Lamb, 2014; Bruck, Ceci, & Hembrooke, 1998) and repeated exposure to yes/no and suggestive questions reduces children's overall accuracy (Memon & Vartoukian, 1996; Poole & White, 1991, 1993, 1995; but see Lyon et al., 2008). Whereas repeated open-ended questions are often perceived as requests for additional information, suggested Poole and White (1991), repeated yes/no questions might be perceived, especially by younger children (4-year-olds), as indications that the initial responses were unacceptable and thus should be changed.

As mentioned earlier, children's sensitivity to the interviewers' status and knowledge may also foster compliance with suggestive or misleading prompts because children misunderstand the purpose of the interviewers' statements, assume that interviewers have superior knowledge, or simply want to be cooperative. As shown below, when interviewers (a) adequately prepare children for their role as experts, empower them to correct interviewers, and admit that they "don't know" some answers, (b) avoid asking children to pretend or imagine, (c) avoid being coercive, (d) do not repeat misleading questions, and (e) keep children focused on central details of personally experienced events, children are better able to resist misleading questions and provide meaningful and accurate accounts of their experiences (Pipe et al., 2004).

In addition, research indicates that awareness of suggestion, also labeled meta-suggestibility, continues during the school years. For example, in a study conducted by London, Bruck, Poole, and Melnyk (2011), 6- and 7-year-olds who had watched a filmed suggestive interview, failed to recognize its effects on a boy who made a false allegation. Awareness of suggestibility increased between 8 and 11 years of age, so that 12-year-olds understood the suggestibility process well.

Children's Deception

In forensic interviews, interrogations, and the courtroom, it is imperative that individuals provide honest reports of experienced events only, so researchers, parents, legal professionals, and fact finders have long been concerned that children might intentionally make false reports of nonexperienced events. Researchers are also interested in children's deceptive abilities because lying is a "lens through which one can examine a multitude of behaviors, including children's developing cognitive, social, and moral abilities" (Talwar & Crossman, 2012, p. 337). Like suggestibility, both cognitive and social factors influence

children's lying behavior. In fact, although parents and other adults tend to be displeased when children lie, the ability to intentionally deceive others signifies cognitive and social competence, such as advanced theory of mind, executive functioning skills, and sophisticated navigation of social situations (e.g., Evans & Lee, 2011; Talwar & Lee, 2008; Talwar, Murphy, & Lee, 2007).

The Development of Lie-Telling

Lie-telling is normative, begins early in development, and takes several different forms (see Talwar & Crossman, 2012; Talwar, Crossman, Muir, & Williams, 2011, for reviews). For example, children may tell prosocial lies, sometimes encouraged by adults, in order to avoid hurting someone's feelings. However, antisocial lies (i.e., lies told to protect oneself or for personal gain) are most relevant to the legal system. Observational and experimental studies have revealed that lie-telling emerges as early as Age 2 and increases dramatically after Age 3 alongside the development of theory of mind (Evans & Lee, 2013; Newton, Reddy, & Bull, 2000; Talwar & Lee, 2002; Wilson, Smith, & Ross, 2003; see also Hughes & Devine, Chapter 14, this *Handbook*, this volume; Carpendale & Lewis, Chapter 10, this *Handbook*, Volume 2). Typically, children's early lies are told to avoid punishment (e.g., conceal a wrongdoing), and tend to be relatively easy for others to detect (Talwar & Crossman, 2011, 2012; Talwar & Lee, 2008). Prior to the age of 6 or 7, children are not very skilled lie tellers, often revealing the deceptive nature of their statements via their nonverbal behavior or by failing to conceal their knowledge or evidence inconsistent with their lies (Talwar, Gordon, & Lee, 2007; Talwar & Lee, 2002, 2008). Older children have enough sense to clean up the incriminating "evidence" or to feign ignorance (Talwar et al., 2012) because they have developed "semantic leakage control." As children grow older, they become more sophisticated liars and are better able to demonstrate semantic leakage control; key developmental changes in lie maintenance emerge around 7 years of age (Talwar & Crossman, 2011).

The temptation resistance paradigm is commonly used to study children's lie-telling behavior. This experimental paradigm was designed to measure children's use of antisocial lies to conceal minor transgressions. A typical version of the paradigm involves guessing games during which children are asked to guess the identity of toys based solely on musical jingles; the children cannot see the toys. After multiple trials, experimenters leave the room after setting out the final toys, playing musical clips, and instructing

the children not to peek. Upon returning, the experimenters ask the children whether they peeked and then, to measure semantic leakage control, to guess the toys' identity. The children's behavior is recorded covertly.

Many studies have used the temptation resistance paradigm, with fairly consistent results. Most young children are tempted to peek, and most lie about it later. Overall, peeking rates have ranged from 50% to almost 90%, depending on the ages of the children studied. For example, Talwar, Lee, Bala, and Lindsay (2002) found that over 80% of the 3- to 7-year-olds peeked while the experimenter was gone, while around 80% lied about having peeked. Using a version of the temptation resistance paradigm modified for older children (i.e., a trivia game instead of a toy), Talwar, Gordon, et al. (2007) found that approximately half of the 6- to 11-year-olds peeked, and that the majority (93.1%) who did lied about having peeked.

Detecting Lies

If children's lies were easily identifiable by adults, then the honesty of their reports would not be of serious concern in legal contexts. However, adults detect children's deception poorly. For example, in Talwar, Lee, Bala, and Lindsay's (2006) study, adult participants watched recorded mock testimony of children who had been coached by adults to provide true or fabricated reports. Most adults rated the children as honest and truthful and did not identify truths and lies at better than chance levels. Other studies have also found that adults exhibit a "truth bias" when judging children's reports (e.g., Strömwall, Granhag, & Landström, 2007). However, evidence demonstrates that the accuracy of adults' judgments may depend on the type of lies being told. Block et al. (2012) asked adults to judge video-recorded interviews conducted with 3- and 5-year-olds making accurate reports, false reports, accurate denials, or false denials. Adult judges had the most difficulty judging children's false denials, often expressing confidence that the events had not occurred when, in fact, they had. These results suggested that adults (including investigators and fact-finders) may be particularly prone to believe children's claims that they have not been abused when they have been victimized, leaving those children inadequately protected.

Investigators and fact-finders seldom know with confidence whether children have indeed been abused as they allege (or deny) so field research on credibility assessment has been rare. However, Lamb et al. (1997) used the Criterion Based Content Analysis (CBCA) procedure developed by Raskin and Esplin (1991) to assess the testimonies

of 98 children, some of whom were determined to have been describing incidents that were improbable, while others described events for which there was strong corroborating evidence. CBCA scores differentiated between the plausible and implausible accounts, but there was considerable overlap between the scores and the technique was clearly not precise enough to be used in forensic contexts.

Lamb et al. (1997) noted that most of the testimonies included few narratives, making it difficult for raters to identify the crucial criteria. In a later study, Hershkowitz, Fisher, Lamb, and Horowitz (2007) showed that investigators assessed credibility more accurately when the children provided more narratives and the interviews had been conducted in accordance with best-practice guidelines (see below) although, as in previous studies, the raters correctly identified plausible statements much more accurately than they identified implausible ones.

Promoting Truth-Telling

Concerns about children's false allegations (i.e., accusations against innocent individuals) and false denials (i.e., nondisclosure and delayed disclosure of child maltreatment) have led researchers to attempt to develop empirically based methods to promote children's honesty in legal contexts. One particularly promising method is eliciting a promise to tell the truth, or a child-friendly version of "the oath." Lyon et al. (2008) found that administering a developmentally appropriate version of the oath ("Do you promise to tell the truth? Will you tell me any lies?") improved the honesty of 4- to 7-year-old maltreated children's reports of their play with forbidden toys. Lyon and Evans (2014) later showed that even very young children (4-year-olds) understood that "promising" to do something is stronger than saying one "might" do something. Promising to tell the truth is effective with older children as well: Evans and Lee (2010) found that 8- to 16-year-olds were 8 times more likely to change their responses about peeking at a test answer from dishonest to honest after promising to tell the truth. Eliciting a promise to tell the truth is more effective than reassuring children that they will not be in trouble for telling the truth (Lyon et al., 2008); statements of reassurance that mention specific transgressions may increase false reporting (Lyon & Dorado, 2008).

Summary

Child development is a complex and multifaceted process, as the contents of these four volumes indicate! In the

preceding pages, we have tried to show that many aspects of development affect children's interactions with the legal system. Importantly, whether the discussion is about the neural mechanisms that underlie cognitive processing, behavioral inhibition, and motivation, the ways in which children understand and remember their experiences, the changing nature of children's social relationships and understanding, their emergent communicative skills, their susceptibility to social influence, their decision making and evaluations, or their motivation to be honest or seek approval, it is clear that development is an extended process that is, in many respects, incomplete even by the time children are conventionally relabeled as young adults. The material reviewed above gives some limited insight into the developmental sequences while making clear how much has yet to be learned about each of the relevant developmental trajectories and, especially, about the interrelations among development in different domains. That ignorance notwithstanding, our collective understanding has grown dramatically over the three decades prior to the time of this writing, and we can now claim sufficient knowledge to guide developmentally sensitive practice in many legal domains.

FEATURES OF LEGAL CONTEXTS

Children, like adults, often find encounters with the legal system stressful. For child witnesses, testifying in open court (or while facing defendants) and being cross-examined are among the most distressing aspects (for a detailed review, see Spencer, 2011), and both are associated with poorer memory performance (e.g., Nathanson & Saywitz, 2003; Quas & Lench, 2007).

In one well-known field study, Goodman et al. (1992) found that children who were more fearful about testifying in front of the accused adults were less able to answer prosecutors' questions than children who were less fearful. In experimental studies, where it is possible to verify the accuracy of children's memory, children's free recall is less complete and their responses to direct questions are less accurate when they are questioned in courtrooms rather than in more familiar (e.g., classrooms) or less intimidating locations (e.g., P. E. Hill & Hill, 1987). Similarly, Saywitz and Nathanson (1993) found that children who rated the "legal process" as stressful provided less information about staged events than children who rated it as less stressful. The stress associated with testifying may interfere with retrieval by consuming some cognitive resources. For example,

children may need to devote some of their cognitive or attentional resources to coping with their emotions instead of to memory retrieval (e.g., Quas et al., 2004). The stress of legal involvement may also lead to long-term negative consequences for children and adolescents (see below).

Although testifying in court may be particularly distressing for children, forensic interviews have several potentially stressful characteristics as well. Forensic interviews represent unfamiliar contexts for children. Children, especially young children, are not accustomed to being in the role of “experts” when being questioned by adults. However, in forensic interviews, they are supposed to be the “experts” and to do most of the talking. The demand characteristics of the situation are worth noting: Children may feel that they *must* answer the questions posed to them. As noted above, however, they may be asked complexly worded questions sometimes including legal terms that they do not understand. Depending on the nature of the interview, it may be necessary for them to discuss in detail experiences about which they feel embarrassed or ashamed. They may need to make accusations against family members or other loved ones, and this may lead to feelings of guilt or distress. And, while coping with these various stressors, children must conduct challenging memory searches and recount information in a detailed and accurate manner. It is thus not surprising that children may need time to build rapport with investigative interviewers before delving into the issues at hand.

To better understand the features of the legal contexts in which young suspects perform, it is similarly imperative to look closely at the interrogation context. The “Reid Technique” (Inbau, Reid, Buckley, & Jayne, 2013), now in its 5th edition, is taught and used by interrogators around the world and is the most widely used method in the United States (e.g., Kassin et al., 2007; Leo, 1996; Meyer & Reppucci, 2007). This technique involves creating a confrontational environment in which the ultimate goal is to obtain confessions. Generally, these interrogations are guilt presumptive and accusatorial, permitting such tactics as lying to suspects, presenting fictitious evidence, minimizing and justifying crimes and their consequences (e.g., providing face-saving excuses for the crimes), interrupting and disallowing denials, and asking suspects to report hypothetical details about the crimes. Some of the face-saving minimization strategies are recommended for juveniles specifically: For example, interrogators might suggest that the lack of parental supervision or the temptation to use drugs partially justified criminal behavior (Inbau et al., 2013). Such techniques are designed to make suspects feel that it is in their

best interest to confess (Ofshe & Leo, 1997) and are known to increase false reporting by children and adults in other contexts (see Loftus, 1997, 2003, for reviews).

The various components of the Reid Technique are legal in the United States, for the most part regardless of the suspects’ age, and research indicates that these techniques are commonly used. Many U.S. police officers reported presenting fictitious evidence (23%), using deception (32%), and repeating questions (58%) when interrogating juveniles (Reppucci, Meyer, & Kostelnik, 2010). Observational studies similarly showed that police officers often confronted juvenile suspects with evidence against them (54%), accused them of lying (33%), and emphasized the seriousness of the alleged crimes (14%) (Feld, 2013; see also Feld, 2006). An alarming proportion of the incarcerated male adolescents (Aged 14 to 17) questioned by Malloy et al. (2014) claimed that they had experienced threats (81%), deception (81%), and verbal insults (59%). Many youth also claimed to have experienced the use of force (21.2%) and refusals (e.g., of breaks to rest or opportunities to speak to lawyers or parents; 38.7%), almost 40% claimed to have been interrogated while under the influence of drugs or alcohol, and nearly a third (30%) reported having felt “pressured or forced” by police to confess. Unlike the observational studies of recorded interrogations, there was no way to confirm the veracity of the reports of youth in this study. However, taken together, the observational and self-report studies suggest widespread use of techniques that may exert considerable pressure on youth to confess.

These tactics can be extremely effective in obtaining confessions from juvenile suspects (see Kassin et al., 2010). For example, Michael Crowe, a 14-year-old boy who falsely confessed to murdering his sister, was told several lies by police, including that his hair was found in her hands, his blood found in her room, and that he had failed a lie detector test. Martin Tankleff, a 17-year-old student who discovered the bodies of his stabbed parents, confessed after several hours of denial. He too was presented with false evidence. Most persuasive of all was the claim that his father had awoken from his coma and identified his son as the assailant. It took almost two decades before Tankleff was released from prison.

These real-world examples are consistent with a growing body of research demonstrating how some interrogation techniques elicit confessions in the laboratory and in the field. For example, lengthy interrogations and the use of deception (e.g., the false evidence ploy) increase the incidence of false confession (see Kassin et al., 2010).

Research suggests that presenting false evidence may not be necessary; merely *bluffing* that the evidence exists appears sufficient to induce false confessions of wrongdoing (i.e., pressing a forbidden computer key, cheating) at the same rate as presenting false evidence (Perillo & Kassin, 2010). Implying or promising lenient treatment are also associated with increases in the rate of false confessions (Kassin & McNall, 1991; Russano, Meissner, Narchet, & Kassin, 2005). Some techniques (e.g., minimization, bluffing) that appear relatively benign (in comparison with threats or the use of force) may nonetheless convince people that their best option is to confess, even if those confessions are false.

As discussed above, little is known about the contexts in which youth make plea decisions, but these contexts may actually share some similarities with police interrogations. For example, youth may be pressured to make immediate decisions (e.g., accept “one-time offer” plea deals) or they may be pressured by adult authority figures such as their lawyers (e.g., Drizin & Luloff, 2007; Malloy et al., 2013; Redlich, 2010). Indeed, the contexts in which plea deals are brokered may involve more pressure or coercion than police interrogations: Police are allowed to *imply* leniency using minimization tactics, but are prohibited from *promising* leniency explicitly. In contrast, explicit promises of leniency are the basis of plea agreements; plea deals generally involve “bargaining” for a lesser sentence than what would be at stake if the defendants were convicted at trial.

IMPLICATIONS FOR INTERVIEWS WITH ALLEGED VICTIMS, WITNESSES, AND SUSPECTS

Regardless of the types of experiences being remembered or reported, the methods used to elicit children’s and adolescents’ accounts of their experiences affect both the quantity and quality of information obtained. Different types of interviewer prompts access different types of memory. For example, free-recall memory and recognition memory are often considered opposite ends of a memory continuum. Recall is accessed when prompts provide no specific memory cues: Requesting that someone “tell everything that happened” does not specify or cue particular aspects of memory. What is recalled depends on the memory search conducted by the person being questioned. In contrast, recognition memory involves more specific questions about particular event details or aspects. These questions may involve asking interviewees

to select between alternatives offered by interviewers (e.g., “Was the touch over or under your clothes?”). These multiple-choice questions restrict the possible responses and tend to increase inaccuracies because options may be chosen even if the correct responses were not offered. Wh-questions (i.e., *what, when, why, where, and how*) fall somewhere between free recall and recognition memory. They do not force respondents to choose between options provided by interviewers, and instead ask for more details about something the interviewees have already mentioned, but they nonetheless require only short answers about aspect of the events or objects that may or may not be well encoded or remembered.

When adults and children are asked to describe events with free-recall prompts (“Tell me everything that happened”), their accounts may be brief and sketchy, but, as mentioned earlier, are more likely to be accurate than if more focused or closed-ended questions prompts are used. When provided with open-ended follow-up prompts such as “Tell me more about that” or “And then what happened?,” children and adults often report additional details by accessing recall memory. When interviewers prompt with leading questions such as “Did he have a beard?,” “Did he touch you with his private?,” or “Did this happen in the day or in the night?,” they shift from recall to recognition testing, and the probability of error rises dramatically (see Lamb et al., 2008, for a review). When open-ended prompts are used, respondents attempt to provide as much relevant information as they “remember,” whereas children may have to confirm or reject information provided by interviewers when focused questions tapping recognition memory are asked. Recognition questions or prompts refocus children on domains of interest to investigators and exert greater pressure to respond, regardless of whether the respondents are sure of their responses. Recognition probes are more likely to elicit erroneous responses in eyewitness contexts because of response biases (i.e., tendencies to say “yes” or “no” without reflection) and false recognition of details that were only mentioned in previous interviews or are inferred from the gist of the experienced events (Brainerd & Reyna, 1996). Focused or recognition questions vary greatly in their complexity, however. As mentioned earlier, answers to questions about the timing of past events may be difficult (especially for children) to answer accurately. Because questions like these seem very reasonable, children often make educated guesses in response rather than recalling information from memory. By contrast, other focused questions (e.g., “What is your brother’s name?”) are easier to answer because the

requested information involves semantic general knowledge rather than memory of a specific event. Questions such as “How come he got away with it for so long?” may seem similarly reasonable but unfortunately invite speculation, and do not direct respondents to search for memories of experienced events. Some questions (e.g., “Why did he do that?”) are simply impossible for children to answer even with the best of event memories and thus should be avoided.

Effective interviewers should thus maximize the reliance on recall memory by offering open-ended prompts so as to minimize the risk of eliciting erroneous information. Free-recall reports are not always accurate, of course, especially when the events occurred long before or there have been opportunities for either pre- or postevent contamination (Bruck & Ceci, 2004; Leichtman & Ceci, 1995; London, Bruck, & Melnyk, 2009; Poole & Lindsay, 1995; Quas et al., 2007; Warren & Lane, 1995) but they are likely to be considerably more accurate than reports elicited using recognition cues or prompts. Furthermore, the completeness of brief initial responses can be increased when interviewers use the information provided by respondents as prompts for further elaboration (e.g., “You said the man touched you; tell me more about that touching”; Lamb et al., 2003).

Best Practice When Interviewing Alleged Victims of Child Abuse

Child maltreatment is, at times, very difficult to investigate and substantiate. Regarding sexual abuse in particular, corroborative evidence rarely exists either because the nature of the abuse does not lend itself to physical evidence (e.g., fondling), or physical evidence has disappeared due to delayed reporting, which is quite common (Goodman-Brown et al., 2003; London et al., 2005; Pipe et al., 2007). Physical evidence may also not identify particular perpetrators. As a result, children’s eyewitness testimony is often critical. Without it, it is more difficult for the goals of justice, child protection, and treatment to be met. Thus, it is imperative that children’s reports are clear, detailed, and accurate. When children’s accounts are vague, inconsistent, and/or incomplete, their reports tend to be met with skepticism (e.g., Leippe et al., 1992; see Myers, 1992).

Informed by the research summarized earlier in this chapter, expert professional groups have long agreed that children should be interviewed as soon as possible after the alleged offenses by interviewers who themselves introduce as little information as possible while encouraging

children to provide as much information as possible in the form of narratives elicited using open-ended prompts (“Tell me what happened”). Before substantive issues are discussed, interviewers are typically urged to explain their roles, the purpose of the interview, and the “ground rules” (for example, ask children to limit themselves to descriptions of events “that really happened” and to correct the interviewer, request explanations or clarification, and acknowledge ignorance, as necessary). Investigators are consistently instructed to give priority to open-ended recall prompts and use recognition prompts as late in the interview as possible and only when needed to elicit undisclosed forensically relevant information. The presence of props (such as toys or dolls) usually associated with fantasy (Thierry, Goh, Pipe, & Murray, 2005) and interviewers prompting children to “imagine” or “pretend” are associated with the presence of fantastic elements in children’s accounts of abuse so forensic investigators are routinely advised to avoid both (Pipe & Salmon, 2009; Poole, Bruck, & Pipe, 2011).

Unfortunately, researchers have repeatedly shown that these research-based and expert-endorsed recommendations are widely proclaimed but seldom followed. Descriptive studies of forensic interviews conducted in various parts of the United States, United Kingdom, Canada, Sweden, Finland, and Israel have consistently demonstrated that forensic interviewers used open-ended prompts quite rarely, even with the knowledge that such prompts reliably elicit more information than more focused prompts (see Lamb et al., 2007, 2008, for reviews). To the distress of trainers and administrators, furthermore, such deviations from “best practice” were evident even when the interviewers had been trained extensively, were well-aware of the recommended practices, and often believed that they were adhering to those recommendations. For these reasons, a group of researchers at the U.S. National Institute of Child Health and Human Development (NICHD) developed a structured interview protocol designed to translate professional recommendations into operational guidelines (Lamb et al., 2008; Orbach et al., 2000).

Characteristics of the NICHD Investigative Interview Protocol

The NICHD Protocol covers all phases of the investigative interview (see Lamb et al., 2008; Lamb, La Rooy, Malloy, & Katz, 2011, for the entire Protocol). In the introductory phase, the interviewer introduces him- or herself, clarifies the child’s task (the need to describe events in detail and to tell the truth), and explains the

ground rules and expectations (i.e., that the child can and should say “I don’t remember,” “I don’t know,” “I don’t understand,” or correct the interviewer when appropriate). In many jurisdictions, law enforcement agencies have also requested the inclusion of several questions designed to establish that children understand the difference between true and false statements. These questions typically ask the child to confirm or negate true or false statements (e.g., “If I said that my shoes were red, would that be true or not true?”) rather than asking children to complete the developmentally inappropriate task of providing definitions for abstract concepts such as “truth” and “lie” (Lyon, 2011).

The rapport-building phase that follows the introductory phase comprises two sections. The first is designed to create a relaxed, supportive environment for children and to establish rapport between children and interviewers. In the second section, children are prompted to describe recently experienced neutral events in detail. This “episodic memory training” is designed to familiarize children with the open-ended investigative strategies and techniques used in the substantive phase while demonstrating the specific level of detail expected of them.

In a transitional part between the presubstantive and the substantive phases of the interview, a series of prompts are used to identify the target event(s) under investigation nonsuggestively and with prompts that are as open as possible. The interviewer only moves on to some carefully worded and increasingly focused prompts if the child fails to identify the target event(s). If the child makes an allegation, the free-recall phase begins with an invitation (“Tell me everything...”) and other free-recall prompts or invitations are recommended as follow-up questions. As soon as the first narrative is completed, the interviewer prompts the child to indicate whether the incident occurred “one time or more than one time” and then proceeds to secure incident-specific information using follow-up (“Then what happened?”) and cued (e.g., “Earlier you mentioned a [person/object/action] invitations. Tell me everything about that”) making reference to details mentioned previously by the child to elicit uncontaminated free-recall accounts of the alleged incident(s).

Only after exhaustive free-recall prompting do interviewers proceed to directive questions (focused-recall questions that address details previously mentioned by the children) and request information within specific categories (e.g., time, appearance) such as “When did it happen?” or “What color was that [mentioned] car?” If important, forensically relevant details are still missing, interviewers then ask limited option-posing questions (mostly yes/no

or forced-choice questions referencing issues or details that the children failed to address previously). Suggestive utterances, which communicate the expected responses, are strongly discouraged.

Evaluation of the NICHD Investigative Interview Protocol

The findings obtained in independent field studies in four different countries (Cyr & Lamb, 2009; Lamb et al., 2009; Orbach et al., 2000; Sternberg, Lamb, Orbach, Esplin, & Mitchell, 2001) demonstrate convincingly that, when forensic investigators employ recommended interview procedures by following the structured NICHD Protocol, they enhance the quality of information elicited from alleged victims. Interviewers relying on the Protocol use at least 3 times more open-ended and approximately half as many option-posing and suggestive prompts as they do when exploring comparable incidents, involving children of the same age, without the Protocol. In each study, about half of the informative and forensically relevant details and more than 80% of the initial disclosures of sexual abuse were provided by preschoolers in response to free-recall prompts. Such findings suggest that the likely accuracy of information provided by alleged victims is enhanced when interviewers use free-recall prompts exhaustively before turning to more focused prompts. These findings also indicate that cued-invitations should be exhausted before “wh-” prompts are introduced because cued-invitations are input-free and thus foster retrieval of free-recall information without limiting responses to investigator-specified categories. Nonsuggestive yes/no and forced-choice questions (i.e., option-posing prompts), in which interviewers introduce information, should be used only if essential information is still missing after free-recall and directive prompts have been exhausted, because these riskier alternatives are more likely to elicit inaccurate information and their introduction may contaminate subsequent information.

Interviewers using the Protocol also introduce option-posing and suggestive questions later in the interview process than do peers not using the Protocol. Because option-posing and suggestive questions by definition involve the introduction of information by investigators, they have the potential to contaminate later phases of the children’s reports, especially when younger children are involved (Bjorklund et al., 1998; Ceci & Bruck, 1995; Memon, Wark, Holley, Bull, & Koehnken, 1996), and thus their delayed utilization is forensically important. Clearly, forensic interviewers should provide children

with opportunities to recall information in response to open-ended prompts before assuming that special (i.e., more risky) interview techniques are needed.

When priority was given to open-ended strategies and techniques in Protocol interviews, there were also significant increases in the number of facilitators and other supportive comments addressed to child witnesses (Hershkowitz, Orbach, Lamb, Sternberg, & Horowitz, 2006); this further enhanced the recall and reporting of information by encouraging children to be more cooperative.

Children Who Are Reluctant to Make Allegations

Despite the use of evidence-based interviewing strategies, many suspected victims of child maltreatment are reluctant to allege abuse when formally interviewed in forensic contexts, even when there is clear evidence that they were, in fact, abused. Investigative interview protocols, including the NICHD Protocol, emphasize techniques that help motivated children to report information about experienced events but pay less attention to the motivational factors (such as loyalty to parents) that make some children reluctant to disclose abuse or other negative experiences. Research has yielded new insight into the dynamics of interviews with reluctant children (Hershkowitz et al., 2006; Hershkowitz, Horowitz, et al., 2007; Hershkowitz, Lamb, Katz, & Malloy, 2013; Katz et al., 2012; Orbach, Shiloach, & Lamb, 2007), however. In these studies, reluctant children avoided establishing rapport with the interviewers and signaled their reluctance verbally and nonverbally in the presubstantive phase of the interview, with manifest reluctance increasing as the interviews proceeded. In a study of interviews with children whose victimization had been independently corroborated, Hershkowitz et al. (2006) found that interviewers tended to respond to reluctance counterproductively by (a) putting pressure on reluctant children rather than giving them support, (b) shifting the discussion to sensitive issues before the children seemed comfortable, and (c) using intrusive rather than open-ended prompts when exploring the possibility that abuse might have occurred.

Recognizing the need to enhance rapport with allegedly abused children, especially those who are reluctant to talk, Hershkowitz et al. (2013, 2014) formulated a revision of the NICHD Protocol. In order to enhance trust and cooperation, rapport-building preceded (rather than followed) explanation of the ground rules and expectations, and additional guidance was provided to interviewers with respect to building and maintaining rapport. In addition to inviting narratives about recent experiences during the

rapport-building phase, interviewers were encouraged to express interest in the children's experiences, both verbally and nonverbally, and to show empathy with the children's expressed feelings. Close comparisons between interviews conducted with alleged victims using either the "standard" or "revised" Protocols showed that the enhanced focus on rapport indeed encouraged children to be more cooperative and less resistant. When 1,424 4- to 13-year-old suspected victims of intrafamilial abuse in Israel were interviewed using either the standard NICHD Investigative Interview Protocol ($n = 613$) or the revised version ($n = 811$), Hershkowitz, Lamb, and Katz (2014) reported that use of the revised protocol reduced reluctance during the interview and increased the willingness to disclose abuse, underscoring the importance of rapport when children are asked to talk about abuse, especially when family members are suspected of involvement (Hershkowitz, Horowitz, et al., 2007). As a result, significantly more children who were known to have been abused by family members made allegations when interviewed using the Revised rather than the Standard Protocol (Hershkowitz et al., 2014).

Interrogating Young Suspects

The Protocols discussed above for interviewing young victims and witnesses were designed with children's developmental strengths and limitations in mind. Clearly, children *can* be competent witnesses if they are well-interviewed by experts who understand the relevant developmental factors. Interviewed less appropriately, children may be rendered incompetent and/or incredible. Much is at stake when youth are questioned as suspects as well. Research has led to various recommendations concerning the interrogation of young suspects. However, these recommendations have yet to produce major change in the laws and procedures concerning how youth are interrogated (Owen-Kostelnik et al., 2006).

Unfortunately, the rather obvious fact that children have the same characteristics whether they are called victims or suspects has not been widely respected. In 1993, the year after the *Memorandum of Good Practice on Video Recorded Interviews with Child Witnesses for Criminal Proceedings* was published by the British Home Office, Jon Venables and Robert Thompson were arrested by the police for their role in the murder of a toddler named James Bulger. These 10-year-old youngsters would have benefited from the involvement of skilled and specially trained interviewers had they been suspected victims of abuse; instead, they were subjected to some 20 hours of

questioning by police officers who were guided more by their experiences as interviewers of adult criminals rather than by developmentally sensitive evidence documenting the special needs and circumstances of young children in forensic contexts. The Police and Criminal Evidence Act of 1984 (PACE), which served as the interviewers' guide, recognizes that British suspects under 17 should have access to a responsible "appropriate adult," whose role is to give advice, facilitate communication, and ensure that the interview is conducted properly and fairly (Home Office, 2008). Unfortunately, further guidance was not given. Compared to professional guidelines for interviewing child victims, the rubric pertaining to young suspects is thus considerably less detailed, less informed by the developmental research, and outdated in light of the considerable amount of research conducted since 1984 and summarized above.

"Appropriate adults" such as parents, relatives, and social workers infrequently intervene in ways that prevent children and adolescents from incriminating themselves (Drizin & Colgan, 2004; Medford, Gudjonsson, & Pearse, 2003; Sim & Lamb, 2013). Only the presence of lawyers is systematically associated with reductions in the likelihood that British adolescents will provide incriminating information or make admissions during questioning (Clarke, Milne, & Bull, 2011; Medford et al., 2003; Sim & Lamb, 2013). Presumably, lawyers are more aware than other appropriate persons that arrest and prosecution are typically impossible in the absence of corroborated evidence concerning the suspects' misbehavior.

Despite the developmental differences discussed earlier in this chapter, proponents of Reid-like interrogation techniques pay little or no attention to the age of suspects being interviewed. In fact, when interrogating adolescents, the Reid training manual recommends, "Apart from statutory requirements prescribed in a few states, and except for particular rules established by a few state courts... the interrogation of juvenile suspects may be conducted in essentially the same way as for adults" (Inbau et al., 2013, p. 419). As discussed above, research confirms that Reid-like techniques are used commonly with juvenile suspects in the United States (Feld, 2006; Malloy et al., 2014; Meyer & Reppucci, 2007).

In their white paper, Kassin et al. (2010) warned:

There is a strong consensus among psychologists, legal scholars, and practitioners that juveniles and individuals with cognitive impairments or psychological disorders are particularly susceptible to false confession under pressure. Yet little action

has been taken to modulate the methods by which these vulnerable groups are questioned when placed into custody as crime suspects. (p. 30)

As Kassin et al. (2010) recommended, individuals who conduct interviews and interrogations with juveniles should receive special training concerning the risks associated with youthful age (as well as the risks associated with other vulnerabilities such as mental retardation and mental illness). Ideally, this training would cover the relevant aspects of developmental psychology and interview strategies and structure discussed earlier in this chapter.

Even the authors of the Reid training manual have started recognizing that juveniles (and others with intellectual vulnerabilities) are at increased risk for false confession. Accordingly, more recent versions of the manual (Inbau, Reid, Buckley, & Jayne, 2001, 2013) recommend taking some precautions when interrogating juvenile suspects. In discussing the presentation of fictitious evidence, for example, they note,

This technique should be avoided when interrogating a youthful suspect with low social maturity or a suspect with diminished mental capacity... These suspects may not have the fortitude or confidence to challenge such evidence and, depending on the nature of the crime, may become confused as to their own possible involvement. (Inbau et al., 2013; p. 255)

They recommended that adolescents' "level of social responsibility" and "general maturity" be given consideration before police use the fictitious evidence technique. However, researchers have not established whether police interrogators can accurately judge adolescents' social maturity or social responsibility, especially as these terms have not been clearly defined.

Researchers interested in reforming interrogation procedures for youth have also tested alternative interrogation techniques. In one study, 9- to 14-year-olds suspected of committing sexual offenses were interviewed using a modified version of the NICHD Protocol (Hershkowitz, Horowitz, Lamb, Orbach, & Sternberg, 2004). Young suspects who partially or fully admitted their offenses reported absolutely and proportionally more details in response to invitations as opposed to suggestive prompts, confirming that, like alleged victims, youthful suspects can provide considerable amounts of forensically relevant information in response to open-ended prompts, even when they minimize their own involvement and culpability. However, interviewers behaved differently when addressing alleged

suspects as opposed to victims, providing suspects with proportionally fewer invitations and proportionally more intrusive (e.g., suggestive) prompts. The study underscored the fact that the suspects were children, and that they should be interviewed sensitively, with consideration for their developing cognitive and interpersonal skills and limitations.

Such findings are important because of their relevance to false confessions, and their far more serious and surprisingly common counterpart, coerced confessions (Drizin & Colgan, 2004). As mentioned earlier, juveniles are more likely than older suspects both to confess (Redlich, Silverman, Chen, & Steiner, 2004) and to confess falsely (Drizin & Leo, 2004). These differences are especially significant considering the crucial role that confessions play in the criminal justice system. Confessions may establish a confirmatory bias that leads investigators to discount possibly exculpatory evidence while evaluating the available evidence (e.g., C. Hill, Memon, & McGeorge, 2008; Kassin, Bogart, & Kerner, 2012; Kassin, Goldstein, & Savitsky, 2003; Narchet, Meissner, & Russano, 2011; Snook, Luther, Quinlan, & Milne, 2012). Indeed, suspects who have provided confessions are treated differently at every subsequent stage of the criminal process (Leo, 1996).

Not only are the interviewing techniques drastically different for young victims/witnesses and suspects, but the evaluations and assumptions that fact finders and investigators make about youth may also vary considerably depending on their legal role. As Malloy and Lamb (2010) have observed, different assumptions seem to be made about the capabilities and credibility of young victims, witnesses, and suspects, especially when one considers the contrasting ways in which fact finders and investigators view inconsistencies in the testimonies of alleged offenders and victims. When victims change their testimony, either by adding additional embellishments to their accounts or by recanting allegations they have made, considerable skepticism ensues, and there is substantial evidence that courts often fail to convict when principal victim-witnesses significantly alter their accounts (Myers, 1992; Quas et al., 2005). By contrast, when suspects change their accounts, especially when they claim to have confessed falsely, this tends to have very little effect on fact finders, who instead tend to regard such recantations as tactical changes that do not undermine the probative value of the initial confessions. Malloy and Lamb (2010) proposed that fact finders and investigators must be similarly cautious when considering changes in any forensic statements, particularly when the individuals involved are children or adolescents

whose developmental characteristics may affect the quality, reliability, and trustworthiness of the statements they are believed to have provided.

Post-Adjudication Issues With Respect to Young Offenders

Looking beyond the interrogation context, developmental differences also need to be considered when focusing on the possibility for rehabilitation. Importantly, the majority of youth who engage in delinquent behavior in adolescence (as many do, for reasons explained earlier in this chapter) are most likely not to engage in further misbehavior as they grow older (Moffitt & Caspi, 2001; Moffitt, Caspi, Harrington, & Milne, 2002; Odgers et al., 2008). Because of this, it is extremely important not to punish young offenders in ways that increase the likelihood that they may embrace lives of crime. For example, it makes little sense to punish offenders by placing them in custodial circumstances where they may encounter and learn from others who are criminally inclined. Similarly, it is important not to stigmatize or label youth in ways that limit their ability to resume more conventional law-abiding behavioral trajectories as they grow older. One of the best predictors of further criminality on the part of young offenders is educational attainment (Blomberg, Bales, & Piquero, 2011; Katsiyannis, Ryan, Zhang, & Spann, 2008), and thus any forms of punishment that restrict the ability of youngsters to complete their education and training can significantly and destructively impede their chances to become productive members of society in the future. This is a matter of particular concern in those jurisdictions, especially but not only in the United States, where young offenders are increasingly treated as adults and may find themselves spending part or all of their incarceration in adult prisons where there are fewer opportunities for education and training in preparation for their return to the civilian world.

Although, as Steinberg (2009) noted, sensitivity to developmental issues is not a panacea, decision making can and should be informed by the lessons learned by developmental psychologists. The U.S. Supreme Court's decision to abolish the death penalty for adolescents is illustrative. In *Roper v. Simmons* (2005), the Supreme Court ruled that the execution of offenders for crimes committed at the age of 16 or 17 constituted cruel and unusual punishment in violation of the Eighth Amendment to the Constitution. In prior decisions, the death penalty had already been deemed unsuitable for those under 15 in *Thompson v. Oklahoma*

(1988), but left standing for 16- and 17-year-olds in *Stanford v. Kentucky* (1989). The court's decision in *Roper v. Simmons* was based on evidence mitigating adolescent culpability as a result of developmental status summarized in an amicus curiae brief (American Medical Association et al., 2004) submitted by a coalition of academic professional bodies. Reviewing some of the information presented in this chapter and in that by Cauffman et al. (see Cauffman, Shulman, Bechtold, & Steinberg, Chapter 16, this *Handbook*, Volume 4), the brief argued that "Older adolescents behave differently than adults because their minds operate differently, their emotions are more volatile, and their brains are anatomically immature" (p. 4), and thus that "Executing adolescents does not serve the recognized purposes of the death penalty" (p. 21). One such purpose is to deter future crime. However, research has shown that punitive policies (e.g., transfer to adult criminal court) are not only costly to taxpayers (Greenwood, 2006) but also fail to deter future criminal activity (Bishop & Frazier, 2000; Singer & McDowall, 1988; see Fagan, 2008 for review) and jeopardizes the safety, mental health, and future prospects of many juveniles (e.g., Bishop & Frazier, 2000; Cauffman, Lexcen, Goldweber, Shulman, & Grisso, 2007; Cesaroni & Peterson-Badali, 2005; see Fagan, 2008).

Although the past 20 years have seen a rapid development of effective and developmentally oriented interventions, most services provided in the juvenile justice system have not been evaluated or shown to be effective. In their critical review, Henggeler and Schoenwald (2011) concluded that common practices (including residential placement) designed to reduce recidivism are often ineffective (Drake, Aos, & Miller, 2009; Howell, 2003; Lipsey, 2009). Similarly, a meta-analysis of controlled studies (Petrosino, Turpin-Petrosino, & Guckenburg, 2010) showed that processing through the juvenile system seemed to increase rather than decrease criminal behavior. Transferring youth to adult criminal court, which is supposed to have an additional deterrent effect, further increased criminal behavior (Redding, 2010; but see Bechtold & Cauffman, 2014). These conclusions are especially alarming because of the high economic costs of such ineffective services. Resources could have been used for therapeutic and educational services instead.

Juvenile Sex Offenders

Juvenile sex offenders represent one of the few remaining populations for whom long-term institutional care is accepted on a routine basis and for whom public

registration or notification and community management practices apply (Chaffin, 2009). Such approaches were founded on misperceptions and unproven assumptions drawn from theories about adult pedophilia and apparently do not promote either youth rehabilitation or child protection (Chaffin, 2009). Many children and youth are likely to be harmed needlessly by the failure to adopt evidence-based policies and practices.

Placing youth on public registries not only causes permanent stigmatization but can also lead to social exclusion and marginalization as registered individuals are expelled from educational institutions and have difficulty finding employment. These youth are often referred to separate treatment programs operated by professionals trained to treat sex offenders, even when they have unrelated problems such as learning difficulties. Treatment components are routinely borrowed from programs for adult pedophiles, even though they may be irrelevant and counterproductive. For example, a meta-analysis of intervention effectiveness conducted by St. Amand, Bard, and Silovsky (2008) showed that focus on the treatment of misconduct (e.g., by strengthening the behavior management skills of parents or caregivers) was beneficial for juvenile sex offenders whereas elements specific to sex-offending were counterproductive (see also Borduin & Dopp, 2012).

A growing body of data shows that children who display sexually intrusive behaviors, similar to adolescent sex offenders, are unlikely to commit sex crimes later (Alexander, 1999; Caldwell, 2002; Carpentier, Silovsky, & Chaffin, 2006), often improving without treatment (Silovsky, Niec, Bard, & Hecht, 2007), and that effective treatment reduces the display of inappropriate sexual behavior (Carpentier et al., 2006), sometimes to the same level as in groups of nonoffending children with other developmental disorders. Contrary to mistaken beliefs attributable to the confusion between prospective and retrospective data (for many adult pedophiles, sexually aggressive behavior began in childhood or adolescence but very few sexually offending children and adolescents continue misbehaving in adulthood), sexually aggressive behavior is neither compulsive nor addictive and tends not to persist, especially in the face of effective treatment.

IMPLICATIONS OF DEVELOPMENTAL SCIENCE FOR FAMILY AND DEPENDENCY COURT

Developmental considerations are relevant not only when considering children involved in the criminal justice

system; they affect children caught up in family and dependency courts processes as well.

Developmental Considerations in Dependency Court

Although many factors affect children's adjustment, both family break-up and maltreatment can profoundly affect children's cognitive, socioemotional, and even physical development. These effects may be long-lasting: Child maltreatment is a major risk factor for short- and long-term adjustment problems, including adult psychopathology (see Cicchetti and Toth, Chapter 13, this *Handbook*, this volume). Early identification of maltreatment is critical for ending victimization, protecting children, and providing children, families, and perpetrators with appropriate services and treatment while also allowing offenders to be punished when appropriate. Early identification is clearly facilitated by attention to the recommendations made in this chapter.

Many children are removed from home due to substantiated child abuse or neglect during their first few years of life. These interventions are designed to protect children from further maltreatment and allow time for intervention and assessment of the suitability of family reunification or permanent alternative placement. Research shows that intensive interventions can successfully address problems in some families (improving parenting skills and parent-child relationships), obviating the need for prolonged foster care placements or adoption (Bernard et al., 2012; Cicchetti, Rogosch, & Toth, 2006; Kirk & Griffith, 2004). Of course, even short-term separations can adversely affect child-parent attachments and it is important to recognize that most abused children are attached to their parents, even if those attachments are insecure or disorganized (e.g., Lamb et al., 1985; Lyons-Ruth, Bronfman, & Parsons, 1999). Furthermore, children placed in foster or adoptive homes need to establish new relationships and often face repeated disruption as they are moved between foster homes despite stated commitments to stability and permanence (Bernard et al., 2012).

As discussed above, the formation and maintenance of attachment relationships during these early years is critical for optimal development. Consequently, developmentally sensitive intervention strategies have been devised to help very young, vulnerable children in both foster/adoptive and birth families. As Dozier et al. (2013) state, "Foster care for children younger than about 5

should be considered as an intervention that is fundamentally different from that for older children" (p. 4). Two intervention strategies that have received empirical support are worth noting in this regard: Attachment and Biobehavioral Catch-Up (ABC) and the New Orleans Intervention.

The ABC approach was designed to improve caregivers' responses to their children, specifically increasing both birth and foster parents' synchronous and nurturing responses and decreasing their threatening or intrusive responses. In the course of 10 home visits, parents learn how to modify their behaviors via coaching, feedback on video-recorded interactions, and live commentary on their "real-time" interactions with their children. Several studies have examined the ABC intervention in families involved in the child welfare system. Randomized clinical trials have shown that this intervention improves parents' behaviors toward their children, making them more "synchronous" (i.e., appearing to follow children's leads in the interactions). Furthermore, there are lower rates of disorganized attachment following intervention (see Dozier et al., 2013, for a review). This relatively brief intervention (10 sessions) holds promise for producing positive outcomes following adverse experiences in early life.

The New Orleans Intervention is another "attachment-based" intervention strategy aimed at children who experience maltreatment in the first few years of life (Zeanah et al., 2001). It is a large-scale "systems" intervention that involves coordination among multiple service providers. Mental health components are integrated into foster care and child protective services as multidisciplinary teams strive to enhance children's relationships with caregivers by focusing on synchrony, nurturance, stability, and commitment. Depending on the individual circumstances, the New Orleans Intervention may target biological parents, foster parents, and childcare providers. Families who participated in the New Orleans Intervention were at reduced risk for having children placed in foster care later (Zeanah et al., 2001).

Unfortunately, interventions such as these are exceptional rather than normative, with the majority of abused children and their families receiving inadequate interventions, and most alternative placements both unstable and unsatisfactory. Unsurprisingly, outcomes for children who have been in care tend to be extremely poor and long-lasting (e.g., Oosterman, Schuengel, Slot, Bullens, & Doreleijers, 2007; Racusin, Maerlender, Sengupta, Isquith, & Straus, 2005).

Developmental Considerations in Family Court

Although divorce and parental separation clearly affect more children than child maltreatment, the effects tend to be less dramatic. On average, children benefit from being raised in two-parent families rather than separated, divorced, or never-married single-parent households (see Amato & Dorius, 2010, for a review), although there is considerable variability within groups, and the mean differences (in psychosocial adjustment, behavior and achievement at school, educational attainment, employment trajectories, income generation, involvement in antisocial and even criminal behavior, and the ability to establish and maintain intimate relationships) between groups are relatively small (Lamb, 2012). Approximately 25% of the children in postseparation and divorced families give evidence of adjustment problems, compared to 12%–15% in two-parent families. Thus, the majority of children from separated families evince no psychopathology or behavioral symptoms, although they are likely to experience psychic pain for at least some period of time (Hetherington & Kelly, 2002). The crucial individual differences in children's adjustment are accounted for by economic stresses, declines in the quality of parent–child relationships, and conflict between parents or between parents and their intimates (see reviews by Carlson & McLanahan, 2010; Fabricius, Braver, Diaz, & Velez, 2010; Lamb, 2012; Marsiglio & Hinojosa, 2010).

When parents separate, there is considerable evidence that postdivorce arrangements should specifically seek to maximize positive and meaningful paternal involvement rather than simply allow minimal levels of visitation. As in nondivorced families, in other words, the quality of continued relationships with both parents is crucial (Lamb & Kelly, 2009; Warshak, 2014). Stated differently and succinctly, the better (richer, deeper, and more secure) the parent–child relationships, the better the children's adjustment, whether or not the parents live together. More involved parents are also more likely to provide financially for their children whether or not they live together most of the time.

Unfortunately, legal decision-makers do not always appear to understand what sort of interaction is needed to consolidate and maintain parent–child relationships and attachment bonds. As a result, their decisions seldom ensure either sufficient amounts of time or adequate distributions of that time for children and parents. Traditional “visiting guidelines” in many jurisdictions assign every other weekend to the nonresident parent (with perhaps a

brief midweek visit), and mental health professionals often rely on unsubstantiated beliefs that every other weekend is best for children because it ensures that children continue to have only one “real home.”

These plans have left much to be desired for many families, and have caused great dissatisfaction and sense of loss to the majority of children in postdivorce arrangements (Fabricius et al., 2010). Research on children's and young adults' retrospective views of their postdivorce living arrangements indicates that the majority express strong wishes and longing for more time with their fathers, a desire for more closeness, and favorable views of shared physical custody arrangements (see Fabricius et al., 2010). Even young children should regularly spend overnight periods with both parents when both have been involved in their care prior to separation (Lamb & Kelly, 2009; Pruett, Insabella, & Gustafson, 2005; Warshak, 2014).

To facilitate children's adjustment to their parents' separation, many jurisdictions have introduced education programs that explain to separating parents the effects of divorce on children, the impact of parent conflict, the particular risk when parents use their children to express their anger and disagreement, the need to separate children's needs from adult needs, parenting skills, and often provide skill-based training to minimize conflict and promote more effective communication. At least in the short term, these courses appear to be effective (e.g., Arbutnot & Gordon, 1996; Bacon & McKenzie, 2004; D. Ellis & Anderson, 2003; Pedro-Carroll, Nakhnikian, & Montes, 2001), particularly when the content is empirically based and includes skill-based training and role-play exercises. More extensive research-based parent education programs appear to bring about meaningful behavioral changes in both mothers and fathers (for reviews, see Braver, Griffin, Cookston, Sandler, & Williams, 2005; Haine, Sandler, Wolchik, Tein, & Dawson-McClure, 2003). Parents should also talk to their children about those aspects of the separation and divorce that directly affect them, though this seldom happens (Dunn, Davies, O'Connor, & Sturgess, 2001; Smart, 2002; Smart & Neale, 2000), leaving children to cope with major and hard-to-understand changes in their lives without emotional support.

Especially in the United States, many divorcing couples make use of custody evaluations, conducted by mental health professionals who advise the court on postdivorce parenting arrangements most likely to advance the best interests of the children involved, whether or not they are “fair” to the parents. Custody evaluators should be familiar with and guided by the empirical literature regarding

attachment, child development, parent–child relationships, parental separation, and children’s adjustment and attend to individual circumstances as well as the parents’ and children’s strengths, schedules, and needs (Kelly, 2005, 2007; Kuehnle & Drozd, 2012; Smyth & Chisholm, 2006). There is some controversy about the extent to which they do so (Tippins & Wittman, 2005), however, with Emery and his colleagues (Emery, Otto, & O’Donohue, 2005) severely criticizing widespread practices. To date, there has been little research on the value of custody evaluations.

Cashmore and Parkinson (2009) have articulated the view that children have the right to participate in legal processes destined to affect them, although they recognize, as Fidler, Bala, and Saini (2013) make clear, that children’s expressed views should not be determinative and that there are some circumstances in which it may be preferable not to involve children in decision making. Exactly how children’s voices should be heard varies depending on their ages, characteristics, and circumstances, with various options (including legal representation, and informal or formal interviewing by judges or mental health professionals) discussed by Fidler et al. (2013). In many cases, a mental health professional or custody evaluator interviews affected children and considers their preferences and best interests, which are conveyed in reports prepared for the court.

As noted earlier, conflict between parents is reliably associated with the increased likelihood of maladjustment on the part of the children involved, whether or not the parents live together and whether or not they are separating (Amato & Dorius, 2010; P. T. Davies, Martin, & Cicchetti, 2012; Kelly, 2004). Not surprisingly, therefore, considerable attention has been paid by researchers to interventions that might minimize children’s exposure to harmful levels of conflict. Research shows that custody and divorce mediation can have substantial short-term (e.g., earlier settlement of parenting disputes, reduced parental conflict, improved parental support) and longer-term (e.g., more sustained contact between nonresident fathers and children 12 years later) benefits for the families involved (Emery, Laumann-Billings, Waldron, Sbarra, & Dillon, 2001; Kelly, 2004). On a more mundane level, it is important to ensure that exchanges between the homes take place in neutral settings and at times that limit contact between the parents (Flory, Dunn, Berg-Weger, & Milstead, 2001).

Postdivorce, parenting coordinators are also increasingly used in the United States to address the needs of children when there is very high conflict between the parents by helping parents settle disputes regarding their

children in a timely manner, while facilitating compliance with parenting plans and related court orders (*Family Court Review*, 2001; Kelly, 2010). Surveys show that parent coordinators can be very effective, especially in reducing the frequency and intensity of disputes (Coates, Deutsch, Starnes, Sullivan, & Sydlik, 2004), although to date there has been no systematic research on their impact. Of course, there are some situations in which at least one of the parents is incapable of providing parental support of adequate quality or in which the levels of conflict or violence are so high and so intractable as to preclude regular contact between children and their parents, but these families appear to be rare (Kelly, 2012). More research is needed on the adjustment of children in these families, and on techniques that might promote their well-being.

Summary

Children involved with the Family and Dependency/Juvenile Courts have developmental and situational needs that need to be recognized and accommodated by the professionals with whom they interact. In addition to the possible sequelae of stressful experiences, such as maltreatment or their parents’ separation, many children and youth must also grapple with concerns about competing loyalties to their parents in the context of continuing levels of dependency and emotional vulnerability. Mental health professionals have developed some techniques to minimize the adverse effects and increase the chances that parent–child relationships can be enhanced, but their use is exceptional, rather than normative. In Dependency Court settings, the focus is often on obviating the risk of future abuse, regardless of the possible effects on children’s relationships with their parents and other family members, whereas in Family Court, the tendency to focus on the needs of the litigating parents often obscures focus on the children’s best interests. In both contexts, insufficient attention is paid to developmental differences in the children’s preferences or understanding of the proceedings and their possible outcomes.

CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

In this chapter, we have shown how children’s development in a variety of domains profoundly affects their participation in the legal system, regardless of the specific

roles—as victims, as offenders, as witnesses, and as affected parties—they are called upon to play. Despite the best efforts of researchers, especially psychologists, to focus their attention narrowly on specific aspects of psychological function (attention, memory, language, emotion, social understanding, logic and reasoning), children (like adults) are coherent holistic entities whose behavior and performance are constrained, made possible, and guided by capacities and limitations in a varied array of interrelated dimensions or facets. Accordingly, we used the first portion of this chapter to describe the relevant developments in each of the domains known to affect children's performance in legal contexts and then showed both how these intersecting developmental trajectories affect behavior in legal contexts and how recognition of these factors can be used to maximize children's participation while ensuring that legal processes yield outcomes that are most likely to address children's interests and needs. This collective intellectual exercise is very much a work in progress, with considerably more research needed to flesh out the implications of developments delineated in experimental contexts and to document their implications for children in diverse legal contexts, not simply in specific domains. Equally clear is the fact that different questions have provoked different amounts of attention from scholars and researchers. Our review is not exhaustive, though we have attempted to provide a broad overview and to discuss the available evidence concerning several central topics.

The vast majority of research and theorizing in relation to children and the law has focused on the testimonial capacities and weaknesses of victimized children—especially young children—as witnesses, with considerable research also focused on the less obvious weaknesses and characteristics of youth who have allegedly committed offenses. There has been substantially less research on children whose living arrangements are determined by legal proceedings, either because their parents have separated or because their parenting skills and motivation have been unacceptably poor, even though many more children fall into the latter categories than into the former. Many of the children affected by parental separation are adversely affected, but there have been relatively few studies in which children in such circumstances have been followed over time to allow examination of the factors accounting for individual differences in adjustment. Accordingly, we have made the case both that there is a serious need for sophisticated research on children in these civil law (family and dependency court) circumstances, and that many of the same developmental considerations that affect the

performance of young witnesses describing their victimization also warrant consideration when considering the testimony and culpability of juvenile offenders, or the preferences and well-being of children whose long-term considerations are being decided by professionals in the legal system, many of whom have had little training in or understanding of child development.

There are, of course, some differences between the different legal contexts and the different roles played by children, and it would behoove future researchers to explore some of these differences in depth. In the criminal law context, for example, young victims or offenders may be asked to describe in detail specific experienced events, but they may be motivated to emphasize or minimize certain types of details, and explanations or justifications may be more important in one context than in another. In other legal contexts, however, the focus is not on specific incidents but on patterns of behavior over time (quality of parenting, neglectful behavior) and expectations of future behavior. It is very likely (though the issue has yet to receive any substantial attention) that different techniques and questions would be needed both to elicit these different types of information and to evaluate it. For example, by definition, neglectful behavior involves acts of omission, so children's accounts of neglectful parental behavior should be elicited using different techniques than their accounts of acts of commission (e.g., physical or sexual abuse).

Certainly, children's behavior in legal contexts is affected by motivational factors associated with the nature of their relationships, especially with the adults involved. Thus, for example, researchers know that young victims often fail to, delay, recant, or minimize reports and accusations of abuse by those they love or on whom they are dependent, and these findings underscore the need for considerably more research on the extent to which affective and motivational factors influence the extent to which children encode, recall, or recount details about their experiences. Although some research illustrates the role of motivation in affecting the performance of young victim-witnesses, for example, very little is known about the psychological mechanisms, especially as they pertain not simply to recounting, but to the other psychological processes (e.g., encoding, forgetting) involved. In the civil law domain, furthermore, studies have documented the value of well-designed interventions promoting beneficial relationships between birth, foster, or adoptive parents and their children, but there is still very little methodologically sound research on the relative psychological costs of maltreatment, estrangement (e.g., from one parent), legally

enforced separations (e.g., during temporary placement in foster care), or repeated transitions (e.g., from one foster family to another) on the well-being of children at different developmental stages and of differing dispositions. Indeed, research on individual differences is extremely rare in the literature on children and the law, with the few relevant findings either weak or inconsistent. Thus there is a clear need to conduct more intensive and systematic research on individual differences in the future.

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