
CHILD WITNESSES AND THE OATH: EMPIRICAL EVIDENCE

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I. INTRODUCTION	1018
II. COMPETENCY REQUIREMENTS FOR CHILD WITNESSES....	1021
III. HOW SHOULD OATH-TAKING COMPETENCE BE ASSESSSED?.....	1027
A. ASSESSING CHILDREN’S UNDERSTANDING OF THE DIFFERENCE BETWEEN THE TRUTH AND LIES	1029
1. <i>Cognitive Difficulties</i>	1029
2. <i>Motivational Difficulties in Demonstrating Understanding of the Truth and Lies</i>	1044
3. <i>Recommendations</i>	1047
B. ASSESSING CHILDREN’S UNDERSTANDING OF THE WRONGFULNESS OF LYING	1049
1. <i>Cognitive Difficulties in Explaining Why Lying is Wrong</i>	1049
2. <i>Motivational Difficulties in Describing the Wrongfulness of Lying</i>	1051
3. <i>Recommendations</i>	1056
IV. WHAT FORM OF THE OATH SHOULD BE USED?	1057
A. DIFFICULTIES IN ASKING CHILDREN TO “PROMISE TO TELL THE TRUTH”	1058

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B. RECOMMENDATIONS.....	1063
V. DOES UNDERSTANDING THE OATH AND TAKING THE OATH AFFECT HONESTY?.....	1064
A. PREVIOUS RESEARCH EXAMINING OATH-TAKING COMPETENCY AND HONESTY.....	1064
B. THE OATH’S EFFECT ON HONESTY ABOUT TRANSGRESSIONS.....	1067
C. RECOMMENDATIONS.....	1070
VI. CONCLUSION.....	1071

I. INTRODUCTION

In *Commonwealth v. Corbett*, the defendant was charged with sexually assaulting a five-year-old child.¹ As in most cases of sexual abuse, the child was the only witness to the abuse, and the prosecution viewed her testimony as essential. However, before the prosecutor could present the child’s testimony to the jury, it was necessary to qualify her for the oath. Most courts require that child witnesses have some understanding of the difference between the truth and lies and the importance of telling the truth,² and Massachusetts is no exception. A child who fails the qualifying questions is considered testimonially incompetent, and is not allowed to testify.

In *Corbett*, the child “indicated that she was aware of the difference between a truthful statement and a lie,”³ but had some difficulty discussing the implications of lying:

Q. What is the truth?

A. A lie isn’t the truth.

....

Q. If you tell a lie, will you get into trouble?

A. No.

Q. You won’t get into trouble?

A. But I am not going to tell a lie.

Q. Have you ever told a lie?

A. No.

Q. If you don’t tell the truth, do you know what will happen to you?

1. 533 N.E.2d 207 (Mass. App. Ct. 1989).

2. See *infra* text accompanying notes 8–13.

3. 533 N.E.2d at 210.

....

A. Well, I can tell you just what happened.

Q. What happened?

A. He just looked down my privates and touched me down there.

....

Q. . . . Do you know if it is wrong to tell the truth in a court like where we are in this courtroom now?

A. No.

....

Q. [Regarding the color of an object] Is that green or is it blue?

A. Green.

Q. And what if I said it was blue?

A. It is not the truth.

....

Q. . . . And if you said it were blue, what would happen to you?

A. Well, then I will say it is a different color.⁴

What is remarkable about the child's testimony is her persistent refusal to entertain the possibility that she would lie on the stand. Despite the implication that she understood what a lie was, and knew that she should not lie, the trial court found her incompetent to take the oath, and dismissed the charges against the defendant. The state appealed, and lost. The charges were never refiled.⁵

The competency questions asked in *Corbett* are typical in American courts. In spite of legal reforms designed to facilitate the prosecution of child sexual abuse, most courts' age-old oath-taking competency requirements remain intact. And because putting the child victim on the stand remains the prosecutors' weapon of choice for obtaining convictions, competency requirements act as a potential bar to successful prosecution. A national survey of child sexual abuse prosecutors in 1993 found that for almost half the offices surveyed, the competency of the child witness was

4. *Id.* at 212–14.

5. See Letter from Amy Atchison, Reference Librarian, USC Law School, to Thomas D. Lyon (Mar. 1, 1999) (on file with author) (reporting phone conversation with the prosecutor in *Corbett*).

an issue in most or all of the cases.⁶ As a general rule, if the child witness cannot qualify, the prosecutor cannot prove up her case.

Because developmental psychologists make a living questioning children, they are an obvious source of guidance for questioning children correctly. Of late, experimental psychologists have emphasized the risk of eliciting false allegations from children through highly leading questioning.⁷ However, improper questioning can lead to false acquittals as well as false convictions, and the tools of developmental psychology can be used to uncover children's competencies as well as highlight their vulnerabilities.

This article describes a research program designed to evaluate the oath and the oath-taking requirements for children, with the ultimate goal of improving the process by which children's testimony is received. The guiding principle is that the rationale for the oath and the competency requirements are empirical questions that can be rigorously tested. How should oath-taking competence be evaluated? How should the oath be administered? Does the oath increase sincerity? In addition to reviewing the work of others, I will summarize research that I have conducted over the past several years with several hundred maltreated and non-maltreated young children.

Section II describes the rationale for the oath and for the oath-taking competency requirements, and documents the continued vitality of such requirements in the state and federal courts. Section III discusses how the courts are likely to misevaluate children's oath-taking competence, both by underestimating some children's competence due to unnecessarily abstract and difficult inquiries and by overestimating other children's understanding through suggestive questions. The section summarizes research demonstrating that children's understanding of the meaning and morality of lies depends on the way in which questions are asked, and that cognitive and motivational difficulties make it hard for young children to demonstrate their competence. Preferred methods for assessing understanding are presented. Section IV discusses how even child-friendly versions of the oath are likely to be misunderstood by young children, and offers an alternative form of the oath. Section V describes research assessing whether children's understanding of the oath and taking of the

6. See Barbara E. Smith & Sharon Goretsky Elstein, *The Prosecution of Child Sexual and Physical Abuse Cases: Final Report 51-52* (Sept. 30, 1993) (submitted to the National Center on Child Abuse and Neglect by the ABA Fund for Justice and Education).

7. See Thomas D. Lyon, *The New Wave in Children's Suggestibility Research: A Critique*, 84 *CORNELL L. REV.* 1004, 1007 (1999).

oath affects their honesty. The evidence suggests that a developmentally sensitive form of the oath does in fact achieve a positive effect. Section VI concludes with a discussion of the different approaches to witnesses emphasized by the law and psychology, and describes how an appreciation of these differences may inform both legal practice and applied psychological research.

II. COMPETENCY REQUIREMENTS FOR CHILD WITNESSES

The oath is intended to impress upon the witness the importance of telling the truth in court, and subjects the witness to prosecution for perjury should she lie on the stand. The oath-taking competency requirements for child witnesses are often traced back to *The King v. Brasier*, an English case decided in 1779.⁸ In that case, the appellate court reversed a conviction for sexual assault with intent to rape because the child victim had not testified under oath at trial. Instead, adult witnesses repeated the child's statements. The court noted that a child under seven could provide sworn testimony so long as she was shown, "on strict examination by the Court, to possess a sufficient knowledge of the nature and consequences of an oath . . ."⁹ *Brasier* thus emphasized both the importance of sworn testimony and the necessity of inquiring into children's appreciation of the oath.

Citing *Brasier* (and state cases that had cited it as well), the United States Supreme Court held in *Wheeler v. United States* that a five-year-old child could be sworn as a witness, provided that he had sufficient "capacity and intelligence," understood the difference between truth and falsehood, appreciated the consequences of telling a lie, and knew what was required by the oath.¹⁰ The Court approved the specific questions asked at the trial level:

The boy, in reply to questions put to him on his *voir dire*, said, among other things, that he knew the difference between the truth and a lie; that if he told a lie, the bad man would get him, and that he was going to tell the truth. When further asked what they would do with him in court if he told a lie, he replied that they would put him in jail. He also said that his mother had told him that morning to 'tell no lie,' and, in response to a question as to what the clerk said to him when he held up his hand, he answered, 'Don't you tell no story.'¹¹

8. 168 Eng. Rep. 202 (1779).

9. *Id.* at 202-03.

10. 159 U.S. 523, 524-25 (1895).

11. *Id.* at 524.

Currently, the oath and the oath-taking competency requirements look much like they have for hundreds of years. Rule 603 of the Federal Rules of Evidence requires that “every witness shall be required to declare that the witness will testify truthfully, by oath or affirmation administered in a form calculated to awaken the witness’ conscience and impress the witness’ mind with the duty to do so.” Although the states have their own evidence codes, most have adopted a version of Rule 603, and require that all witnesses take the oath or an affirmation.¹² In order to guarantee that the “oath or affirmation” is understood by the child witness, courts routinely inquire into the child’s understanding of the difference between the truth and lies and her appreciation of her obligation to tell the truth.¹³

Given commentators’ frequent claims that the competency requirements for children are dead,¹⁴ the continued vitality of oath-taking competency may come as a surprise. There are two reasons for the misunderstanding. First, despite highly-publicized legislative attempts to relax competency requirements, courts have often resisted dropping inquiries into competency. Second, competency is more than oath-taking competency, and tests for other types of competency (which concern children’s perception, memory, and narration) have been most affected by reform.

12. See CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, EVIDENCE 4 (2d ed. 1999) (“As of 1999, 36 states had adopted [evidence] codes based on the federal model.”).

13. See 1 JOHN E.B. MYERS, EVIDENCE IN CHILD ABUSE AND NEGLECT CASES 213 (3d ed. 1997) (“The capacity to affirm presupposes some understanding of the difference between truth and falsehood.”); 3 JACK B. WEINSTEIN & MARGARET A. BERGER, WEINSTEIN’S FEDERAL EVIDENCE § 603.04 at 603-9 (Joseph M. McLaughlin ed., Lexis Publishing 2d ed. 2000) (“The oath (or affirmation) requirement is a facet of competency. Thus, if the witness is so young or so infirm that he or she cannot comprehend the nature of an oath or an affirmation as requiring him or her to tell the truth or face some type of serious consequence, the witness is incompetent.”). *But see* Victor J. Gold, *Do the Federal Rules of Evidence Matter?*, 25 LOY. L.A. L. REV. 909, 912 (1992) (arguing that Rule 603 “requires only that the witness perform the mechanical act of taking an oath or affirmation in a form calculated to awaken the witness’ conscience and impress his or her mind with the legal duty to tell the truth. Nothing in the Rule suggests that the witness must in fact have his or her conscience awakened and mind so impressed.”). If one adopts Gold’s interpretation, the affirmation is emptied of all meaning for the child who does not understand what she is affirming. If this were the intent of the drafters of the Federal Rules, it would have been more sensible to waive the requirement of an affirmation for witnesses too young to understand it.

14. See, e.g., Maggie Bruck, Stephen J. Ceci, & Helene Hembrooke, *Reliability and Credibility of Young Children’s Reports: From Research to Policy and Practice*, 53 AM. PSYCHOL. 136, 136 (1998) (referring to a “Pandora’s box of issues” regarding children’s reliability opened by major legal changes, including the “elimination of the competency requirement for child witnesses”); Gail S. Goodman, *Children’s Testimony in Historical Perspective*, 40 J. SOC. ISSUES 9, 14 (1984) (stating that “[t]he legal trend is to adopt Rule 601 of the Federal Rules of Evidence, which effectively eliminates all grounds for incompetence . . .”).

In two states, children can sometimes testify unsworn,¹⁵ and a few states have declared that all alleged victims of child abuse are competent to testify.¹⁶ Nevertheless, competency examinations in those states have not disappeared. In Florida, children may testify without taking the oath, but only “if the court determines the child understands the duty to tell the truth or the duty not to lie.”¹⁷ Ironically, a child thus has to be competent to take the oath in order not to take it. Regardless of specific statutory provisions regarding witness competence, a court can bar a child’s testimony on relevance or prejudice grounds if the child appears not to understand the nature and obligations of the oath.¹⁸ For example, Alabama, Connecticut, and Utah have statutory provisions that declare alleged victims of child sexual abuse competent witnesses who may testify without “prior qualification.”¹⁹ Nevertheless, these provisions have not barred questions about a child’s ability “to distinguish truth from fantasy or falsehood” in order to shield the jury from “unreliable testimony.”²⁰ Review of appellate cases in these states indicate that children are still questioned regarding their oath-taking competence.²¹

The federal courts have been similarly persistent in testing children’s competency. With the adoption of the Federal Rules of Evidence in 1979,

15. See FLA. STAT. ch. 90.605(2) (1999); N.Y. CRIM. PROC. LAW § 60.20(2) (McKinney 1999).

16. See ALA. CODE § 15-25-3(c) (1999); COLO. REV. STAT. § 13-90-106(1)(b)(II) (1999); CONN. GEN. STAT. § 54-86h (1999); GA. CODE ANN. § 24-9-5(b) (1999); MO. ANN. STAT. § 491.060(2) (West 1999); S.C. CODE ANN. § 19-11-25 (Law. Co-op. 1998); TENN. CODE ANN. § 24-1-101 (1999); UTAH CODE ANN. § 76-5-410 (1999); W. VA. CODE § 61-8B-11(c) (2000).

17. FLA. STAT. ch. 90.605(2).

18. See *Ivy v. State*, 522 So. 2d 740, 742 (Miss. 1988) (explaining that with elimination of competency requirements, the “trial judge simply must shift his attention from the proposed witness to the proffered testimony and from competency to relevancy”); 3 WEINSTEIN & BERGER, *supra* note 13, at § 601.03[1][c] at 601-12 (“Because trial judges have always exercised their discretion to balance the need for testimony against the dangers arising from its production, judges should extend this approach to problems previously considered in a competency setting.”).

19. See ALA. CODE § 15-25-3(c) (1999); CONN. GEN. STAT. § 54-86h (1999); UTAH CODE ANN. § 76-5-410 (1999).

20. *State v. Fulton*, 742 P.2d 1208, 1218 (Utah 1987). See also *State v. James*, 560 A.2d 426, 432 (Conn. 1989) (citing *Fulton* approvingly); *State v. Marcum*, 750 P.2d 599, 603 (Utah 1988) (“Rule 403 of the Utah Rules of Evidence would prevent the admission of incompetent testimony”); *State v. Hall*, 946 P.2d 712, 718 (Utah Ct. App. 1997). It can be argued that if the standard for allowing children’s testimony is relevance and prejudice, rather than competence, then the courts should be more lenient. See *infra* text accompanying notes 87–90 (discussing this point at greater length).

21. See *Long v. State*, 611 So. 2d 443, 445 (Ala. Crim. App. 1992) (“[T]he trial court in this case examined the ten-year-old victim at length before direct examination to be certain the victim understood his obligation to tell the truth while testifying.”); *Hall*, 946 P.2d at 718 (prosecutor questioned child in direct examination); *White v. State*, 445 S.E.2d 309, 314 (Ga. Ct. App. 1994) (“The State’s questioning of the child and the child’s responses affirmatively indicate that the child could distinguish between the truth and a lie, that she knew she should only tell the truth in court, and that she intended to do just that.”).

Rule 601 provides that “[e]very person is competent to be a witness except as otherwise provided in these rules.”²² Despite claims that this meant that “the preliminary competency examination was dropped for all witnesses in the federal court system, including children,”²³ review of the federal cases reveals that courts continued to hold competency hearings, believing that “the Rule leaves them with the power to disqualify witnesses with limited mental or moral capacities.”²⁴

One can interpret competency under 601 as referring to the witness’ perception, memory, and narration, leaving the issue of sincerity to the requirements of the oath. Doing so has enabled the federal courts to continue assessing children’s oath-taking competency in the face of Congressional attempts to cut back on competency hearings for child witnesses. Congress created a presumption that child witnesses testifying in federal court are competent, and allowed for competency hearings only upon written motion and a demonstration of “compelling reasons.”²⁵ In *United States v. Allen J.*, the Court of Appeals for the Tenth Circuit considered a defendant’s claim that a child witness was improperly allowed to testify.²⁶ Noting that the statute superseded the requirements for competency established by *Wheeler*,²⁷ the court applied the presumption of competence to whether the child had sufficient intelligence to “understand and answer simple questions.”²⁸ At the same time, the court approvingly quoted the trial court’s questioning of the child regarding her understanding of the oath, and emphasized that those questions did *not* constitute a “competency examination” pursuant to the statute.²⁹ One’s understanding of and answers to “simple questions” speaks to perception, memory, and narration, but not to sincerity, leaving the emphasis on the oath intact.

Casual review of appellate cases suggests that the overwhelming majority of children are found competent.³⁰ However, examining only appellate cases may lead one to underestimate the impact of competency requirements. Appellate opinions are not representative of trials, much less

22. FED. R. EVID. 601.

23. Lucy McGough, *Commentary: The Occasions of Perjury*, in COGNITIVE AND SOCIAL FACTORS IN EARLY DECEPTION 147, 157 (Stephen J. Ceci et al. eds., 1992).

24. Gold, *supra* note 13, at 911.

25. See 18 U.S.C. § 3509 (c)(2)–(4) (1999).

26. 127 F.3d 1292 (10th Cir. 1997).

27. *Id.* at 1295.

28. *Id.* at 1295 (quoting 18 U.S.C. § 3509(c)(8)).

29. *Id.* at 1295 n.3.

30. See, e.g., 1 MYERS, *supra* note 13, at 203 n.3–4 (collecting appellate cases in which children were found competent or incompetent, and citing many more of the former than the latter).

of cases presented for prosecution. When the child's report of abuse is the principal evidence, as in most sexual abuse cases, prosecutors will fail to file charges if the child is too young to testify.³¹ If concerns regarding the child's competence arise pre-trial, prosecutors are likely to accept a guilty plea to a lesser charge, thus avoiding a trial.³² If the child fails to qualify at trial, an acquittal is more likely, and acquittals cannot be appealed.³³ Moreover, appellate courts are reluctant to reverse a trial court's finding that a child was competent to testify, even if the court would have found the witness incompetent had it heard the case at the trial level.³⁴

Children are also frequently questioned by abuse investigators about their understanding of the meaning and morality of lying.³⁵ Their apparent competence may determine whether their statements can later be repeated in court. Some courts have held that if a child cannot demonstrate competence to take the oath, his or her hearsay statements cannot be admitted into evidence.³⁶ Even if a child's incompetence fails to act as an

31. See SMITH & ELSTEIN, *supra* note 6, at 34 (interview with 600 prosecutors of sexual abuse cases found that "close to two-thirds of our respondents reject cases due to the young age of the victim"); OFFICE OF JUVENILE JUSTICE AND DELINQUENCY PREVENTION, U.S. DEP'T OF JUST., *THE CHILD VICTIM AS A WITNESS: RESEARCH REPORT 96* (1994) (review of 534 cases presented for prosecution found that cases with younger victims were more likely to be rejected). *But cf.* ELLEN GRAY, *UNEQUAL JUSTICE: THE PROSECUTION OF CHILD SEXUAL ABUSE* 108, 111 (1993) (review of 619 cases presented for prosecution found that cases with victims under ten years of age were more likely to be filed than cases with victims over 10, but were also more likely to be dropped or plea-bargained).

32. See Robin W. Morey, *The Competency Requirement for the Child Victim of Sexual Abuse: Must We Abandon It?*, 40 U. MIAMI L. REV. 245, 260 (1985). In cases that reach trial, most child witnesses are found competent. See GRAY, *supra* note 31, at 155 ("Virtually all the children who underwent competency questioning were allowed to testify.").

33. See WAYNE R. LAFAVE & JEROLD H. ISRAEL, *CRIMINAL PROCEDURE* 1074-76 (2d ed. 1992).

34. *Cf.* California v. Liddicoat, 120 Cal. App. 3d 512, 514 (1981) (approving trial court's deference to magistrate's finding at preliminary hearing that child was competent, despite the fact that trial court would not have found her competent had she testified in the same way at trial).

35. See Mary Lyn Huffman, Amye R. Warren, & Susan M. Larson, *Discussing Truth and Lies in Interviews with Children: Whether, Why, and How?*, 3 APPLIED DEVELOPMENTAL SCI. 6, 9 (1999) (review of 132 transcripts of investigative interviews from 33 counties in one southern state found that 56% of interviews included questions regarding the child's understanding of the truth and lies).

36. See State v. Karpenski, 971 P.2d 553, 570 (Wash. Ct. App. 1999) ("At least when the declarant is a young child not shown to be competent at trial, [there must be] a showing that the declarant was competent when the statement was made" in order for hearsay to be admissible); State v. Brown, 341 N.W.2d 10, 11 (Iowa 1983) (residual hearsay exception:

Although a finding of incompetence to testify relates primarily to a potential witness's understanding of the oath, it also suggests a lack of either the maturity or the mental capacity required to answer questions truthfully. Where there is nothing else to indicate a propensity either for truth telling or for the truthfulness of a particular statement, that statement cannot be admitted.)

absolute bar against the admission of hearsay,³⁷ it may nevertheless make it more difficult to find a hearsay exception under which her statements are admissible. Under special hearsay exceptions for children's statements of abuse in many states, the statement must be corroborated by other evidence if the child is not available for cross-examination, and a finding that the child is testimonially incompetent renders her unavailable.³⁸ The child's incompetence may adversely affect the admissibility of her statements under the medical diagnosis exception to the hearsay rule, which admits statements made for the purposes of medical diagnosis or treatment, because the exception is founded on the assumption that the person making the statement understands the purpose of the adult's questions and appreciates the importance of telling the truth.³⁹ Finally, a child's testimonial competence may affect the admissibility of her out-of-court statements in child abuse and neglect proceedings.⁴⁰

See also State v. Paster, 524 A.2d 587, 590 (R.I. 1987) (medical diagnosis exception: "When a trial justice has ruled a witness incompetent to testify because the justice is not convinced that the witness is capable of relating a capacity to observe, to recollect, to communicate, or to appreciate truthfulness, the justice has already made the determination that the witness's assertions are unreliable."); South Carolina v. Doe, 355 S.E.2d 543, 548 (S.C. Ct. App. 1987) (child abuse exception: "Generally, if the declarant was not competent at the time of making the statement, it may not be admitted into evidence through hearsay repetition.").

37. *See* State v. Lanam, 459 N.W.2d 656, 659 (Minn. 1990) (rejecting the argument that child's "incompetence to testify concerning the abuse indicates that her out-of-court statements concerning the abuse were of questionable reliability"); Perez v. State, 536 So. 2d 206, 210 (Fla. 1988) ("[We] reject the argument that the child must be found to be competent to testify before the child's out-of-court statements may be found to bear sufficient safeguards of reliability."). *Cf.* Idaho v. Wright 497 U.S. 805, 824 (1990) ("We reject respondent's contention that the younger daughter's out-of-court statements in this case are per se unreliable, or at least presumptively unreliable, on the ground that the trial court found the younger daughter incompetent to testify at trial.").

38. *See, e.g.*, COLO. REV. STAT. § 13-25-129; People v. Trujillo, 923 P.2d 277, 280 (Colo. Ct. App. 1996) ("The trial court's finding of competency permitted introduction of the second victim's hearsay statements without the additional requirement of corroboration.").

39. *See* State v. Mueller, 344 N.W.2d 262, 265 (Iowa Ct. App. 1983) (explaining that the reliability of statements to physicians under the medical diagnosis exception to the hearsay rule is "assured by the likelihood that the patient believes the effectiveness of the treatment he receives may depend largely upon the accuracy of the information he provides the physician"); State *ex rel.* C.A., 492 A.2d 683, 686 (N.J. Super. Ct. App. Div. 1985) (finding that under the medical diagnosis exception "[r]eliability is based on the declarant's belief that a doctor will properly treat him if the doctor is told the truth concerning the ailment"); Oldsen v. People, 732 P.2d 1132, 1136 n.6 (Colo. 1986) ("Where the asserted exception depends on the declarant's ability to understand the purpose of questioning and to relate accurate information, it is significant that the declarant" is not competent to take the oath.). *See also* Robert P. Mosteller, *Child Sexual Abuse and Statements for the Purpose of Medical Diagnosis or Treatment*, 67 N.C. L. REV. 257, 293 (1989) ("The age and mental maturity of the child may attenuate the selfish interest of the declarant so profoundly as to virtually eliminate any trustworthiness guarantee under the rationale of [the medical diagnosis] exception.").

40. *See In re* Cindy L., 947 P.2d 1340, 1350 (Cal. 1997) ("The child's ability to understand the duty to tell the truth and to distinguish between truth and falsity is also a factor in determining the reliability of his or her extrajudicial statements" under the child dependency hearsay exception.); *In re*

The child witness' competence to take the oath thus affects both her ability to testify and the admissibility of her out-of-court statements. Although there has been some movement toward liberalization of the prerequisites for admissibility, the oath remains a mainstay of the trial process. Oath-taking competence is a subject fit for psychological research.

For a number of years I and several colleagues in clinical and developmental psychology have interviewed maltreated children who had been removed from the custody of their parents or guardians and were awaiting court appearances in the Los Angeles County Dependency Court.⁴¹ In the next section, I will discuss research relevant to the issue of how children can be questioned regarding their understanding of the difference between the truth and lies and the importance of telling the truth. I will first describe the research on non-maltreated children, highlight its limitations for legal practice, and then describe our research in dependency court.

III. HOW SHOULD OATH-TAKING COMPETENCE BE ASSESSED?

Children's competence is sure to be misevaluated by the courts. Research has demonstrated that the questioning of children in court is not child-friendly.⁴² One study specifically examining competency questions

Basilio T., 5 Cal. Rptr. 2d 450 (Cal. Ct. App. 1992) (explaining child's testimonial competence prerequisite to admissibility under the social worker report hearsay exception). Subsequent to *Basilio T.*, the California Legislature amended the statutory provisions regarding the admissibility of social worker reports in dependency proceedings. The amended language makes no mention of testimonial competence as a prerequisite to admitting children's statements quoted in such reports. See *In re Lucero L.*, 998 P.2d 1019, 1033 (Cal. 2000) (holding that incompetent minor's out-of-court statements in social worker reports are admissible but are not a sufficient basis for dependency jurisdiction unless the statements exhibit special indicia of reliability).

41. The research has been conducted with the support of the current and several former Presiding Judges of the Los Angeles County Juvenile Court, the Los Angeles County Department of Children and Family Services, the Los Angeles County Counsel, Dependency Court Legal Services, the Child Advocate's Office, and the Department of Children and Family Services Shelter Care staff at the Edelman Children's Court.

42. See Mark Brennan, *The Discourse of Denial: Cross-examining Child Victim Witnesses*, 23 J. PRAGMATICS 71 (1995) (documenting the ways in which attorneys ask convoluted and developmentally inappropriate questions of child witnesses); Laura Park & K. Edward Renner, *The Failure to Acknowledge Differences in Developmental Capabilities Leads to Unjust Outcomes for Child Witnesses in Sexual Abuse Cases*, 17 CANADIAN J. COMMUNITY MENTAL HEALTH 5, 11 (1998) (finding that "developmentally inappropriate questions were asked of all the child witnesses" in 58 Canadian trials); ANN GRAFFAM WALKER, HANDBOOK ON QUESTIONING CHILDREN: A LINGUISTIC PERSPECTIVE 25 (2d. ed. 1999) ("Evidence that children don't understand a great many of the questions they are asked in court-related contexts has already been well established through analysis of actual court transcripts.").

found that the questions were often unnecessarily difficult.⁴³ On the other hand, children are sometimes led through the competency evaluation,⁴⁴ and some attorneys coach children before trial.⁴⁵

The legal requirements for oath-taking competence are relatively straightforward. The witness must understand the difference between truth and falsehood and the importance of telling the truth. Competency statutes do not specify the questions that must be asked of the witness in order to ascertain testimonial competence. The rules of competence do not require that a witness demonstrate an abstract understanding of the nature of truth and lies. If the witness understands that the truth refers to what “really happened” and lies do not, she understands the difference between the truth and lies. If a witness recognizes that lying in court is wrong and subjects the liar to punishment, she understands her obligations under the oath.

Research in developmental psychology would appear to be an ideal source for determining how best to question children regarding their understanding of their obligations as witnesses, and in establishing presumptions regarding the age at which most children are competent. Developmental psychologists are trained in sensitive methods for assessing children’s competencies. Questions that assess children’s early understanding can be recommended. Moreover, an active area in developmental psychology concerns the effects of various types of questions on children’s reports. Questions that predictably lead children can be avoided.

Unfortunately, application of developmental research to legal questioning of child witnesses is limited. Researchers examining

43. See Judy Cashmore & Kay Bussey, *Judicial Perceptions of Child Witness Competence*, 20 LAW & HUM. BEHAV. 313, 320 (1996) (stating that analysis of 45 transcripts of competency evaluations in New South Wales revealed that some judges “asked for definitions of truth and lies and an understanding of the consequences of not telling the truth. A few held unreasonably high expectations (e.g., asking a 5-year-old to spell her ‘surname,’ and an 11-year-old to define ‘perjury’)”).

44. See *id.* at 320 (“Some judges and magistrates were satisfied with affirmative answers to a single, relatively simple and leading question, such as ‘You understand that you have to tell the truth here today, don’t you?’”); *State v. Kelly*, 876 P.2d 641, 644 (Mont. 1994) (questioning an eleven-year-old child, the court asked: “And you know the difference between the truth and a lie; don’t you?”); *Jordan v. State*, 322 S.E.2d 106 (Ga. Ct. App. 1984) (questioning an eight-year-old child, the court asked: “[Y]ou know what it means to hold up your hand and say that you’re going to tell the truth, don’t you?”).

45. See Morey, *supra* note 32, at 280 n.168 (“Remember, the most important thing is to rehearse the competency questions before you go to court.”). Such practices may backfire if a good cross-examiner is allowed to question the child, because the child may be unable to explain her answers or will be led to appear incompetent. See, e.g., *People v. Mack*, 576 N.E.2d 1023, 1027 (Ill. App. Ct. 1991) (“You don’t understand what truth is, do you, Hon?”).

children's understanding of lying tend to be interested in different issues than legal professionals, and use tasks that are unsuitable for testing children in court, because they assess children's understanding of distinctions that are legally irrelevant. The complexities of the tasks may underestimate the age at which children are legally competent. On the other hand, developmental research tends to enroll non-maltreated children from middle class homes. The results of such research may overestimate the competence of children actually appearing in court.

A. ASSESSING CHILDREN'S UNDERSTANDING OF THE DIFFERENCE BETWEEN THE TRUTH AND LIES

1. *Cognitive Difficulties*

The first element in oath-taking competence is that the child understands the difference between the truth and lies. A straightforward means of testing this understanding is to ask the child to explain the difference. Intuitively, however, doing so might be difficult for the young inarticulate child. Alternatives include asking children to define "truth" and "lie" or to identify truthful statements and lies.

a. *Previous research:* Although a number of researchers have examined children's understanding of the truth and lies,⁴⁶ only one study has compared different methods for assessing understanding. Pipe and Wilson asked children to explain the difference between the truth and lies and then made a false statement and asked children whether it would be "the truth or a lie." They found that whereas only 8% of their six-year-old

46. See Kay Bussey, *Lying and Truthfulness: Children's Definitions, Standards, and Evaluative Reactions*, 63 CHILD DEV. 129 (1992); Rhona H. Flin, Yvonne Stevensen, & Graham M. Davies, *Children's Knowledge of Court Proceedings*, 80 BRIT. J. PSYCHOL. 285 (1989); Jeffrey Haugaard, *Young Children's Classification of the Corroboration of a False Statement as the Truth or a Lie*, 17 LAW & HUM. BEHAV. 645 (1993); Jeffrey Haugaard, N. Dickon Reppucci, Jennifer Laird, & Tara Naufal, *Children's Definitions of the Truth and Their Competency as Witnesses in Legal Proceedings*, 15 L. & HUM. BEHAV. 253 (1991); Candida C. Peterson, James L. Peterson, & Diane Seeto, *Developmental Changes in Ideas About Lying*, 54 CHILD DEV. 1529 (1983); Karen J. Saywitz, Carol Jaenicke, & Lorinda Camparo, *Children's Knowledge of Legal Terminology*, 14 LAW & HUM. BEHAV. 523 (1990); Abigail F. Strichartz & Roger V. Burton, *Lies and Truth: A Study of the Development of the Concept*, 61 CHILD DEV. 211 (1990); Heinz Wimmer, Sylvia Gruber, & Josef Perner, *Young Children's Conception of Lying: Lexical Realism-Moral Subjectivism*, 37 J. EXPERIMENTAL CHILD PSYCHOL. 1 (1984); Deborah Feben, *Age of Witness Competency: Cognitive Correlates* (1985) (unpublished honors thesis, Monash University) (on file with author).

participants were able to explain the difference,⁴⁷ most were able to correctly label the false statement a lie.⁴⁸ The researchers' findings are consistent with appellate cases in which children could identify truthful statements and lies but not explain the difference between the terms.⁴⁹

The Pipe and Wilson results suggest that courts should ask children to identify statements as the truth or lies rather than require them to explain the difference between the terms. However, someone concerned with overestimating children's competence could raise several objections. First, the authors' use of a forced-choice question (e.g., "Would that be the truth or a lie?") is problematic, because a child who guesses randomly has a 50% chance of choosing the correct response. The same problem arises if one asks children yes/no questions (e.g., "Is that a lie?").

Even worse, some researchers have argued that forced-choice and yes/no questions suggest particular responses. Clever questioners aware of children's biases could make incompetent children appear competent. One study has shown that when confronted with forced-choice questions, younger children who do not know the answer will simply choose the last-mentioned response.⁵⁰ Some research shows that young children may be

47. See Margaret-Ellen Pipe & J. Clare Wilson, *Cues and Secrets: Influences on Children's Event Reports*, 30 DEV. PSYCHOL. 515, 518 (1994) ("A lie is when you say something that didn't happen.").

48. See *id.* at 521. Ten-year-olds were somewhat better at providing a definition (31%), but still found it much easier to identify the lie. See *id.*

49. See, e.g., *In re Dependency of A.E.P.* 956 P.2d 297, 303 (Wash. 1998) (reasoning that although the five-year-old child witness "could not explain the difference between the truth and lies, she could identify a lie when the judge asked factual questions such as, 'If I told you that this robe that I have on is bright yellow, would that be the truth or a lie[?]'"); *Jarrett v. State*, 580 N.E.2d 245, 249 (Ind. Ct. App. 1991) (determining that where a five-year-old could provide an example of a lie but was unable to explain the difference between the truth and lies, the trial court should not have found the child incompetent); *State v. Vigue*, 420 A.2d 242, 246 (Me. 1980) (upholding trial court's determination that a nine-year-old who could identify a statement as a lie but couldn't explain the difference between the truth and lies was competent); *State v. Norfleet*, 371 N.W.2d 438, 439 (Mich. Ct. App. 1985) (overturning trial court's holding that seven-year-old child who could give an example of a lie but stated she didn't know the difference between the truth and a lie was incompetent); *Commonwealth v. Knapp*, 542 A.2d 546, 552 (Pa. Super. Ct. 1988) (upholding trial court's decision that eleven-year-old child who could identify a statement as a lie but could not explain the difference between the terms was competent).

50. See Nancy E. Walker & Shelby M. Lunning, *Do Children Respond Accurately to Forced Choice Questions?: Yes or No?* 15 (1998) (unpublished manuscript, on file with the author) (finding that five-year-olds exhibited bias to choose the last mentioned response in forced-choice questions when neither was correct). Cf. HOWARD SCHUMAN & STANLEY PRESSER, *QUESTIONS AND ANSWERS IN ATTITUDE SURVEYS: EXPERIMENTS ON QUESTION FORM, WORDING, AND CONTEXT* 71 (1981) (finding some evidence of a recency effect in adult's responses to oral survey questions, although the results are equivocal).

predisposed to answer “yes” to yes/no questions.⁵¹ Less subtle questioners can elicit the responses they desire with tag questions (e.g., “That is a lie, isn’t it?”), which reliably pull for a “yes” response.⁵²

Second, asking children to explain the difference between the truth and lies might be unnecessarily difficult. It might be simpler to ask the child to individually define “the truth” and “lie.” Asking the child to explain the difference between the truth and lies makes it difficult for the child to demonstrate understanding by stating that the truth and lies are different, because the fact of their difference is presupposed by the question. Moreover, asking for definitions of the individual terms breaks up the task into potentially more manageable parts.

A third justification for asking children to define “truth” and “lie” rather than to merely identify statements as the truth or lies is that eliciting multi-word responses from the child rather than a monosyllabic choice between terms might increase the accuracy of the child’s testimony. Mary Lyn Huffman and her colleagues have found that an “elaborated” discussion of the truth and lies reduces children’s suggestibility compared to children given a “standard” truth and lie discussion, in which they are merely asked to identify the truth and lies as such.⁵³ Michael Lamb and his

51. See Warren H. Fay, *Occurrence of Children’s Echoic Responses According to Interlocutory Question Types*, 18 J. SPEECH & HEARING RES. 337, 343 (finding that 62% of three-year-olds responded “yes” to a question they did not understand—“El Camino Real?”); Carole Peterson, Craig Dowden, & Jennifer Tobin, *Interviewing Preschoolers: Comparisons of Yes/No and Why Questions*, 23 LAW & HUM. BEHAV. 539 (finding evidence of a yes-bias among three- to five-year-old children questioned about an interactive event). *But see* Haugaard et al., *supra* note 46, at 263 (finding that only 3.5% of the sample answered with two “yes” responses or two “no” responses to “Was it the truth?” and “Was it a lie?” which would evince a response bias); Michael S. Brady, Debra A. Poole, Amye R. Warren, & Heather Jones, *Young Children’s Response to Yes-No Questions: Patterns and Problems*, 3 APPLIED DEVELOPMENTAL SCI. 47 (1999) (failing to find yes- or no- biases among three- to seven-year-olds questioned regarding a videotaped event); Andrea Follmer Greenhoot, Peter A. Ornstein, Betty N. Gordbon, & Lynne Baker-Ward, *Acting Out the Details of a Pediatric Check-up: The Impact of Interview Condition and Behavioral Style on Children’s Memory Reports*, 70 CHILD DEV. 363, 373 (1999) (failing to find yes- or no- biases among three- and five-year-olds questioned regarding a pediatric visit); Carole Peterson & Marleen Biggs, *Interviewing Children About Trauma: Problems with “Specific” Questions*, 10 J. TRAUMATIC STRESS 279 (1997) (finding a no-bias among two- to four-year-olds questioned about traumatic injuries).

52. See William S. Cassel, Claudia E.M. Roebbers, & David F. Bjorklund, *Developmental Patterns of Eyewitness Responses to Repeated and Increasingly Suggestive Questions*, 61 J. EXPERIMENTAL CHILD PSYCHOL. 116 (1996); Jemma Greenstock & Margaret E. Pipe, *Interviewing Children About Past Events: The Influence of Peer Support and Misleading Questions*, 20 CHILD ABUSE & NEGLECT 69 (1996).

53. See Huffman et al., *supra* note 35, at 11. *But see* Susan M. Larson, *Another Look at Truth/Lie Discussions: Do They Improve Preschoolers’ Testimony?* (June, 1999) (paper presented at the annual meeting of the American Psychological Society, Denver, CO) (failing to find that extended truth-lie discussion was superior to standard truth-lie discussion in eliciting accurate reports).

colleagues have demonstrated that if suspected child abuse victims are asked for narrative responses during the rapport-building phase of an interview, they provide a more elaborated response to questions about abuse.⁵⁴

If children are capable of generating narrative responses to questions about the truth and lies, there are benefits in asking them to do so. On the other hand, there are also good reasons to insist on asking children to simply identify the truth and lies. If a child understands his or her obligations as a witness but cannot provide narrative responses, asking for narrative questions in a competency examination risks an erroneous finding that the child is incompetent. It may not be necessary to elicit multi-word responses about the truth and lies, because talk about topics other than the truth and lies may have the same beneficial effects.

Theoretically, defining ought to be more difficult than identification. In his pioneering work on children's understanding of lying, Piaget observed how "difficult it is for the child to give an adequate definition of the notions he uses owing to his inability to realize them consciously," and suggested that one ought instead "present to the child a certain number of stories, asking him each time whether a lie has been told or not."⁵⁵ Defining requires an abstract understanding of the proper use of a word across different contexts, and necessitates that one generate rather than merely recognize the proper use of a word. The difference between generation and recognition of meanings is analogous to the difference between recall and recognition; recall requires one to generate what one remembers, and recall abilities improve significantly with age up to pre-adolescence, whereas recognition merely requires one to affirm what one remembers, and recognition shows relatively small differences with age.⁵⁶

If one turns from theory to research, however, the case for identification over definition is not as strong. There is surprisingly little empirical support for the contention that children find it much easier to identify lies than to define them. Researchers asking children to define

54. See Kathleen J. Sternberg, Michael Lamb, Phillip W. Esplin, & Laila B. Baradaran, *Using a Scripted Protocol in Investigative Interviews: A Pilot Study*, 3 APPLIED DEVELOPMENTAL SCI. 70 (1999); Kathleen J. Sternberg, Michael E. Lamb, Irit Hershkowitz, Liora Yudilevitch, Yael Orbach, Phillip W. Esplin, & Meir Hovav, *Effects of Introductory Style on Children's Abilities to Describe Experiences of Sexual Abuse*, 21 CHILD ABUSE & NEGLECT 1133 (1997).

55. See JEAN PIAGET, *THE MORAL JUDGMENT OF THE CHILD* 142-143 (Marjorie Gabain trans., Collier Books ed. 1962) (1932).

56. See Stephen J. Ceci & Maggie Bruck, *The Suggestibility of the Child Witness: A Historical Review and Synthesis*, 113 PSYCHOL. BULL. 403, 404 (1993) ("Age differences in recognition are far less pronounced than age differences in free recall, and at times these are nonexistent.").

“truth” and “lie” have found that even their youngest subjects (five years old) are able to define “lie,” though they sometimes have difficulty in defining “truth.”⁵⁷ When researchers ask children to identify truthful statements and lies as such, they find that children as young as four years of age perform above chance, and in some studies they are near-ceiling (almost 100% accurate).⁵⁸ Any apparent superiority of identification over definition must be qualified by the risks that in some of the studies using identification tasks, children’s apparent understanding may have been inflated somewhat by guessing and biases to respond “yes.”⁵⁹

57. Flin, Stevenson, and Davies interviewed participants from six years of age to adulthood and found that “truth” and “lie” were “reasonably well understood by all age groups.” Flin et al., *supra* note 46, at 291. Saywitz, Jaenicke, and Comparo interviewed children from five to eleven years of age and found that 80% of the five-year-olds provided an accurate definition of “lie,” though only slightly more than half could define “truth.” See Saywitz et al., *supra* note 46, at 588.

58. Peterson, Peterson, and Seeto showed five- to eleven-year-olds and adults ten stories involving various sorts of misstatements, and asked if the statements were lies. Even the youngest children were near unanimous in identifying false statements regarding misdeeds as lies. See Peterson et al., *supra* note 46, at 1532, tbl.1. Bussey told four-year-olds, seven-year-olds, and eleven-year-olds vignettes about children who committed a misdeed and then either admitted doing so or lied. The older children were near-ceiling (almost 100% accurate) in identifying statements as the truth or lies, whereas the four-year-olds were above chance (70% correct). See Bussey, *supra* note 46, at 132. Haugaard, Repucci, Laird and Naful asked 142 four- to five-year-olds about two scenarios in which children lied. In the first, children viewed a film in which a child falsely tells a policeman that a man hit her; in one version of the film, the child’s mother told her to lie. In the second scenario, participants were told a story in which a child falsely tells her teacher that her friend had stayed in the classroom. Children who correctly recalled the scenarios were over 90% correct in identifying the story children as liars. See Haugaard et al., *supra* note 46, at 264–65. Haugaard et al. also showed 133 four- to eight-year-olds one of two films in which a child lied, either on his own initiative or in agreement with his mother. In both scenarios, children were near-unanimous in calling the boy’s statement a lie (although they were more likely to believe the lie when the mother and boy both uttered it). See *id.* at 655–56. Two studies examining children’s understanding of the objective and subjective definitions of lying found good understanding of the objective definition by four years of age. Strichartz and Burton told children from three to ten years of age and adults vignettes in which they asked whether the speaker had lied, told the truth, “or something else.” The researchers varied the accuracy of the utterance (factuality), whether the speaker knew the truth (belief), and whether the speaker spoke as intended or misspoke (intent). They found that children, by four years of age, relied on the factuality of the statements in identifying them as the truth or lies. On the “prototypical” lie, in which the speaker uttered a false statement, knew it was false, and intended to say it, four-year-olds were over 80% accurate in calling it a lie. See Strichartz & Burton, *supra* note 46, at 216 fig.1. Wimmer, Gruber, and Perner told participants stories in which a story character told a second character the truth or a “fib.” Because the children spoke Austrian German, the term used was “schwindeln,” which is akin to “trick” in a playful context. The youngest children (4 ½ -year-olds) were 85–100% correct in characterizing the first story character’s statements as the truth or as a “fib.” See Wimmer et al., *supra* note 46, at 7 tbl.1.

59. Peterson and her colleagues did not provide children with a truth scenario, which would test for children’s response bias when answering a yes/no question about whether a statement was a “lie.” In Peterson’s study, 38% of the youngest subjects called a mild expletive a “lie,” which could reflect young children’s conflation of bad words and lies—a possibility first proposed by Piaget—but could also reflect a tendency to respond “yes” to the researchers’ yes/no questions. See Peterson et al., *supra* note 46, at 1532 tbl.1. In Strichartz and Burton’s study, 15% of the four-year-olds labelled a “lie” a

Should we then conclude that children in court ought to be asked to define the truth and lies? The answer is “not necessarily,” because the children questioned and the questions asked in research are different from the children and questions in court. Previous research may not reflect the difficulty maltreated child witnesses have in defining the truth and lies. Children testifying in court can often identify what they cannot define.⁶⁰ Children who participate in developmental research are not maltreated, and are most often from middle-class homes.⁶¹ Maltreated children tend to come from large poor families.⁶² Middle- and upper-middle-class children tend to appear average or above average on standardized tests of cognitive

prototypically true statement, in which the speaker uttered a true statement, knew it was true, and intended to say it. See Strichartz & Burton, *supra* note 46, at 216, Fig.1. If those children also labeled lies as such, their responses would inflate apparent understanding.

60. See *Holloway v. State*, 849 S.W.2d 473, 478 (Ark. 1993) (upholding trial court’s finding that an eight-year-old and a twelve-year-old child witness were each competent where they exhibited an “inability to define concepts such as ‘truth’” but “could identify examples of lying and make-believe”); *Blume v. State*, 797 P.2d 664, 668 n.4 (Alaska Ct. App. 1990) (upholding trial court’s decision that five-year-old witness was competent where he “displayed an understandable inability to explain what truth was in the abstract [but] demonstrated a functional ability to distinguish between the truth and a lie”); *Akers v. State*, 346 S.E.2d 861, 862 (Ga. Ct. App. 1986) (“Although the [five-year-old] child was unable to define the meaning of an oath or of the truth, it was demonstrated that she appreciated the difference between the truth and a lie.”).

61. All of Bussey’s subjects were Caucasian and attended “predominantly middle-class suburban schools.” Bussey, *supra* note 46, at 131. Peterson et al.’s subjects were “all white” students attending schools in “higher-income neighborhoods.” Peterson et al., *supra* note 46, at 1530. Strichartz and Burton’s subjects came from a suburban area of upstate New York. See Strichartz & Burton, *supra* note 46, at 213. Wimmer and colleagues do not describe their participants other than to note that they attended Kindergartens in Salzburg, Austria. See Wimmer et al., *supra* note 46, at 5. The two studies that tested low-income children confirm the importance of socioeconomic status. Flin and her colleagues found that children from the lower-income area performed less well than children from the higher-income area. See Flin et al., *supra* note 46, at 290. In Haugaard and colleagues’ sample, a substantial percentage of the children were from low-income homes. See Jeffrey James Haugaard, *Children’s Definitions of the Truth and Their Competency as Witnesses in Legal Proceedings* 33 (1990) (unpublished Ph.D. dissertation, University of Virginia) (on file with author). Although Haugaard did not report socioeconomic differences, children who performed poorly on several of the tasks had lower intelligence scores than children who did well, and Haugaard found that

the IQs of the children from the private kindergarten ($M = 114$) [serving mainly upper-middle and upper class families] were significantly higher than IQs of the children from both the late kindergarten group ($M = 94$) and the part of the early kindergarten group that came from the public school ($M = 98$).

Id. at 43–44.

62. In our research, we have found that the vast majority of our participants in dependency court come from impoverished homes. See Thomas D. Lyon & Karen J. Saywitz, *Young Maltreated Children’s Competence to Take the Oath*, 3 APPLIED DEVELOPMENTAL SCI. 18 (1999).

Based on participants’ mothers’ social service records (when available, $n = 176$), we found that 86% had received Aid to Families With Dependant Children (AFDC) and food stamps within the previous 5 years, and that the average household contained five persons Twenty-six percent of the participants were in households with seven or more persons.

Id.

and linguistic development.⁶³ Maltreated children tend to exhibit delays.⁶⁴ Indeed, children in our dependency court sample performed more than a year below the national average on standardized vocabulary tests.⁶⁵

Another reason that identification tasks may be preferable to asking children to define “truth” and “lie” is that researchers may have underestimated the greater ease with which children can identify truthful and untruthful statements. Many researchers have tested whether factors adults consider irrelevant in defining “lie” affect children’s judgments—whether the lie is believed, punished, intended to protect the self or another person, or coerced by a parent—and although they have never found that such factors systematically influence children’s judgment,⁶⁶ inclusion of such factors complicates the scenarios.

When researchers asking children to identify statements as the truth and lies incorporate information besides the factuality of the statement, they risk overlooking children’s incipient understanding. A classic finding in developmental psychology is that competencies first believed to emerge later in childhood have been exhibited by very young children if the verbal demands of the tasks are minimized and if the tasks are stripped of extraneous complications.⁶⁷ Even if young children’s judgments are not affected in a systematic way by the inclusion of information regarding the speaker’s and listener’s beliefs and desires, their overall performance may suffer.

A different sort of complication is added by researchers who have examined the distinction between the objective and subjective definitions

63. See Haugaard, *supra* note 61, at 44 (finding higher intelligence scores among the higher income children).

64. See, e.g., Debbie Hoffman-Plotkin & Craig T. Twentyman, *A Multimodal Assessment of Behavioral and Cognitive Deficits in Abused and Neglected Preschoolers*, 55 *CHILD DEV.* 794 (1984).

65. See Lyon & Saywitz, *supra* note 62, at 18.

66. See Peterson et al., *supra* note 46, at 1532 (finding that children’s judgments were not affected by whether lies were told to protect the self or to protect another person, or whether they were believed or punished); Bussey, *supra* note 46, at 132 (finding that children’s judgments were not affected by whether lies were believed or punished); Haugaard et al., *supra* note 46, at 266 (finding that children’s judgments were not affected by whether the liar was told by her mother to lie).

67. This fact is best illustrated by referring to the common conclusion that the methods used by Piaget in his research masked early competencies. See MARGARET DONALDSON, *CHILDREN’S MINDS* 25 (1978) (“Preschool children are not nearly so limited in their ability to ‘decenter,’ or appreciate someone else’s point of view, as Piaget has for many years maintained.”); JOHN H. FLAVELL, PATRICIA H. MILLER, & SCOTT A. MILLER, *COGNITIVE DEVELOPMENT* 77 (3d ed. 1993) (“As researchers probed the young child’s mind with new and more sensitive diagnostic tasks, they turned up an impressive number of competencies—often fragile, to be sure, but impressive nonetheless. Some of these preschool competencies are those previously believed by Piaget to develop in the middle-childhood years . . .”).

of “lie.” An objective definition refers to the fact that truthful statements correspond with reality and lies do not. A “lie” would include any untrue statement. A subjective definition examines the mental state of the speaker. In order for a statement to be a “lie,” the speaker must know the statement is false and intend to deceive the listener. Mistakes are distinguished from lies on the grounds that the speaker does not know the statement is false. Jokes (or pretense) are distinguished from lies on the grounds that the speaker does not intend to deceive the listener. Researchers uniformly find that children’s understanding of the subjective meaning of “lie” lags behind their understanding of the objective meaning of “lie.”⁶⁸

Although children’s developing understanding of the subjective meaning of “lie” is of some theoretical interest, incorporation of subjective elements into questions about the meaning of lying unnecessarily complicates assessments of children’s oath-taking competency. Researchers sometimes claim that children’s understanding of the subjective definition of lies is relevant in assessing competence to testify.⁶⁹ This is not so. A child who believes that all untrue statements are lies has an *overinclusive* definition of lies that includes jokes and mistakes. Such a child can meaningfully promise to tell the truth: in addition to avoiding subjective lies, she believes she must also avoid making jokes and mistakes.⁷⁰ The danger is not that the child will commit perjury, but that she may be overly hesitant in answering questions for fear a mistake will land her in jail.⁷¹

68. See PIAGET, *supra* note 55, at 145 (“[Initially] a lie is defined in a purely objective manner, as an affirmation that does not conform with fact, and even if the child can recognize two types of statements—those which are, and those which are not intentionally false, he subsumes them both under the category of ‘lies.’”); Strichartz & Burton, *supra* note 46, at 218 (“There is a change in judgments about people and their actions from reliance on external, objective features (*factuality* in our stories) to greater consideration given to internal, subjective factors, such as the intent and belief of others.”); Wimmer, et al., *supra* note 46, at 29 (“Verb meaning is first based on objective facts, and progressively, mental states and intentions of the actor become integrated.”).

69. See Candida C. Peterson, *The Role of Perceived Intention to Deceive in Children’s and Adults’ Concepts of Lying*, 13 BRIT. J. DEVELOPMENTAL PSYCHOL. 237, 238 (1995) (studying effects of speaker intent on children’s attribution of truth and lies, and arguing that “[n]ormative information about how concepts of lying develop in ordinary children with no courtroom experience . . . could conceivably prove useful to the law in its deliberations about the competencies of individual witnesses at various ages”).

70. See Roger V. Burton & Abigail F. Strichartz, *Children on the Stand: The Obligation to Speak the Truth*, 12 DEVELOPMENTAL & BEHAV. PEDIATRICS 121, 126 (1991) (“Because untrue testimony is always undesirable, the individual’s ability to distinguish lies and objectively false statements, of central interest in much of the moral judgment research, may not be critical in the legal arena.”).

71. See Judy Cashmore & Kay Bussey, *Children’s Conceptions of the Witness Role*, in CHILDREN’S EVIDENCE IN LEGAL PROCEEDINGS: AN INTERNATIONAL PERSPECTIVE 177, 182 (John R.

The incorporation of factors other than factuality may seem unimportant when one discovers that research asking young children to identify lies finds good understanding of the objective definition of lying among even the youngest children, who are usually four to five years of age.⁷² However, the only study to test three-year-olds' understanding found that they responded randomly, leading the researchers to assert that children develop an understanding of the objective meaning of truth and lies "[s]ome time between their third and fourth birthdays."⁷³ The inclusion of variables relating to the desires and beliefs of the speaker may have lowered the youngest children's performance.⁷⁴

In sum, the available research provides little help to legal practitioners seeking the optimal means of questioning young children about their understanding of the difference between the truth and lies. As a practical matter, the tasks are not well-suited for use by the courts in evaluating individual children, because they include extraneous factors unrelated to oath-taking competence. On a more theoretical plane, the research is surprisingly unhelpful regarding the relative difficulty of different types of questioning. Although common sense suggests that it is easier to identify truthful statements and lies than to define the words "truth" and "lie," the magnitude and even the existence of such a difference has not been documented.

b. *Research with maltreated children*: Experimental psychologists are equipped to provide the courts with information regarding the specificity and sensitivity of various methods of questioning. Karen Saywitz and I

Spencer et al. eds., 1989) (examining 96 children from six to fourteen about a hypothetical child witness to crime; children expressed "fear of being punished for making a mistake [which] seems to be related to their perception that if they do something wrong or are not believed, they are guilty and will be punished"). Indeed, Burton and Strichartz argue that because of their objective conception of lying:

Younger children . . . are more rigid in their prohibitions against lying, and are less likely to consider extenuating circumstances than are those with more maturity To the extent that behavior may be related to judgment, these findings would support a contention that young children in legal testimony are *more* likely to be motivated to give a faithful recounting of their observations and impressions than are adults.

Burton & Strichartz, *supra* note 70, at 126 (emphasis in original).

72. See *supra* note 58.

73. Burton & Strichartz, *supra* note 70, at 123.

74. The vignettes were complicated by the number of variables in each story and by the fact that the speaker uttered two "asides" regarding his or her intent—one before the key statement and one after the statement. See Strichartz & Burton, *supra* note 46, at 213. Cf. Peterson, *supra* note 69, at 239–40 (arguing that "[t]he stories Strichartz & Burton used were highly contrived"). In their original report, the authors acknowledged that a "simpler procedure" might reveal understanding among the younger children. See Strichartz & Burton, *supra* note 46, at 217. In that report, Strichartz & Burton concluded that "[t]he high incidence of dropped cases at this age (37%) and the unwillingness (or inability) of those children retained to label the statements as lie or truth support this conjecture." *Id.*

have compared different means of assessing children's understanding of the basic difference between the truth and lies with a sample of maltreated children actually appearing in court.⁷⁵ We hoped to determine how much children's apparent competence depends on the way in which they are tested, to establish age norms for presumptions of competence among maltreated children, and to develop measures for assessing competence that can be used by legal professionals.

In our first study, with 96 four- to seven-year-olds, we attempted to make each task as child-friendly as possible in order to maximize children's performance, without increasing the likelihood that children would perform well by chance. For example, when asking children to identify statements as the truth or lies, we gave them multiple trials, and alternated the order of the correct choice, so that children could not perform well by guessing or by simply picking the last-mentioned choice.

We gave each child three tasks: (a) the identification task, (b) the difference task, and (c) the definition task. In the identification task, the interviewer told the child that the interviewer would sometimes tell the truth and sometimes tell a lie, and then asked the child to choose whether statements about pictures of objects were the truth or lies. We gave each child four statements, two truthful and two untruthful. In the difference task, we asked the child to explain the difference between objects, both to assess the child's understanding of the word "difference" and to warm the child up to the key question regarding the truth and lies. We then asked whether telling the truth and telling a lie are "different" or "the same," and how they are "different" (or "the same"). In the definition task, we first asked the child to define some common terms ("cat" and "taking a nap"), in part to orient the child to the task of defining words. We then asked the child whether she knew what it meant to tell the truth and to tell a lie, and we asked her to define the terms.⁷⁶

75. See Lyon & Saywitz, *supra* note 62, at 16.

76. The experimenter introduced the child to the concept of defining terms by suggesting that they pretend the experimenter was a baby and did not know what some words meant. See *id.* Cf. Saywitz, Jaenicke, & Camparo, *supra* note 46, at 526 (explaining that children were "instructed to pretend to tell everything they knew about each word to a spaceman from another planet who had never heard the words before"). The rationale for this suggestion was that children may find it odd that an adult would ask the child to define terms since the adult presumably knows what the terms mean. Although asking the child to imagine the researcher was a baby requires some perspective-taking and, therefore, might be difficult for young children, research suggests that young children are aware of the differences in knowledge between adults and babies. See Marjorie Taylor, Bridget S. Cartwright, & Thomas Bowden, *Perspective Taking and Theory of Mind: Do Children Predict Interpretive Diversity as a Function of Differences in Observers' Knowledge?*, 62 CHILD DEV. 1334 (1991).

We predicted that children would find it easier to identify statements as the truth or lies than to define the terms (or explain the difference between the terms). In order to provide a stringent test of our hypothesis, we adopted a liberal criterion for accepting children's definitions or explanations of difference: a child was counted a success if in describing either word she referred to whether a statement corresponded with reality (e.g., "The truth is what really happened."), gave an example of a truthful statement or a lie, or defined one term as the negation of the other (e.g., "A lie is not the truth.").

Our prediction that children would perform best on the identification task was confirmed. The magnitude of the difference was striking. We defined success on the identification task as four of four trials correct, which means that a child who responds randomly has only a 6% chance of succeeding. Over 60% of the children succeeding on the identification task failed on the definition task. Nearly 70% of the children who succeeded on the identification task could not explain the difference between the terms.⁷⁷

Even the youngest children were above chance on the identification task (though the results for the four-year-olds will be qualified below); by five years of age, most children were answering four of four identification questions correctly. It was not until seven years of age that most children could provide a definition of either "telling the truth" or "telling a lie," and less than half of the seven-year-olds could explain the difference between the terms.

The problems of language were exemplified by our finding that most of the four-year-olds could not correctly identify objects as "the same" or "different," and that neither the four-year-olds nor the five-year-olds performed above chance when asked if telling the truth and telling a lie were the same or different.

c. *Should attorneys use the identification task?:* Before we recommend the use of the identification task for assessing children's understanding of the difference between the truth and lies, however, we must address two related objections. Choosing between the methods of questioning requires more than merely an awareness that one task is probably easier. This is because the questioner must balance two kinds of error. Asking children to define "truth" and "lie" is almost sure to

77. See Lyon & Saywitz, *supra* note 62, at 21. We also predicted that children would find it easier to define the truth and/or lie than explain the difference between the words, and although the means were in the predicted direction, the difference was not statistically significant. See Lyon & Saywitz, *supra* note 62, at 21 & fig.1.

underestimate competence to some extent, but children without a good understanding of the truth and lies are unlikely to qualify. Asking children to merely identify truthful statements and lies will better detect children with an incipient understanding of the concepts, but increases the likelihood that children without any understanding will be found competent. The definition task thus has relatively low sensitivity but high specificity. It will produce more false negatives but few false positives. The identification task has relatively high sensitivity but low specificity. It will produce few false negatives, but more false positives.⁷⁸

In order to reduce the number of false positives on the identification task, we gave children four forced-choice questions instead of one. We reduced the false positive rate from 50% (the chance a child can guess the answer to a single forced-choice question correctly) to 6% (the chance a child can guess four out of four forced-choice questions correctly).⁷⁹ We then considered four out of four correct performance good evidence that a child understood the difference between the truth and lies, because there is no more than a 6% chance that a child who does not understand the difference between the truth and lies will answer four of four questions correctly. Indeed, the likelihood is certainly *less* than 6%, because children who have no understanding are quite likely to adopt response biases, such as choosing the last named option, or always choosing the character on the right (or the left). Because of the way we structured the task, children with response biases will cluster around 2/4 correct, rather than be normally distributed around 2/4. By analogy to the concept of “statistical significance,” we counted a child answering 4/4 correctly as understanding the task because the likelihood of perfect performance without understanding is less than 5%. In other words, if the false positive rate for a result is less than 5%, one feels confident that the result reflects a true positive.

d. *The probability that a child understands truth and lie given good performance:* However, one could object that knowing the false positive rate for a test does not tell one everything one needs to know about the likelihood that good performance reflects understanding. It is a logical error to assume that because there is only a 5% chance that a child guessing her way through the task would answer four of four questions correctly,

78. Sensitivity refers to the likelihood that a child who is competent will be found competent (true positive). Specificity refers to the likelihood that a child who is incompetent will be found incompetent (true negative). False positives occur when a child who is incompetent is found competent, and false negatives occur when a child who is competent is found incompetent.

79. This is (.5)⁴.

there is a 95% chance that a child who answers four of four questions correctly understands the concepts.⁸⁰ Rather, in order to move from the false positive rate to the likelihood that a child understands, one must know two additional facts: the base rate of understanding (the likelihood that children in general understand the concept) and the true positive rate (the likelihood that a child who *does* understand the meaning of “truth” and “lie” will answer four out of four correctly).

One can calculate the odds that a child who answers four out of four questions correctly understands “truth” and “lie” by starting with the odds that children in general understand the concept (also known as the “prior odds”),⁸¹ and multiplying by a ratio comprised of the true positive rate and the false positive rate. If the resulting odds are greater than 1 to 1, there is a greater than 50% chance that the child understands “truth” and “lie.”

Once one recognizes the need for additional information in calculating the likelihood of understanding, one can appreciate the problem. It is possible to imagine prior odds and true positive rates so that a child who scores four out of four correct has a less than 50% chance of understanding the truth and lies. If it is more likely than not that such a child does *not* understand, then perfect performance on the test is clearly not diagnostic of understanding.

The answer to this problem is that it is unlikely that the prior odds and true positive rates are indeed that low. And one can guess at the prior odds and true positive rates if one looks closely at the results of our research.

How does one estimate prior odds? One way is to calculate the prior odds in terms of the age group from which a child is drawn. That is, one can look at the overall level of understanding among four-year-olds, five-year-olds, and so on. This is a sensible way to proceed because of our knowledge that understanding is correlated with age.

Let us focus on the four-year-olds. In our study, 29% of the four-year-olds answered four out of four correctly.⁸² Of course, we cannot assume

80. These two statements express quite different conditional probabilities. Five percent refers to the probability that a child answered four of four questions correctly, given she answered randomly. This is not the same as the probability that a child answered randomly, given she answered four of four questions correctly. Confusing these two conditional probabilities is a common error called the “inverse fallacy.” See Jonathan J. Koehler, *The Base Rate Fallacy Reconsidered: Descriptive, Normative, and Methodological Challenges*, 19 BEHAVIORAL & BRAIN SCI. 1, 10 (1996).

81. I speak in terms of odds because it simplifies the calculations. See Thomas D. Lyon & Jonathan J. Koehler, *The Relevance Ratio: Evaluating the Probative Value of Expert Testimony in Child Sexual Abuse Cases*, 82 CORNELL L. REV. 43, 46 (1996).

82. See Lyon & Saywitz, *supra* note 62, at 20.

that this means 29% of the four-year-olds understand, because of the objections we have just discussed. However, 29% is a good estimate for two reasons. First, it is likely that no more than 1 of 24 children will answer 4/4 correctly by chance.⁸³ Second, the percentage of children who in fact understand is probably somewhat higher than 29%, because a few children who *did* understand may have failed to score 4/4.

Now we have an estimate of the base rate (29%) and the false positive rate (6%). In order to get to the odds that a child who scores four out of four correct understands the truth and lies, we need to know the true positive rate. This is difficult to do, but as long as the true positive rate is greater than 15%, a four-year-old child who answers four out of four questions correctly more likely than not understands “truth” and “lie.”⁸⁴ For good performance on the test to reflect understanding among older children, the true positive rate can be even lower.

It seems likely that the true positive rate is greater than 15%. Recall that the 15% true positive rate means that children who *do understand* truth and lie only have a 1 in 6 chance of answering all the questions correctly. Unless there are good reasons why children who understand nevertheless fail the test, one can assume that the true positive rate is quite high.

Indeed, one of the primary findings of our research was that the identification task is much more sensitive to understanding than other means of testing understanding—it has a relatively high true positive rate. Recall that over half of the children who answered 4/4 questions correctly on the identification task failed the definition and difference tasks.⁸⁵ The identification task is clearly much more sensitive than other tasks, and arguably more sensitive than our 15% target.

83. By the binomial theorem, assuming that all 24 children answer randomly, the likelihood that no more than one out of 24 will answer 4/4 correctly by chance is greater than 50%. That is,

$$\binom{24}{0}.0625^0 (.9375)^{24} + \binom{24}{1}.0625^1 (.9375)^{23} \approx .55$$

84. 29% is equivalent to a 1:2.44 prior odds ratio, and a 15% true positive rate with a 6% false positive rate equals a likelihood ratio of 2.5. A prior odds of 1:2.44 times a likelihood ratio of 2.5 gives posterior odds of greater than 1:1, or a greater than 50% probability that a child understands the truth and lies.

85. Another way to evaluate the true positive rate of the identification task is to examine the performance of children who we are very sure have a good understanding of “truth” and “lie”: children who provided an adequate explanation of the difference between the truth and lies. One finds that among this select group (20 children), only 35% (7) gave an adequate definition of “lie,” only 30% (6) gave an adequate definition of “truth,” and 95% (19) answered 4/4 identification questions correctly.

e. *Use of the preponderance of evidence standard in assessing competency*: Our discussion of probabilities raises a second objection to the use of the identification task. One might object to equating a greater than 50% chance of understanding with sufficient evidence of competency. The rationale is that if there is a greater than 50% chance of understanding, this is the same as saying that it is “more likely than not” that the child understands.

One might argue that the standard for competency should be set higher than a preponderance of the evidence.⁸⁶ For example, if a prosecutor is seeking to introduce the testimony of a child witness, whose testimony will make the difference between conviction and acquittal, then one could argue that the standard for competence should be beyond a reasonable doubt. However, this argument confuses the standard for admitting testimony and the standard for believing it. A finding that a child is competent to testify is not the same as a finding that a child should be believed. The jury is free to reject the competent child witness’ testimony, just as it is free to disbelieve any witness.

The argument also runs contrary to well-settled doctrine. Traditionally, testimonial competence concerns the qualifications of an individual to be a witness, and is thus governed by Federal Rule of Evidence 104(a).⁸⁷ The trial court hears the evidence regarding competence outside the presence of the jury, and allows the child to testify if a preponderance of the evidence convinces the court that the child is competent.⁸⁸ In states where the competency rules have been relaxed, the child’s competency is governed by the rules of conditional relevance (Federal Rule of Evidence 104(b)).⁸⁹ The court allows the testimony if sufficient evidence exists upon which a jury could reasonably conclude that the child is competent. The judge need *not* be convinced by a

86. One might also argue that a greater than 50% probability is not synonymous with “more likely than not.” This is beyond the scope of my paper, but readers interested in this argument should consult the literature on the relationship between probabilistic reasoning and standards of proof. *See, e.g.,* David H. Kaye, *Apples and Oranges: Confidence Coefficients and the Burden of Persuasion*, 73 CORNELL L. REV. 54 (1987).

87. “Preliminary questions concerning the qualification of a person to be a witness . . . shall be determined by the court . . .” FED. R. EVID 104(a). *See generally* 1 MCCORMICK ON EVIDENCE § 53 at 213 (John William Strong gen. ed., 4th ed. 1992) (the trial court assesses witness competency under Rule 104(a)).

88. *See Bourjaily v. United States*, 483 U.S. 171, 175 (1987) (holding preliminary questions under Rule 104(a) are decided by a preponderance of the evidence standard).

89. “When the relevancy of evidence depends upon the fulfillment of a condition of fact, the court shall admit it upon, or subject to, the introduction of evidence sufficient to support a finding of the fulfillment of the condition.” FED. R. EVID 104(b).

preponderance of the evidence, and the standard is thus less stringent than that under Rule 104(a).⁹⁰ Therefore, no jurisdiction requires a more convincing finding than the “more likely than not” standard.

In sum, good performance on the identification task is good evidence that a child understands the difference between the truth and lies. The greater sensitivity of the task (when compared to asking children to define “truth” and “lie” or explain the difference between the words) clearly justifies the use of identification tasks when assessing young maltreated children’s understanding of the truth and lies. An unexpected finding, however, required us to refine our recommendations regarding the way in which children are asked to identify truthful statements and lies. That finding is described in the next Section.

2. *Motivational Difficulties in Demonstrating Understanding of the Truth and Lies*

Children are presumed to want to do well on tasks assessing their understanding. However, there were unexpected indications in our first study that children were motivated to conceal their knowledge of lies. In the definition task, participants were asked whether they knew what it meant to tell the truth and to tell a lie. Although most children claimed to know both terms, almost twice as many children denied knowing about lies as about the truth.⁹¹

90. See *Huddleston v. United States*, 485 U.S. 681, 689 (1988):

In determining whether the Government has introduced sufficient evidence to meet Rule 104(b), the trial court neither weighs credibility nor makes a finding that the Government has proved the conditional fact by a preponderance of the evidence. The court simply examines all the evidence in the case and decides whether the jury could reasonably find the conditional fact . . . by a preponderance of the evidence.

Id. at 690. Although the standard of proof is lower if the child’s testimony is considered under the conditional relevance rule (Rule 104(b)), it is not certain that moving to this rule increases the likelihood that children are allowed to testify. First, the jury rather than the judge is the final arbiter when competency is governed by the conditional relevance rule. The defense could argue that the jury will not weigh the testimony of an apparently incompetent child accurately, allowing for exclusion when the prejudicial impact of the evidence substantially outweighs its probative value (Rule 403). Courts who are convinced by this argument could conceivably exclude as many children as before. Second, rulings on conditional relevance are limited to admissible evidence, in contrast to rulings on the qualifications of witnesses under Rule 104(a). See FED. R. EVID 104(a) (“In making its determination [the court] is not bound by the rules of evidence except those with respect to privileges.”). For example, a child’s inadmissible out-of-court statements supporting competency could be considered if competency is treated as a witness qualification issue under Rule 104(a) but could not be considered if competency is treated as a conditional relevance issue under Rule 104(b).

91. 21% versus 11%. See Lyon & Saywitz, *supra* note 62, at 20. Of the 17 participants who acknowledged knowing one term but denied knowing the other, 13 of 17 only acknowledged knowing the meaning of “truth.” See *id.*

Even more curious was the pattern of response on the identification task. Children were better at identifying truthful statements than lies. This pattern was particularly notable among the younger children. Although the four-year-olds performed above chance on the task overall, closer examination revealed that although they were 80% correct in labelling truthful statements, they were no better than chance (50%) in identifying lies. Such a pattern suggests a bias toward labelling every statement as the “truth.”⁹² Indeed, of the eleven children who exhibited a bias toward labeling every statement as the “truth” or a “lie,” ten labeled every statement the “truth.”

The results suggested that children’s reluctance to discuss lying may interfere with their apparent understanding of lying. Perhaps children were inhibited from labelling statements as lies on the identification task because they were afraid to call the researcher a liar. They may have denied knowing what a lie was because it would increase the adults’ suspicion that they were going to lie. The findings are reminiscent of children’s routine denial that they have ever told a lie.⁹³ Such denials are obviously counterproductive, because they reduce the credibility of the child. Similarly, denying knowing what a lie is decreases the likelihood that a child will be found competent and allowed to testify.

If children are strongly disinclined to identify lies as such, their understanding of the meaning of lying might be masked by their fears of the consequences of lying. Alternatively, they may truly understand little or nothing about the meaning of lying, other than that it is bad to lie. In our second study, with ninety-six four- and five-year-olds, we designed a task that we hoped would overcome children’s reluctance to identify lies. This

92. Children were given four statements, two of which were true and two of which were false. If a child called every statement the “truth,” she would be 100% correct on the truthful statements and 0% correct on the lies. Therefore, a response bias toward labelling statements as the truth would lead the accuracy rate for truthful statements to exceed the accuracy rate for lies. *See id.* at 20–21.

93. Peterson et al. found that most five-year-olds denied ever having told a lie, about half of the eight-year-olds did so, and 35% of the nine-year-olds. All of the eleven-year-olds admitted having lied. *See* Peterson et al., *supra* note 46, at 1533 tbl.2. Children have frequently denied ever having lied when questioned in court as well. *See* Commonwealth v. Corbett, 533 N.E.2d 207 (Mass. App. Ct. 1989) (finding a five-year-old who denied ever telling a lie incompetent); State v. Chappell, 987 P.2d 1114 (Kan. Ct. App. 1999) (finding a seven-year-old who denied ever telling a lie to her father, and stated she couldn’t remember if she had ever told a lie to anyone else, competent); Commonwealth v. R.P.S., 737 A.2d 747 (Pa. Super. Ct. 1999) (finding a six-year-old who denied ever telling a lie incompetent); State v. Torres, 945 P.2d 849, 858 (Haw. Ct. App. 1997) (finding a fourteen-year-old who denied ever telling a lie competent); Rickey v. State, 661 N.E.2d 18, 22 (Ind. Ct. App. 1996) (finding a four-year-old who denied ever telling a lie incompetent).

would allow us to determine if our younger maltreated children had an understanding of the meaning of lying that was masked by their fears.

We presented each child with pictures that depicted an object and two story children accompanied by “talk bubbles” depicting what each story child said about the object. One story child correctly identified the object (i.e., the picture in the talk bubble was identical to the object) and the other story child incorrectly identified the object (i.e., the picture in the talk bubble was of a different object), and we asked the child to choose which story child told the truth (or told a lie).⁹⁴

We believed that the task would reduce motivational difficulties because the child did not have to identify the experimenter or herself as a liar. Moreover, the pictures made it clear that *someone* was a liar, and the child merely had to identify which one.⁹⁵ The results suggested that we were successful in overcoming motivational difficulties. Both the four- and five-year-olds performed above chance, and both age groups were as proficient at identifying liars as at identifying truth-tellers. Using our stringent criterion of success as six out of six trials correct, a majority of the five-year-olds answered all trials correctly.⁹⁶ However, most four-year-olds did not perform at ceiling (100% accurate), suggesting either that even with motivational barriers removed, many maltreated children this young do not understand the meaning of “truth” and “lie,” or that our task remained somewhat insensitive to understanding.

In order to assess the sensitivity of our tasks, we interviewed forty-eight three- and four-year-olds from a university-affiliated preschool serving a predominantly Caucasian middle-class community. Although not very representative of children generally, these children are quite representative of children tested in developmental research. We found that

94. See Lyon & Saywitz, *supra* note 62, at 23–26. In order to test whether children might understand the concept of accurate and inaccurate statements using terms other than “truth” and “lie,” half of the questions asked children to identify who said something “right” or something “wrong.” See *id.* at 24.

95. See *id.* at 25. The task had the additional benefit of visually depicting the labels for the target object provided by each speaker, thus potentially reducing the memory demands on the participant. Recall that in the first study, the experimenter uttered the label while the participant viewed the target object.

96. See *id.* A child has a less than 2% chance of answering six of six questions correctly by guessing randomly (that is, $.5^6 = .0156$). Children’s performance did not vary depending upon whether the terms “truth” and “lie” or “right” and “wrong” were used. Pilot testing suggested that “pretend” and “real” were no different as well. See *id.* at 26. We only piloted “pretend” and “real” because we wished to test both children’s understanding of the concept of truthful and untruthful statements and the wrongfulness of lying. “Pretend” does not carry the negative connotations of “lying,” and therefore is not a practical word to use in questioning children about the wrongfulness of lying.

both age groups were over 80% accurate in identifying truth-tellers and liars, and that a majority of four-year-olds were at ceiling (100% accurate) on the task.⁹⁷ Previous research with non-maltreated children has failed to find good understanding among children younger than four years of age. The research thus demonstrates that an understanding of the truth and lies is acquired early, and that our task is a sensitive means of testing such understanding.

3. Recommendations

A number of recommendations regarding questioning children about their understanding of the truth and lies can be generated from our and others' research.

It is relatively easy to make children appear competent when they are not. Children almost always answer "yes" when asked "Do you know what it means to tell a lie?" but their response does not predict better performance on a task requiring them to identify truthful statements and lies.⁹⁸ Young children are also likely to respond affirmatively to highly leading tag questions ("You know what it means to tell the truth, don't you?"), regardless of their actual understanding.⁹⁹ A single forced-choice question or yes/no question can exaggerate competence, because children may guess the correct response or may appear competent due to response biases (yes-bias, last option bias).

It is also easy to understate children's understanding. Most young children who have little difficulty in identifying truthful and untruthful statements cannot define "truth" and "lie" or explain the difference between the two. Children's difficulty with defining the terms "truth" and "lie" argues against the recommendation of some commentators that interviewers should supplement identification questions with questions that ensure children can define the terms.¹⁰⁰

97. See Lyon & Saywitz, *supra* note 62, at 26.

98. We found that children who claimed to know both what it means to tell the truth and what it means to tell a lie were not more likely than children who denied understanding to answer four out of four identification questions correctly. See Lyon & Saywitz, *supra* note 62, at 20.

99. See *supra* notes 50–52 and accompanying text.

100. See Nancy Walker Perry, *Children's Comprehension of Truths, Lies, and False Beliefs*, in TRUE AND FALSE ALLEGATIONS OF CHILD SEXUAL ABUSE: ASSESSMENT AND CASE MANAGEMENT 73, 93–94 (Tara Ney ed., 1995) (recommending both that the interviewer (1) ask questions like "If I said you were a boy/girl, would that be the truth or a lie?" and (2) determine "whether the child can define the 'truth' as telling what actually happened"); Margaret S. Steward, Kay Bussey, Gail S. Goodman, & Karen J. Saywitz, *Implications of Developmental Research for Interviewing Children*, 17 CHILD ABUSE & NEGLECT 25, 29, 33 (1993) (reviewing research that children can identify lies and truthful statements

Some children may falter even when merely asked to identify lies, for fear of calling the interviewer a liar. One option is to ask a series of forced-choice questions in which the child identifies which of two story characters “told the truth” or “told a lie.” Such an approach minimizes the risk of failing to qualify competent children, at the same time that few children will falsely appear competent. We have created a version of our test materials suitable for use in interviewing children.¹⁰¹

Because most five-year-olds in our two studies exhibited a good understanding of the meaning and wrongfulness of lying in spite of maltreatment and verbal difficulties, it seems fair to suggest that most five-year-olds in general understand as much about the truth and lies. Confronted with a five-year-old witness, a court may presume it is “more likely than not” that the child is competent to testify. The court may insist that the party opposing the child’s testimony offer evidence to rebut such a presumption.

Legal professionals need not be concerned that children believe statements are not lies if they are not believed or punished, or if they are intended to protect themselves or another person, or they are the product of coaching.¹⁰² Moreover, the fact that a child does not understand the distinction between lies and mistakes or lies and jokes does not render her incompetent.

Although we did not study it directly, we would recommend against asking children to generate examples of truthful statements and lies, a procedure recommended by some practice guides.¹⁰³ Although generating examples may be easier than defining terms (a possibility supported by our

by four years of age but recommending that “[t]he interviewer should ask a child to define a term before using it rather than merely asking whether the child knows the terms”).

101. See THOMAS D. LYON & KAREN J. SAYWITZ, *QUALIFYING CHILDREN TO TAKE THE OATH: MATERIALS FOR INTERVIEWING PROFESSIONALS* (Rev. ed. 2000). Available at <<http://hallaw.usc.edu/users/tlyon/>>.

102. See Bussey, *supra* note 46; Peterson et al., *supra* note 46; Haugaard, *supra* note 46. Although Haugaard and his colleagues suggest that “there may be a small percentage of children whose definition of the truth may be influenced by parental direction or its helpfulness to a friend,” Haugaard et al., *supra* note 46, at 269, their results offered little support for such an assertion: children were no less likely to describe a statement as a lie when the speaker was told to lie by her mother or when the statement was intended to protect another person. Because the errors were not associated with the factors the researchers studied, it is more likely that children who erred simply had difficulty with the basic definition of “lie.”

103. See, e.g., ELLEN MATHEWS AND KAREN SAYWITZ, *CHILD VICTIM WITNESS MANUAL* § 73, at 42–43 (1992) (“It is sometimes helpful to elicit examples by asking the child to ‘tell something true about this’ object (holding it in the air) and then asking the child to ‘tell something that is not true, something that would be a lie about this’ object.”).

first study, in which most children who were successful on the definition or difference tasks gave examples), it requires generating information, and therefore presents cognitive difficulties. It may also present motivational difficulties for children who do not understand the difference between lies and jokes. If a child believes that a false statement is a lie regardless of whether it is intended to deceive, she will be reluctant to utter a false statement despite the fact that the questioner knows it is false.¹⁰⁴

B. ASSESSING CHILDREN'S UNDERSTANDING OF THE WRONGFULNESS OF LYING

1. *Cognitive Difficulties in Explaining Why Lying is Wrong*

In addition to understanding the difference between the truth and lies, children must also understand the importance of telling the truth in order to qualify as competent to take the oath. Usually, the child is found competent if she understands that lying leads to punishment of some sort; she need not be aware of the specific punishment for perjury.¹⁰⁵

Children may find it difficult to describe the wrongfulness of lying for the same reasons they find it difficult to explain the difference between the truth and lies. Much of the research discussed above regarding children's understanding of the meaning of the truth and lies also assessed children's understanding of the wrongfulness of lying. The youngest children interviewed (four to five years of age) have a good understanding of the fact that lying is bad and leads to punishment, whether asked to identify

104. See *infra* text accompanying notes 114–120 (explaining that the fact that a false statement could be expressed as a hypothetical (“if I said x was y”) might not make it easier for a young child).

105. See *State v. Irey*, 1998 WL 193491, at *4 (Ohio Ct. App. 1998) (upholding trial court's decision that five-year-old child was competent). Although the child could not answer a question regarding the consequences of lying in court, she

testified that, if she had told a lie at kindergarten, she would have been required to put her head down, and that, if she told a lie at home, she would be sent to bed. In response to questioning by defendant's counsel, she said that it would not be okay to tell a lie, even if her mother and aunt told her it was okay to do so.

Id. See also *State v. Fairweather*, 863 P.2d 1077, 1082 (N.M. 1993) (“A child witness, or any competent witness for that matter, need not know the consequences of perjurious testimony, or even what the term “perjury” means; he or she need only know that lying is wrong.”); *Gallagher v. State*, 395 S.E.2d 358, 359 (Ga. Ct. App. 1990) (“Appellant's assertion that the child-witness in the instant case was incompetent because she . . . did not know specifically what would happen to her if she lied in court, has no bearing upon the determination of competency.”); *Hodges v. State*, 524 N.E.2d 774, 780 (Ind. 1988) (upholding competency when child said that “she didn't know what would happen if she didn't tell the truth” but “that she gets spanked and otherwise is punished for telling lies”).

lies as wrong or to explain why lying is wrong.¹⁰⁶ However, researchers have not directly compared different methods of assessing understanding. Moreover, maltreated children have never been questioned about the wrongfulness of lying. Researchers have recently begun to explore whether maltreated children's moral development differs from that of non-maltreated children, but have not examined maltreated children's reactions to lying.¹⁰⁷ In the two studies we conducted assessing maltreated children's understanding of the meaning of lying, we also asked children about the wrongfulness of lying. In the first study, we showed four- to seven-year-old children scenarios of story children talking to various authority figures (a judge, a social worker, a grandmother, and a doctor). We asked the children whether telling the truth (or telling a lie) was good or bad, why it was good or bad, and whether it would make an authority figure happy or mad. Even the four-year-olds were above chance in labeling lying as bad and as making authority figures mad, and a majority of the four year olds were at ceiling (100% accurate) in labeling the authority figures as happy or mad depending on whether the story child told the truth or lied. In contrast, most four-year-olds were unable to give a minimally sufficient explanation of why it was bad to lie (e.g., "You'll get in trouble."). As with defining the terms "truth" and "lie," children often understood what they could not explain.¹⁰⁸

In the second study, we showed four- and five-year-olds scenarios of two story children speaking to one professional, explained that one child told the truth and the other told a lie, and asked which child would "get in trouble" or "said something bad." Consistent with the first study, even the youngest children were above chance in correctly identifying the liar as the troublemaker.¹⁰⁹ When we gave the same tasks to our university school

106. See, e.g., Bussey, *supra* note 46, at 132–35. Bussey asked children to rate the goodness or badness of the story characters' utterances, and to rate how the story character would feel about herself (scared, pleased, guilty, and good). Even the four-year-olds rated lies as worse than truthful statements. *Id.* at 133–34. Peterson, Peterson, and Seeto found that 90% of the five-year-olds they interviewed were able to describe the negative consequences of lying; 80% mentioned punishment and 10% mentioned the destruction of trust. See Peterson et al., *supra* note 46, at 1533 tbl.2. Flin, Stevenson, and Davies asked children "How important is it to tell the truth in court—and why?" and found that with the exception of two of the six-year-olds (out of 30), all participants understood the importance of telling the truth: "At ages six and eight the justification for honesty was that if you lied you would be jailed or punished The overwhelming majority of children believed that you would be sent to prison as a consequence of lying in court." Flin et al., *supra* note 46, at 294.

107. See, e.g., Judith G. Smetana, Sheree L. Toth, Dante Cicchetti, Jacqueline Bruce, Peter Kane, & Christopher Daddis, *Maltreated and Nonmaltreated Preschoolers' Conceptions of Hypothetical and Actual Moral Transgressions*, 35 DEVELOPMENTAL PSYCHOL. 269 (1999).

108. See Lyon & Saywitz, *supra* note 62, at 21–22.

109. See *id.* at 25.

sample of middle-class children, we found that three-year-olds were over 80% accurate.¹¹⁰

Although McGough has argued that “we can no longer today safely assume that all children receive from their caretakers the same or even similar moral instruction, including the importance of truth-telling,”¹¹¹ our results demonstrate that both maltreated and non-maltreated children are clearly aware of the consequences of lying at an early age.

2. *Motivational Difficulties in Describing the Wrongfulness of Lying*

Q. If you crossed the street after your mommy told you not to, do you think you'd get in trouble?

A. (Witness shaking head no.) I did not.¹¹²

Children are routinely asked to describe what would happen to them if they lied in court as a means of testing their awareness of the consequences of lying.¹¹³ If the child describes some form of punishment, she understands the importance of telling the truth. If the child expresses ignorance, refuses to answer, or does not refer to some negative consequence, she may be found incompetent, and not allowed to testify.

However, a failure to answer correctly may not reflect ignorance or a belief that lies are unpunished. Rather, children's fears of the consequences of lying, and their difficulty in understanding the questions

110. See *id.* at 26. There were indications in both our studies that maltreated children had a better understanding of the wrongfulness of lying than the meaning of lying. In the first study we found that significant numbers of children were at ceiling on the morality tasks but not on the analogous identification task. However, the morality task was presented last, and therefore children's better performance on the morality task could be due to order effects. Furthermore, the identification task required the child to call the experimenter a liar, whereas the morality task asked about story children. In the second study the order of the two tasks was counterbalanced (i.e., half the children heard the identification task first and half heard the morality task first), and both tasks asked about story children. Children performed better on the morality task than on the identification task. This suggests that at least some of the four-year-olds who consistently labeled all statements as the “truth” did not understand that lies distort reality, but did understand that lying is somehow wrong. The practical implications are that interviewers cannot assume that just because a child understands that lying is bad the child knows what lying is.

111. LUCY MCGOUGH, *CHILD WITNESSES: FRAGILE VOICES IN THE AMERICAN LEGAL SYSTEM* 115 (1994).

112. *State v. Superior Court*, 719 P.2d 283, 287 (Ariz. Ct. App. 1986) (three-year-old witness).

113. See GRAY, *supra* note 31, at 52 (finding that in 76% of 27 sexual abuse trials in which children were questioned to determine their competency, children “were asked to explain the consequence of telling a lie”). Cf. Huffman et al., *supra* note 35, at 10 (“Only 31% of the [Truth-Lie Discussions in investigative interviews] . . . contained a dialogue about the consequences of lying or truth-telling,” but when consequence questions were asked, “83% . . . were wh- questions (e.g., ‘What happens when you tell a lie?’).”).

that adults ask, may make them resistant to answering such questions. Because a question like “What would happen if you told a lie?” is merely hypothetical, a child ought not to feel threatened. However, several researchers have found that preschool children often perform poorly when asked to reason with premises they find unacceptable. Reilly found that up to four years of age, children asked “what if” questions simply rejected implausible or undesirable premises, treating such questions as suggestions rather than hypotheticals.¹¹⁴ Hawkins and colleagues found that four- to five-year-olds answered only 13% of simple deductive reasoning problems correctly when the premises contradicted their practical knowledge.¹¹⁵

Although children’s difficulty on these tasks has sometimes been interpreted as reflecting cognitive limits to their ability to reason counterfactually, several lines of evidence suggest that their difficulty is instead attributable to a failure to understand what the adult questioner intends.¹¹⁶ When directly asked to assess the mental state of a speaker who uses the word “if,” children as old as six are poor at inferring that the speaker is uncertain (or does not believe) the premises.¹¹⁷ Hence children may misinterpret “What if you told a lie?” as a challenge rather than a friendly question.

Children acquire an ability to reason hypothetically at a very young age. By two years of age, children reason about situations contrary to reality through their pretend play and through the use of words such as “almost” and “wish” (which refer to counterfactual states).¹¹⁸ Young

114. See Judy Snitzer Reilly, *The Acquisition of Temporals and Conditionals*, in ON CONDITIONALS 309 (Elizabeth Closs Traugott et al. eds., 1986).

115. See J. Hawkins & R.D. Pea, J. Glick & S. Scribner, “Merds that Laugh Don’t Like Mushrooms”: Evidence for Deductive Reasoning by Preschoolers, 20 DEVELOPMENTAL PSYCHOL. 584, 588 tbl.2 (1984).

116. See Reilly, *supra* note 114, at 324 (suggesting that her findings may show that children’s difficulty with counterfactual hypotheticals may “stem from a misinterpretation of the adult’s intended speech act”).

117. See Clara S. Wing & Ellin Kofsky Scholnick, *Children’s Comprehension of Pragmatic Concepts Expressed in ‘Because’, ‘Although’, ‘If’ and ‘Unless’*, 8 J. CHILD LANGUAGE 347, 358 (1981).

118. See Melissa Bowerman, *First Steps in Acquiring Conditionals*, in ON CONDITIONALS 285, 290 (Elizabeth Closs Traugott et al. eds., 1986) (discussing use of “almost” and “wish”: “[W]ell before children produce conditionals they appear to be not only capable of entertaining situations contrary to reality but also in some cases of marking them as counterfactual.”). See also Terry Kit-fong Au, *Counterfactual Reasoning*, in LANGUAGE, INTERACTION, AND SOCIAL COGNITION 194, 208 (Klaus Fiedler et al. eds., 1992) (reviewing research: “[D]ata from experiments and diary records converged to suggest that from very early on [i.e., by two years of age], young children are capable of entertaining counterfactual alternatives.”); ELIZABETH BATES, LANGUAGE AND CONTEXT: THE ACQUISITION OF PRAGMATICS 248 (1976) (discussing use of “no-no” and “fake”: “[N]ot only do children realize very

children's hypothetical reasoning performance improves when adults encourage them to pretend or when reasoning with fantasy content.¹¹⁹ Moreover, experimenters have elicited counterfactual reasoning from preschool children either by asking them how negative outcomes could have been avoided, or "by further instruction encouraging them simply to think about the content of the initial premise, without any make-believe prompt."¹²⁰ Children's difficulty is therefore not with reasoning hypothetically, but in responding to some kinds of hypothetical questions.

Anecdotal evidence from appellate cases suggests that even school-age children may have difficulty responding when asked hypothetical questions about lying on the stand.¹²¹ Recall the four-year-old child in *Corbett*, who refused to consider the possibility that she would lie.¹²²

early the distinction between real and pretend, but they are also capable, in very primitive utterances, of signaling the property 'unreal' in their speech.").

119. See M.G. Dias & P.L. Harris, *The Effect of Make-Believe Play on Deductive Reasoning*, 6 BRIT. J. DEVELOPMENTAL PSYCHOL. 207 (1988) (finding that deductive reasoning abilities of four- to six-year-olds improved when problems were presented in context of make-believe play by reference to another planet and use of play intonation); M.G. Dias & P.L. Harris, *The Influence of the Imagination on Reasoning by Young Children*, 8 BRIT. J. DEVELOPMENTAL PSYCHOL. 305 (1990) (finding that make-believe instantiated through reference to another planet, play intonation, and instructions to imagine premises increases deductive reasoning abilities of children); Hawkins et al., *supra* note 115, at 588 tbl.2 (finding that if presented with fantasy problems first, four- to five-year-olds were 94% correct on deductive reasoning tasks, and offered theoretical justification for their responses over half the time); Stan A. Kuczaj, *Factors Influencing Children's Hypothetical Reference*, 8 J. CHILD LANGUAGE 131, 131 (1981) (finding that three- to six-year-old children were better at hypothetical reasoning about fantasy characters than about parents); Reilly, *supra* note 114, at 324 (finding that two- to four-year-old "children do better with hypothetical questions when the adult gives the additional cue to 'pretend' and a model").

120. Paul L. Harris & Hilary J. Leevers, *Reasoning From False Premises*, in CHILDREN'S REASONING AND THE MIND (Peter Mitchell & Kevin J. Riggs eds., forthcoming 2000) (manuscript at 16, on file with author). Harris and Leevers concluded that the "reasoning context of the traditional experimental situation is pragmatically anomalous, with the experimenter stating untruths but with little indication of how these untruths should be handled." *Id.* at 17. In other words, adult questioners must simply make it more clear what they expect from the child.

121. In *Commonwealth v. R.P.S.*, the six-year-old witness "clearly understood the difference between the truth and a lie" but "seemed unable to understand his duty to tell the truth" because, although he stated he "would get in trouble" for telling a lie, he answered "I don't know" when asked "Do you think you could be punished if you told a lie?" and "Who would punish you . . . if you told a lie?" 737 A.2d 747, 749 (Pa. Super. Ct. 1998). The appellate court upheld the trial court's finding that the child was incompetent to testify. See *id.* In *People v. Smith*, the eight-year-old witness said that when one tells the truth, "you say what you saw and what you know," and answered "no" to the question "If you promise to tell the truth, if you swear to tell the truth, can you break that promise?". But the child also answered "no" to a series of questions asked by the judge, including "Do you know what would happen if you didn't tell the truth, if you told a lie?", "Do you know if you would be punished?", and "Do you ever not tell your mother the truth?". 481 N.Y.S.2d 879, 880-81 (N.Y. App. Div. 1984). The appellate court held that the child should have been found incompetent to testify. See *id.* at 881. In *Pace v. State*, the eight-year-old witness testified that it is wrong to tell a lie, but answered "no" to "Do you know what would happen to you if you don't tell the truth when someone asks you a

In the tasks we have described for assessing children's understanding of the consequences of lying, children were always asked about the consequences to other children. We reasoned that children might be reluctant to discuss the consequences to themselves, but capable of displaying their knowledge if asked about others. Children would find it less implausible that another child would lie on the stand, or less undesirable to think about another child doing so.

However, it might be objectionable to limit questioning to the consequences of lying for others. Perhaps children think that other children will be caught and punished for lying, but that they will not be.¹²³ Children believe that they are less likely to experience negative events than other children.¹²⁴ Children who consider themselves invulnerable would be able to describe negative consequences to others but would not fully appreciate their obligation to tell the truth on the stand.

Several colleagues and I tested the hypothesis that young maltreated children find it easier to discuss the consequences of lying if they are asked

question?" and to "Have you ever told fibs, made up stories?". 278 S.E.2d 90, 91-92 (Ga. Ct. App. 1981). The appellate court held that the trial court erred in finding her competent to testify. *See id.*

122. *See supra* text accompanying notes 1-5. As in the research on children's understanding of the truth and lies, research examining children's developing understanding of hypothetical statements has often focused on children with above-average verbal abilities. *See, e.g.,* Reilly, *supra* note 114, at 329 (explaining that the three children from whom diary data were drawn "are certainly very verbal children and appear to be quite precocious"); Wing & Scholnick, *supra* note 117, at 352 ("[Children] were selected to participate in the study if their PPVT scores fell between the 35th and 98th percentiles (mean PPVT quotient score = 108.6) [and] if they had no deficiencies in . . . language development."). *But cf.* Paul Harris, Tim German, & Patrick Mills, *Children's Use of Counterfactual Thinking in Causal Reasoning*, 61 COGNITION 233, 238 (1996) (examining children drawn from schools "serving a broad range of socio-economic backgrounds"). Moreover, children are likely to perform better in the lab than in the courtroom. *See supra* text accompanying notes 60-74.

123. *See, e.g.,* State v. Street, 701 N.E.2d 50, 52 (Ohio Ct. App. 1997) (upholding trial court's finding that four-year-old was incompetent). The child recognized that lying was bad, but answered "I don't know" to questions like "Do you think something good or something bad would happen if you didn't tell the truth?" and "What do you think would happen to you at home if you told a lie and your mommy found out?". When asked what would happen if he "fibbed, if [he] lied to Miss Denise," the child stated that "nothing would happen."

124. *See, e.g.,* Carol K. Whalen, Barbara Henker, Robin O'Neil, Judy Hollingshead, Alison Holman, & Barbara Moore., *Optimism in Children's Judgment of Health and Environmental Risks*, 13 HEALTH PSYCHOL. 319, 320 (1994) ("[Children] estimate . . . their own chances of confronting a wide variety of health and environmental problems as substantially lower than the chance of other children."). *See also* Carol K. Whalen, Barbara Henker, Robin O'Neil, Judy Hollingshead, Alison Holman, & Barbara Moore, *Preadolescents Perceptions of AIDS Before and After Earvin Magic Johnson's Announcement*, J. PEDIATRIC PSYCHOL. 3 (1994). This phenomenon is known as optimism bias, and adults exhibit it as well. *See generally* Linda S. Perloff, *Perceptions of Vulnerability to Victimization*, 39 J. SOC. ISSUES 41 (1983).

about a story child rather than about themselves.¹²⁵ We asked sixty-four maltreated five- and six-year-old children to describe the consequences of lying to three professionals (a judge, a social worker, and a doctor). Participants in the “self” condition were asked what would happen to them if they lied, whereas participants in the “other” condition were asked to describe what would happen to a story child if he or she lied. The questions concerned the potential actions of the professional, the child’s mother, and God.

We analyzed both whether children failed to respond to the negative hypotheticals (i.e., gave no answer or responded “I don’t know”) and whether they responded but did not describe the consequences as negative. Doing so allowed us to both test our prediction and to anticipate the aforementioned criticism of asking children about the consequences of lying to others. If children feel invulnerable to punishment, they should be forthcoming about the consequences of lying to others but deny harm to themselves.

The results were consistent with our prediction, and not consistent with a feeling of invulnerability. Children asked about themselves, rather than about another child, were more likely to refuse to respond to the questions or to respond “I don’t know.” A subset of children were particularly reticent during the procedure, and they were all in the “self” condition.¹²⁶ When children *did* respond, however, they were no more likely to mention negative consequences in the “other” condition than in the “self” condition. They exhibited no evidence of invulnerability.¹²⁷

Overall, a relatively small percentage of children were unresponsive, which suggests that children felt little reluctance to answer our questions. However, we took pains to minimize the aversiveness of the questions. Interviewers emphasized that they were not from the court, and questioned children in an interview room rather than the courtroom. The tone of the questioning was friendly and supportive. Children were given several opportunities to respond to the questions, and initial “I don’t knows” and failures to respond were followed up with a prompt encouraging a response.

125. See Thomas D. Lyon, Karen J. Saywitz, Debra Kaplan, & Joyce Dorado, *Reducing Maltreated Children’s Reluctance to Answer Hypothetical Oath-Taking Competency Questions*, 25 LAW & HUM. BEHAV. (forthcoming 2001). Available at <<http://hal-law.usc.edu/users/tlyon/articles/STUDY4ss.PDF>>.

126. *Id.* at 9.

127. *Id.* at 10.

Courtroom questioning is sure to be more intimidating than our questions, and is therefore likely to increase further children's fears of the consequences of lying.¹²⁸ Merely answering questions in a courtroom rather than an interviewing room impairs children's performance.¹²⁹ Children frequently believe that "the witness [is] actually on trial as well as or instead of the accused."¹³⁰ Competency examinations may exacerbate such misconceptions with explicit talk of various forms of punishment.¹³¹ Ironically, as children's fear intensifies, their apparent incompetence will increase.

3. Recommendations

Children's motivational difficulties in discussing the negative consequences of lying may be reduced if they are asked about the consequences of lying to other children. We suspect that children may also find it easier to answer questions about what happens to people in general who lie, although we did not directly test this possibility.¹³²

128. See, e.g., *State v. Allen*, 647 So. 2d 428, 433-34 (La. Ct. App. 1994) (upholding trial court's finding that seven-year-old child was competent). The child responded "no" "when asked if she knew what it meant to tell a lie" and "when asked if she understood the consequences of telling a lie," but "[w]hen asked if one of the judge's children would be punished for telling him something not true, the victim responded 'yes' [and] also stated that children who get in trouble at school get detention sometimes." The opinion emphasized that the "courtroom experience was apparently somewhat stressful for this young child, as reflected by the prosecutor's suggestion during direct examination that she take several breaths to calm down." *Id.*

129. See Paula E. Hill & Samuel M. Hill, Note, *Videotaping Children's Testimony: An Empirical View*, 85 MICH. L. REV. 809, 813-17 (1987) (finding that seven- to nine-year-old children questioned in a courtroom answered "I don't know" or gave no answer more often than children questioned in a small room equipped with one-way mirrors and a video camera); Karen J. Saywitz & Rebecca Nathanson, *Children's Testimony and Their Perceptions of Stress In and Out of the Courtroom*, 17 CHILD ABUSE & NEGLECT 613, 617-19 (1993) (finding that eight- to ten-year-old children questioned in a courtroom recalled less in free recall, and erred more in response to probed and misleading questions than children questioned in an empty classroom).

130. Flin, Stevenson, & Davies, *supra* note 46, at 295.

131. See, e.g., *Commonwealth v. Brusgulis*, 496 N.E.2d 652, 655 n.10 (Mass. 1986) (during competency inquiry, judge asked three-year-old child "whether she knew the terms 'licking,' 'spanking,' or 'whipping'").

132. See, e.g., *In re R.E.B.*, 1998 WL 240231, at *3 (Tex. App. 1998) (quoting testimony of four-year-old child: "State: What happens to people that tell lies? Child: Them gets mad. State: Who gets mad? Child: Their momma."); *Bruce v. State*, 625 A.2d 416, 420 (Md. Ct. Spec. App. 1993) (quoting testimony of five-year-old child: "The Court: Do you know what happens to people who tell lies? [The Victim]: Yes. The Court: What? [The Victim]: They get beatings.").

In order to reduce both motivational and cognitive difficulties, the best solution is to ask forced-choice questions about the wrongfulness of lying, rather than to require children to generate their own explanations.¹³³

IV. WHAT FORM OF THE OATH SHOULD BE USED?

When you promise to do something, you have to do it.

—Ari (five years old)

Most courts require all witnesses to take some form of the oath before testifying. Rule 603 of the Federal Rules of Evidence requires that “every witness . . . declare that the witness will testify truthfully, by oath or affirmation administered in a form calculated to awaken the witness’ conscience and impress the witness’ mind with the duty to do so.”

The competency evaluation is designed to determine if taking the oath will be meaningful to the child. If a child does not know what “the truth” refers to, asking her to “tell the truth” is hardly likely to awaken her conscience. Although the courts routinely inquire of children’s understanding of “the truth,” they rarely assess the child’s understanding of the oath or affirmation they administer. Yet such an inquiry seems as important, if the oath is expected to have an effect. Moreover, the form of the “affirmation” is not specified, allowing the courts to modify the wording to adapt to the developmental level of the child. Therefore, if a child appears not to understand a term, a simpler one may be substituted.

Most courts do not require young children to understand the meaning of the word “oath,”¹³⁴ and many allow children simply to promise to tell

133. Participants were given the vocabulary subtest of the Wechsler Preschool Scale of Intelligence Revised (WPPSI-R), a measure of productive vocabulary that is highly correlated with other measures of verbal intelligence. Children’s performance in both the self and other conditions was positively correlated with their ability to generate negative consequences of lying. Moreover, as in our other research, children’s vocabulary scores were quite low; the average child scored in the sixth percentile. See Lyon et al., *supra* note 125, at 7.

134. See *Dumas v. State*, 521 S.E.2d 108, 1999 (Ga. Ct. App. 1999) (“Understanding the nature of the oath does not require a technical understanding of the oath, but rather a simple understanding of truth and falsehood and the importance of telling the truth.”); *State v. Earl*, 560 N.W.2d 491, 495 (Neb. 1997) (child need not be able to define “oath”); *State v. Uelentrup*, 910 S.W.2d 718, 722 (Mo. Ct. App. 1995) (“It is not necessary for [a child] to know the meaning of an oath as long as she understands the importance of telling the truth.”); *Hargrove v. Commonwealth*, 1994 WL 102147, at *1 (Va. Ct. App. 1994) (“A seven-year-old child who does not understand the meaning of an oath but recognizes that she has a duty to tell the truth and testifies that God will not like it if she lies is competent to testify.”); *State v. Fears*, 659 S.W.2d 370, 375 (Tenn. Crim. App. 1983) (holding that so long as a witness is “sensitive to the obligation to tell the truth under oath . . . there is no requirement that [she] have sufficient academic learning to define an oath or articulate its obligations”).

the truth.¹³⁵ Although researchers have established that even older children have difficulty with the term “oath,”¹³⁶ surprisingly little research has explored whether promising is meaningful to young children.

A. DIFFICULTIES IN ASKING CHILDREN TO “PROMISE TO TELL THE TRUTH”

It is possible that young children are unfamiliar with the meaning of the word “promise,” making even a simplified version of the oath meaningless. It might be preferable to ask a child if he or she “will tell the truth” and if he or she “will tell any lies.” The difficulty with substituting “promise” with “will” is that it less clearly obligates the speaker to future action. Stating “I promise” rather than “I will” is a stronger guarantee of performance, since one has explicitly undertaken the responsibility to act in accordance with one’s words. Using the words “I will” may constitute a promise, but using the words “I promise” almost always does.

Several researchers have concluded that young children have only a limited understanding of promising. Astington has argued that children do not distinguish between promising an action and the action itself; they confuse words and deeds.¹³⁷ Astington found that it was not until nine years of age that children preferred a picture of a child speaking to an adult (prior to some action) to a child performing an action when asked to choose

135. The Federal Advisory Committee’s Note to Rule 603 of the Federal Rules of Evidence states that an “[a]ffirmation is simply a solemn undertaking to tell the truth; no special verbal formula is required.” Several states have enacted legislation specifically allowing for children to promise to tell the truth rather than take the oath. See CAL. EVID. CODE § 710 (West 1999) (“Every witness before testifying shall take an oath or make an affirmation or declaration in the form provided by law, except that a child under the age of 10, in the court’s discretion, may be required only to promise to tell the truth.”); COLO. REV. STAT. ANN. § 13-90-117.5 (West 1997) (“[I]n lieu of an oath or affirmation, any child who testifies in any proceeding pursuant to section 13-90-106(1)(b)(II) shall be asked the following: ‘Do you promise to tell the truth?’”); MICH. STAT. ANN. § 27A.2163 (stating that if a child under ten years of age “has sufficient intelligence and sense of obligation to tell the truth . . . testimony may be given on a promise to tell the truth instead of upon oath or statutory affirmation”). Sometimes, the courts will modify the form of the oath on their own. See *Commonwealth v. Amirault*, 677 N.E.2d 652, 672 n.22 (Mass. 1997) (reasoning that child witnesses “did not take the usual oath, but were instead asked to make a promise of truthfulness which was within the children’s understanding”); *State v. Lane*, 1993 WL 523534, at *2 (Tenn. Ct. App. 1993) (“[I]t is difficult to determine what type of oath or affirmation should be administered to a four year old witness in order to comply with Rule 603, but it would appear that to elicit a promise to tell the truth from the young witness is in a ‘form calculated to awaken the witness’ conscience.’”).

136. See Saywitz et al., *supra* note 46, at 528 tbl.1 (oath defined by 5% of five-year-olds, none of eight-year-olds and 80% of eleven-year-olds); Flin et al., *supra* note 46, at 291 tbl.2 (oath defined by virtually none of six-year-olds or eight-year-olds; unclear number of ten-year-olds and adults, given scoring procedure).

137. See Janet W. Astington, *Promises: Words or Deeds?*, 8 FIRST LANGUAGE 259, 266 (1988).

which of the pictures showed the child “promising” she would perform the action.¹³⁸ Similarly, children up to nine years of age believed that a person who broke a promise had not made a promise.¹³⁹

Astington and Rotenberg have both found that children may not appreciate the obligations imposed by promising. Astington found that children up to eleven years of age used the word “promise” to describe both promises and predictions about events beyond the speaker’s control.¹⁴⁰ It was not until nine years of age that children uttered “I promise” in order to assure another person of their intention to act in accordance with their words.¹⁴¹ She also found that when asked to explain why actors should perform various actions, six-year-olds (in contrast to eight- and ten-year-olds) described the virtues of the actions themselves rather than the importance of keeping one’s promises.¹⁴² Similarly, Rotenberg found that five-year-olds (in contrast to seven- and nine-year-olds) who were told stories about children who kept or broke their promises virtually never mentioned whether a promise was kept or broken as the basis for trusting another child. Moreover, five-year-olds focused on the positive actions of individuals rather than on the consistency of their words and actions when choosing which individuals they would trust.¹⁴³

Some have asserted that children’s belief that a broken promise is not a promise at all might evince an implicit understanding that promises

138. See *id.* at 263 tbl.2 (1988).

139. See Janet W. Astington, *Children’s Understanding of the Speech Act of Promising*, 15 J. CHILD LANGUAGE 157, 163 (1988) [hereinafter Astington, *Speech Act of Promising*]. One might interpret such a finding by arguing that children believe that insincere promises are not true promises. This belief is held by some adults. See Janet W. Astington, *Metapragmatics: Children’s Conception of Promising*, in CHILDREN’S LANGUAGE 223, 228 (1990) [hereinafter Astington, *Metapragmatics*] (finding that 20 university students “were less certain whether insincere and impossible promises . . . are to count as promises or not”). Children holding such a belief might reason backwards from a broken promise to conclude that the promisor was insincere. However, this interpretation is inconsistent with Maas and Abbeduto’s finding that children up to seven years of age denied that unfulfilled promises were promises even if the actor was not responsible for their failure. See F. Maas & L. Abbeduto, *Children’s Understanding of Promising* (Mar. 1993) (paper presented at the meeting of the Society for Research in Child Development, Minneapolis, Minn.) (on file with author).

140. See Astington, *Speech Act of Promising*, *supra* note 137, at 163–64.

141. See Janet W. Astington, *Children’s Production of Commissive Speech Acts*, 15 J. CHILD LANGUAGE 411, 418 (1988).

142. See Astington, *supra* note 137, at 266 (“Two [of sixteen] six-year-olds, ten [of sixteen] eight-year-olds, and seven [of sixteen] ten-year-olds [mentioned the promise as a reasons for acting] for either or both stories. . .”).

143. See Ken J. Rotenberg, “A Promise Kept, a Promise Broken”: *Developmental Bases of Trust*, 51 CHILD DEV. 614, 616 (1980).

impose obligations on the speaker to act.¹⁴⁴ However, if children do not distinguish between the action promised and the promise itself, they might simply treat a question like “Did she promise X?” as synonymous with “Did she X?” without any reference to the obligations of the speaker.

Given parents’ anecdotal experience with young children’s recurrent plea “but you *promised*,” young children’s apparent failure to understand the meaning and importance of promising is surprising. Indeed, it may be that researchers have underestimated young children’s understanding. Although Astington has argued that young children find it difficult to distinguish between words and deeds, it might be that when presented with both words and deeds, young children’s attention is drawn toward deeds, masking their comprehension of the meaning and obligations of words alone. This possibility is suggested by Astington’s finding that children were more likely to mention a promise as a reason for performing an action when there was a “less compelling external reason”¹⁴⁵ to keep the promise.

It is also possible that before they know the word “promise,” children understand that obligations may be imposed by other expressions, such as “I will.” Astington has noted that “will” appears in children’s speech by the time they are two years old.¹⁴⁶ Moreover, she found that although few five-year-olds produced “I promise” when prompted to assure another person that they would act, most uttered some type of “commissive” (a verbal assurance of action), which included “I will.”¹⁴⁷

Unfortunately, complications in Astington’s study of children’s production of commissives like “I will” and “I promise” may have affected children’s apparent understanding of these terms. Children play-acted scenarios in which they were expected to produce a commissive in order to assure another character that they would take action. As Astington acknowledges, there were several indications that children had difficulty catching on to the purpose of the task. First, most of the children who said

144. See Astington, *Metapragmatics*, *supra* note 139, at 236 (arguing that children’s belief that a broken promise was not a promise “may indicate the children’s implicit understanding that someone who makes a promise thereby assumes an obligation to bring about the promised outcome”); Martin Dale Ruck, *Why Children Think They Should Tell the Truth in Court: Developmental Considerations for the Assessment of Competency*, 1 LEGAL & CRIMINOLOGICAL PSYCHOL. 103, 112 (1996) (arguing that children who believe that a broken promise is not a promise may “view promising to tell the truth as *more* compelling than taking an oath”) (emphasis in original).

145. Astington, *supra* note 137, at 266.

146. See Astington, *supra* note 141, at 413.

147. See *id.* at 422 (concluding that “by the age of 5, if not earlier, children are able to produce commissive speech acts. However, it is not until later that they are fully aware of the explicit performative *promise* to reassure the hearer that they are committed”) (emphasis in original).

“I promise” only did so after a series of prompts (e.g., “Please will you clean [your room] up? How do I know that you’ll do it later? What can you say to me now so that I’ll know you’ll do it later? Is there anything you can say so that I’ll know that you’ll do it later?”). Second, children’s performance improved in the second scenario (with similar additional prompts). Finally, some children answered the prompts with “please.”¹⁴⁸ Children who understand promising may have simply failed to realize that they were being asked to make a promise. On the other hand, children who at one point said “I will” were given credit for uttering commissives, though they may have been responding to “Will you clean it up?” with little thought of the commitment their response entailed.

Astington has noted that when there is uncertainty regarding a speaker’s intention to do as she says, the speaker can reduce uncertainty by adding the words “I promise.” In a series of studies, Chris Moore and his colleagues used a simple procedure to examine children’s developing understanding of relative uncertainty as expressed through contrasting words such as “know” and “think,” “sure” and “think,” and “must” and “might.”¹⁴⁹ Children listened to two characters make contrasting statements about which of two boxes contains a prize, and were asked to choose one of the boxes. Moore and his colleagues found that children acquired an understanding of relative certainty from four to five years of age. For example, five-year-olds but not three-year-olds prefer the box that one character is “sure” contains candy to the box that the other character only “thinks” contains candy.¹⁵⁰

We adopted Moore’s procedure to test children’s understanding that one who “promises” to perform some action expresses greater certainty (and is more likely to act) than one who says she “will” perform the action, or says she “might” or “won’t” perform the action. The task was structured as a game in which the participant heard contrasting statements regarding which character was going to put a toy in his or her box, and chose which

148. See *id.* at 418–19.

149. See Chris Moore, Dana Bryant, & David Furrow, *Mental Terms and the Development of Certainty*, 60 CHILD DEV. 167 (1989) (“know,” “think,” and “guess”); Chris Moore & Jane Davidge, *The Development of Mental Terms: Pragmatics or Semantics?*, 16 J. CHILD LANGUAGE 633 (1989) (“know,” “think,” and “sure”); Chris Moore & David Furrow, *The Development of the Language of Belief: The Expression of Relative Certainty*, in CHILDREN’S THEORIES OF MIND: MENTAL STATES AND SOCIAL UNDERSTANDING 173 (Douglas Frye & Chris Moore eds., 1991) (reviewing the research); Chris Moore, K. Pure, & David Furrow, *Children’s Understanding of the Modal Expression of Certainty and Uncertainty and its Relation to the Development of a Representational Theory of Mind*, 61 CHILD DEV. 722 (1990).

150. See Moore & Davidge, *supra* note 149 at 637–38.

box would contain a toy. Six pairs of words were contrasted: promise/will, promise/might, promise/won't, will/might, will/won't, and might/won't.¹⁵¹ The task has several advantages. It is not necessary for children to produce the terms, only to recognize their meaning. Moreover, the forced-choice procedure over repeated trials provides a sensitive means of assessing children's incipient understanding. Finally, because children are presented with words alone, there is no opportunity for their focus on deeds to mask their understanding of the importance of words.

We questioned ninety-six maltreated children from four to seven years of age. We expected that preference for "will" versus "might" and "promise" versus "might" would emerge somewhat later than Moore's sample, given the lags in vocabulary development we have observed among our maltreated sample.¹⁵² Although we found that even the youngest children understood something about the words spoken—consistently rejecting the character who said "I won't"—it was not until six years of age that most children believed that the character who said "I promise" was more likely to act than the character who said "I might."¹⁵³

We predicted that children would exhibit better understanding of the word "will" than the word "promise," and that preference for "promise" over "will" would increase with age. Our predictions were confirmed. Whereas about half of the seven-year-olds consistently chose the character who said "I promise" over the character who said "I will," about half of the four-year-olds exhibited the opposite pattern, consistently choosing the character who said "I will."¹⁵⁴ Younger maltreated children do not appear to understand that "promise" increases the likelihood of performance over saying "I will," six-year-olds appear to view "promise" as synonymous with "will," and even the seven-year-olds were ambivalent regarding the relative certainty of promising.

151. See Karen Saywitz & Thomas D. Lyon, *Sensitively Assessing Children's Testimonial Competence: Final Report to the National Center on Child Abuse & Neglect* 53–54 (1997). The contrasts with "won't" served as control tasks designed to ensure that children understood the purpose of the task. Both the youngest maltreated and non-maltreated children performed well on these tasks. The contrasts with "might" allowed us to compare our results to previous work by Moore and his colleagues, which showed that understanding of the uncertainty conveyed by "might" emerged during the preschool years. See *supra* note 149 and accompanying text. Because our non-maltreated participants were performing reliably above chance on the "will" versus "might" contrasts by three years of age, we are confident that the task was sensitive to understanding.

152. Moore and his colleagues do not provide information regarding the verbal abilities of their subjects. See *supra* note 149 and accompanying text.

153. See Saywitz & Lyon, *supra* note 151, at 56 tbl.4.

154. See *id.*

Using the same procedure with ninety-six non-maltreated children from three to six years of age, we found similar patterns, but with understanding accelerated by one to two years. As with the maltreated children, “promise” was less well understood than “will,” except among the six-year-olds. We found good understanding of “promise” and “will” versus “might” by four years of age, and good understanding of “promise” versus “will” by six years of age. “Promise” thus appeared to imply greater certainty for the six-year-olds, but was less well understood than “will” by the younger children.¹⁵⁵

One might object that children who preferred the character who said “I promise” to the character who said “I will” might have done so without any understanding that a promisor undertakes a personal obligation to perform the promised action.¹⁵⁶ Yet in the context of predicting one’s future action, the distinction between certainty and commitment is very fine. Moreover, it is likely that children understand the obligation to tell the truth even if they do not understand the obligatory nature of promising to do so. Even the youngest participants in our first two studies demonstrated a good understanding of the wrongfulness of lying and the punishment they would face were they to lie.¹⁵⁷ Therefore, for purposes of assessing children’s understanding of the oath, it seemed less important to determine if children appreciate the obligatory nature of promising, and more important to determine if children understand that promising increases the likelihood that one will do what one says.

B. RECOMMENDATIONS

The results advise caution in using the word “promise” in eliciting a child’s guarantee that he or she will tell the truth. Children at all ages in our research understood that “will” predicts performance, and some children at older ages understand that “promise” increases the likelihood of performance. In order to communicate the importance of telling the truth to children at all ages, we suggest that children be asked if they can “promise” that they “will” tell the truth.

155. Unpublished data (on file with the author).

156. Colloquially, “I promise” can be synonymous with “I assure you,” without the undertaking of a personal obligation to act. See Astington, *supra* note 139, at 233 (citing the Oxford English Dictionary). A child understanding this colloquial usage could perform well on our task without understanding the personal obligations imposed by some promises.

157. See Lyon & Saywitz, *supra* note 62, at 21, 25.

V. DOES UNDERSTANDING THE OATH AND TAKING THE OATH AFFECT HONESTY?

The competency questions are often misunderstood. They are not designed to determine if the witness is going to tell the truth. Children are capable of responding to questions truthfully before they have an explicit awareness of the concepts of true and false statements. Conversely, they are capable of rejecting false statements before they are able to label such statements as “false.” When the courts hold that some hearsay statements by children may be admitted despite the child’s testimonial incompetence, they are recognizing that understanding “truth” and “lie” is not a prerequisite to truthfulness.

The competency questions *are* designed to determine if the witness is capable of promising to tell the truth. The promise itself is assumed to increase the likelihood that a witness will be truthful. In assessing oath-taking competence, therefore, the key empirical questions are whether the oath does in fact have an effect, and whether children’s answers to the competency questions accurately assess their ability to take the oath. A question of secondary importance but of some interest is whether children’s answers to the competency questions directly predict honesty. Among children who have an understanding of the concepts of “truth” and “lie,” one might expect to find that children who understand the negative consequences of lying are more honest.

The oath is aimed at increasing the sincerity of witnesses, and is not supposed to cure defects in perception, memory, or narration, at least insofar as those defects are beyond conscious control. The law has long recognized that even the most sincere witnesses make mistakes. Therefore, tests of the oath should focus on whether it reduces deliberate errors.

A. PREVIOUS RESEARCH EXAMINING OATH-TAKING COMPETENCY AND HONESTY

Surprisingly, psychologists have never examined whether the oath affects witness’ sincerity. Early in this century Munsterberg thought it obvious that the oath “can and will remove to a high degree the intention to hide the truth,”¹⁵⁸ whereas more recently Melton asserted that the oath

158. HUGO MUNSTERBERG, *ON THE WITNESS STAND* 48 (1925). Because witnesses can be inaccurate for reasons other than dishonesty, however, Munsterberg cautioned that “it may be an open question to what degree [the oath] can increase the objective truthfulness.” *Id.*

“probably has little effect on behavior.”¹⁵⁹ Neither writer cites any evidence for his claim.¹⁶⁰ Meanwhile, the evidence against the utility of the competency questions is quite weak. Two studies failing to find correlations placed children in situations where they had little or no motive to lie, and used a measure of accuracy that did not isolate deliberate errors.¹⁶¹ It was therefore unremarkable that children’s understanding of the importance of telling the truth was unrelated to their performance.

Two other studies have examined the correlation between competency questions and accuracy in situations where children had a motive to lie. Pipe and Wilson had six- to ten-year-old children interact with a magician who performed a number of magic tricks, spilled some ink on some gloves, “hid the gloves under the table, and asked the child not to tell anyone about the ink spill and to keep it a secret.”¹⁶² The researchers asked the children three oath-taking competency questions¹⁶³ and tested children’s memory for the magician’s actions two weeks and two months after the event. Children were asked one direct question about the gloves. The researchers found no significant correlation between children’s performance on the competency questions and their memory performance.

Significantly, most of the interview did not concern the detail about which children had a motive to lie. Although children’s responses to the

159. Gary B. Melton, *Children’s Competency to Testify*, 5 LAW & HUM. BEHAV. 73, 75 n.8 (1981).

160. Melton argues that if the oath does have an effect, “it would be on a primitive level of moral development common among young children: reification of rules and avoidance of punishment.” *Id.* at 80 (citations omitted). However, given his acknowledgment in the same article that “[j]ustice will be served if the witness tells the truth regardless of his reason for doing so,” *id.* at 79, children’s lacking sophistication in moral reasoning is hardly an argument against asking them to promise to tell the truth, because a healthy respect for rules and punishment might be sufficient to induce sincerity.

161. Feben found that five- to twenty-two-year-olds’ memory performance was positively correlated with ability to define the truth and lies and to describe the consequences of lying, but that the correlations disappeared if one controlled for age. *See* Feben, *supra* note 46, at 112–13 & tbl.2.14. Goodman and her colleagues found that three- to four-year-olds’ answers to competency questions (“Do you know the difference between the truth and a lie?”, “If you said the nurse kissed you, would that be the truth or a lie?”, “What happens if you tell a lie?”, and “Is everything you said today the truth?”) failed to correlate with their accuracy on free recall, specific, and leading questions about a pediatrician visit for an inoculation. In contrast, five- to six-year-olds’ ability to describe the consequences of lying was related to their memory performance, but the correlation could be attributable to the fact that more articulate children would score higher on both measures. *See* Gail S. Goodman, Christine Aman, & Jodi Hirschman, *Child Sexual and Physical Abuse: Children’s Testimony*, in CHILDREN’S EYEWITNESS MEMORY I (Stephen J. Ceci et al. eds., 1987).

162. Pipe & Wilson, *supra* note 47, at 515, 517.

163. The questions were, “Do you know the difference between the truth and a lie?” (“What is the difference?”), “If I said that you are 12 years old, would that be the truth or a lie?” and “What happens if you tell a lie?” *Id.* at 517–18.

competency questions did not predict their response to the single direct question about the glove, the researchers found that if both age groups were considered together, performance on the competency questions was related to whether children spontaneously mentioned the inkspill. The authors emphasized that this finding could merely “reflect the change with age that occurs for both these factors.”¹⁶⁴ Older children are more articulate, and could therefore both provide more elaborate explanations to the competency questions and report more information spontaneously.

Clarke-Stewart and her colleagues had five- and six-year-olds witness a janitor interact with toys.¹⁶⁵ Some of the children saw the janitor playing with the toys in a somewhat provocative manner, and the janitor asked them to keep what he did a secret. Other children saw the janitor clean the toys. Children were then interviewed twice about what the janitor did, and some children were given “incriminating” interviews in which the interviewer repeatedly and suggestively asked whether the janitor hadn’t really been playing with the toys. In contrast to the Pipe and Wilson study, the interview focused on the activities the janitor had asked some children to keep a secret. Children who were less knowledgeable about what it means to tell a lie were more likely to keep the janitor’s secret and more likely to follow the suggestions of the interviewer.¹⁶⁶

The available research provides equivocal evidence for correlations between oath-taking competence and deliberate deception. Greater focus on events about which children have a motive to lie may strengthen the relation. However, correlations are difficult to interpret, because they fail to establish a causal connection between sincerity and an awareness of the consequences of lying. The only way to establish causation is to manipulate children’s awareness and determine if it affects their sincerity.

164. *Id.* at 521 n.1.

165. See Gail S. Goodman & Alison Clarke-Stewart, *Suggestibility in Children’s Testimony: Implications for Sexual Abuse Investigations*, in *THE SUGGESTIBILITY OF CHILDREN’S RECOLLECTIONS* 92, 99–102 (John Doris ed., 1991).

166. See *id.* at 101. Although the researchers did not control for the possible confounding effects of children’s language abilities, this is an unlikely explanation for the correlation between children’s understanding of lying and their susceptibility to the interviewer’s interpretation of events, because children with better “verbal memories” were *more* susceptible. See *id.* at 102. Unfortunately, the authors do not report what competency questions were asked. In a subsequent and more formal write-up of the study, the competency questions are not mentioned. See William C. Thompson, K. Alison Clarke-Stewart, & Stephen J. Lepore, *What did the Janitor Do? Suggestive Interviewing and the Accuracy of Children’s Accounts*, 21 *LAW & HUM. BEHAV.* 405 (1997). The different papers name different numbers of participants, suggesting that slightly different studies are being described. Compare Goodman & Clarke-Stewart, *supra* note 165, at 100, with Thompson et al., *supra*, at 409.

The most obvious manipulation is to ask some children to promise to tell the truth. Yet none of the research has done so.

B. THE OATH'S EFFECT ON HONESTY ABOUT TRANSGRESSIONS

Building on our research developing a sensitive measure of children's oath-taking competence and a child-friendly version of the oath, Joyce Dorado and I have explored the effects of the oath on children's willingness to disclose minor transgressions in two studies.¹⁶⁷ The two studies were similar in several respects. The experimenter first assessed the child's understanding of the meaning and wrongfulness of lying using the "reality" and "morality" tasks described *supra*. The experimenter then showed the child a large multi-colored "Lego house" that had a number of "surprise doors" within which miniature toys were hidden, and told them that they would play a guessing game with the "Lego house." Looking through her papers, the experimenter told the child that she had to go to her office, but that she would be back in a few minutes. The transgression involved playing with a "forbidden toy," similar to a number of other studies examining children's tendency to lie.¹⁶⁸ When she returned, the experimenter asked about the child's interactions with the toy.

In each study, we placed children into one of three conditions. In the control condition we did not give children any instructions regarding telling the truth. In the oath condition we elicited from each child a promise that she "will tell the truth" and "will not tell any lies," in line with our recommendations regarding a child-friendly version of the oath. In the "reassurance" condition we told the child that it was important to tell the truth, and stressed that lots of children transgressed, did not know it was wrong, and that the child would not get in trouble if she had done so.¹⁶⁹

167. See Thomas D. Lyon & Joyce S. Dorado, Does the Oath Matter? Motivating Maltreated Children to Tell the Truth (June, 1999) (paper presented at the meeting of the American Psychological Society, Denver, Colo.) (on file with author).

168. See, e.g., Michael Lewis, Catherine Stanger, & Margaret W. Sullivan, *Deception in 3-year-olds*, 25 DEVELOPMENTAL PSYCHOL. 439 (1989); Bette L. Bottoms, Gail S. Goodman, Beth Schwartz-Kenney, Toby Sachsenmaier, & Sherry Thomas, Keeping Secrets: Implications for Children's Testimony (March, 1990) (paper presented at the American Psychology and Law Society, Williamsburg, VA) (on file with author); Stephen J. Ceci & Michelle DeSimone Leichtman, "I Know That You Know That I Know That You Broke the Toy": A Brief Report of Recursive Awareness Among 3-Year-Olds, in COGNITIVE AND SOCIAL FACTORS IN EARLY DECEPTION 1 (Stephen J. Ceci et al. eds., 1992).

169. The exact words of the experimenter were: "But first I wanted to tell you something . Lots of kids open the doors and play with toys. You didn't know you weren't supposed to, so if you did open any doors, it's totally okay, you won't get in any trouble with me at all. If you did look in any doors, and you tell me about it, then we can fix it and make it better. I'll be really, really happy if you tell me

In the first study, with 109 five- and six-year-olds, the experimenter told the child when she returned with her papers that she hoped the child hadn't looked at or touched any of the surprise toys, because she didn't want the child to see them before they played their guessing game. At this point the procedure varied depending upon the condition: the experimenter gave the child-friendly version of the oath to children in the oath condition, reassured children it was okay to tell in the reassurance condition, and said nothing to children in the no instruction condition. The experimenter then asked three yes/no questions about the child's interaction with the toy: "Did you look inside any of the doors?", "Did you touch any of the toys?", and "Did you take any of the toys out?". Following the questioning the experimenter debriefed all children, reassuring them that it was okay if they had played with the toys and if they had failed to disclose, but emphasized that "in the future, it is very important to tell the truth."¹⁷⁰

We examined whether there was a relation between the manipulation (control, oath, and minimize) and the child's willingness to admit a transgression of any kind (looked, touched, or took out the toys). We found that 83% of the children in the reassurance condition admitted having transgressed in one or more ways, compared to 47% of the children in the control condition and 31% in the oath condition.¹⁷¹ Children in the reassurance condition were more likely to admit that they had looked at the toys than children in the other two conditions, but children in the oath and control conditions were not significantly different from each other.

We suspected that the oath may have been rendered ineffective by the experimenter's statement to the child that she hoped the child had not looked in the doors. Asking the child to tell the truth may be ineffective if

the truth." Reassurance has been criticized as potentially leading to false reporting by young children. *See, e.g.,* Maggie Bruck & Stephen J. Ceci, *Amicus Brief For the Case of State of New Jersey v. Michaels Presented by Committee of Concerned Social Scientists*, 1 *PSYCHOL., PUB. POL'Y, & L.* 272, 281-282 (1995). We wished to determine if reassurance would facilitate reporting by children who are reluctant to report an event that has in fact occurred.

170. *See* Lyon & Dorado, *supra* note 167.

171. We also separately analyzed children's responses regarding the specific inquiries about looking, touching, and taking out the toys. Analyzing responses to the questions separately both allowed us to consider whether children might partially disclose their interaction with the toys, and to consider more children, since many children looked but did not touch or take out any toys. The manipulation affected children's willingness to admit that they had looked at the toys. Whereas 77% of the children in the reassurance condition admitted having looked, only 34% of the children in the control condition and 21% of children in the oath condition did so. With respect to touch only five of the children in the reassurance condition admitted touching the toys (22%), and only one child in each of the other two groups (5%) (the percentages were 22% and 13% respectively for taking out the toys). However, the overall number of children admitting to touching or taking out the toys was small, and the differences were not statistically significant. *See* Lyon & Dorado, *supra* note 167.

the interviewer tells the child what she hopes the truth is. In the reassurance condition, the experimenter also stated that she hoped that the child had not looked, but assured the child that looking was okay.

In our second study, with 109 six- and seven-year-olds, a confederate played with the child and the toy and then informed the child that playing might be wrong, making it unnecessary for the interviewer to do so. In order to provide a fairer test of the oath, we excluded children who did not succeed on the competency tasks.¹⁷² While the experimenter was away getting her papers, a confederate entered the room and engaged the child in play with the Lego house, both handling the toys herself and strongly encouraging the child to do the same. All children handled at least some of the toys. After close to five minutes, the confederate got up to leave and stated in a matter-of-fact tone: “We might get in trouble if anyone found out we played with the toys.” Shortly thereafter the experimenter returned and administered the same instructions in the oath and reassurance conditions as in the previous study. The experimenter then asked up to seven questions, three regarding the child’s actions with the toy, one question asking whether another person had come in the room, and (if the child answered “yes”) three questions about that person’s interactions with the toy.¹⁷³

Children in both the reassurance condition and the oath condition were more forthcoming about their actions than children given no instructions. Across the six questions regarding their actions and those of the confederate, over 80% of the children in the oath and reassurance admitted some type of transgression, compared to about half of the children in the control condition. For each question, the number of children admitting to transgressing was higher in the reassurance condition than in the oath condition, although these differences were not statistically significant.¹⁷⁴

The results supported our prediction that the oath would have an effect on children’s willingness to disclose a minor transgression if the request for the truth was not colored by the interviewer’s desire that the child had refrained from playing with the toy. This suggests that an interviewer’s bias—at least if clearly communicated to the child—may override the beneficial effects of eliciting a promise to tell the truth.

172. *See id.*

173. *See id.*

174. *See id.*

C. RECOMMENDATIONS

These are the first studies to examine the effects of the oath on child witnesses.¹⁷⁵ They provide some support for the utility of the oath in encouraging young children to reveal information. Our study examined a mild version of what happens to many abused children. It is not always obvious to children that abuse is wrong, and abuse is not always experienced as unpleasant. Children often discover that something is wrong only when the abuser tells them so.¹⁷⁶ By that time, they may feel implicated, and are motivated to conceal the abuse.¹⁷⁷ Our findings suggest that despite these motivations, children take a promise to tell the truth seriously, and can be reassured that it is okay to tell.

We view these conclusions as tentative, however, both because of the limited research available on the effect of the oath, and the obvious difficulties in applying our research to child abuse victims, who surely have stronger motives to both conceal and to reveal abuse. Abusers often threaten their victims not to tell, and the threats are more serious than “we might get in trouble if anyone finds out.”¹⁷⁸ Victims often wish to protect abusers.¹⁷⁹ On the other hand, abuse is often traumatic and physically painful, motivating victims to disclose. None of these strong motives are captured by our laboratory research. Testifying in court is also likely to exert greater pressure on children than that experienced by children in our

175. As this article was going to press, I became aware of a series of studies which have found that eliciting a promise to tell the truth increased four- to seven-year-olds' willingness to admit that they had peeked at a hidden toy. See Nicholas Bala, Kang Lee, Rod Lindsay, & Victoria Talwar, A Legal and Psychological Critique of the Present Approach to the Assessment of the Competence of Child Witnesses 28 (2000) (unpublished manuscript, on file with the author).

176. See LOUISE DEZWIREK SAS & ALISON HATCH CUNNINGHAM, TIPPING THE BALANCE TO TELL THE SECRET: PUBLIC DISCOVERY OF CHILD SEXUAL ABUSE 26 (1995) (discussing interviews with 135 sexual abuse victims whose cases were prosecuted in criminal court; “40% had not clearly realized that the act was wrong” when abuse first occurred).

177. See *id.* (“Feelings of self-blame . . . were also voiced,” when children were asked why they delayed disclosure).

178. See JUDITH HERMAN, FATHER-DAUGHTER INCEST 88 (1981) (discussing 68 adults who were victims of incest; many “were threatened with the most dreadful consequences if they told: their mothers would have a nervous breakdown, their parents would divorce, their fathers would be put in jail, or they themselves would be punished and sent away from home”); SMITH & ELSTEIN, *supra* note 6, at 93 (explaining that threats not to reveal abuse included “pleas that the abuser would get into trouble if the child told . . . to threats that the child would be blamed for the abuse . . . to ominous warnings that the defendant would hurt or kill the child (or someone he or she loved) if they revealed the abuse”).

179. See Thomas D. Lyon, *Scientific Support for Expert Testimony on Child Sexual Abuse Accommodation Syndrome*, in CHILD SEXUAL ABUSE: THE KNOWN AND UNKNOWN (Jon Conte ed., forthcoming 2000) (manuscript at 8, on file with author). Available at <<http://hal-law.usc.edu/users/tylon/articles/>>.

study. Our participants did not fear that they would go to jail if they lied to the interviewer.

Another obvious difficulty in making policy recommendations based on our research is that we do not know the effects of the oath or reassurance on children who have *not* been involved in any wrongdoing.¹⁸⁰ Perhaps the oath and reassurance are ineffective in reducing false allegations; indeed, as noted above, some have argued that reassurance will increase false claims of abuse. We are currently conducting a study in which the confederate does *not* engage the child in play with the toy, and the interviewer then returns and asks both direct and suggestive questions about the confederate's actions. The study will enable practitioners to balance the benefits and costs of the oath and reassurance.

Future work can determine if children can be encouraged to reveal true victimization. Only recently have researchers utilized experimental methods to systematically evaluate whether better methods of eliciting reports from actual abuse victims are available.¹⁸¹ These studies are subject to the criticism that they may be eliciting false reports. A partial solution is to examine intervention with children for whom credible external evidence of victimization exists, such as in many physical abuse cases and a small percentage of sexual abuse cases. Observational research with those cases has documented children's reluctance to acknowledge their abuse;¹⁸² experimental work can determine if such reluctance can be overcome.

VI. CONCLUSION

The oath has long been a mainstay of the trial process. Despite liberalization of competency requirements for witnesses, understanding of the oath remains a prerequisite to the receipt of children's testimony. This paper has explored the potential for applied developmental research to inform the way in which children's competency to take the oath is assessed.

180. Some limited information on the potential for false allegations is provided by our first study, because many children did not in fact perform all the asked-about actions. None of the children falsely reported that they had touched or taken out any toys in any of the conditions. This is reassuring, but few of the children who had touched toys or taken them out admitted that they had. Of the six children who did not even look in the doors while the experimenter was out of the room, three were in the neutral condition and three were in the reassurance condition. None of the three children in the neutral condition falsely claimed they had looked in the doors, but one of the three children in the reassurance condition did so. She correctly denied having touched or taken out the toys. See Lyon & Dorado, *supra* note 167.

181. See, e.g., *supra* note 54 (discussing work by Michael Lamb and colleagues).

182. See Lyon, *supra* note 7, at 1047-48.

I have shown that changes in how the competency questions are asked can dramatically affect children's performance. Children may be unable or unwilling to discuss the meaning and morality of lying unless sensitive measures are used. I have also shown that the form of the oath should also be modified to make it comprehensible to young children. Finally, I have presented some preliminary evidence that a promise to tell the truth affects children's honesty.

My view is that psychologists will have the greatest influence on legal procedure if they accept longstanding practices as given, and work to make those practices understandable to young children. A somewhat more common reaction among psychologists is to argue for more radical reforms. Psychologists have long criticized the law's emphasis on the oath.¹⁸³ In debates over the reliability of children's testimony, the oath-taking competency procedures have been criticized by both believers¹⁸⁴ and skeptics.¹⁸⁵ The problem with such critiques is that empirical research did not inspire our legal traditions, and it is unlikely to undo them. Even were researchers to prove the inefficacy of the oath (something they have not done, and may never be able to do),¹⁸⁶ it would in all likelihood be

183. See MUNSTERBERG, *supra* note 158, at 47 (arguing that the oath's "seriousness and solemnity suggest that the conditions for complete truth are given if the witness is ready not to lie. We are too easily inclined to confuse the idea of truth in a subjective and in an objective sense"); William Stern, *Abstracts of Lectures on the Psychology of Testimony and on the Study of Individuality*, 21 AM. J. PSYCHOL. 270, 274 (1910) ("[T]he notion, still tolerably prevalent, that the faithfully sworn testimony of a mentally competent witness is in general to be regarded as an exact presentation of reality, is without justification.").

184. See Melton, *supra* note 159, at 73, 79 (arguing that the liberal use of children's testimony is well-founded, and that "asking a child to tell the meaning of 'truth,' 'oath,' or 'God' probably tells more about his or her intellectual development than about the child's propensity to tell the truth").

185. See RICHARD A. GARDNER, TRUE AND FALSE ALLEGATIONS OF CHILD SEX ABUSE xxv, 273 (1992) (arguing that "[s]ex-abuse hysteria is omnipresent" and that "evaluators make the very naive assumption that because the child knows the difference between the truth and a lie, the child will not lie").

186. As long as researchers examine the effects of the oath in the laboratory, their research can be dismissed as invalid on the grounds that in real cases the oath makes a real difference. Cf. *Lockhart v. McCree*, 476 U.S. 162 (1986). In *Lockhart*, the Supreme Court considered the constitutionality of "death-qualification," in which prosecutors charging defendants with a capital crime may exclude jurors from the guilt phase of the trial whose opposition to the death penalty would make them unable to vote for death at the penalty phase. Research psychologists believed they had convincingly demonstrated that death-qualified jurors were more likely to convict than non-death-qualified jurors, and hoped that the Supreme Court would agree and ban the procedure. See Donald N. Bersoff & David W. Ogden, *In the Supreme Court of the United States: Lockhart v. McCree, Amicus Curiae Brief for the American Psychological Association*, reprinted in 42 AM. PSYCHOLOGIST 59 (1987). However, the Court found the laboratory studies unconvincing because the mock jurors were not deciding real cases (they are, after all, *mock* jurors), an obstacle that experimental psychologists running laboratory studies will never be able to surmount. See *Lockhart*, 476 U.S. at 171 (criticizing the research because the subjects "were not actual jurors sworn under oath to apply the law to the facts of an actual case involving the fate of an

retained, if only for its ceremonial significance. As long as the courts require witnesses to understand and take the oath, trial participants would benefit from administering the procedure accurately and fairly.

The law's emphasis on children's oath-taking competency is symptomatic of a tendency in the rules of evidence to focus on the risks of insincerity, with less emphasis on the infirmities of perception, memory, or narration.¹⁸⁷ Psychologists have long criticized the law's emphasis on lying as irrational and have emphasized the unconscious origins of witness' errors.¹⁸⁸ With respect to children's testimony, the last decade of developmental psychology has witnessed a flurry of research on children's suggestibility. Although suggestibility is in part the product of deliberate deference to questioning, the greatest emphasis has been on false stories that children sincerely believe are true.

Influenced by psychologists' concerns, some legal commentators have suggested that the competency procedure should be modified to emphasize the risks of impaired memory and suggestibility.¹⁸⁹ However, researchers are much better at identifying suggestive interviewing techniques than discriminating between suggestible and resistant children. The age of the child appears to be the best predictor of suggestibility, but substantial numbers of even the youngest children resist suggestion. Two leading researchers in developmental psychology have concluded that "there is not yet sufficient research on this issue to recommend a substitute for the truth/lie discussion."¹⁹⁰ Of course, even if such recommendations were made, tests of suggestibility would more likely act as a supplement to (rather than a substitute for) the oath-taking competency inquiry.

actual capital defendant," and concluding that "[w]e have serious doubts about the value of these studies in predicting the behavior of actual jurors").

187. See Edward J. Imwinkelried, *The Worst Evidence Principle: The Best Hypothesis as to the Logical Structure of Evidence Law*, 46 U. MIAMI L. REV. 1069, 1071-72 (1992) ("Common-law evidence doctrine was driven chiefly by a more pessimistic, negative goal, namely, preventing, deterring, and exposing perjury.").

188. See Otto Lippman, *Pedagogical Psychology of Report*, 2 J. EDUC. PSYCHOL. 253, 255 (1911):

I should like to emphasize . . . that the deduction from untruthfulness to lying is by no means invariably justifiable; that, on the contrary, in addition to the *will* to speak the untruth, there are quite other causes for mistakes in reports; and that it is just in the case of the child that these other causes play an unusually important role.

Id.(emphasis in original). Stern, *supra* note 183, at 273 ("[T]he unconscious factors of falsification play a far greater role than is commonly supposed.").

189. See Lucy McGough, *supra* note 111, at 109 (arguing that questioning of the child should "focus on the presence of the interrelated reliability risks of memory-fade and its bedfellows, fantasization and suggestibility").

190. DEBRA A. POOLE & MICHAEL E. LAMB, *INVESTIGATIVE INTERVIEWS OF CHILDREN: A GUIDE FOR HELPING PROFESSIONALS* 48 (1998).

In the future, my colleagues and I will explore the empirical assumptions about sincerity that underlie other rules of evidence. The medical diagnosis exception to the hearsay rule is a popular means by which prosecutors seek to admit children's out-of-court statements to physicians and other professionals. How might the exception be limited? The exception's rationale is that when one's health is at stake, one has a strong motivation to be *sincere*. The psychologist's instinctive reaction is to criticize the assumption that the accuracy of children's statements to doctors is primarily dependent on children's sincerity. In the courtroom, however, this assumption will determine the types of objections that may be raised to the admission of statements under the exception. Courts might require that in order for the exception to apply, the party offering the statement must demonstrate that the child understood the importance of telling the truth to doctors.¹⁹¹ Legal commentators have argued that young children may have misconceptions about medical care that make their statements inadmissible under the exception.¹⁹² However, in a series of studies, Pamela Kato, myself, and several colleagues have challenged some assumptions often made about young children's conceptions of medical care.¹⁹³ Whether children's understanding can be assumed, how their knowledge can be assessed, and whether children can be taught the importance of telling the truth to doctors, are all questions of practical importance. They are also easily susceptible to empirical study.

191. See, e.g., *State v. McCleod*, 937 S.W.2d 867, 869 (Tenn. 1996) (holding that when a child's statement is offered under the medical diagnosis exception to the hearsay rule, "the trial judge shall admit the statement into evidence upon an affirmative finding that the conditions described in the rule have been satisfied").

192. See 2 MYERS, *supra* note 13, at 294 (noting that "[t]he literature indicates that some 3- to 6-year-olds believe medical procedures are administered as punishment because they have been bad" and concluding that "when the [medical diagnosis] exception is applied to young children, the developmental fit may not be very good, raising legitimate questions about young children's understanding of the need for truthfulness with the doctor"). Cf. Mosteller, *supra* note 39, at 266 (arguing that "either because of the subject matter or the characteristics of the declarant, a child may have no subjective appreciation of the importance of the inquiry to medical treatment").

193. See Pamela M. Kato, Thomas D. Lyon & Christina Rasco, *Reasoning About Moral Aspects of Illness and Treatment by Preschoolers Who Are Healthy or Who Have a Chronic Illness*, 19 DEVELOPMENTAL & BEHAV. PEDIATRICS 68 (1998) (finding that preschool children do not confuse illness or treatment with punishment).