

University of Southern California Law

From the Selected Works of Thomas D. Lyon

September, 2002

6. Child witnesses and the oath.

Thomas D. Lyon, *University of Southern California*

Lyon, T.D. (2002). Child witnesses and the oath. In H.L. Westcott, G.M. Davies, & R.H.C. Bull (Eds.), *Children's testimony: A handbook of psychological research and forensic practice* (pp. 245-260). West Sussex, UK: John Wiley

CHAPTER 16

Child Witnesses and the Oath

THOMAS D. LYON

*University of Southern California Law School, Los Angeles,
California, USA*

Despite the liberalization of competency requirements for child witnesses in many countries (Spencer & Flin, 1993; Youth Justice and Criminal Evidence Act, 1999, s. 53 [Engl.]), a substantial number of courts in the United States and other countries require that every witness take the oath or make some sort of affirmation that s/he will tell the truth (Federal Rules of Evidence 602, 2001; Shrimpton, Oates, & Hayes, 1996). In order to guarantee that an oath or affirmation is understood by child witnesses, courts routinely inquire into children's understanding of the difference between the truth and lies and their obligation to tell the truth (Myers, 1997). Even when unsworn testimony is allowed, many jurisdictions require child witnesses to demonstrate an appreciation of their duty to tell the truth (Flin, Kearney, Murray, 1996; Fla. Stat. Ch. 90.605, 1999 (US); Ho, 1996; Pipe & Henaghan, 1996). Moreover, many courts continue to conduct oath-taking competency hearings in spite of legislatively enacted presumptions of competency (Gold, 1992; Cashmore, 1995). Regardless of a jurisdiction's competency requirements, investigators and attorneys routinely ask child witnesses about the truth and lies under the theory that children's understanding is evidence of veracity (Spencer & Flin, 1993).

Neither the legislatures nor the courts have specified the questions that must be asked in order to ascertain oath-taking competence. In a review of oath-taking competency questions in court, Cashmore and Bussey (1996) found that some judges ask questions that appear

too difficult, whereas others essentially lead children through the competency evaluation (Pipe & Henaghan, 1996; Walker, 1999).

Developmental psychologists ought to provide guidance to courts seeking the most appropriate means by which young children's oath-taking competency can be assessed. A large developmental literature exists on children's understanding of the meaning and wrongfulness of lying (see Aldert Vrij, Chapter 12 in this book) and provides some guidance in establishing age trends in oath-taking competency (Burton & Strichartz, 1991; Myers, 1997). However, the research is limited in two respects. On the one hand, virtually all the research examined non-maltreated children from middle-class homes. The results of such research may overestimate the competence of children actually appearing in court. On the other hand, researchers examining children's understanding of lying have frequently used tasks that are unsuitable for testing children in court, because they assess children's understanding of distinctions that are legally irrelevant; for example, much attention has been paid to children's understanding of the distinctions between lies and jokes or lies and mistakes (Strichartz & Burton, 1990; Wimmer, Gruber, & Perner, 1984). Although some have asserted that children must understand these distinctions in order to be competent witnesses (Perner, 1997), children who conflate lies, jokes, and mistakes can nevertheless appreciate the importance of truthfulness when testifying. The resulting complexities of the tasks may underestimate the age at which children are competent to take the oath. In this chapter, I review research that I have conducted (largely in collaboration with Karen Saywitz, Joyce Dorado, and Debra Kaplan) examining maltreated children's oath-taking competency, with the goal of prescribing sensitive measures by which child-witness competency can be assessed in court.

THE MEANING OF TRUTH AND LIES: QUESTION COMPLEXITY

The courts assess children's understanding of the meaning of truth and lies in various ways. They ask children to describe the difference between the truth and lies, define the terms, or identify statements as the truth or lies. Defining and describing require an abstract understanding of the proper use of a word across different contexts and necessitate that one generate rather than merely recognize the proper use of a word. Identifying ought to be easier than defining the terms or describing how they differ (Piaget, [1932] 1962). However, most research has failed to compare performance across different tasks, and studies exam-

ining children's understanding of lying have usually found that even the youngest children understand that lies are false statements, regardless of whether they are asked to define lying or to identify lies (Saywitz, Jaenicke, & Camparo, 1990 [defining 'lie']; Haugaard, Reppucci, Laird, & Naful, 1991 [identifying lies]). Pipe and Wilson (1994) found that 6- and 10-year-olds were much better at identifying a statement as a lie than defining a lie. However, children were only asked one forced-choice identification question, so that guessing or a response bias could have inflated performance.

Saywitz and I (Lyon & Saywitz, 1999) compared different means of assessing children's understanding of the basic difference between the truth and lies with 96 four- to seven-year-old children awaiting a court appearance due to allegations of parental abuse and/or neglect. We gave each child three tasks: (a) an identification task, (b) a difference task, and (c) a 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. 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 were '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 in order 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.

In order to provide a stringent test of our prediction that children would find it easier to identify statements as the truth and lies than to define the terms (or explain the difference between the terms), we adopted a liberal criterion for assessing 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 ("a lie is not the truth").

Our prediction that children would perform best on the identification task was confirmed, and the magnitude of the difference was striking. We defined success on the identification task as four out of four trials correct, which means that a child who responds randomly has only a 6% chance of succeeding. Over 60% of the children who succeeded 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.

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 out 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.

We also gave children a test of receptive vocabulary (the Peabody Picture Vocabulary Test-Revised), and found that the average child was a year behind the age norm. Indicative of children's linguistic difficulties was 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'.

Our results suggest that by five years of age, most maltreated children have a good understanding of the meaning of the truth and lies, despite serious delays in vocabulary. However, young children ought not to be asked to define the truth and lies or asked to explain the difference as a prerequisite to taking the oath. Large numbers of children who have a good understanding of the distinction between truthful and untruthful statements will fail such tasks.

THE MEANING OF TRUTH AND LIES: MOTIVATIONAL DIFFICULTIES

The difficulties posed by defining and describing terms largely implicates cognitive and linguistic limitations. However, there are also reasons to believe that children have motivational difficulties in talking about lies. In the definition task of the study described in the previous section, 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, twice as many children denied knowing about lies as about the truth. The findings are reminiscent of young children's denials that they have ever told a lie (Peterson, Peterson, & Seeto, 1983). 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'. Indeed, of the 11 children who exhibited a bias toward labelling every statement as the 'truth' or a 'lie', 10 labelled every statement the 'truth'.

We suspected that children were inhibited from labelling statements as lies in the identification task because they were afraid to call the interviewer a liar. They may have denied knowing what a lie was because it might make the interviewer suspect that they would tell a lie. In our second study (Lyon & Saywitz, 1999), with 96 maltreated four- and five-year-olds, we designed a task that we hoped would overcome children's reluctance to identify lies. We presented each child with pictures that depicted an object and two story-children accompanied by 'speech bubbles' depicting what each story-child said about the object. One story-child correctly identified the object (i.e. the picture in the speech bubble was identical to the object) and the other story-child incorrectly identified the object (i.e. the picture in the speech bubble was of a different object), and we asked the child to choose which story-child told the truth (or told a lie) (see Figure 16.1). We believed that the task would reduce motivational difficulties because the child did not have to identify the interviewer as a liar. Moreover, the pictures made it clear that *someone* was a liar, and the child merely had to identify which one.

The results suggested that we were successful in overcoming motivational difficulties. Both the four- and five-year-olds performed above

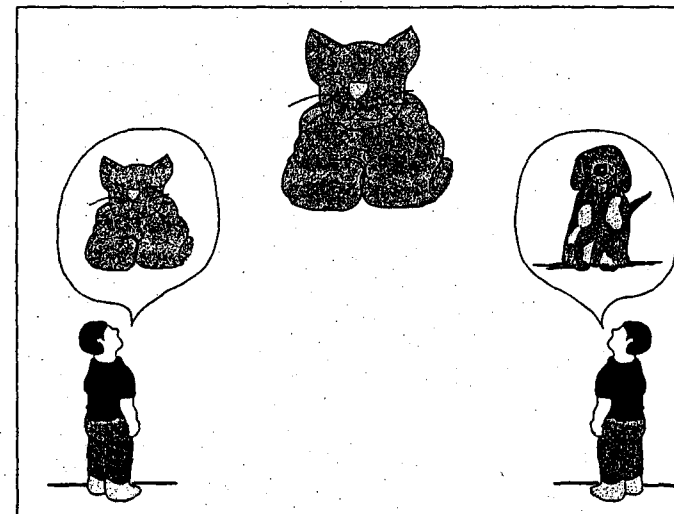


Figure 16.1. Stimuli for assessing understanding of 'truth' and 'lie' in second study (Lyon & Saywitz, 1999).

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. However, most four-year-olds did not perform at ceiling (100% accurate), suggesting that even with motivational barriers removed, many maltreated children this young do not understand the meaning of 'truth' and 'lie'.

Another possibility is that our task was insensitive to young children's understanding. However, use of the task with a non-maltreated group from middle-class homes (whose receptive vocabulary is much more advanced than our maltreated sample) has uncovered good understanding among children as young as three years of age (Lyon & Saywitz, in preparation), in contrast to previous research finding no comprehension among three-year-olds (Strichartz & Burton, 1990).

Recently, we directly tested the hypothesis that children's oath-taking competence is underestimated if the interviewer asks the child to evaluate the interviewer's statements, which requires the child to call the interviewer a liar. A native Spanish-speaker interviewed 115 low-income four- to six-year-old Spanish-speaking children (Lyon, in preparation). One-half of the children were asked questions about whether the interviewer's statements were the truth or lies and whether it would be good or bad for the interviewer to lie, whereas the other half were asked whether a story-child's statements were the truth or lies and whether it would be good or bad for the story-child to lie. Consistent with our prediction, children performed better when asked about the story-child than when asked about the interviewer. Clearly, asking children to evaluate the questioner's statements leads to underestimation of children's competency.

THE CONSEQUENCES OF LYING: QUESTION COMPLEXITY

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 (e.g. *State v. Irey*, 1998).

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 (Lyon & Saywitz, 1999). 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 grand-

mother, and a doctor) and asked 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 labelling lying as bad and as making authority figures mad, and a majority of the four-year-olds were at ceiling (100% accurate) in labelling the authority figures as happy or mad depending on whether the story child told the truth or lied. 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. When we gave the same tasks to our non-maltreated sample, we found that three-year-olds were over 80% accurate (Lyon & Saywitz, in preparation).

Children's ability to identify lies as wrong or as leading to punishment contrasted with their difficulty in explaining why lies are wrong. In the first study, 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.

THE CONSEQUENCES OF LYING: MOTIVATIONAL DIFFICULTIES

When children in court are asked about the consequences of lying, they are frequently asked to describe what would happen to them if they lied. However, the child who fails to answer a question such as 'What would happen if you lied in court' might be fully aware of the consequences of lying, but afraid to discuss those consequences. Several researchers have found that pre-school children often perform poorly when asked to reason with premises they find implausible or undesirable (e.g. Reilly, 1986). Young children's hypothetical reasoning performance improves when adults encourage them to pretend or when reasoning with fantasy content (e.g. Dias & Harris, 1990). Hence, young children may misinterpret hypothetical questions as suggestions and thus resist responding when they find the premises unpleasant.

One possible means for reducing the implausibility or undesirability of lying in court is to ask the child about consequences to other children, rather than to herself. For this reason, we asked participants about the morality and consequences of other children's lies in the tasks we described above. However, because the courts routinely ask

children to discuss what would happen to themselves, we directly tested the proposition that children find it easier to talk about other children. We asked 64 five- and six-year-old maltreated children to describe the consequences of lying to three professionals (a judge, a social worker, and a doctor) (Lyon, Saywitz, Kaplan, & Dorado, 2001). Participants in the 'self' condition were asked what would happen to themselves if they lied, whereas participants in the 'other' condition were asked to describe what would happen to a story-child if s/he lied. The questions concerned the potential actions of the professional, the child's mother, and God. Children, asked about themselves rather than 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.

One might object to questions about other children on the grounds that children might believe themselves uniquely invulnerable to punishment from lying. Children believe that they are less likely to experience negative events than other children (Whalen *et al.*, 1994). Such children would be fully capable of describing the negative consequences when other children lie but would not be truly competent to take the oath, because they would not endorse such negative consequences for themselves.

To test this possibility, we further examined the responses of the participants in the two conditions. If children believe themselves invulnerable, then responsive children in the self condition ought to be less likely to endorse negative consequences than responsive children in the other condition. However, the data did not bear this out, thus giving no support to the invulnerability hypothesis; that is, children were more likely to say 'I don't know' in the self condition but, if they *did* respond, were no less likely to mention negative consequences than children in the 'other' condition. In sum, the study demonstrated that asking children about themselves suppresses their responsiveness, making them appear to understand less than they really do.

THE FORM OF THE OATH: 'PROMISE' V. 'WILL'

Few courts require children to take a formal version of the oath; some explicitly allow for children to simply promise to tell the truth (Cal. Evidence Code Section 710, 2001 (US); Pipe & Henaghan, 1996). This is a step in the right direction, given the likelihood that children will not understand what it means to 'solemnly swear'. However, whether children understand the word 'promise' is itself subject to question.

Some researchers have argued that young children do not understand

the obligations imposed by promising, which raises concerns regarding their appreciation of even simplified versions of the oath. Astington (1988b) 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 (see also Rotenberg, 1980). Although this might reflect a failure to distinguish between promises and the actions promised, as Astington has argued, an alternative possibility is that the salience of actions masks children's understanding of the obligations imposed by promising. This possibility is suggested by Astington's (1988b) 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' to keep the promise.

Children may understand 'I will' better than 'I promise', which would support the use of an affirmation that one 'will tell the truth'. 'Will' appears in children's speech by two and a half years of age (Astington, 1988a). Whether children understand the certainty implied by 'will', however, is unknown. Moreover, 'I promise' is a stronger guarantee of performance than 'I will,' because 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.

It thus remains unclear whether and at what age children understand the relative significance of stating that they 'will' or 'promise to' perform some action. In order to test children's understanding of 'promise' and 'will', we adapted a procedure used by Moore and colleagues to examine children's developing understanding of relative certainty as expressed through words such as 'know', 'think', 'must', and 'might' (e.g. Moore, Pure, & Furrow, 1990). We tested children's understanding that one who 'promises' or says s/he 'will' perform some action is more likely to act than one who says s/he 'might' or 'won't' perform. The task was structured as a game in which the participant heard contrasting statements regarding which story-child was going to put a toy in his or her box and chose which box would contain a toy. The task was sensitive to understanding in several respects. Children did not have to produce the terms, only recognize their meaning. The forced-choice procedure over repeated trials could detect incipient understanding. Because children were presented with words alone, there is no opportunity for their focus on deeds to mask their understanding of the importance of words.

We questioned 96 maltreated children from four to seven years of age (Lyon, Saywitz, & Kaplan, in preparation). 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'. 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. Using the same procedure with 96 three- to six-year-old non-maltreated children, we found similar patterns, but with understanding accelerated by one to two years. 'Promise' implied greater certainty than 'will' for the six-year-olds but was less well understood than 'will' by the younger children.

The results advise caution in using the word 'promise' in administering an oath to young children. On the other hand, 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 and that they 'won't' tell any lies.

THE EFFECTS OF A CHILD-FRIENDLY OATH ON HONESTY

The primary function of the oath-taking competency questions is to determine if an oath or affirmation will be meaningful to the child. Ultimately, the legal system hopes that the oath or affirmation will increase honesty. Whether it does so is an important empirical question. Although researchers have explored the relation between oath-taking competency and children's eyewitness memory (Clarke-Stewart, Thompson, & Lepore, 1989, cited in Goodman & Clarke-Stewart, 1991; Feben, 1985; Goodman, Aman, & Hirschman, 1987; Huffman, Warren, & Larson, 1999; Larson, 1999; Pipe & Wilson, 1994), the research is of limited relevance in assessing the potential significance of the oath.

First, children were asked questions about the meaning and morality of lying but were not asked to promise to tell the truth. In court, the purpose of the competency questions is to determine whether the oath is meaningful to the child, and it is the oath itself, rather than the competency questions, that is expected to correlate with sincerity. Although not formally eliciting a promise to tell the truth, Huffman,

Warren, and Larson (1999) examined whether an extended discussion of the meaning and morality of truth-telling improved children's performance and found that it did; however, Larson (1999) was unable to replicate this finding. Second, in most of the research, children had no motive to lie, and the measure of accuracy did not isolate deliberate errors (Feben, 1985; Goodman, Aman, & Hirschman, 1987; Huffman, Warren, & Larson, 1999; Larson, 1999). An understanding of the importance of telling the truth may be unrelated to memory errors but nevertheless predictive of honesty. In Pipe and Wilson (1994), children were motivated to lie about one detail of the to-be-remembered event (an ink-spill), but only one of the subsequent questions asked about the ink-spill. The researchers found that whether children *spontaneously* mentioned the ink-spill did correlate with good performance on the competency questions but they discounted this finding as confounded by the fact that both factors were positively related to the age of the child. In Clarke-Stewart, Thompson, & Lepore (1989, cited in Goodman & Clarke-Stewart, 1991), a janitor performed a number of activities and asked five- to six-year-old children to keep them a secret. In an interview that focused on those activities, children who were less knowledgeable about the meaning of a lie were more likely to keep the janitor's secret and fail to disclose his behaviour. There is thus limited evidence that oath-taking competency affects honesty and no evidence exploring the effects of an oath or affirmation on honesty.

Building on our research developing a sensitive measure of children's oath-taking competence and a child-friendly version of the oath, Dorado and I have explored the effects of the oath on children's willingness to disclose minor transgressions in two studies (Lyon & Dorado, 1999). In each study, the experimenter first assessed the child's understanding of the meaning and wrongfulness of lying. The experimenter then showed the child a large multicoloured 'Lego house' that had a number of 'surprise doors' behind 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.

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 s/he '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 s/he had done so. The transgression involved playing with a 'forbidden toy', similar to a number of other studies examining children's tendency to lie (e.g. Polak & Harris, 1999).

In the first study, with 109 maltreated 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. After no instructions (control), administration of the promise (oath), or reassurance, the experimenter asked the child whether she had looked at, touched, or taken out any of the toys. Children's performance on the oath-taking competency test did not predict sincerity. Children were significantly more likely to admit a transgression in the reassurance condition (83%) than in the control (47%) or the oath condition (31%), and the latter two conditions were not significantly different.

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. If the experimenter's desires regarding what the 'truth' is are clear, asking the child to tell the truth may be ineffective. In contrast, in the reassurance condition, the experimenter coupled her desire that the child state the truth with the explicit assurance that looking in the doors was 'OK'. In our second study with 109 maltreated 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. While the experimenter was away getting her papers, a confederate entered the room and engaged the child in play with the Lego house. As she left, the confederate told the child, '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 about the child's actions and about the actions of the confederate (if the child acknowledged that someone had come into the room).

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. 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 coloured 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.

These are the first studies to examine the effects of the oath on child witnesses. They provide some support for the utility of the oath in encouraging young children to reveal information (see also Talwar & Lee, 2000). 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. Moreover, we do not know the effects of the oath or reassurance on children who have *not* been involved in any wrongdoing. 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.

CONCLUSION

Based on our research, we can make several recommendations regarding oath-taking competency. First, young children should not be asked to define the truth and lies or explain the difference between the concepts. Young children are much better at choosing whether statements are the truth or lies and can be asked multiple questions to ensure that good performance is not attributable to chance. Second, when asked to identify lies as such, children should be asked about statements made by others rather than by the interviewer, given their reluctance to call the interviewer's statements lies. Although we did not directly test it, we would also recommend against asking children to generate examples of lies as a means of testing their understanding; children will likely find such a task difficult and unpleasant.

Second, young children should not be asked to describe the consequences of lying, particularly what would happen to them if they lied. Forced-choice questions about other children regarding the goodness or badness of lying or the negative consequences of lying are more sensitive to early understanding. We have created a version of our tasks that can be used by forensic interviewers and interested readers may request a copy from the author (tlyon@law.usc.edu).

Third, it is fair to presume that most children are competent to take the oath by five years of age, because even maltreated children with serious delays in receptive vocabulary perform well on our tasks by that age. Higher functioning non-maltreated children as young as three years of age have demonstrated good understanding of the meaning and wrongfulness of lying.

Fourth, children should be asked if they 'promise' that they 'will tell the truth' and that they 'won't tell any lies', because of younger children's difficulty in understanding the meaning of 'promise'.

Fifth, we recommend that researchers explore the potential efficacy of the oath and other devices (such as reassurance) in encouraging honesty among young children, as a possible means of reducing false denials and false allegations.

The research reviewed in this chapter highlights how minor changes in the oath-taking competency questions may dramatically affect young children's performance. The finding that children's apparent understanding is highly dependent on the structure of the task is nothing new to developmental psychology. Its practical significance, however, has yet to be fully realized by legal practitioners and other professionals who work with child victims. Moreover, simplification of the competency inquiry is just one step toward making the receipt of children's testimony sensitive to young children's special vulnerabilities.

Most of the original research described here was conducted in collaboration with Karen J. Saywitz, Associate Professor in Psychiatry at Harbor-UCLA Medical Center, Joyce Dorado, and Debra Kaplan, and with the assistance of Tina Goodman-Brown, Suma Mathai, Cecelia Kim, Kimberly Schock, Robin Higashi, Christina Oyster, Michelle Dominguez, Shameka Stewart, Candis Watson, Tim Dixon, Tara Fallon, Kristina Golesorkhi, Susan Lui, Nkia Patterson, and Verinder Shaw. The research was supported in part by National Center on Child Abuse and Neglect grant 90-CA-1553, and in part by a grant from the Zumberge Foundation.

REFERENCES

- Astington, J.W. (1988a). Children's production of commissive speech acts. *Journal of Child Language*, 15, 411-23.
- Astington, J.W. (1988b). Promises: Words or deeds? *First Language*, 8, 259-70.
- Burton, R.V., & Strichartz, A.F. (1991). Children on the stand: The obligation to speak the truth. *Developmental and Behavioral Pediatrics*, 12, 121-8.
- Cashmore, J. (1995). The prosecution of child sexual assault: A survey of NSW DPP solicitors. *The Australian and New Zealand Journal of Criminology*, 28, 32-54.
- Cashmore, J., & Bussey, K. (1996). Judicial perceptions of child witness competence. *Law & Human Behaviour*, 20, 313-34.
- Clarke-Stewart, A., Thompson, W., & Lepore, S. (1989, April). Manipulating children's interpretations through interrogation. Paper presented at the biennial meeting of the Society for Research in Child Development, Kansas City, MO.

- Dias, M.G., & Harris, P.L. (1990). The influence of the imagination on reasoning by young children. *British Journal of Developmental Psychology*, 8, 305-18.
- Eben, D.J. (1985). *Age of witness competency: Cognitive correlates*. Unpublished Honours Thesis, Monash University.
- Flin, R., Kearney, B., & Murray, K. (1996). Children's evidence: Scottish research and law. In: B.L. Bottoms & G.S. Goodman (Eds), *International perspectives on child abuse and children's testimony: Psychological research and law* (pp. 114-31). Thousand Oaks, CA: Sage.
- Gold, V.J. (1992). Do the federal rules of evidence matter? *Loyola of Los Angeles Law Review*, 25, 909-23.
- Goodman, G.S., Aman, C.J., & Hirschman, J. (1987). Child sexual and physical abuse: Children's testimony. In: S.J. Ceci, M.P. Toglia, & D.F. Ross (Eds), *Children's eyewitness memory* (pp. 1-23). New York: Springer-Verlag.
- Goodman, G., & Clarke-Stewart, A. (1991). Suggestibility in children's testimony: Implications for sexual abuse investigations. In: J. Doris (Ed.), *The suggestibility of children's recollections* (pp. 92-105). Washington, DC: American Psychological Association.
- Haugaard, J.J., Reppucci, N.D., Laird, J., & Nauful, T. (1991). Children's definition of the truth and their competency as witnesses in legal proceedings. *Law & Human Behavior*, 15, 253-71.
- Ho, T.-P. (1996). Children's evidence: Mandating change in the legal system of Hong Kong. In: B.L. Bottoms & G.S. Goodman (Eds), *International perspectives on child abuse and children's testimony: Psychological research and law* (pp. 182-200). Thousand Oaks, CA: Sage.
- Huffman, M.L., Warren, A.R., & Larson, S.M. (1999). Discussing truth and lies in interviews with children: Whether, why, and how? *Applied Developmental Science*, 1, 6-15.
- Larson, S.M. (June, 1999). Another look at truth/lie discussions: Do they improve preschoolers' testimony? Paper presented at the annual meeting of the American Psychological Society, Denver, CO.
- Lyon, T.D. (in preparation). Reducing young Spanish-speaking children's difficulty in identifying and evaluating lies.
- Lyon, T.D., & Dorado, J.S. (June, 1999). Does the oath matter? Motivating maltreated children to tell the truth. Paper presented at the annual meeting of the American Psychological Society, Denver, CO.
- Lyon, T.D., & Saywitz, K.J. (1999). Young maltreated children's competence to take the oath. *Applied Developmental Science*, 3, 16-27.
- Lyon, T.D., & Saywitz, K.S. (in preparation). Young children's understanding of the meaning and wrongfulness of lying.
- Lyon, T.D., Saywitz, K.S., & Kaplan, D.L. (in preparation). Young children's understanding that promising predicts performance.
- Lyon, T.D., Saywitz, K.S., Kaplan, D.L., & Dorado, J.S. (2001). Reducing maltreated children's reluctance to answer hypothetical oath-taking competency questions. *Law and Human Behavior*, 25, 81-92.
- Moore, C. Pure, K. & Furrow, D. (1990). Children's understanding of the modal expression of certainty and uncertainty and its relation to the development of a representational theory of mind. *Child Development*, 61, 722-30.
- Myers, J.E.B. (1997). *Evidence in child abuse and neglect cases* (Vol. 1, 3rd ed.). New York: Wiley.

- Perner, J. (1997). Children's competency in understanding the role of a witness: Truth, lies, and moral ties. *Applied Cognitive Psychology*, 11, S21-S35.
- Peterson, C.C., Peterson, J.L., & Seeto, D. (1983). Developmental changes in ideas about lying. *Child Development*, 54, 1529-35.
- Piaget, J. ([1932] 1962). *The moral judgement of the child* (M. Gabain, trans.). New York: Collier.
- Pipe, M., & Wilson, J.C. (1994). Cues and secrets: Influences on children's event reports. *Developmental Psychology*, 30, 515-25.
- Pipe, M.-E., & Henaghan, M. (1996). Accommodating children's testimony: Legal reforms in New Zealand. In: B.L. Bottoms & G.S. Goodman (Eds), *International perspectives on child abuse and children's testimony: Psychological research and law* (pp. 145-67). Thousand Oaks, CA: Sage.
- Polak, A., & Harris, P.L. (1999). Deception by young children following non-compliance. *Developmental Psychology*, 35, 561-8.
- Reilly, J.S. (1986). The acquisition of temporals and conditionals. In: E.C. Traugott, A. ter Meulen, J.S. Reilly, & C.A. Ferguson (Eds), *On conditionals* (pp. 309-31). Cambridge: Cambridge University Press.
- Rotenberg, K.J. (1980). 'A promise kept, a promise broken': Developmental bases of trust. *Child Development*, 51, 614-7.
- Saywitz, K.J., Jaenicke, C., & Camparo, L. (1990). Children's knowledge of legal terminology. *Law & Human Behavior*, 14, 523-35.
- Shrimpton, S., Oates, K., & Hayes, S. (1996). The child witness and legal reforms in Australia. In: B.L. Bottoms & G.S. Goodman (Eds), *International perspectives on child abuse and children's testimony: Psychological research and law* (pp. 132-44). Thousand Oaks, CA: Sage.
- Spencer, J.R., & Flin, R.H. (1993). *The evidence of children: The law and the psychology*. London: Blackstone.
- State v. Irely*, 1998 WL 193491 (Ohio App. Ct. 1998).
- Strichartz, A.F., & Burton, R.V. (1990). Lies and truth: A study of the development of the concept. *Child Development*, 61, 211-20.
- Talwar, V., & Lee, K. (March, 2000). The relation between children's moral understanding of lying and their truth telling behavior. Paper presented at the biennial meeting of the American Psychology-Law Society, New Orleans, LA.
- Walker, A.G. (1999). *Handbook on questioning children: A linguistic perspective* (2nd ed.). Washington, DC: ABA Center on Children and the Law.
- Whalen, C.K., Henker, B., O'Neil, R., Hollingshead, J., Holman, A., & Moore, B. (1994). Optimism in children's judgments of health and environmental risks. *Health Psychology*, 13, 319-25.
- Wimmer, H., Gruber, S., & Perner, J. (1984). Young children's conception of lying: Lexical realism-moral subjectivism. *Journal of Experimental Child Psychology*, 37, 1-30.