

A Behavior Analytic Look at Contemporary Issues in
the Assessment of Child Sexual Abuse

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Abstract

The assessment of child sexual abuse has largely been ignored by behavior analysts, although behavior analytic theory and methodology, if applied, likely would advance the field. Three classic cases demonstrate historic errors that might have been avoided, had a behaviorally based approach been employed. Functional analytic interpretations are provided for phenomena that have been explored in a representative sample of studies that, though empirical, do not appear in the behavioral literature. Specific recommendations for practice, and a call for greater involvement of behavior analysis, are presented.

Keywords: Child sexual abuse; behavioral assessment; behavior analysis, behavioral assessment of child sexual abuse.

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When considering the assessment of child sexual abuse, one may ask, "What are the characteristics of a behavioral approach that make it suited to the task?" The natural science of behavior analysis and the philosophy of behaviorism appear to be well suited to address the assessment of child sexual abuse—especially when examined in contrast to the practices and philosophies that have been heavily relied upon up to now.

To make this latter point clear it is helpful to briefly review several high-profile cases. (See Ceci & Bruck, 1995, for more extensive presentations of the cases.) They demonstrate what may occur when a non-scientific approach is applied to the assessment of sexual abuse in young children, specifically to those aged six and under.

In reviewing the following cases it is important to remember that the majority of reports of child sexual abuse are true. Estimates of false accusations range from 5% to 35% (Bruck, Ceci & Hembrook, 1998). For example, in a Denver study of 576 reports in a single year it was found that 53% were "indicated" (likely true), 24% contained insufficient information on which to make a true/untrue decision, and 23% were "unfounded" (clearly untrue). Within the last group about three-fourths were thought to have been made in good faith, with the remainder thought to have been knowingly false (Jones & McGraw, 1987).

Studies in Michigan looked at true and false allegations of child sexual abuse in divorce cases. One review of 169 cases found that 33% were "unlikely" to be true, based upon Child Protective Services and the court appointed evaluators' opinions, while another review of 215 cases found that 20% were "unlikely" based on extensive (a mean of 62 hours) multi-disciplinary investigation (Faller, 2001).

Thus, the parallel imperatives of child protection and fair treatment of the accused mandate a scientific skepticism about the methods by which reports of child sexual abuse are assessed.

Wee Care Nursery School

Kelly Michales was a staff member at the Wee Care Nursery School in Maplewood, New Jersey, where she was accused of sexual abuse of numerous children. The accusations began when a 4-year-old was having his temperature taken rectally by his doctor and said, "Her takes my temperature."

The child's mother contacted Child Protective Services and the boy was then interviewed by an examiner who used anatomically detailed dolls. The child disclosed that Michales had also molested two other boys, although when they were interviewed they denied it.

At that point the school's staff sent letters to all parents advising them of the disclosures and had a social worker make a presentation to the parents. Many parents, convinced that the allegations were true, placed their children in therapy.

Following many interviews by various professionals (therapists, prosecutors, and mental health professionals hired by the prosecution), twenty children accused Michales of molestation. Many of the accusations seemed incredible, such as that Michales had penetrated them with a sword, smeared peanut butter all over their bodies and licked it off, and had done all of these things at the school although it was open and accessible by parents and staff at all times.

In August, 1988, Kelly Michales was convicted of 119 counts of abuse and sentenced to 47 years in prison. However, after serving five years Michales was ordered released on bail by New Jersey's Supreme Court which found the children's testimony had been tainted by the questionable interview techniques used by the professionals. The court then placed a burden on the prosecution: Before Michales could be re-tried the prosecution would have to appear at a pre-trial "taint hearing" and show that the children's testimony should still be considered reliable. Faced with such a burden, the prosecution dropped all charges against Michales and she was again a free woman, although her life had been forever changed (State v. Michales, 1988).

Little Rascals Day Care Center

The North Carolina coastal community of Edenton was the location of the Little Rascals Day Care Center where accusations unfolded in 1989. They began when a parent claimed that the owner's husband, Bob Kelly, had molested her son. Within a month three other children had made similar claims. Eventually ninety children accused Kelly and other staff members of similar acts of molestation.

The children claimed that they had been abused in numerous locations including at the school, in outer space, on supervised boat outings, and that babies had been murdered during rituals of abuse. The children claimed also that the molestation had been photographed. No babies were ever reported missing and no photographs were ever found. All of the abuse was said to have happened even though the nursery school was open, parents were free to drop in at any time and none had ever witnessed any suspicious activity.

In April, 1992, Bob Kelly was convicted of 99 counts of sexual abuse and sentenced to life in prison. A staff member, Dawn Wilson, was also convicted. Aware of this, two other staff members pled guilty to lesser charges and received much lighter sentences in exchange for their guilty pleas.

However, in May, 1995, the convictions of Kelly and Wilson were overturned by the North Carolina Supreme Court, for reasons similar to those cited by the New Jersey Supreme Court in the Michales case. In May, 1997, all charges against Kelly and Wilson were dropped and they were released, while those who had pled guilty had to serve out their sentences. At the same time the charges were dropped, the prosecution announced that it would pursue a new charge against Kelly, claiming he had molested another child in 1987 (State v. Kelly, 1991). Prosecutors appeared to have little appreciation for the possibility, or likelihood, that they were pursuing innocent people. Prosecutorial fervor for the case evidently persisted long after it had become clear that the case had taken a series of wrong turns. Despite the disastrous results, one of the prosecutors continues to hold herself out as an expert. As recently as November, 2006, Nancy Lamb, still working as an assistant district attorney, was co-presenter of a training program for professionals titled "The Necessary Components of a Legally Defensible Child Sex Abuse Investigation" (Ryan & Lamb, 2006).

McMartin Preschool

Perhaps the best known case of alleged multiple child sexual abuse occurred in Manhattan Beach, California, starting in 1983. It began when a parent, who was known to have previously made false allegations of sexual abuse against her ex-husband, went to police, claiming that her 2-year-old had been sexually molested by Ray Buckey. Buckey worked at the McMartin Preschool, which was owned by his grandmother.

Before the case was ended, Buckey, his grandmother, his mother and five other staff members were accused of 321 counts of child sexual abuse, some of which were said to have occurred ritualistically in tunnels beneath the pre-school. By 1986, all charges, except several against Buckey and his mother, had been dropped for lack of evidence. In January, 1990, following what was up to then the most expensive trial in California history, the jury returned not guilty verdicts on 52

counts, but remained deadlocked on 12 others against Buckey and one against his mother. The judge then dismissed the single count against Buckey's mother. A second trial was held on the remaining charges against Buckey. It also ended in a mistrial. At that point the prosecution decided not to re-try Buckey and the case ended, after seven years and a cost of \$16 million (State V. Buckey, 1990).

Costs

In both human and financial terms, the costs of these and similar cases of misapplied science (or, rather, application of non-science) in the examinations of children were enormous. Many children grew up convinced that they had been molested when, most likely, they had not. At the very least, the children came to believe that the legal system had let them down. One wonders whether later in life these children will experience routine difficulties in relationships or other functioning that they will attribute to sexual abuse that never happened.

There are other costs. Defendants who probably were not guilty spent years in prison, their lives forever changed. Defendants' families and children's families suffered as well. Professionals and professions suffered lost esteem in the wake of these cases. Financial costs of prosecutions and defenses were enormous.

As well, it is possible that the adverse publicity from failed prosecutions continues to influence juries who may assume that allegations of child sexual abuse are overblown and frequently false (West, 1996). This could result in not guilty verdicts for actual perpetrators who then go free to continue their abuse. Thus, the costs make clear that the behavioral sciences, including behavior analysis, address the issue of child sexual abuse assessment.

Specifically, What Went Wrong?

The absence of a science-based approach to the assessment of child sexual abuse contributed powerfully to the disastrous outcomes described above, as well as to similarly unfortunate outcomes in numerous other cases. The problems have been articulated at length elsewhere (See Ceci & Bruck, 1995) and will be only briefly discussed here.

However, much of what went wrong may be reduced to the examiners' evident failure to appreciate the situational control of behavior. Those who conducted the examinations of young children in the above cases frequently failed to appreciate their own antecedent and consequent control over the children's reports. Within that general set of issues, however, were a number of specific assessment activities that deserve discussion.

Possibly the most characteristic error was their pursuit of a single hypothesis—that any child adjustment problems, and especially those of an anxious nature, must have been due to sexual abuse. For example, if a child demonstrated regressed toileting, excessive nightmares, fingernail biting or other anxious behaviors, it was thought that sexual abuse was the culprit. Little thought was given to whether there may have been alternative causes of the child's distress. No one asked whether the child's difficulties in adjustment could have been due to events such as a move to a new neighborhood, death of a grandparent, marital strife between the parents, or the like. There is no compelling evidence that most childhood behavior problems, including anxious behaviors, are due to sexual abuse. Research tells us that there is no standard way that children respond to sexual

abuse. While thoughts, feelings, and overt behavior of an anxious nature are fairly common among some child victims, many others exhibit extreme sadness, conduct problems or other problems. Moreover, one-third of child victims exhibit no measurable problems at all in their overt behavior, thoughts or feelings (Saywitz, Mannarino, Berliner & Cohen, 2000). In many of the cases such as those described above, an effort to explore all potential causes of observed behavioral difficulties would have improved the assessment process.

Second, it was common for children to be interviewed numerous times, including by examiners who proceeded as if the abuse had occurred, regardless of whether a disclosure had been made. Within those interviews it was not uncommon for the examiners to engage in several other unfortunate tactics: They often used anatomically detailed dolls, devices that are plagued by concerns about their suggestiveness. They asked many leading questions and tended to differentially reinforce statements that would implicate (as opposed to exculpate) an alleged perpetrator. At times, interview tapes and transcripts show, they punished exculpatory statements with disapproval and threats ("You can go home, but only after you tell us what we know you know."). They assumed that children, in their innocence, could not fabricate a tale of sexual abuse and further assumed that the presence of peripheral details in a child's story was a valid indication that abuse had occurred (Ceci & Bruck, 1995).

There were other errors as well. Interviewers frequently failed to directly assess the child's tendency to be easily led. Some believed that, although a child might fabricate enjoyable events, it could not fabricate unpleasant or frightening events. They often employed negative stereotypes of the accused ("You can help us stop Mr. Jones from hurting other kids if you tell us what happened to you."), and they typically failed to directly assess the child's understanding of the concepts of either fantasy/reality or truth/non-truth.

Making things worse was the absence of science-based, agreed-upon assessment procedures that defined best practices in the assessment process. Finally, once an allegation was made, parents and professionals often became emotionally involved to the point that objectivity was lost.

There Were No Tunnels Under the McMartin Pre-school

An absence of appreciation for objectivity and the resulting drift from it are illustrated in a sidebar to the McMartin case. During numerous suggestive interviews and therapy sessions, several of the pre-schoolers had alleged that ritualistic sexual abuse, at times including animal sacrifices, had taken place in tunnels under the school building. Law enforcement authorities had looked under the building and found nothing. There was neither a basement nor tunnels, and the concrete floor of the pre-school showed no signs of having been disturbed or jack-hammered to provide an opening in the floor. Numerous parents, however, were convinced that their children's stories of tunnels were true, and that the alleged perpetrators had backfilled the tunnels after accusations had arisen.

Unhappy with police efforts to locate the tunnels, several parents brought in a backhoe and began digging. Authorities halted the process, but the parents then received permission from the property's owner to hire a professional archeologist who dug into the site in search of evidence that the tunnels had once existed (Stickel, 1993). His evident lapses in objectivity were startling.

In an area under the building, the archeologist found differential soil compaction and many artifacts such as bottles and tin cans, as well as animal bones. These caused him to conclude, in part, that, "There is no other scenario that fits all of the facts except that the feature was indeed a tunnel...therefore, this project's goals or objectives were met with data which probabilistically corroborates (sic) reports made by the children regarding the site" (p.96).

However, there is substantial reason to conclude that the archeologist ignored or discounted much of his own evidence and, thus, reached an erroneous conclusion. Important was that the pre-school building had been constructed in 1966. Next door to it was a vacant lot where, in the once rural California community, a home had stood from the 1930s or 1940s until about 1972. In their zeal to find evidence to corroborate the children's reports of tunnels, the archeologist and the children's parents had missed an important and likely more plausible explanation of the findings—that the pre-school had been constructed atop a family's old trash dump, a pit that had been used by the owners of the home next door in an era that pre-dated both construction of the pre-school and home trash pick-up in the area.

For example, the archeologist's analysis of the artifacts revealed that all of the bottles dated from the 1950s and earlier. The animal bones came from chickens, pigs, dogs, birds and cattle, all of which were adult animals at the time of death. The cuts on the bones were the type made with a band saw, such as is used in a butcher shop (and therefore unlikely to have been made during an animal sacrifice). Only two of the several hundred artifacts dated after construction of the school. They were a clip used to repair plumbing (which likely was left during a repair job), and a "snack sized cellophane wrapper" which probably was placed there by a burrowing rodent in a process known as bioturbation.

One may question why an archeologist would not have asked himself how or why alleged sexual perpetrators re-filled a tunnel with dirt that contained essentially no trash manufactured after the 1940s? Why would they have used a band saw in a ritualistic sacrifice? How would they have gotten an adult beef into a small tunnel? (The archeologist found the tunnel to have been only four feet high.) These and similar gaps in the archeologist's analysis are described more fully elsewhere (Wyatt, 2002). A theoretical functional analysis of the archeologist's premise and conclusions is instructive.

A Functional Analysis of Professional Behavior

By all accounts, antecedents to the archeologist's conclusions included the presence of an emotionally charged group of parents and their sincere descriptions to the archeologist of what they believed had happened. As well, the archeologist may have believed that children were incapable of fabricating stories of sexual abuse in tunnels, and he may not have appreciated the extent to which suggestive techniques can cause children to fabricate, a phenomenon now well known and that is described in some detail below.

Consequences that could have contributed to his discounting, or failure to consider, the possibility of a trash pit may have included praise from parents and members of the community as the dig progressed. "Operant seeing" (Skinner, 1974) may explain how a classroom door that was always open, and a non-functioning fire

alarm, were taken by the archeologist as likely evidence of child sexual abuse (Stickle, 1993).

Similarly, operant seeing (or operant reading) may explain another of the archeologist's conclusions. In addition to his own digging, he had hired a local firm to employ Ground Penetrating Radar (GPR) in search of tunnels. The GPR firm's complete results were stated in two sentences: "In Areas One, Two, Three and Four (see Figures Two, Three, Four and Five) the GPR depth of penetration was approximately 8 to 10 feet below ground level. No evidence was found to support the existence of filled-in below ground tunnels." However, when the archeologist wrote his final report, he interpreted the unambiguous GPR results to mean the opposite: "Thus, the GPR was successful in detecting the main tunnel at the locus of the dividing wall between the two classrooms" (Stickle, 1993).

Perhaps the archeologist had never lived in, or otherwise been exposed to, a rural area where families dig a pit and burn their trash. Such a history would serve as another antecedent, or establishing condition, one that could have contributed to his failure to consider a plausible alternative hypothesis, that a long-ago family's trash pit would have parsimoniously explained the debris he found. One would think that an additional artifact should have prompted the archeologist to reconsider his "tunnels" conclusion. This was the battered mailbox, complete with name and address, of the family that had lived in the house next door decades earlier. A different learning history might have come together with observation of the mailbox with the result that the archeologist would have asked himself potentially disconfirming questions. How would Ray Buckey have happened upon fill dirt that contained that mailbox? Would he have saved the original, artifact-filled soil and then returned it? If he had saved that soil, why had it contained only decades-old artifacts?

An especially interesting question is this: What history would have been powerful enough to cause an archeologist to overlook or discount disconfirming evidence? Perhaps emotional antecedents, coupled with social reinforcers for preliminary reports of a "tunnels find" are all, or part, of the answers. In any event, it is clear that non-science was the result.

Behavioral Assessment Issues

The cases described at the opening of this article reveal a number of mistakes, by well-intentioned interviewers that brought about unreliable reports of child sexual abuse. These mistakes have occurred repeatedly across many cases. There were a number of particularly salient errors of technique and theory. These included pursuit of a single hypothesis (usually that the abuse did occur); repetition of questions and interviews; use of anatomically detailed dolls; use of leading questions; differential reinforcement of statements that either implicate (most often) or exculpate the accused; the assumption that children, in their innocence, could not be wrong about a matter as serious as sexual abuse; the belief that description of peripheral details validated the central allegation of abuse; interviewers' failure to actively test children to determine their level of suggestibility; the belief that children can not fabricate unpleasant events; suggestion of a negative feature or stereotype of the accused ("He did it to some other boys and girls. Did he do it to you?"); and failure to appreciate, or actively evaluate both the child's ability to differentiate fantasy from reality and the truth from untruth.

That these assumptions and procedures were deleterious to the examination process has by now been relatively well established. What follows is not intended as an exhaustive review of each of these issues. Rather, representative research and examples, several of them seminal, are presented.

Pursuit of a Single Hypothesis and Repetition of Questions

What is likely to result when an interviewer of young children proceeds with a bias that abuse occurred, or with a bias that it did not occur? Some light was shed on that question by a study of two groups of children aged five and six who were visited in their classroom by a man. One group observed the man and talked to him as he cleaned some dolls. The second group observed and interacted with the man as he played roughly with the dolls. The children were questioned several times on one day by interviewers who employed one of three verbal styles regarding the man's handling of the dolls: accusatory, exculpatory or neutral. Later, the children were questioned by other interviewers. It was found that 75% of the children's remarks were consistent with the tones employed by their earlier interviewers, rather than with the actions of the classroom visitor (Clark-Stewart, Thompson & Lepore, 1989). The examiners' verbal styles exerted powerful stimulus control over the children's reports.

In another study, interviewers were purposely given erroneous information about a game that had been played by children aged 3 to 6. The interviewers, who had not observed the game as it was played, were asked to get the children to describe as much about the game as possible. Among 3 and 4-year-old children, 34% corroborated one or more fictional events that the interviewers believed had occurred. With 5 and 6-year-olds, 18% corroborated such events (White, Leichtman & Ceci, 1997).

Clearly, when an interviewer establishes a preferred direction for children's answers, substantial percentages of children acquiesce. For most young children adult approval is a relatively powerful secondary reinforcer, and has acquired some intrinsic reinforcement value as well. Prompting, smiling, nods of the head, words of praise and the like were most likely unintended, but powerful, influences upon the children's reports.

The influence of repeated questioning is further evident in a study in which young children were examined by a pediatrician. The doctor did not touch their genitals. Later they were repeatedly asked (using non-leading questions, but with anatomically detailed dolls) whether the doctor had touched their genitals. Ultimately about 50% of them said that their genitals had been touched during the exam. In contrast, at the first interview following the pediatric examination, none had said so (Ceci, Leichtman & Bruck, 1995).

Functionally analyzed, it is probable that the interviewer's style or tone (accusatory/exculpatory/neutral) serves as an antecedent leading to agreement with that tone, at least for many children. Similarly, repetition of questions serves as a relatively powerful consequence. That is, repetition of a question implies that the preferred response has not yet been given. Under such circumstances, it is not surprising that an interviewer's tone comes together with a child's history of having been taught to comply with the wishes of authority figures. The result is agreement with the interviewer, rather than telling what happened.

The controlling authority of adult approval has been demonstrated in countless studies. (e.g., See any issue of *The Journal of Applied Behavior Analysis*.) Recently that was described anecdotally in an open letter written by a man who had been one of the McMartin children in the 1980s. In his letter, published in the *Los Angeles Times*, he described feeling that he would never be allowed to go home unless he told the interviewers what they wanted to hear and how he broke down under repeated questioning. "Anytime I would give them an answer that they didn't like, they would ask again and encourage me to give the answer they were looking for...I remember breaking down and crying. I felt everyone knew I was lying. But my parents said, 'You're doing fine. Don't worry.' And everyone was saying how proud they were of me, not to worry" (Zirpolo & Nathan, 2005).

Use of Anatomically Detailed Dolls

Use of anatomically detailed dolls (AD dolls) in the assessment of child sexual abuse remains controversial. The concern is that they will contribute to false accusations because children's attention will be drawn to the dolls' genitals, which will in turn lead children to make false allegations. In a study of 9 abused and 9 non-abused children's free play with the dolls, the children exhibited no differences in their amounts of sexualized play (Kenyon-Jump, Burnette & Robertson, 1991), suggesting that the dolls are of little use. However, free play is not the same as the forensic interview process.

In another pediatric study, two groups of 3-year-old children were examined. One group received gentle touching of their buttocks and genitals, the other no such touches. Later an interviewer asked, pointing to parts of the AD dolls, "Did the doctor touch you here? Or here?" Among the children who had been touched, only 47% replied affirmatively to questions about their genitals and buttocks. Among those who had not been touched, 50% indicated that their genitals or buttocks had been touched. Thus, the children's responses were essentially random, probably due to their young ages. The dolls were not helpful.

The American Psychological Association's approach to the use of the AD dolls has changed over the years. Earlier the organization held that there were no standardized methods for their use, and that normative data on abused and non-abused children's responses to the dolls were essentially non-existent. In spite of those conclusions, the APA went on to say that the AD dolls, "may be the best available practical solution for a pressing and frequent clinical problem" (American Psychological Association, 1992). APA later seemed to modify its position when a blue-ribbon committee re-evaluated the state of the literature and recommended that APA reconsider whether valid doll-centered assessment techniques exist (Koocher, Goodman, White & Freidrich, 1995). Today many professionals suggest that the dolls not be used in the assessment of child sexual abuse at all, because it is difficult to rule out the possibility that normal curiosity about the dolls' genitalia serves as an antecedent for invalid statements by the child (Wyatt, 1999).

Leading Questions and the Belief that Children Can Not be Wrong

Does accuracy of a child's report depend on whether pleasant or unpleasant events are being reported? Could a child possibly be wrong or fabricate events as troubling as sexual abuse? Does any of this relate to whether interviews are suggestive or repeated?

These questions were subjects of a study (Bruck, Ceci & Hembrook, 1997) in which pre-schoolers were interviewed regarding four kinds of events. Two of the events were true and two had never happened, but were suggested to the children. Furthermore, one of the true events was positive (helping a school visitor who had tripped—an event which was staged for the children), while the other actual event was negative (a recent punishment by a parent or teacher). Of the fictional events that were suggested by the interviewers, one was positive (the suggestion of having helped a lady look for a lost monkey in a park) and one negative (the suggestion of having witnessed a man stealing food from the day-care building).

The children were interviewed on five occasions. At the first interview they were asked whether these events had happened and for any details. The second, third and fourth interviews were suggestive: Peer references were used ("Sue said you saw it too. Did you?"). Visualization was employed ("Try to think what might have happened."). Questions were frequently repeated and children were praised for assenting to the suggestions. Then, a fifth interview was conducted by a new interviewer who used non-suggestive questions.

By the third interview more than 50% of the children assented to all of the events, whether the events were positive or negative, and whether the events had actually occurred or were fictional. The children's tendency to assent held through the fifth interview as well. Thus the crucial variables for most of the children were not the events, but the interview techniques.

Clearly the assumptions that children cannot be wrong or may not be easily led to report negative events are erroneous. Control of a young child's responses to questions about alleged sexual abuse may go far beyond the possibility that the abuse actually occurred. Rather, antecedent interviewer suggestion and consequent repetition of questions, combined with differential praise and the like, may come together to render the child's reports invalid.

Do Children's Linguistic Styles Provide Clues to Validity?

It is common for examiners to hold that they are able to make judgments about the validity of a child's report based on the child's style of reporting. For example, a child's report is sometimes said to be more believable when its utterances are fairly spontaneous, its descriptions maintain a consistent time frame, it employs dialog said to have occurred, it includes elaboration of details, or if the child's report is consistent across interviews. To answer these questions, tapes of the monkey-thief study described above were analyzed using only sequences in which the children fully assented to witnessing or participating in events (Bruck, Ceci & Hembrook, 1997).

Results showed that spontaneous utterances were rare, even from the first interview, except for the true positive event (helping a visitor who had tripped). By the second interview there were no differences in frequency of spontaneous

utterances about true and false events, a finding that held through the fifth interview.

An examination of time frame markers, use of dialog, and elaboration revealed no differences by the second interview. By the third interview the false event narratives contained more creativity—more elaborate details—than did descriptions of true events. Perhaps this last finding should not be surprising. Creativity has been addressed by behavior analysts. Skinner (1974) noted that, “In the field of human behavior the possibility arises that contingencies of reinforcement may explain a work of art or the solution to a problem in mathematics or science without appealing to a different kind of creative mind or to a trait of creativity...” (p. 246-7). Behavior analytic research has shown that children’s creative activity may come under operant control (Glover & Gary, 1976; Goetz & Baer, 1972; Goetz & Baer, 1973; Goetz & Salmonson, 1972). Thus it is not surprising that creativity in the description of alleged sexual abuse may also come under operant control. That phenomenon might be especially pronounced when the allegations are false, because the occasion for creativity is present from the start.

Consistency is typically taken as an indication of validity of the child’s report. In the monkey-thief study it was found that true stories contained more consistency, defined as mention of a detail in more than one of the five interviews. However, when inconsistency (mention of “A” in one interview and “not A” in another) was examined it was found that both true and false events produced the same, fairly low rates of inconsistency.

Thus, a single non-suggestive interview allowed for clearest differentiation between true and false events. Repeated interviews only caused false stories to resemble true stories on the linguistic markers of interest. An exception was that repeated interviews actually increased the likelihood that false stories would contain more frequent descriptive statements than true stories.

Are Children Lying When They Make False Claims of Sexual Abuse?

Some professionals have assessed children for sexual abuse based upon the assumption that children, in their innocence, could not be wrong about allegations of sexual abuse. The historical frequency with which expert witnesses have said that children “would not lie” about sexual abuse is unknown, but anecdotally is thought to have been common, and continues to occur occasionally.

However, it is misleading to conclude that experts and jurors must choose between two distasteful options. That is painfully restrictive in a case in which the child seems to earnestly describe sexual abuse, but no other compelling evidence of a crime exists, and/or the other evidence actually mitigates for the accused. In such cases both experts and jurors are reluctant to conclude either that the child is lying or that they must send a possibly innocent defendant to jail.

There is a third option, one more palatable to jurors in such cases: that the non-abused child has erroneously come to believe he or she was abused. Thus, the child is not lying in the usual sense of the word. This may explain why children in the cases presented at the beginning of this article gave testimony in earnest, with no “signs” of lying. In those cases the children were interviewed repeatedly, typically using suggestive antecedent verbal behavior coupled with differential reinforcement of accusatory, vis-à-vis exculpatory, statements. As a result of the interview process children came to believe they had been abused, although they had not. In light of

such a strong possibility, it seems important that an expert witness be prepared to explain the “third option” to jurors.

Negative Representations of the Accused

What happens when an interviewer describes the accused in negative terms? May this serve as an antecedent for a child’s saying that sexual abuse occurred? The answer likely is yes. This is particularly true if other inappropriate techniques (e.g., repeated interviews, suggestive questions) are combined with negative depictions of the accused.

As with many of the other empirical questions about assessment of child sexual abuse, it is difficult to ethically get at the issue. However, some approximations are available. In one study children ages 3 to 6 were told that they would be visited by a man named Sam Stone, and that he was a clumsy man. He visited the children, but did nothing clumsy. Over the next ten weeks the children were interviewed four times and asked with frequent leading questions whether he had ripped things or had carelessly tossed things into the air, etc. Among 3-yr.-olds, 72% said he had engaged in one or more clumsy behaviors, and 44% said they had *seen* him do so. Among 6-yr.-olds, 11% said they had seen it (Leichtman & Ceci, 1995).

Of particular interest is that the children described the fictional clumsy events quite sincerely. In a follow-up to the study, over one thousand researchers and professionals in the area of child testimony were shown videotapes of the children’s interviews. When asked to make a determination about which of the children’s statements were accurately describing what had happened, the experts were wrong somewhat more than 50% of the time (Ceci & Bruck, 1995).

Knowledge of Developmentally Normal Behavior

Sexual behavior in young children is statistically normal (Rathus, Nevid & Fichner-Rathus, 1993), a fact that is at odds with opinions sometimes offered on the witness stand by experts. In a study of more than 1,000 children who had not been molested, it was found that sexual behaviors including sexual self-stimulation, exhibitionism, sexually rubbing up against someone and other behaviors were reported by their mothers as fairly common—too common to be employed as markers of sexual abuse (Friedrich, Fisher, Broughten, Houston & Shafran, 1998).

Similarly, a child’s sexual knowledge “beyond his years” must not be taken as evidence of sexual abuse. We are awash in a culture with sexual images in magazines, on television, in videogames, and in other media. Moreover, in many instances sexually suggestive television programming is not confined to hours that children ordinarily would be in bed. Thus, what has historically been thought to be a marker for sexual abuse must be discarded.

Use of One, or Only a Few, Therapists

In each of the cases described at the beginning of this article, only a few professionals examined dozens of children. This was problematic for a reason that becomes obvious. Two important opinions have been formed when a professional concludes that a child has been sexually abused by a specific individual. The first is that the child has been a victim, and the second is that the accused is a pedophile. The professional, having labeled the accused as a pedophile, is more likely to conclude that additional children who had contact with the accused were molested as well. The initial positive finding serves as an establishing condition for additional positive findings, when other children are examined by the same professional. Thus,

it is preferable that in any given case in which several children may have been abused, a given professional should examine only one child. Other professionals will be needed to examine additional children.

Is There a Routine Pattern to Disclosures of Sexual Abuse?

The professional's job would be much easier if there existed a routine pattern by which disclosures are made. Unfortunately, such a pattern does not seem to exist.

An early effort to define such a pattern was known as the Child Sexual Abuse Accommodation Syndrome (CSAAS) (Summit, 1983). The model was theoretical and held that the child would go through stages of secrecy, helplessness, entrapment and accommodation, disclosure, and recantation. Many professionals came to accept the CSAAS and rely upon it in examining children, although it was never validated and its originator had advised against using it diagnostically. An extensive review of research relative to the CSAAS found that delay of disclosure is its only component for which there is empirical support (London, Bruck, Ceci & Shuman, 2005).

Similarly, there seems to be no consistent pattern of diagnostic signs among children who have been sexually abused. About one-third of them exhibit rather serious problems as a result of sexual abuse. Although anxious behaviors are the most frequently seen, sexually abused children often exhibit depressive behaviors, conduct problems or other difficulties. Moreover, about one-third of sexually abused children exhibit only minor, sub-clinical, problems in adjustment, while another one-third exhibit no measurable problems in their overt behavior, thoughts or feelings. This last phenomenon may be due to the fact that they quickly received optimal support once they made their disclosures, or had better early training about sexual abuse (e.g., had been taught that sexual abuse is never a child's fault, etc.), or other factors. (For more see Saywitz, Mannarino, Berliner & Cohen, 2000.) Thus, the notions that there is either a pattern to disclosures or that there are behaviors that are diagnostic of sexual abuse must be abandoned.

What May We Conclude from the Research?

The research suggests a number of conclusions and recommendations. These fall into two categories, those involving our guiding assumptions and those that provide us with specific directions for practice:

Assumptions

- It is important to make no assumptions as to predictable patterns of disclosure, except that there are none. An exception is that many children exhibit a tendency to delay their disclosures. There is no tendency to recant.
- Similarly, there are no standard diagnostic "signs" of sexual abuse. Although anxious behaviors are the most common, they are by no means observed in a majority of sexually abused children. One-third of sexually abused children exhibit no problem behaviors at all, and another one-third exhibit only minor problems in adjustment.
- There are no consistent linguistic markers within children's sexual abuse accounts.

Directions for Practice

- A single well done interview is preferable to multiple interviews.

- Anatomically detailed dolls should not be used.
- The examiner must consider and explore alternative hypotheses that might account for a child's disclosure, his problem behaviors, or both.
- Leading questions are to be avoided. Typically these are questions that can be answered either yes or no. It should be noted, however, that at some point an examiner should clarify definitions of, and whether the child has experienced, good and bad touches. If the child answers affirmatively regarding bad touches then the examiner should ask that the child describe what happened, rather than leading the child through a series of specific questions that may be answered yes or no.
- In general, repetition of questions and interviews leads one away from a valid description of events. Repetition implies that the preferred answer has not yet been heard or provides an examiner opportunities to inadvertently reinforce erroneous statements. At the same time, an examiner is probably wise to assess the consistency of the child's report. This may be assessed on a one-time basis by feigning forgetfulness and asking the child to describe the events again.
- The examiner must avoid negatively stereotyping anyone whom the child has accused, or may accuse.
- The examiner must possess adequate knowledge of child development and of what are, and are not, statistically normal sexual activities of children.
- If multiple children are thought to have been abused, a given examiner should assess only one of them. Other children should be referred to other examiners.

Additional Recommendations

- The examiner should actively assess the child's understanding of the difference between truth and non-truth. This may be done by asking the child to describe or define these concepts, then quizzing the child with a few simple questions. ("If I said your name is Johnny, is that the truth or a lie?") It is also wise to ask the child to tell the examiner something that is true and something that is a lie. ("Tell me the truth about the weather outside."... "Now tell me a lie about it.") This approach will assess the child's understanding more completely.
- Similarly, the examiner should actively assess the child's understanding of the difference between reality and fantasy. The examiner may ask whether certain television characters are real (humans) or not real (cartoons). However, one must be alert to the fact that the perceptive child may conclude that neither is real because even the humans in situation comedies and dramatic programs are playing roles. Careful inquiry may sort out any misunderstandings.
- It is developmentally normal for a young child to be easily led. Thus, following a disclosure the examiner should actively assess the extent to which a child will assent to suggestion. This may be done by asking the child whether a specific event (never reported by the child) happened. For example, with a child who has made an allegation that he was anally penetrated, the examiner may ask (with uncertainty), "I don't remember whether you said this, but did you say he made you touch his penis with your hand? Did that happen?" The ease with which a child may be led to affirm a suggestion is useful information, particularly in a case where no corroboration of the child's allegations exists, and in which the accused asserts that the child has been coached to make a false allegation. However, it must be remembered that suggestibility is not diagnostic of sexual

abuse. Rather, it is useful information to the ultimate finder of fact (judge or jury) if the examiner had actively assessed that dimension of the child's functioning.

- The examiner should ask the child whether anyone has promised or suggested that his or her report will result in reinforcers (e.g., money, attention, keeping Daddy out of jail).
- Avoid use of anatomically detailed dolls. The dolls' genitalia may well be overly suggestive and, in any event, it may be difficult to convince a judge or jury that the doll's genitalia are not suggestive.
- Assess and use the child's terms for its body parts.
- Once a child has made a disclosure, the examiner should inquire as to the number of people the child has told, the number of interviews (formal and informal) it has undergone, and under what circumstance it has disclosed. This is important, given what is known about the problems of interview repetition.
- Finally, a given professional must undertake either a forensic examination or therapy, not both, with any given child. The roles of forensic evaluator and ongoing therapist are different. The forensic evaluator must not become an advocate for the child, which is a roll that is often difficult to avoid when one is an ongoing therapist. For this reason the American Psychological Association's Guidelines for Psychological Evaluations in Child Protection Matters (Committee on Professional Practice and Standards, APA Board of Professional Affairs, 1999) holds, "Psychologists generally do not conduct psychological evaluations in child protection matters in which they serve in a therapeutic role for the child or the immediate family or have had other involvement that may compromise their objectivity." (p. 589)

The role of Psychometric Instruments

This article has focused upon the forensic interview because the field is generally without other suitable means of assessing children for sexual abuse.

Direct observation of free play with anatomically detailed dolls revealed no reliable differences between abused and non-abused children (Kenyon-Jump, Burnette & Robertson, 1991). Play therapy techniques have never been researched, much less validated, as useful in assessment of child sexual abuse according to the then-President of the Association of Play Therapy, Sue Bratton (personal communication, January 27, 2002).

Are there psychometric instruments that reliably assess for child sexual abuse? Evidently not. One such instrument that is in relatively widespread use, however, is the Child Sexual Abuse Inventory (CSBI). It contains a list of 38 sexual behaviors which are rated retrospectively, covering the past six months, by the child's parent or other full-time caretaker, on a four-point scale from zero to three (Purcell, Beilke & Friedrich, 1986). Sexual behaviors, such as "masturbates with hand" are rated as follows: never observed, observed less than once per month, observed one to three times per month, or observed once per week or more.

Although the CSBI is frequently employed diagnostically, the retrospective nature of such accounts is problematic. As well, all of the behaviors assessed are seen in non-abused children. For example, one study looked at hundreds of parents' ratings of their children on the CSBI's four-point scale. The children were in three groups: normals (n = 1,114), those with psychiatric histories who had not

been sexually abused ($n = 577$), and those known to have been sexually abused ($n = 620$). Their mean ages were 6.0, 7.5 and 7.3 years, respectively. Regarding the item "masturbates with hand," the normals' mean rating was .18 ($SD = .54$); the psychiatric group's mean was .16 ($SD = .58$); and the sexually abused group's mean was .43 ($SD = .90$) (Friedrich, Fisher, Dittner, Acton, Berliner, Butler, Damon, Davies, Gray & Wright, 2001). The group differences were statistically significant, primarily due to the large numbers of subjects in each group. However, the results probably have little meaning for the examiner who is assessing an individual child. A look at the means and standard deviations reveals that many children who were never abused tend to masturbate, while some who were abused do not (or have not been observed to do so any more frequently than have a number of non-abused children). Moreover, a parent may have been sensitized to become more observant of a child's sexualized behaviors, if abuse has been reported or suspected.

Although the CSBI is widely used in the assessment of child sexual abuse, its interpretation involves enough difficulties that its use should be held in abeyance at present, except for purposes of research.

Behavior Analytic Contributions

A cursory examination of the behavioral literature leads to the unfortunate conclusion that little attention has been paid to the assessment of child sexual abuse.

For example, A review of a ten-year index (1988-1997) of the *Journal of Applied Behavior Analysis* found no subject index listings for the following terms: sexual abuse, child abuse, child sexual abuse, assessment of child sexual abuse or behavioral assessment of child sexual abuse. EBSCO Host searches from 1975-present for these terms found no matches for *Behavior Research and Therapy*, *Behavior Modification* or *Behavioral Assessment*.

That is disturbing, given the topic's visibility in popular media and in non-behavioral literature such as *American Psychologist*, for which a search resulted in 307 matches to "child sexual abuse," alone. However, behavior analytic thinking and methods would seem to be desirable in the assessment of child sexual abuse, for several reasons.

First is the focus upon working with individuals. A judge or jury wants to know about that child, under its specific circumstances. Behavioral approaches emphasize the individual, in context, and thus seem fundamentally well suited to the assessment of child sexual abuse.

Second, behavior analysts are trained to avoid speculation that goes well beyond the data. A tendency to engage in such speculation contributed to the disastrous outcomes of the cases that were profiled at the top of this article.

Third, behavior analysts generally avoid the temptation to interpret behaviors as evidence of otherworldly phenomena that fall outside the world of matter and energy with which natural sciences deal. Historic efforts by examiners to uncover inner conflicts, libido fixations, repressed memories and other hidden phenomena contributed to the unfortunate outcomes in the high profile cases described earlier in this article.

A recent article in the *Journal of Applied Behavior Analysis* follows upon, and extends, methodology employed in the non-behavioral literature described above. It provides some insight into how behavior analytic procedures may better inform us. This single-subject, A-B-C-B experimental design involved four 5-yr.-old children who

underwent a simulated ten-minute health check by a confederate who weighed each child, listened through a stethoscope, etc. Later other confederates, who were blind to what had occurred in the examinations, interviewed the children 12 times, with each interview occurring two to three days apart. In between the interviews, parents talked to the children, making suggestions about the "doctor" that were either positive or negative. Positive suggestions included, "I like the way (health checker) looked at you. You had fun, didn't you?" Negative suggestions included, "I do not like the way (health checker) looked at you. Are you okay?" Additional questions were neutral: "Did (health checker) measure you with the tape?" "Did you get a shot?" It was found that repeated interviews reduced the accuracy of children's answers. Positive and negative suggestions further decreased accuracy of the children's reports, with negative suggestions resulting in somewhat greater distortion than positive suggestions (Doepke, Henderson, Critchfield, 2003). The authors concluded, in part, "Studying testimony at the level of the individual by utilizing single-subject experimental designs is the first step toward launching a behavioral analysis to explore the utility of behavioral theory in understanding eyewitness testimony." (p. 461)

Behavior analytic philosophy and methods have found substantial acceptance in arenas such as special education and autism treatment. They have found limited but growing acceptance in other areas such as safety, corrections, business, regular classrooms, and therapy clinics. Fifty years ago Skinner (1956) commented on the potential spread of behavior analysis to our work with psychotic behavior. His observation, if applied to this article's topic, provides us with guidance: "It is rare to find behavior dealt with as a subject matter in its own right. Instead it is regarded as evidence for a mental life, which is then taken as the primary object of inquiry." (p. 84)

It is time we apply behavior analytic principles and methods to the assessment of child sexual abuse.

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