WHAT WAS UNDER THE MCMARTIN PRESCHOOL? A REVIEW AND BEHAVIORAL ANALYSIS OF THE "TUNNELS" FIND

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ABSTRACT: The McMartin Preschool child abuse case began in 1983 in Manhattan Beach, California, and was one of the most visible cases in history. Although two trials were conducted and no convictions were obtained, some individuals continue to believe that dozens of children were sexually abused at the preschool. In 1990 an archeologist was hired to determine whether tunnels had existed under the school because some of the children had alleged that some of their abuse took place in tunnels under the building. The archeologist's report was issued in 1993. It concluded that evidence of back-filled tunnels had been found. This critical analysis of the archeologist's report concludes otherwise, that what the archeologist found was actually the filled-in remains of a rural family's trash pit that pre-dated construction of the school. Regarding artifacts discovered in soil under the preschool, alternative interpretations to those of the archeologist's evident misinterpretation is presented.

Key words: McMartin Preschool, State v. Buckey, assessment of child sexual abuse, confirmatory bias, functional analysis, tunnels project

The McMartin preschool case in Manhattan Beach, California, remains one of the most controversial in the history of child abuse cases. The greatest weight of opinion now seems to be that the children's tales of ritual abuse were the product of inappropriate, leading and repeated questioning by investigators. However, there remains a cadre of professionals and non-professionals who believe that the abuse did occur. A number of the children had told stories of abuse in tunnels beneath the preschool. The prosecutor's investigators had found no tunnels, but parents remained convinced that their children's accounts of tunnels were factual. Those allegations were bolstered by an archeologist's conclusion (Stickel, 1993) that the remains of filled-in tunnels had been found under the preschool property. This article is a review and analysis of the archeologist's report.

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THE MCMARTIN CASE

The McMartin case began in August 1983, when a parent reported to police that her two-year-old son had been molested by McMartin staff member Ray Buckey. Dozens of children were examined by mental health professionals who used techniques now thought to be inappropriate and likely to yield false reports of abuse (Ceci & Bruck, 1995). In time those examinations brought about more than three hundred charges of rape, fondling, oral copulation and other abuse, much of it ritualistic and done in tunnels under the preschool. The charges were lodged against Buckey, his mother Peggy McMartin-Buckey and five other women who worked at the preschool.

By January 1986 charges against all except Ray Buckey and his mother had been dropped due to lack of evidence. In January 1990, after a thirty-three month trial, the jury found the pair not guilty on fifty-two counts, but remained deadlocked on twelve other counts against Ray Buckey and one against his mother. Although the judge dismissed the lone remaining count against Peggy McMartin-Buckey, Ray Buckey was retried. When the second trial resulted in a hung jury, prosecutors decided not to try the case a third time and the legal case was over, seven years after it had begun (State v. Buckey, 1990). The case had cost \$16 million to prosecute, left children and parents feeling abandoned by the legal system, created lingering clouds of suspicion over the heads of the accused, and generated questions about the practices of both the legal and child protection communities.

THE DIG

In 1993 archeologist E. Gary Stickel reported the findings of his dig on the preschool property (Stickel, 1993). Although it was not stated specifically in his 187-page report, evidently Stickel had been hired by parents of the preschoolers who felt that prosecutors had not sufficiently investigated the children's claims of tunnels under the preschool. While it was true that there were no tunnels evident upon investigation of the property, some of the parents believed that the children's reports of tunnels should be investigated further. This was because, as Stickel rightly pointed out, the site may not have been properly secured by the police.

The defendants had maintained access to the preschool for more than a year after the initial allegations had come to light. Some parents believed that the defendants could have filled the tunnel spaces by gradually bringing in dirt in small amounts so as not to have been noticed. It was thought that an archeologist, trained in soil compaction and artifact analysis, could best determine whether there had ever been tunnels under the preschool.

Stickel's dig was conducted from May 8 to May 31, 1990. His conclusions were stunning. "The most substantial evidence for a tunnel was discovered under the north (E/W) axis of the preschool. The apparent entrance was located under the west wall of classroom #4...the signature of the entrance was clear and it was clear that it had been filled back in with soil and debris...Beyond the entrance, this

northern tunnel meandered under classroom #4 and then under most of classroom #3..." (See Figure 1.)

The tunnel was indicated by many factors, according to Stickel. These included distinctive soil color, soil texture, soil compaction, the "human sized architecture" permitting passage, presence of an earthen roof, possible shoring, and the presence of a great number (1603) of artifacts found "densely intermixed in the artificial fill within most of the tunnel."

Archeologist Stickel concluded, "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 reports made by the children regarding the site" (p.96). This was powerful verbal behavior whose controlling variables are of interest.

Clearly, one set of controlling variables came from beneath the preschool. The soil had been disturbed. The artifacts Stickel found in the soil included bones (cow, pig, dog, rabbit, rodent, reptile and others); a plate on which were drawn three stars ("pentagrams"); many old bottles and tin cans, "dating mainly to the 1930's and 1940's" (p.92); metal pipe connector straps likely manufactured after the preschool's construction in 1966; a small piece of what was probably a sandwich bag that was decorated with Disney figures and was manufactured no earlier than 1982; the mailbox of the person who owned the property from 1942 until 1972; four large containers filled with trash; a slight arch to the underside of the preschool's concrete foundation, "...at the precise width of the passage of the tunnel under it...obviously a feature made to accommodate the tunnel..." (p. 92); a geologist's confirmation of a report by the preschool's builder that the soil was compacted at the time the preschool was built, so that any openings found would necessarily date to a time after 1966; and a conclusion that the tunnel feature's roof was so shallow that, had it been a pre-existing tunnel (constructed prior to the building of the preschool) it would have collapsed if anyone had walked on it.

THE ARCHEOLOGIST'S REPORT: AN ANALYSIS

Archeologist Stickel's findings and conclusions appeared unassailable and had spread across the child protection community, uncritically accepted as valid. Indeed, prior to reviewing the report I had heard more than one professional say that the McMartin Preschool tunnels had been found. One of those professionals is a nationally known figure who made his remarks to an audience of several hundred child protection workers at a major conference.

Thus, I obtained a copy of the report and reviewed it. Finishing my review, a more plausible conclusion than that of the archeologist emerged—that evidence of filled-in tunnels had not been found. Rather, Stickel had found a family trash pit of the type that was, and is, often dug on the property of rural homeowners. Often such a pit is dug by hand. Old bottles, tin cans, table scraps, metal objects and other trash are disposed of in the pit. Combustible refuse is sometimes burned in the pit. When the pit is nearly full, a new pit is dug in the space beside the first pit, with its dirt used to cover the first pit. When the second pit is filled with trash it is

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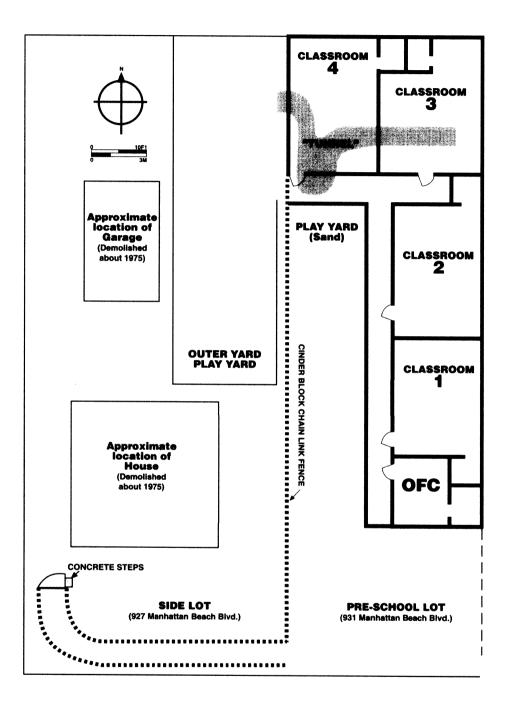


Figure 1. Schematic of the McMartin preschool and vacant side lot, showing approximate locations of the house and garage that were demolished about 1975, the four preschool classrooms, and the "tunnels" area (shaded) beneath classrooms three and four.

then covered with dirt as a third is dug, and so on until, over many years, a string of pits has been dug, each filled with trash, and covered with a thin layer of soil. This string of covered pits might later give the appearance of having once been a tunnel. This, most likely, was the archeologist's discovery.

As I reviewed Stickel's report there were many details, large and small, to support the conclusion that Stickel had found a string of old trash pits, rather than tunnels. First is the history of the property itself (p. 26). Originally the lot on which the preschool later was built (931 Manhattan Beach Boulevard) was vacant, and a home and detached garage were next door (927 Manhattan Beach Boulevard). Records show that the home and garage stood at least as early as 1928. The house and garage property, and the vacant side lot that would later contain the preschool, were purchased by a Mr. Mark Morris in 1942. The area was rural, as evidenced by the presence of a septic tank. City trash pick-up most likely was not available.

The preschool building was constructed much later, in 1966. The lot containing the original house and garage was sold by Morris in 1972, and a demolition order was obtained for the house and garage. The new owners, Mr. & Mrs. Clifton Warren, re-sold the property in 1975 to a Mr. Goldstein who allowed the preschool to use the now vacant lot (at # 927) for a play yard. Mr. Goldstein continued to own the property in 1990, at the time of the archeological dig by Dr. Stickel. Thus, the history of the area fits well with the possibility that the "tunnel" discovered by Stickel could have been a rural homeowner's trash pit, in use for several decades from the 1920s to the 1960s, prior to construction of the preschool in 1966.

The contents of the "tunnels" further support the likelihood that Stickel had found an old trash pit. Stickel listed many objects that he found (pps. 54, 70, 75). These included sections of boards, wood fragments, a variety of metal objects, an inner tube, numerous bottles, TV antenna wire, tin cans, scissors, eye glasses, exposed film, cinder blocks, plywood, tar paper, roofing nails, four trash-filled pots (three of metal, one of crockery, the largest about fourteen inches tall, all in disrepair), a one-gallon glass food jar, 35 to 40 rusted tin can fragments, a crockery lid, an old medicine bottle, various glass fragments from a large jar, a small "pestle-like stone," a rusted metal rod, and 60 to 70 rusted metal can fragments.

It is unlikely that the McMartin defendants would have brought in that amount and variety of refuse. Much more likely is that there were no tunnels. Further support for the trash pit theory is found in an analysis of the bottles found in the debris. The analysis was done by members of the South Bay Antique Bottles and Collectibles Club at the archeologist's request. Club members concluded that all of the bottles dated from the 1920s through the 1950s (up to 1960) with the majority from the 1930s and 1940s (p. 141), during the decades when the Morris family and the earlier owners would have disposed of them there.

There are other reasons to think that this was a trash pit. In the "tunnel" were found many animal bones. These do not confirm the children's reports of satanic animal sacrifices. The bones were sent by archeologist Stickel to Dr. Charles Schwartz for a zooarchaeological analysis. Dr. Schwartz issued reports to Stickel on June 2 and June 15, 1990. He found that the bones came from chickens, pigs,

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dogs, birds, and cattle. All were *adult* animals at the time of death. While it is conceivable that the smaller animals could have been sacrificed during satanic rituals, it is unreasonable, based on Stickel's report of the size and height (about four feet at the "entrance") of the "tunnels," to think that adult cattle were sacrificed there. Moreover, Dr. Schwartz concluded (p. 17 of his report, attached as p. 138, Appendix I.4, to Dr. Stickel's report) that the bones represented food remains and that the cuts were standard butcher's cuts that had been made with a band saw, a finding that is inconsistent with ritual sacrifice. Thus, the bones fit a scenario of trash that included food remains, in addition to the cans, bottles and the like described above, all tossed into the pit either by the Morris family or the family that earlier had lived on the property, all prior to construction of the preschool in 1966.

Three other artifacts found in the dig initially seemed at odds with a trash pit scenario. Discovery of the three items seems to have been a particularly powerful controlling variable in establishing Stickel's "tunnels" conclusion. That is because these items had been manufactured *after* construction of the preschool building. Thus, the three items had to have found their way underground after construction of the school in 1966. The items were a fragment of what was likely a fold-top sandwich bag, decorated with Disney characters and dated "Disney class 82-83," and two metal plumbing pipe fastener clips whose date of manufacture was probably after 1966. But reliance on these as evidence of surreptitious tunnel fill by the defendants is dubious because alternative explanations for the presence of the three items are readily available.

First, it is likely that the bag fragment was carried underground by a squirrel, gopher or other burrowing rodent. This activity, known as bioturbation, is common and was noted by Stickel (p. 39) in describing how, *elsewhere* in the dig, a "snack-sized cellophane wrapper" that he discovered might have found its way underground. It is unclear why archeologist Stickel did not apply a similar analysis to the Disney bag's presence, slightly more than two feet underground beneath the edge of the preschool building.

Second, the pipe joint clips were found on a pipe connected to a toilet in classroom # 3, in the general "tunnel" area about two feet below ground, not far from the building's side wall. Because Stickel found no opening through the concrete floor that would have enabled a human to have placed the clips on the pipe, the presence of the clips appeared to fit his hypothesis that a room or tunnel had existed beneath the floor. Evidently Stickel did not consider the possibility that a plumber might have dug inward from outside the building and down just enough to repair malfunctioning plumbing. Given that the classroom floor was concrete, a plumber (and the building's owner) likely would have preferred an outside route, rather than use of a jackhammer to tear through the classroom's concrete floor.

Several others of Stickel's findings that initially seemed to support the presence of a tunnel also have more plausible explanations. For example, there had been talk of an alarm system by which a perpetrator in the school could have been warned that a parent had arrived unexpectedly. Stickel reported finding an alarm system running from room to room throughout the classroom building. One of

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Stickel's project staff members, Ted Gunderson (p.155, Appendix I.6), noted that, while a child easily could have reached the classroom light switches, "...the 'fire alarm' switches were out of a child's reach in every case and were all about 4 ft. 6 in. above the floor." Implied was that conspirators could have warned each other, including conspirators below ground, on occasions that parents arrived unexpectedly at the preschool, while children could not have reached the switches in futile efforts to get help. More likely, however, is that the alarm switches were placed relatively high on the walls because staff did not want children to set off false fire alarms. The archeologist seems to have considered neither this ordinary reason that fire alarm switches had been placed relatively high on the wall, nor why the switches had been connected to a bell whose location was outside the preschool's front office door where parents and others entering the building surely would have heard the alarm's ring. Thus, the benign placement of wall switches seems to have been interpreted by Stickel as evidence of wrongdoing, while at the same time the exculpatory implications of the bell's location were not addressed in the archeologist's report.

Such oversights are common in human experience. Psychologists have coined the mentalistic term "confirmatory bias" to explain a phenomenon in which one notices data which seem to confirm one's hypothesis, and ignores (or does not see) data that tend to disconfirm that hypothesis.

A BEHAVIOR ANALYTIC ANALYSIS

However "confirmatory bias" is merely a descriptive term—one that is often erroneously taken as an explanation of the behavior that it only describes. "Confirmatory bias" does not tell us the causes of Stickel's, or anyone's, actions. We may, however, list several possible explanations, and we may do so in functional analytic, behavioral terms.

A functional analysis begins with a clearly defined behavior, in this case an archeologist's evident consideration of only a single hypothesis (tunnels) that could have accounted for any unusual findings under and within the school. A close inspection suggests antecedent variables that may have set the occasion for his conclusions, erroneous though they evidently were.

First, an emotionally charged group of parents approached the archeologist and described to him the kinds of activities they believed had occurred with their children. That the parents were emotional is evidenced by their own efforts to start a dig on the property prior to hiring the archeologist. The effect on a listener as people describe events that they are certain to have occurred tends to be persuasive. This was probably an important antecedent variable in shaping Stickel's conclusions.

Second, the 1980s and early 1990s were times in which many members of society, including many professionals, believed that statements from the "mouths of babes" must be true, particularly statements regarding abuse. It was thought that children could not possibly fabricate such tales. However, there is now a fairly large and growing body of research to discredit that assumption (Ceci & Bruck,

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1995). Much of that research has emerged since the early 1990s. It shows that many young children may easily become convinced of both the central element of an event (such as sexual abuse) and peripheral details (such as where it occurred), even though the event never happened. This was not well known at the time of the archeologist's report. Moreover, some who suggested that the children had not been abused were subject to community disapproval as the McMartin case played out. Surely Stickel was aware of that, even as he (and most of the professional community) was unaware of the ease with which suggestive interviews with preschoolers may yield false reports of abuse.

Third, direct observation of behavior is clearly the preferred method of understanding it (e.g., Cone & Hawkins, 1975). Post-hoc verbal reports of eyewitnesses are frought with the disadvantages of perspective and intervening experience (e.g., Loftus, 1996). The nature of archeology as a discipline is to look back. Attempts to describe behavior of individuals whom one has never directly observed, and from whom there exist no written memoranda, photos, or the like, is risky. Thus, the nature of archeology tends to preclude direct observation of behavior, a factor that contributes to error when assumptions about behavior are then made.

In addition, there likely were consequent variables that influenced the archeologist's opinions. He may have received praise from parents and other members of the community as he reported his progress. Skinner (1974) described "operant seeing" essentially as the phenomenon in which we tend to "see" that which has earlier reinforced our observations. A young man may mistakenly "see" his lover across a room, only to approach and then discover that it was not her. A police officer may shoot at a suspect because he "sees" a gun in the suspect's hand, only to discover later that the "gun" was a portable phone. Paranormal enthusiasts "see" all around them evidence for the existence of alien UFOs, notwithstanding the fact that existence of beings from outer space has never been verified (though many claims have been debunked).

Probably that is what occurred as Stickel and his staff investigated the preschool. They "saw" what was not there. Another example of operant seeing occurred above ground. In appendix V.3 (p. 181) Stickel discussed the door to classroom # 3, which always stood open because it had no knob, and which was located above the area of the "tunnels." Stickel wrote, "Several parents remembered that when they were present at the school during operating hours, the door had always stood open. One mother with a two-year-old son, who was not enrolled at the preschool, stated that whenever she would visit, the baby would run into the vacant room and reach for the children's paints and brushes. The baby did this several times and each time the director would scold the mother and tell her it was not safe to let the baby go into the room because there were too many things he could get into. Yet the door was never closed" (p. 181). Implied by Stickel is that the director was attempting to prevent the toddler and its mother from observing abusive activity or other evidence of abuse. Thus, an open door was taken as evidence that abuse might have been happening. That interpretation likely was both initiated and reinforced by the parent as Stickel talked to her.

CONCLUSIONS

No tunnels have been found under the floor of the McMartin Preschool. More likely is that a rural homeowner's common trash pit, filled in and covered over, has been mistaken for a tunnel. How was the archeologist able to reach his conclusion that tunnels once had existed? Why had he evidently failed to give adequate consideration to the trash pit hypothesis?

The archeologist's training and experience likely suggested to him that all hypotheses that could have accounted for his data should have been considered. However, more immediate variables such as parent and community approval were probably powerful enough to intrude upon his earlier training.

That Stickel was digging with a single hypothesis and was interpreting his findings only in ways to confirm that hypothesis also seems probable based on his stated purpose going into the dig. "This project was different in that the goals of the project were highly restricted to search for the reported tunnel(s)/room(s) and to recover any other data relevant to the aberrant behavior reported by the children" (p. 35). And elsewhere, "The data we encountered from that point on constituted the remains of a tunnel (i.e. the data conformed to all of the test expectations of a tunnel as proposed by the project hypothesis...)" (p. 52).

A better project hypothesis would have been to uncover and analyze the findings of the dig, period. That might have led to an effort (none was reported) to locate members of the Morris family, or other families, who might have had knowledge of whether a trash pit had ever existed on the lot. It might have led to the conclusions that the Disney bag fragment could have been put there by burrowing rodents, that the pipe joint clips were the result of standard work by a plumber who wished to repair a pipe without destroying a concrete classroom floor, and that there was nothing unusual about either the placement of fire alarm switches or about a classroom door that routinely stood open.

Pursuit of a single line of thinking can lead to an hypothesis myopia in which one responds one way to data that support one's hypothesis, and responds differently to data that conflict with it. An example is the archeologist's conclusion regarding the findings of Ground Penetrating Radar (GPR) at the site. GPR sends down a signal which detects buried solid features such as walls. Stickel described GPR as, "...the most suitable instrument to use at the site in question..." (p. 88) and he contracted with a commercial firm, Spectrum, of San Fernando, to conduct the GPR tests.

Evidently after chatting with Spectrum staff at the time of their tests Stickel reached his conclusion about the test results. He wrote, "Thus the GPR was successful in detecting the main tunnel at the locus of the dividing wall between the two classrooms" (p.88). However, that description of the GPR findings differs from the written findings of Spectrum's Donald J. Kirker, Project Manager who conducted the preschool GPR tests. Kirker's report (attached as Appendix I.7 to Stickel's report) describes north/south and east/west traverses spaced five feet apart inside and outside the preschool building with continuous GPR data along each traverse. The entire results section of Kirker's written report is as follows: "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" (p. 161).

There is more to the archeologist's report, but little that would support the existence of tunnels. There was, however, one other item found "in the middle of the tunnel" (p. 62) that provides powerful evidence of a trash pit. It was the Morris family mailbox. Stickel (p. 62) described it as about 19 inches long, 6.75 inches wide and 9.5 inches in height. On its side was painted "Mr. and Mrs. Karl Morris" and "927 M. B. Blvd." This was a standard rural roadside mailbox with a rounded top and a mail pick-up flag indicator. The flag was missing but the flag holder was there. Perhaps the mailbox had been discarded because the flag had broken off. One must ask how the mailbox had come to be in dirt that would have been brought in gradually by the McMartin defendants to fill a tunnel where their alleged abusive acts occurred. Stickel did not address this in his report.

Many other questions remain as well. Why would the defendants have brought in fill dirt that included dozens of tin cans, bottles, trash-filled crockery, an inner tube, TV antenna wire, steak bones, animal bones and other such debris? Would Ray Buckey and the other defendants have brought in fill dirt from a dump? If they had gotten their fill dirt from a dump, what are the odds that its contents would exactly date from the 1920s to the 1950s when the earlier homeowners would have been dumping their household trash? What are the odds that they would have obtained their fill dirt from a dump that would have contained the Morris family's mailbox? The odds are powerfully against all of that. Rather, odds are that there were no tunnels beneath the McMartin preschool and that what was found was an old trash pit, nothing more.

The thinking of a cadre of true believers continues to remain under the control of the lore that children could not be wrong about abuse, could not be led to believe that abuse occurred when it had not. And they believe this in spite of research on child suggestibility. They continue to assert their belief that, indeed, many children were abused at the McMartin preschool, with some of the abuse occurring in tunnels. They believe it notwithstanding the failed prosecutions, the absence of incriminating hard evidence, and the use of questionable interviewing techniques such as multiple interviews and leading (to the point of coercion) questions by child abuse investigators. At least now this much is known, if any abuse took place at the McMartin preschool, it was not done in tunnels, because there were none.

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