



By Laura Billon, MFS, CFI

“No Man Has a Good Enough Memory to Make a Successful Liar”

- *Abraham Lincoln.*

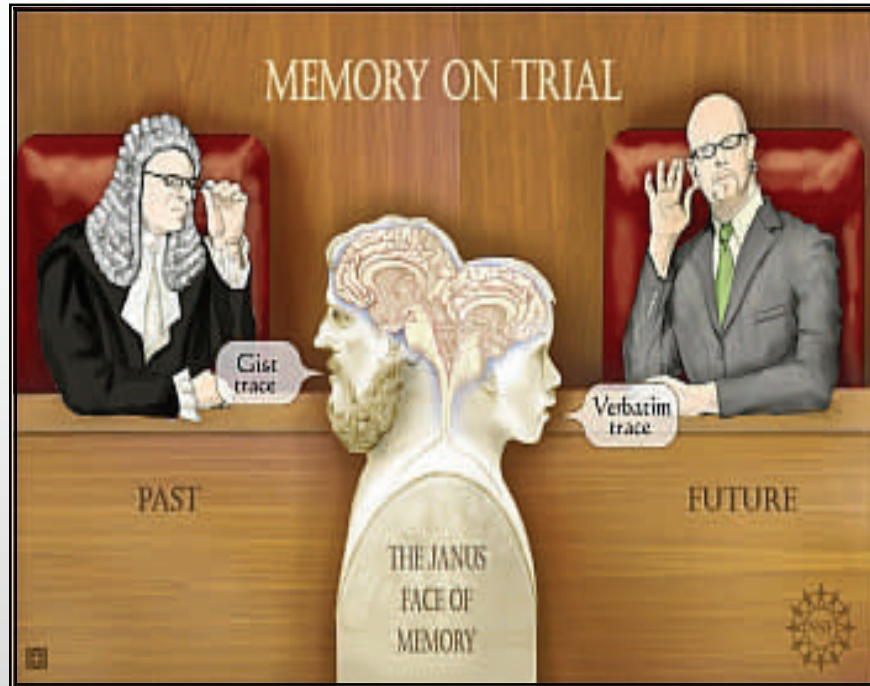
By now the case of Ronald Cotton is criminal justice lore. His story of being convicted twice on two counts of rape and burglary are well known history. His sentence of life, plus fifty-four years, in addition to evidence not previously submitted, was not at all troubling to the North Carolina Supreme Court, and his conviction was affirmed. Ten years after said conviction, DNA evidence, the genetic fingerprint we all possess, taken from one of the victim's vaginal swab and underwear showed no match to Ronald Cotton. Instead, the North Carolina State data base containing DNA patterns of violent convicted felons clearly showed a match to another inmate who had previously confessed to the crime.

On so many legal dramas shown on television and in the movies today, a riveting moment to the judge, jury and certainly to us, the viewing public, is when the witness is asked, “Can you identify the person who committed the crime here in the courtroom today?” That brief iota when the witness points and positively identifies the defendant is breathtaking and powerful all at once and leaves a lasting impression at the conviction with which it is done. It will resonate with the jury long after the witness steps down.

How is truth defined? In the many disciplines of law enforcement when interviewing an individual, the truth is defined as that which the person being interviewed believes to be true. Conversely, fallacy, or a lie is anything that the person being interviewed believes to be contrary to said truth. We are tasked with exonerating the innocent and identifying the guilty. But what happens when the lines between truth and falsehoods are not clearly delineated, the lines of demarcation blurred together? If one relies on their memory for answers, can we presume that the memory is based upon fact, or is there much more to this story?

As investigators or detectives arrive on the scene of an incident, one of the first responsibilities, in addition to conducting a scene investigation, is to ascertain witness statements as to what occurred. Research has shown that of all the evidence gathered at a scene, one can utilize the 80/20 rule: eighty percent of the evidence gathered from an investigation comes from witness interviews; while only twenty percent is attained from forensic evidence (DHS, II&CT). Like cross-contamination of forensic evidence, in which evidence from one scene investigation can contaminate or

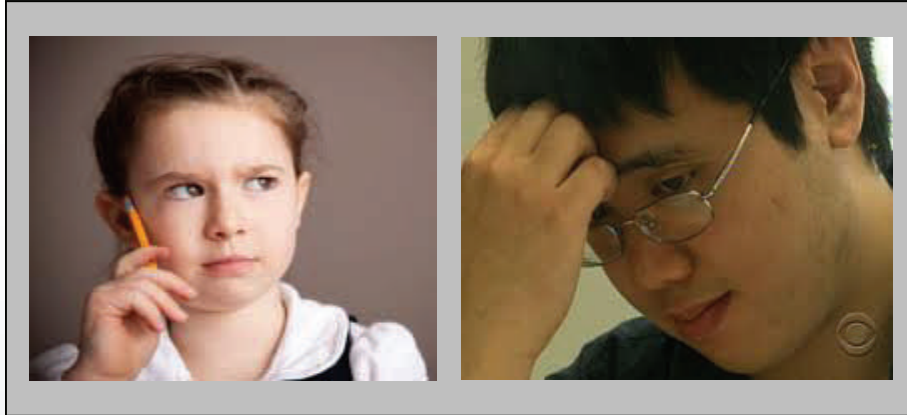
“A false memory is the recollection of an event, or details of an event, that did not actually occur.”



Credit: Zina Deretsky, National Science Foundation.

compromise another subsequent investigation, a witness can have their memory contaminated by another through simple confabulation. Dr. Helen Paterson from the School of Psychology at the University of Sydney, Australia said that sharing memories can contaminate a person’s recollections and create false memories. When discussion takes place between two witnesses at the same event, often misinformation can be influential to memory distortion. “Witnesses who discuss an event with a co-witness are very likely to incorporate misinformation presented by the co-witness into their own memory of the event. Once their memory is contaminated in this way, the witness is often unable to distinguish between the accurate and inaccurate memories.” (False Memories are Common, University of Sydney, Australia) This is one of the predominant reasons it is imperative to obtain a witness statement as soon as possible after an event occurs, and it is common, if not all but necessary, to separate witnesses, especially couples when taking their statements of account of the event as they recall it happening.

The National Science Foundation released an article that stated that an adult is a less credible and effective witness than a child over the age of three. They opine that a child is actually a more reliable witness than an adult. This is due, it is stated, based upon significant research conducted by two professors from Cornell University who presented an argument that memory is captured and recorded in two separate areas in the brain.

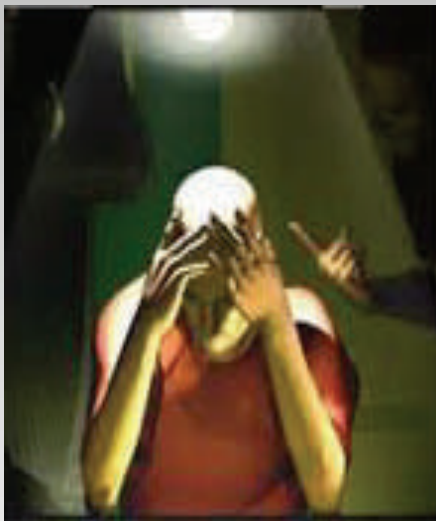


A child is heavily dependent upon the part of the mind that records “something that happened”, an event that occurred; whereas an adult is dependent upon the part of the mind that records “the meaning of what happened”. Due to this differentiation between the two areas in the brain, it is believed by the National Science Foundation, that adults are more likely to incorporate or be susceptible to the formation of false memories which can be hugely problematic when a witness testifies in court (Memory on Trial, National Science Foundation). This assessment contravenes current legal tenets in which the law has shown an advocacy towards adults, with the presumption being that children are more likely to possess false memories. “Because children have fewer meaning-based experience records, they are less likely to form false memories, but the law assumes children are more susceptible to false memories than adults,” says researcher Valerie Reyna of Cornell University. It is less likely that children will produce false memories as they are slower to take away meaning from an experience and analyze the experience. Research shows that false memories are the result of meaning-based memories. For this reason, adults are more likely to produce the false memories and children will prove to be more reliable and provide accurate accounts of an event when questioned. The National Science Foundation funded thirty follow-up studies after this research. These additional studies affirmed the likelihood of children being more reliable as witnesses due to the area of the brain that is being utilized.

Investigators are taught to read and assess individuals. They are taught to interpret body language, they are taught to identify verbal and non-verbal cues during an interview, to look for indicators of deception, and to recognize that a study utilized widely around the country, commissioned by Xerox, showed that only seven percent of all communication is verbal, the rest is non-verbal. Investigators are taught that when they are seeking the truth they can lie to establish a rapport with an individual. Investigators are taught that communication with others is paramount, if not the most important thing we do in the course of an investigation. An investigator may be the greatest manager, organizer, analyst, report writer, etc. but if they cannot relate to others and relate well, they will not be successful in obtaining the desired information. Investigators are tasked with obtaining the truth. Gone are the days when the phrase, “He gave me a signed statement – so it must be true,” is acceptable. Investigators must identify the veracity of a given statement and

if said information can be used in the course of the investigation. It is the truth that is being sought, but more importantly, is why an individual believes the information to be veridical.

Perception is one's reality and that perception of truth is greatly influenced by a set of fixed factors: an individual's age, health and well-being, relationships with others, etc. Changing one's perception can be extremely difficult, if not impossible, as their perception is their reality, their truth, and you cannot convince them otherwise. As an example, if four individuals are at four separate corners of an intersection where an accident occurs, each of the four will provide you with very different perspectives of what it is that they witnessed. One story is not necessarily more accurate or true than the others. The question is why the individual believes the information to be true and accurate. Did they see the incident themselves, did they hear it from another witness, participant, passerby, and if so, have their memories been created utilizing misinformation and contamination? As with any interview, the longer time period that elapses after the occurrence of an incident until the time the individual is sharing their recollection, the story may change. This is often due to details being forgotten or memory being distorted or contaminated by the fabrication with other witnesses. When these indicia are provided from another's perspective, often they will be adopted into the witness's own account until they no longer can decipher what is their own accurate memory and what is not. As new details are presented and taken in, it becomes gradually accepted and incorporated into the original memory and this perspective is unwavering.



In Neuroscience and Nature world renowned memory expert, Dr. Elizabeth Loftus, wrote in "Our Changeable Memories: Legal and Practical Implications" "The malleability of memory is becoming increasingly clear. Many influences can cause memories to change or even be created anew, including our imaginations and the leading questions or different recollections of others. The knowledge that we cannot rely on our memories, however compelling they might be, leads to questions about the validity of criminal convictions that are based largely on the testimony of victims or witnesses." (Loftus, E. Our Changeable Memories)

Reviews, Dr. Elizabeth Loftus, a expert, wrote in "Our Changeable Implications", "The malleability of memory is becoming increasingly clear. Many influences can

We have all heard of the convicted murderer, rapist, arsonist, burglar, etc. that when convicted of a crime is sentenced to many years in prison and immediately recants their confession. When asked why they confessed to a crime they did not commit, they state that they simply wanted the interrogation to end and that the police had them believing things that they now know to be false. An attorney who was falsely accused of committing heinous crimes in New York said this of the victims: "They were so intelligent and convincing that they almost made me believe I did it." He was exonerated when another man confessed to the crimes of which he had been charged.

As previously mentioned, law enforcement officers are legally permitted to lie in course of conducting an investigation. Research has shown that false memories are often implanted when an event, situation or false evidence are offered up as part of a story. In training, it is not

uncommon for an investigator to be taught to use example phrases such as, “You know, I have been doing this a long time, and my experience has shown me that eighty percent of the time when I hear stories like the one you are trying to fool me with, it is only a matter of time before you come clean and admit that you raped that woman and stole her jewelry...” Additionally, corroboration with forensic evidence and other witness statements offer up a powerful tool that often people will not refute. It is figured that if others are saying something or they are told that the evidence clearly shows their guilt, it is not uncommon for a false confession to ensue. In a study conducted by Saul M. Kassin and Katherine L. Keichel, at Williams College, individuals were falsely accused of damaging school equipment. Of course, being innocent of such a thing, they vehemently denied any wrong doing. However, that changed when other colleagues came forward and said that not only did the individuals damage said equipment, but that they had seen them do it. After this corroboration, some of the innocent participants not only signed a confession; they revealed internal feelings of shame and guilt and continued describing in detail how the damage had occurred. It was clearly identified how false incriminating evidence can cause an innocent person to accept blame and subsequently suffer with internalized guilt over something they did not do. This study was covered in Psychological Science in the article, “The Social Psychology of False Confessions: Compliance, Internalization, and Confabulation,” by Kassin and Keichel.

This poses huge ramifications to the law enforcement community as interview techniques often include leading a witness with false forensic evidence or false corroborative witness statements. Leading statements can often contaminate a witness’ recollection of a certain event, and if the witness



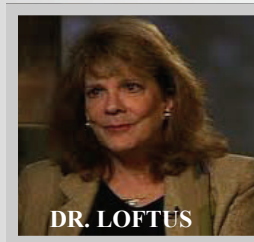
is showing difficulty remembering certain details, this is where the planting of false memories is ideal, for they do not possess the wherewithal and accuracy to refute said details. The Sunday Times of London, in their article, “You Can’t Trust a Witness’ Memory, Experts Tell Courts,” by Francis Gibb, states, “In the criminal justice system, witness’ memories of events might be influenced by the way they were questioned.” Inaccurate information can greatly influence people’s memories when they are persuasively interviewed or hear other accounts of said incident. A grave, but famous case highlighting such techniques is documented in a book entitled, Spectral Evidence, The Ramona Case: Incest, Memory and Truth on Trial in Napa Valley, by Moira Johnston. The case involved a girl, Holly Ramona, from Northern California, who began attending college at the University of California, Irvine. She was suffering from depression and bulimia and sought therapy. Upon her first session, she was informed by her therapist that seventy to eighty percent of individuals suffering from bulimia had been sexually abused as a child. Within days and at the encouragement of her therapist, Ramona began to remember continuous childhood incest by her father. When she confronted her father, he denied everything and refused to atone or seek therapy for

something he did not do. Subsequently, she became the protagonist in a huge therapeutic malpractice suit in California, raising alarming inquiries about the theory of recovered memories. The jury in the case found that Ramona's memories of incest by her father were false, and that her therapist was liable for malpractice due to her reinforcement of such erroneous claims, and encouragement for Ramona to confront her father and ultimately sue him for damages. Ramona's father achieved the unprecedented right to sue his daughter's therapist and was awarded half of a million dollars in damages. He lost his wife over the allegations and his highly paid executive job within the wine industry. A lawsuit against her father by Ramona was summarily dismissed and found to be groundless by the court. (Edward Greer, Spectral Evidence Book Review, Boston Review.)



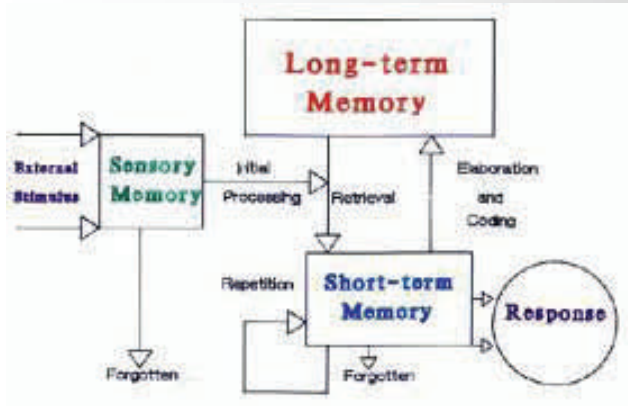
In 1995, Dr. Loftus and Jacqueline E. Pickrell conducted a study that reverberated throughout the scientific community. A large group of participants were provided narratives of various childhood experiences and asked to recall and reflect upon said events. Participants were under the belief that the incidents were accurate and had been relayed through stories by their own family members. In fact, one of the events was a pseudo-event that never actually occurred. The participants were told that they had been lost in a shopping mall as a child of five or six years old. The story included details regarding the extended time period, crying, comfort from an elderly woman and ultimately,

the reunion with the family. Over the course of a month, the participants were interviewed several times. By the end of the experiment, twenty-five percent of the group was revealing memories of the pseudo-event in their childhood, many offering embellishments to accentuate their stories. (Loftus, Pickrell, 1995.) Repeatedly recalling an event a certain way can be extremely difficult to correct once an individual is confident in their memory. False memories and erroneous recollections such as these become planted in one's memory and can fool a judge, jury and even the witness themselves. False memories can be vivid and offered with confidence, details of events and in extreme cases, explicit details of events that never occurred.



In an article entitled, "Creating False Memories," Dr. Loftus writes about four cases in which four individual women recalled memories of traumatic abuse as children while attending therapy. Later, each woman recanted the authenticity of said claim. The psychiatrists were sued and large settlements were awarded to the victims who had been led to believe that they had been abused. One of the cases in particular, had memories so explicit, that a young woman, under her therapist's guidance, recalled becoming pregnant twice by her father and aborting one of the fetuses herself with a clothing hanger. A post therapy medical exam revealed that not only had the woman never been pregnant, but that she was still a virgin. Dr. Loftus has since conducted studies of over 30,000 individuals to show how memory distortion is greatly influenced by misinformation, contamination, and the deterioration of memory as time goes by.

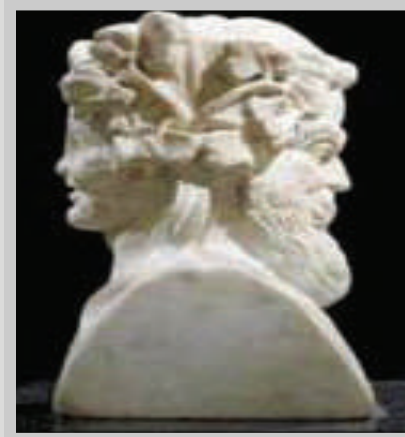
Case histories within the field of science and law enforcement can be extremely enlightening as to theories of motives or behaviors.



However, it is paramount to recognize the limitations of one study and not accept small samplings that are then assessed generally. There are extreme hazards to acceptance within the scientific community of utilizing only one case study. This can be due to multiple limitations including, but not limited to, a one sided presentation and bias. An investigation was conducted by Melvin Guyer and Elizabeth Loftus in response to a long standing case study involving a young girl named Jane Doe that had been used around the world in support of recovered memories. Their ultimate conclusion repudiated almost every theory presented in this case. The study was entitled, "Who Abused Jane Doe?" and in it, the authors stress the importance of the scientific community only utilizing one case history and how misleading that can be. The Jane Doe case involved a young girl, who at the age of six was videotaped by a psychiatrist at the behest of her father alleging allegations of sexual abuse by the mother. In the video she reported being sexually abused by her mother. Eleven years later she was re-interviewed on video in which she had no recollection of said abuse occurring, and then while on video, she suddenly did. Her psychiatrist and his colleague were convinced that this irrefutably showed how disassociation (previously known as repression) can be recovered through therapy. Further scrutiny of the report showed extreme bias in the assessment and a great deal of information that was not only omitted, but

blatantly ignored, and said information could have had a huge impact on the conclusions reached as it presented an extremely different picture of the environment in which Jane Doe resided. The report stressed the importance of the totality of the circumstances and stressed the review of all avenues before rushing to judge. This case study of the case study of Jane Doe showed the original to be vituperous at best, and included statements from various experts within the field of mental health. The very abuse cited as occurring in this situation is questioned so much based on the evidence that one is left wondering if any abuse actually occurred at all.

Investigators and scientists are tasked with applying the scientific method in their investigations;



a process that when applied correctly – developing a theory, establishing a hypothesis, testing said hypothesis to reach a conclusion, and having the test reviewed by one's peers – would eliminate

the "junk science" phenomenon that has been prevalent throughout the courts over the past few decades. The Jane Doe case highlights the need for meeting the standards established by the Supreme Court Decision, *Daubert vs. Merrill Dow*, as the Jane Doe case resulted in a disputatious response by clinicians worldwide with battle lines drawn for and against the arguments presented. As far back as the eighteen hundreds doctors of applied psychology questioned the accuracy of one's memories. In his book, *On the Witness Stand*, Dr. Hugo Munsterberg, in 1908 wrote, "Justice would less often miscarry if all who are to weigh evi-

dence were more conscious of the treachery of human memory. Yes, it can be said that, while the court makes the fullest use of all the scientific methods when, for instance a drop of dried blood is to be examined in a murder case, the same court is completely satisfied with the most unscientific and haphazard methods of



common prejudice and ignorance when mental product, especially the memory report of a witness, is to be examined.”

Witness testimony is no different when the ability to look at an individual clearly and openly is lost due to bias and a narrow focus. Consider if you will, asking a witness to accurately recall a crime that was committed against her. If she saw the perpetrator at all, it may have been very briefly, whether up close or from a distance, in the dark, while experiencing extreme, undue stress. All of these conditions will inhibit her ability to clearly see him and to later make a clear identification. Her perception is shaky at best and if that is her reality, chances are she will be less than unequivocal in her identification. Memory is difficult to decipher in any situation, made up of both fact and fiction to form a reality. Witnesses can be wrong in their identification for many reasons, such as memory contamination, stress and anxiety, and hearing other statements or perspectives. As mentioned previously, it is not uncommon for experiences to blend with another’s so that the reality and accuracy is blurred. Memory will fade as time goes by and become more easily susceptible to outside influences. Once someone’s memory has become distorted or influenced by outside contaminants, it is virtually impossible to separate the facts from their new reality and they stand committed to their statements. The Innocence Project cautions against focusing so much on gathering evidence against a person that may be innocent, while the actual perpe-

trator gets away unscathed. According to the Innocence Project, “Eyewitness misidentification is the single greatest cause of wrongful convictions nationwide, playing a role in seventy-five percent of convictions [that are] overturned through DNA testing.”

So how many convictions that are based upon identification are influenced by memory contamination and distortion? Although much of the research being conducted focuses on false memory and witness identification in terms of convicting the innocent, distorted memories is also a contributing factor when we fail to convict the guilty. This can occur when a witness’ testimony is accurate but undermined by being presented with evidentiary testimony in which their story conflicts. This can lead to a lack of confidence in the witness and could be viewed as less than persuasive to the judge and jury.



RONALD COTTON

In the case of Ronald Cotton and Jennifer Thompson, Thompson was convinced Cotton was her rapist and admitted in her interview that her main goal while being raped was to survive so she could “get the man that did this to her.” As the Innocence Project states and has proven through years of study, how victims participate in suspect line-ups and photo reviews are greatly influential to one’s memory. Jennifer Thompson focused on Ronald Cotton based on the fact that he loosely matched her description

of her perpetrator. In her mind that perception was her reality, so much so, that when the actual rapist was sitting in front of her in a courtroom, she had no recollection or awareness of him. Her mind was focused on Cotton and as a result, her memories molded around that belief. When DNA tests proved otherwise, she was horrified and has spent years since atoning to Cotton and speaking out against witness misidentification and memory distortion. After sitting in prison for over ten years, Ronald Cotton was given five thousand dollars from the state of North Carolina and a full exoneration.

We have a duty to protect the citizens of our nation. Theoretically, we are all innocent until proven guilty. The burden of proof is on the prosecution to prove one's guilt beyond a reasonable doubt, but when emotions become involved it seems that the seeking of justice is forfeited for the seeking of revenge. It would not only be critically beneficial, but imperative for the law enforcement community and mental health professionals to recognize that they are working towards the same goal of exonerating the innocent and identifying the guilty, of ascertaining the truth. Their influence on one's ability to recollect details of events as they occurred in one's life could be all that is needed to solve so many unanswered questions.

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