IN THE COURT OF COMMON PLEAS

TRUMBULL COUNTY, OHIO

STATE OF OHIO,	)	**CASE NO. 85-CR-317**
	)	
Plaintiff/Respondent,	)	**CAPITAL CASE**
	)	
vs.	)	
	)	
DANNY LEE HILL,	)	
	)	
Defendant/Petitioner.	)	

PETITIONER'S REQUEST FOR LEAVE TO FILE A MOTION FOR NEW TRIAL PURSUANT TO OHIO CRIMINAL RULE 33(B)

Petitioner, Danny Lee Hill, through undersigned counsel, requests leave to file a motion for new trial pursuant to Ohio Criminal Rule 33(B). The proposed Motion for New Trial is attached as Exhibit 10. Mr. Hill has discovered new evidence that was not available to him within 120 days of the trial verdict. The new evidence materially affects Mr. Hill's substantial right to a fair trial as guaranteed by the Due Process Clause of the Fourteenth Amendment. *See Kyles v. Whitley*, 514 U.S. 419 (1995); *Chambers v. Mississippi*, 410 U.S. 284 (1973).

At trial, the state adduced evidence that there was a bite mark on the victim's penis that matched Mr. Hill's dental impressions. The prosecution offered the testimony of Dr. Curtis Mertz, who claimed that based on a comparison between the marks left on the victim and the dental impressions taken of Mr. Hill, he could conclude with a reasonable degree of scientific certainty both that the marks were indeed a human bite mark, and that Mr. Hill was the individual who bit the victim's penis. Although defense counsel called a rebuttal expert, Dr. Lowell Levine, that

expert merely testified that either Mr. Hill or the co-defendant, Timothy Combs, could have inflicted the injury and did not discredit Dr. Mertz's testimony.

The state utilized this vile testimony throughout the trial to vilify Mr. Hill and persuade the judicial panel so that it would convict him and sentence him to death. The prosecutor used it to inflame the fact-finders' passions ("he destroyed and devoured a little boy") (Trial Tr., Vol. IV, at 1170)[1], to identify Mr. Hill as the assailant to the exclusion of all others, and to secure a death sentence. The prosecution relied heavily on the bite mark evidence. Thus, any new evidence discrediting Dr. Mertz's conclusions would wholly undermine any confidence a court could have in the outcome of Mr. Hill's trial.

New scientific guidelines both generally and as applied to Mr. Hill's case do just that. Recently, the National Academies of Sciences released a report determining that bite mark evidence is unreliable and cannot be validated scientifically. In August 2013, the American Board of Forensic Odontology (ABFO), the organization responsible for accrediting and establishing standards for bite mark analysts, stated for the first time, in its *Reference Manual*, that open-population identification is no longer sanctioned.

Based on these new guidelines and other media that reported it, Mr. Hill's habeas counsel, Vicki Werneke, requested that another forensic odontologist review the bite mark evidence proffered at Mr. Hill's trial. After a review of this evidence, Dr. Franklin Wright determined that the bite mark identification testimony in Mr. Hill's trial was completely unreliable.

More importantly, Dr. Wright worked closely with Dr. Mertz after Mr. Hill's trial. He avers that Dr. Mertz regretted his testimony at the Hill trial and believes he testified in that manner out of sympathy for the victim and possibly pressure from the prosecution and the community.

[1] The trial transcripts are on file with the Trumbull County Court Clerk and available for the Court's review.

(See Report of Dr. Franklin Wright, attached as Exhibit 1). These new scientific developments and Dr. Mertz's own assessment of his trial testimony could not have been produced within 120 day of Mr. Hill's trial. The court should grant Mr. Hill's Request for Leave to File a Motion for a New Trial pursuant to Ohio Criminal Rule 33(B). A Memorandum in Support of this Motion is attached hereto.

Respectfully Submitted,

Sarah Kostick

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Counsel for Defendant/Petitioner
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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing **PETITIONER'S REQUEST FOR LEAVE TO FILE A MOTION FOR NEW TRIAL PURSUANT TO OHIO CRIMINAL RULE 33(B)** was hand delivered to the Trumbull County Prosecutor's Office and to the Honorable Andrew D. Logan on this 14th day of November, 2014.

Vicki Dennis for

SARAH R. KOSTICK
(510) 701-2017

MEMORANDUM IN SUPPORT OF PETITIONER'S REQUEST FOR LEAVE TO FILE A MOTION FOR NEW TRIAL

Under Ohio Criminal Rule 33(B), Petitioner, Danny Lee Hill, seeks leave of this Court to file a motion for new trial based on newly discovered evidence that could not have been discovered within 120 days of the trial verdict.

I. STATEMENT OF THE CASE

On Tuesday, September 10, 1985, 12-year-old, Raymond Fife was brutally attacked and left in a field. His parents had reported him missing a few hours before he was found. The child was found by his father. He died two days later.

Mr. Hill gave several statements to the police over the next several days regarding the case. On one occasion, he traveled to the police department voluntarily; on two other occasions he was transported by members of the Warren Police Department. After hours of interrogation spanning several days, Mr. Hill gave a taped statement and a videotaped statement.

On September 17, 1985, the State charged Petitioner Hill with Aggravated Murder in violation of Ohio Rev. Code § 2903.01(B); Kidnapping in violation of Ohio Rev. Code § 2905.01(A); Rape in violation of Ohio Rev. Code § 2907.02(A)(1)(3); and Felonious Sexual Penetration in violation of Ohio Rev. Code § 2907.12(A)(1)(3). On September 23, 1985, Mr. Hill was indicted capitally on the aggravated murder charge with the aggravating circumstances of kidnapping, rape, aggravated arson and aggravated robbery. Ohio Rev. Code § 2929.04(A)(7).

Following several Motion hearings, Mr. Hill waived his right to a jury trial on January 7, 1986. Trial commenced January 21, 1986, before a three judge panel. The three judge panel found Mr. Hill guilty of all charges except aggravated robbery. The mitigation hearing began on February 26, 1986. The panel sentenced Mr. Hill to death and issued a written opinion as to the

basis for the sentence, which it entered on March 5, 1986. The convictions and sentences were affirmed on direct appeal. *State v. Hill*, 11th Dist. Nos. 3720, 3745, 1989 WL 142761 (Nov. 27 1989); *State v. Hill*, 64 Ohio St. 3d 313, 595 N.E.2d 884 (1992).

Mr. Hill thereafter filed a Petition to Vacate or Set Aside Judgment and/or Sentence Pursuant to Ohio Revised Code Section 2953.21 with this Court. Although Mr. Hill requested discovery, the Court issued its opinion denying the decision without an evidentiary hearing or discovery. Mr. Hill appealed to the Eleventh District Court of Appeals, which affirmed this Court's decision. *State v. Hill*, 11th Dist. No. 94-T-5116, 1995 WL 418683 (June 16, 1995). The Ohio Supreme Court declined to accept jurisdiction to review. *State v. Hill*, 74 Ohio St. 3d 1456, 656 N.E.2d 951 (1995). No application for re-opening the direct appeal pursuant to Ohio Rule of Appellate Procedure 26(B) was filed on Mr. Hill's behalf.

On December 2, 1996, Mr. Hill filed a Petition for a Writ of Habeas Corpus pursuant to 28 U.S.C. § 2254 in federal district court. The district court denied the petition on September 29, 1999. An appeal to the Sixth Circuit Court of Appeals thereafter commenced. In *Hill v. Anderson*, 300 F.3d 679 (6th Cir. 2002), the Court of Appeals issued an order finding the claim regarding whether Mr. Hill's death sentence violated the Eighth Amendment because he is mentally retarded was unexhausted. In light of the Supreme Court's recent ruling in *Atkins v. Virginia*, 536 U.S. 304 (2002), the Sixth Circuit deemed it appropriate and necessary for Mr. Hill to exhaust the issue in state court.

On November 27, 2002, Mr. Hill filed an initial *Atkins* claim in the Trumbull County Court of Common Pleas. A hearing was conducted in October 2004, with rebuttal testimony presented in March 2005. Judge Curran, the visiting judge presiding over the *Atkins* hearing, denied the post-conviction petition on February 15, 2006. An appeal was perfected to the Eleventh District

Court of Appeals, which affirmed the denial on July 11, 2008, with one judge dissenting. *State v. Hill*, 177 Ohio App. 3d 171, 2008-Ohio-3509 (11th Dist.). The Ohio Supreme Court declined to accept jurisdiction on August 26, 2009, with two justices dissenting. *State v. Hill*, 122 Ohio St. 3d 1502, 2009-Ohio-4233, 912 N.E.2d 107. Mr. Hill thereafter filed an Amended Petition in the district court regarding his exhausted *Atkins* claim. The petition was denied June 25, 2014, and is currently on appeal to the Sixth Circuit Court of Appeals. *Hill v. Anderson*, Case No. 99-4317/14-3718 (6th Circuit).

Mr. Hill now requests leave from this Court under Criminal Rule 33(B) to file a motion for new trial under Criminal Rule 33(A)(6) based on new evidence discovered more than 120 days after the verdict.

II. STANDARD OF REVIEW

This Court has jurisdiction to review Mr. Hill's motion for new trial. *See State v. Davis*, 131 Ohio St. 3d 1, 2011-Ohio-5028, 959 N.E.2d 516, ¶ 1. Under Criminal Rule 33(A)(6), a motion for new trial may be based on newly discovered evidence when such evidence is "material to the defense ...[and] which the defendant could not with reasonable diligence have discovered and produced at trial." Under Criminal Rule 33(B), a motion for new trial based on newly discovered evidence must be filed within 120 days of the verdict, unless "it is made to appear by clear and convincing evidence proof that the defendant was unavoidably prevented from the discovery of the evidence upon which he must rely." A new trial motion must be filed within seven days of an order from the trial court finding that the defendant "was unavoidably prevented from discovering the evidence within the one hundred twenty day period." *Id.*

> "A party is unavoidably prevented from filing a motion for new trial if the party had no knowledge of the evidence of the ground supporting the motion for a new trial

and could not have learned of that ground within the time prescribed for filing the motion for new trial in the exercise of reasonable diligence."

State v. Noling, 11th Dist. No. 2011–P–0018, 2014-Ohio1339, ¶ 26 (quoting *State v. Walden*, 19 Ohio App. 3d 141, 145-146 (10th Dist. 1984). In *State v. Noling*, the Eleventh District Court of Appeals found the defendant had met the clear and convincing burden under Criminal Rule 33(B) and remanded for further proceedings.

III. FACTUAL BACKGROUND

A. The Prosecutor Referred to Bite Mark Evidence On Numerous Occasions in Opening and Closing Statements

Prosecutor Watkins referred extensively to the bite mark evidence against Mr. Hill in both his opening statement and closing argument. In his opening statement, Prosecutor Watkins laid out a time line of the events regarding the analysis of the bite marks. He then emphasized the paramount importance of this evidence in his closing argument.

In his opening statement, Prosecutor Watkins explained that the coroner, Dr. Adelman, first noticed the marks on the victim's penis during the autopsy and Dr. Adelman thought they could be human bite marks. Trial Tr., Vol. 1, p. 30. Prosecutor Watkins admitted that Dr. Adelman was not an odontologist, and therefore not an expert in the field. *Id.* Dr. Adelman then contacted Dr. Mertz, a forensic odontologist, to examine the alleged bite marks further. *Id.* Dr. Mertz examined the corpse, requested dental impressions of the suspects, and eventually determined that the bite marks on the victim's penis had to have come from Danny Hill, who must have therefore raped the victim by way of fellatio. *Id.* at 31. In the context of this sequence of events, it is important to note that Dr. Adelman is the person who first identified the marks as bite marks, even though he was not an expert. When the coroner contacted Dr. Mertz and told him about the marks, Dr. Mertz was pre-disposed to believe the marks were bite marks, even though Dr. Adelman did

not necessarily have the background to make such a determination. In regard to Prosecutor Watkins's description of these events, he noted early on his opening statement that teeth leave the same kind of identifying characteristics as fingerprints. *Id.* This statement was misleading because although the government did not have any fingerprint evidence against Danny Hill in this case, Prosecutor Watkins tried to imply that by having a potential bite mark, it was as probative as if Danny Hill's fingerprints had been found on the body.

In his closing argument, Prosecutor Watkins mentioned multiple times how important the bite mark evidence was and concluded his argument by relying on the expert testimony from both Dr. Mertz and Dr. Levine. Prosecutor Watkins began his argument by specifically noting Danny Hill's confession, but then indicated that "more importantly, the other evidence proves beyond question that this defendant was a principal in the offense." Trial Tr., Vol. 4, p. 1166. Danny Hill's confession and the physical bite marks were the two most important pieces of evidence in the case, but Prosecutor Watkins specifically stated in the beginning of his closing argument that the "other evidence," which included the bite mark, was more important than the confession.

Throughout his story of the case, Prosecutor Watkins made references to the bite mark. *Id.* at p. 1167 ("Wherein he destroyed and devoured a little boy."); *id.* at p. 1170 ("So, we use circumstantial evidence, which alone, if shown to exclude a reasonable hypothesis of innocence, is sufficient to convict."). Prosecutor Watkins concluded by discussing the bite mark evidence and the testimony from both Dr. Mertz and Dr. Levine. Once again, he stated that the odontology evidence was "important evidence" and "especially significant." *Id.* at p. 1199. He emphasized the fact that both experts implicated Danny Hill in at least one of the bites and that Danny Hill's broken tooth was the "best evidence because that's what Doctor Mertz says is a trademark and blueprint that we can follow in the pattern of injury on that little boy's private." *Id.* at p. 1200. Not

only did Prosecutor Watkins conclude with what he believed to be his strongest piece of evidence, but he also came full circle by referring to the bite mark as a blueprint, much like the reference in his opening statement to the bite mark being like a fingerprint. Clearly, defense counsel recognized how much the prosecution relied on the bite mark evidence, because he spent a significant portion of his closing argument attempting to explain the "battle of the experts." *Id.* at pp. 1240-45. In response to defense counsel's explanation of the experts, Prosecutor Watkins once again referenced the bite mark evidence in rebuttal, and highlighted the fact that Dr. Mertz had the opportunity to examine the victim's body in person, unlike Dr. Levine, who only looked at photographs. *Id.* at p. 1266. Based on the explicit references to the importance of the bite mark evidence, as well as its placement as the final piece of evidence in Prosecutor Watkins's closing argument, the bite marks clearly represented the government's key evidence of guilt.

B. The Prosecution Questioned Both Expert and Lay Witnesses Extensively Regarding the Bite Mark Evidence During Trial

Five different non-expert witnesses testified regarding the bite mark evidence throughout the trial. Therefore, in addition to using an expert forensic odontologist to connect Danny Hill to the crime, Prosecutor Watkins also had lay witnesses describe, explain, and validate the bite mark findings. For example, Detective Teeple's testimony described what Dr. Walton, the dentist, did when he took dental impressions of Danny Hill and Timothy Combs, as well as how the evidence was protected. Trial Tr., Vol. 1, p. 149. Sergeant Stewart's testimony referenced the search warrants used for the dental impressions. Trial Tr., Vol. 2, p. 546. Dr. Walton's testimony discussed his process and the distinctions in Danny Hill's teeth, but also noted that such distinctions are common. Trial Tr., Vol. 3, p. 827-841. Although Dr. Walton's testimony did not specifically address the bite marks on the penis, the extensive questioning and testimony helped

prove that Dr. Walton's methods were legitimate. Like the coroner, Dr. Sudimak described the penile wounds as bite marks on the penis. *Id.* at p. 173.[2] The coroner, Dr. Adelman, stated he discovered contusions and abrasions around the penis and that the abrasions "appeared" to be bite marks. Trial Tr., Vol. 2, p. 363. Dr. Adelman continued to use "contusion" and "abrasion" interchangeably throughout his testimony, indicating that the marks varied in their extent of injury.[3] Finally, like in Prosecutor Watkins's opening statement, Dr. Adelman explained that, "[A] bitemark can be as specific as a fingerprint." *Id.* at p. 364. Not only was this statement misleading, because in fact the government did not have any evidence of Danny Hill's fingerprints, but it was improper coming from someone who is not a forensic odontologist, and, therefore, not an expert.

After questioning an array of witnesses who referenced the bite mark evidence, Prosecutor Watkins presented his main expert witness, Dr. Mertz, a forensic odontologist. Dr. Mertz's testimony is hundreds of pages long and goes into significant detail regarding his examination and determination that the bite marks came from Danny Hill. Dr. Mertz, like Prosecutor Watkins and Dr. Adelman, analogized a bite mark to a fingerprint. Trial Tr., Vol. 3, p. 912. Although this comment was slightly more legitimate coming from an expert, it was still misleading based on the fact that the government did not possess any fingerprint evidence against Danny Hill. Although Dr. Mertz admitted in the beginning of his testimony that bite mark evidence usually is not strong enough to make a solid determination, in this case he ended up testifying "with reasonable degree of medical certainty, that Hill's teeth, as depicted by the models and the photographs that I had,

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[2] Although bite marks on the penis were not an independent cause of the victim's death, they were the only injury physically linked to Danny Hill.

[3] Contusion: "an injury that usually does not break the skin, bruise; abrasion: an injury caused by something that rubs or scrapes the skin, irritation." Merriam Webster Dictionary (online).

made the bite on Fife's penis." *Id.* at pp. 915, 937. Despite his "reasonable degree of medical certainty," Dr. Mertz later cited an attenuated study of 18 year old male erections in order to explain why his measurements between the marks and impressions were off. *Id.* at p. 956. The judges began asking many questions about Dr. Mertz's analysis. *Id.* at p. 942. These questions continued throughout Dr. Mertz's testimony, the only portion of the trial where the judges were so actively vocal.

Unfortunately, the defense's expert witness, Dr. Levine, did not do much to discredit Dr. Mertz's testimony. In fact, as described above, the Prosecutor Watkins was able to rely on both Dr. Mertz's and Dr. Levine's testimony in his closing argument. Although Dr. Levine testified on direct that he could not come to a conclusion with a reasonable degree of certainty, he admitted that the marks could have been made by both suspects, and that one mark in particular was likely made by Danny Hill. Trial Tr., Vol. 4, pp. 1145-46, 1153. Prosecutor Watkins was able to bolster his own argument by again getting Dr, Levine to admit that Danny Hill likely made one of the bite marks, "to the exclusion of Timmy Combs." *Id.* at p. 1158.

IV. NEWLY DISCOVERED EVIDENCE

On March 30, 2014, Dr. Wright submitted his report to Mr. Hill's current habeas counsel, Vicki Werneke. Based upon his review of the photographs, as well as the current guidelines of the American Board of Forensic Odontology ("ABFO"), Dr. Wright determined that the marks on Raymond Fife's penis were not those of a human bite. Dr. Wright noted, as the defense raised at trial, that without knowing the state of the penis during the attack, i.e., whether it was flaccid or erect, it is impossible to make any conclusion about the mark or its origin. He reported:

> For purposes of analyzing the injuries as possible human bitemarks, this unknown information creates a huge problem as the size, shape and appearance of the injuries would be significantly affected by the state of erection (or not) of the penis. It is

> nothing more than a blind guess to try to say one way or the other with virtually no physical proof to support either position. Lacking this information, there is no supportable bitemark analytical scientific methodology that would allow comparison of any suspected biter to the injuries that were present on the penis.

(Exhibit 1 at p. 4).

Significantly, Dr. Wright also was acquainted with Dr. Mertz, and he recalls that Dr. Mertz later regretted the testimony he provided at trial. He provides:

> Note: Dr. Mertz, who passed away in 2005, was my mentor and a great teacher and scholar in forensic odontology. He showed me this case when I was preparing to take my ABFO certification examination. This was sometime around the late summer or early fall of 1988. We again discussed this case probably later in the 1990's. In both of those conversations, Dr. Mertz confided to me that he would not have had the same opinion in this case (biter identification) as he had in his original opinion and testimony. He indicated he was not as sure the injury was a definite bite mark nor was he so sure, if the injury was a bite mark, that he could identify a biter.

(*Id.* at 5). Upon receiving this report, Ms. Werneke acted swiftly.

V. DUE DILIGENCE

On March 31, 2014, Ms. Werneke filed with the Sixth Circuit Court of Appeals a request for authorization to litigate this motion in state court under seal. Attached to the motion was a declaration from Dennis Terez, the Federal Public Defender for the Northern District of Ohio, and Dr. Wright's report. (See Case No. 99-4317/14-3718 (6th Circuit), Doc. 264-1, Request for Authorization, attached as Exhibit 2). Per Mr. Terez's declaration, (Case No. 99-4317/14-3718, Doc 264-2, attached as Exhibit 3), Ms. Werneke had to obtain authorization from the federal court before she could initiate any litigation in state court. On April 18, 2014, the Sixth Circuit remanded the motion to the federal district court for consideration because there was an amended habeas petition was pending. (See Case No. 99-4317/14-3718, Doc. 277, attached as Exhibit 4).

On April 21, 2014, Ms. Werneke filed the motion for authorization to litigate in state court with the federal district court. (Case No. 4:96-CV-795 (U.S. Dist. Court, Northern Dist. of Ohio),

ECF 156, attached as Exhibit 5). The district court denied the motion on May 15, 2014. (Case No. 4:96-CV-795, ECF 159, attached as Exhibit 6). Ms. Werneke filed a motion to reconsider on May 23, 2014. (Case No. 4:96-CV-795, ECF 160, attached as Exhibit 7). On June 25, 2014, the district court denied the motion to reconsider. (Case No. 4:96-CV-795, ECF 163, attached as Exhibit 8). The same day, the district court denied the amended habeas petition that had been pending. (Case No. 4:96-CV-795, ECF 165, attached as Exhibit 9).

Soon after the denial of the motion to reconsider, Ms. Werneke contacted undersigned counsel. Counsel was an extern with the Capital Habeas Unit while a law student at Case Western Reserve University School of Law. Counsel has been licensed to practice law in Ohio since 2010, but moved to Arizona a year ago; she maintains an active law license in Ohio. Counsel agreed to assist Mr. Hill with this request for leave to file a motion for new trial. Since that time, counsel has been reviewing Mr. Hill's case. Counsel is filing this request for leave to file a motion for new trial with the numerous attachments as soon as possible.

VI. THE COURT SHOULD GRANT MR. HILL LEAVE TO FILE A NEW TRIAL MOTION.

Mr. Hill could not have learned of this new evidence any sooner. The ABFO changed its guidelines in 2013 regarding the use and efficacy of both identifying a mark on a victim's body as a human bite mark and the ability to identify (or exclude) particular suspects as the biter.

Mr. Hill acted diligently in seeking an expert based on the new guidelines. Prior counsel for Mr. Hill could never have suspected that Dr. Wright possessed direct information about Dr. Mertz and this specific case. Dr. Wright's report unequivocally states that, based on the ABFO guidelines, the marks left on the victim's penis were not caused by a human bite. As soon as habeas

counsel did learn of this new evidence, Ms. Werneke made reasonable and diligent efforts to bring this action to this court.

VII. CONCLUSION

Mr. Hill has demonstrated by sufficient evidence that he was unable to file previously this motion for new trial. The court should grant the request for leave to file the Motion for New Trial and allow that proceeding to continue in due course.

Respectfully Submitted,

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March 30, 2014

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RE: State of Ohio v. Danny Lee Hill, Case No. 85-CR-317, Trumbull County Court of Common Pleas
Report of Bitemark Analysis and Comparison

Dear Ms. Werneke,

You have asked me to review the bitemark evidence in the above cited case. I have been provided with bitemark case opinions and testimony from Drs. Curtis Mertz and Lowell Levine, as well as copies of the evidence associated with the case labeled "File 1 of 4"; "File 2 of 4"; "File 3a of 4"; "File 3b of 4"; "File 4 of 4" and twenty two black and white images which include a suspect's dentition and patterned injuries on a penis. This is a report of my findings.

The Evidence:

Fourteen images of the twenty images provided to me document patterned injuries on the penis of the homicide victim. I have reviewed all of these images in great detail.

It is my opinion that the patterned injuries on the penis of this homicide victim do not represent a human bitemark. In a given case with patterned injuries suspected of being a possible bitemark, the first step is to determine if the patterned injury is a human bitemark. The American Board of Forensic Odontology (ABFO) Bitemark Terminology Guidelines[1] present three choices:

-the injury is a *human bitemark*
-the injury is *suggestive of a human bitemark*
-the injury *is not a bitemark*

Human Bitemark:

If a patterned injury is determined to represent a human bitemark, the ABFO Bitemark Terminology Guidelines state that further analysis of the bitemark and a possible comparison of suspected biter(s) dentitions is possible. The ABFO Bitemark Terminology Guidelines state that the association between the biter(s) dentition and the bitemark may be expressed in the following:

-biter
-probably biter
-not excluded as the biter
-inconclusive
-excluded

Suggestive of a Human Bitemark:

If a patterned injury is suggestive of a human bitemark, an analysis can be done to determine discernible features of the bitemark but biter identity is not sanctioned.

Not a Human Bitemark:

A patterned injury determined not to be a human bitemark is neither analyzed nor compared to a population of suspected biters.

Human Bitemark

The ABFO defines the presence, characteristics and appearance of a human bitemark:

Bitemark Definitions

Bitemark:

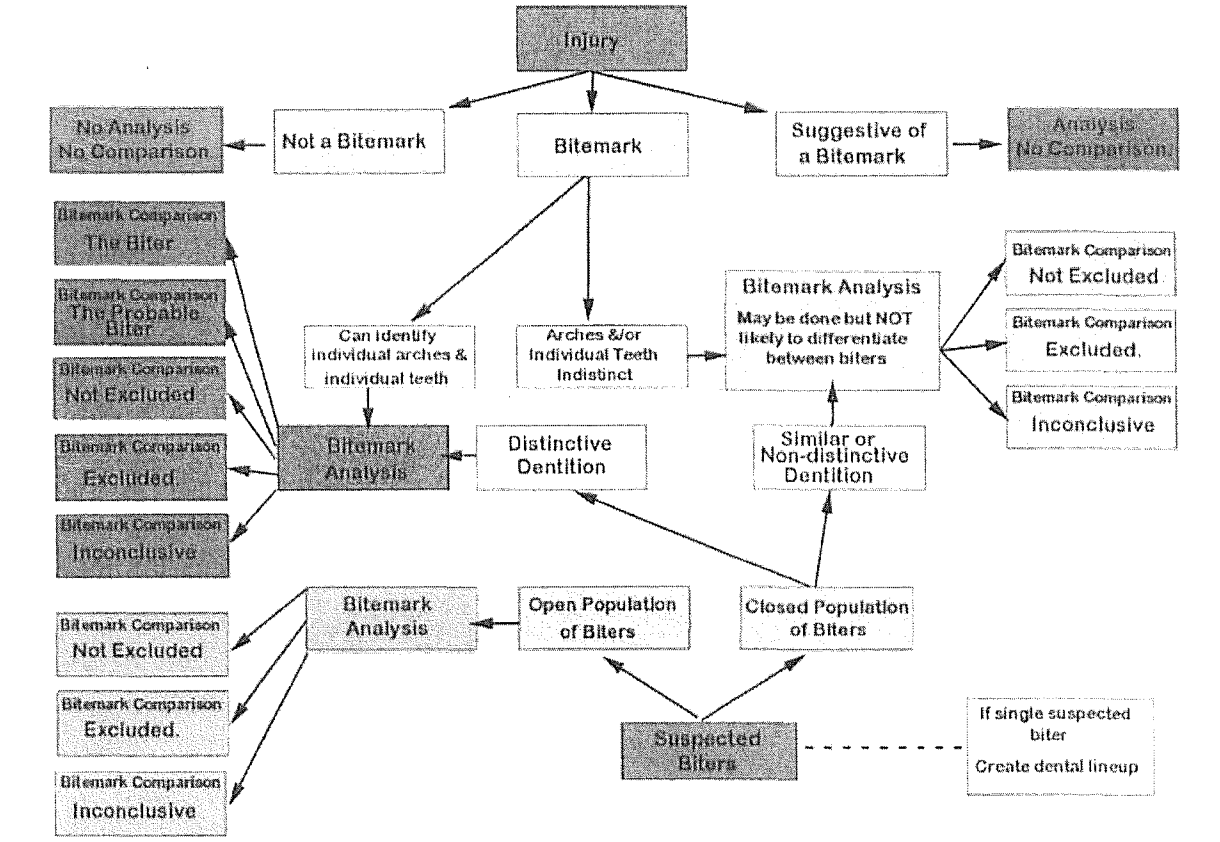
- A physical alteration in a medium caused by the contact of teeth.
- A representative pattern left in an object or tissue by the dental structures of an animal or human.

Describing the Bitemark
A circular or oval patterned injury consisting of two opposing (facing) symmetrical, U-shaped arches separated at their bases by open spaces. Following the periphery of the arches are a series of individual abrasions, contusions, and/or lacerations reflecting the size, shape, arrangement, and distribution of the class characteristics of the contacting surfaces of the human dentition.[1]

When applying the ABFO definition of the expected appearance of a human bitemark in human skin to the patterned injuries on the penis in this case, the patterned injuries in this case do ***not*** meet the definition of representing a human bitemark.

The ABFO Bitemark Flowchart[1] (Decision Tree)

The ABFO advocates the use of the flowchart shown below. This flowchart demonstrates the methodology that should be incorporated when working a bitemark case. The flowchart is based on the ABFO Bitemark Terminology Guidelines and acts to guide the bitemark examiner investigating the case to its proper conclusion.



On the top aspect of the flowchart, the patterned injury is analyzed to determine if it represents a human bitemark. There are three choices in the gray boxes. If the injury is determined to represent a human bitemark, the pathways allow for analysis and possible comparison to a biter or biters. Assuming the patterned injury is "suggestive of a bitemark", biter identity is not sanctioned as a possible conclusion to any suspected biters. If the patterned injury is "not a bitemark" neither analysis nor comparison to any suspected biter is sanctioned.

Using the ABFO Bitemark Terminology Guidelines and ABFO Bitemark Decision Tree to define the characteristics of a bitemark, it is clear that not only doesn't this injury represent a human bitemark but biter identity is not a possibility. When a patterned injury is defined by the ABFO Bitemark Terminology Guidelines as not representing a human bitemark, analysis and comparison to any suspected biter is not sanctioned.

In 1985, the ABFO Bitemark Flowchart did not exist. Also, the first version of the ABFO Bitemark Terminology Guidelines had just been established (1984 ABFO Bitemark Workshop). While these early iterations of the guidelines did not include the contemporary terminology used today, one of the early terms defining a patterned injury as a possible bitemark was the term "irregular shape". Those

guidelines then went on to state that the examiner will at some time describe the characteristics of the injury that support calling it a bitemark. The patterned injury on the penis of the victim in this case did not meet the criteria of representing a human bitemark in 1985 nor does it today.

Patterned Injuries on the Penis in this case:

The presence of the injuries on the penis in this case provide significant problems in trying to interpret the injuries and attempt to analyze them as being possible human bitemarks. The most significant of these, as was pointed out at trial, was the disposition of the penis as far as being erect or flaccid when the injuries occurred. This attack was not witnessed by anyone other than the perpetrator and therefore no one outside of the perpetrator will ever know for sure which state the penis was in. For purposes of analyzing the injuries as possible human bitemarks, this unknown information creates a huge problem as the size, shape and appearance of the injuries would be significantly affected by the state of erection (or not) of the penis. It is nothing more than a blind guess to try to say one way or the other with virtually no physical proof to support either position. Lacking this information, there is no supportable bitemark analytical scientific methodology that would allow comparison of any suspected biter to the injuries that were present on the penis.

Dr. Lowell Levine's Opinion Letter and Testimony Summary:

In both his opinion letter and in his testimony, Dr. Levine opines that he feels the injuries on the penis of the victim represent a bitemark. He further stated that either suspected biter he examined in this case could have been the biter, with Mr. Hill's dentition perhaps matching better. Logically, a single bitemark could not have been inflicted by two individuals. In effect, he negates his opinion of demonstrating any linking of either suspected biters' teeth to the patterned injuries on the penis. What his opinion really meant was either the patterned injuries had no specificity such that either of the two suspected biters could have been the biter (and perhaps a few million other people's teeth as well) or that the biters' dentitions were nearly identical such that either of them biting human skin would leave a pattern that would be indiscernible when comparing those potential biters.

November 19, 1985

Dear Mister Watkins,

Re: Ohio ys.Dqnny Lee.Hill & Timothy P.. Combs

I have examined numerous photographs and dental casts of the above.
It is my opinion:
1. The patterned injury on the penis of the homicide victim was caused by human teeth.
2. I cannot interpret sufficient characteristics to determine with scientific certainty whether one or both defendants caused injury pattern.
3. It is likely that one portion of the patterned injury was caused by Hall.[2]

In this case, the injury patterns on the penis do not raise to the level of meeting the ABFO definition of a human bitemark so any attempt at comparison to any suspected biters' teeth has no meaning. If Dr. Levine did feel the injuries represented a human bitemark, the absolute fact is that only one person

could have been the biter yet his opinion found that either of the two suspected biters in this case could have been the biter.

Dr. Curtis Mertz's Opinion Letter and Testimony Summary:

(Note: Dr. Mertz, who passed away in 2005, was my mentor and a great teacher and scholar in forensic odontology. He showed me this case when I was preparing to take my ABFO certification examination. This was sometime around the late summer or early fall of 1988. We again discussed this case probably later in the 1990's. In both of those conversations, Dr. Mertz confided to me that he would not have had the same opinion in this case (biter identification) as he had in his original opinion and testimony. He indicated he was not as sure the injury was a definite bitemark nor was he so sure, if the injury was a bitemark, that he could identify a biter.)

Dr. Mertz opined in his letter to Prosecutor Watkins and testified that he could associate the injury patterns on the penis of the victim as human bitemarks created by the teeth of Danny Lee Hill.

"... That, a reasonable degree of Medical-Dental probability, bite marks found on the penis of Raymond Fife match those of the models of the teeth of Danny Lee Hill.

Curtis A. Mertz, Diplomate, American Board of Forensic Odontology
CAM/im "[3]

Dr. Mertz testifies that

"... the bite to be one-third less, the space between the teeth; the diastema, the fractured tooth, the alignment of the teeth, or arch form, were all consistent with the bite. But I was not there. I have no idea of the size of the penis at the time of the bite. "[4]
further testimony,

"That the probability that the penis was in an erected state at the time was the explanation of why the consistent smaller size tooth marks when they're accurately measured, or as accurately as I can measure them."[5]

These represent contradictory statements. If Dr. Mertz had no idea of the size of the penis at the time of the bite, he cannot make any statement about measurements attempting to relate the injuries on the penis and biter's teeth. He was guessing, which is not a scientific method.

Dr. Mertz then testifies:

"I feel that under most circumstances, that the penis would be less than an ideal bite place to have a bite mark."[6]

This portion of the testimony states that the penis is not an ideal place to analyze a bitemark and then goes on further to say he didn't consider the patterns left by what he felt were the lower teeth.

Dr. Mertz in his opinion letter dated November 4, 1985[3] states that Mr. Hill's teeth match the patterned injuries on the victim's penis to a reasonable degree of medical-dental certainty. Yet, in his testimony, he states that he doesn't know if the penis was flaccid or erect, he guesses that it may have been erect (but cannot support that conclusion scientifically), that he used measurements made on the flaccid penis and extrapolated those measurements creating a mathematical model to support his conclusions (predictive outcome bias and conformational bias), that the penis is not a good place to do bitemark analysis and finally he chose only to describe those aspects of the injury he felt he could link between the biter's teeth and the patterns while ignoring other aspects of the same injury that he could not explain.

Opinion:

It is my opinion, to a reasonable degree of medical/dental certainty, that the patterned injury on the penis of the victim is not a human bitemark. It does not meet the definition of an injury being caused by human teeth. Further, based on my opinion that the patterned injury is not a bitemark, neither analysis nor comparison is done. Biter identity in not sanctioned. Dr. Mertz erred in his opinion in conclusively defining the patterned injury on the penis of the victim as having the characteristics of human bitemark and, remarkably, identifying the biter.

Conclusion:

I do not believe the patterned injury on the penis of the victim represents a human bitemark. If this evidence was considered by the jury or judge presiding over this case in leading to the conviction of the defendant, the case should be reconsidered without this evidence. There is no scientifically supportable conclusion that could, in any way, attempt to identify a possible biter based on the injury on the penis of the victim. The conclusions of the bitemark analysis and comparison reached by Dr. Mertz are not supported by the scientific methodology used in 1985 nor today.

Cordially,

Franklin D. Wright, DMD, D-ABFO

Franklin D. Wright, DMD, D-ABFO

I have been an American Board of Forensic Odontology(ABFO) board certified practicing forensic dentist since 1989 and have investigated, consulted on and reviewed hundreds of bitemark cases. My research interests lie in bitemark evidence collection, analysis and comparison, where I have been published in numerous textbooks, journals and other forensic and dental publications. I am a past president of the ABFO and have served on the ABFO Board of Directors, chaired numerous ABFO committees and currently chair the ABFO Bitemark Proficiency Examination Development Committee. I have been the forensic dental consultant to the Hamilton County, Ohio, Coroner's Office since 1986. It has been my honor to have presented lectures and workshops in forensic odontology throughout the United States, Europe and Central and South America. On January 12, 2011, I delivered a presentation to the President of the United States National Science and Technology Council, Committee on Science, Subcommittee on Forensic Science on human bitemarks.

Bibliography:

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2. Opinion Letter of Dr. Lowell Levine to Mr. Watkins, dated November 19, 1985
3. Opinion Letter of Dr. Curtis Mertz to Prosecutor Watkins, dated November 4, 1985
4. Testimony Transcripts of Dr. Curtis Mertz pg. 937
5. ibid. pg. 938
6. ibid. pg. 951

FRANKLIN D. WRIGHT, D.M.D.

FORENSIC DENTAL CONSULTANT

FRANKLIN D. WRIGHT, D.M.D

GENERAL INFORMATION

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EDUCATION:

University of Kentucky
College of Dentistry
A.B. Chandler Medical Center
Lexington, Kentucky
GRADUATE: **1984**

University of Kentucky
College of Arts and Sciences
Lexington, Kentucky
GRADUATE: May 1980

Anderson Senior High School
Cincinnati, Ohio 45255

GRADUATE: 1976

PUBLICATIONS, LECTURES, AFFILIATIONS

Publications:

- Cincinnati Dental Society "Bulletin"
"Forensic Odontology", April 1988 Vol. 57 No. 4 Pg. 16

Manual of Forensic Odontology
(A publication of the Amer. Society of Forensic Odontology)

- "Postmortem Dental Radiography", Second Edition, 1991

- Chapter 2,"Dental Identification", Third Edition, 1995

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-Chapter 7 Bitemark Analysis, Fifth Edition, 2012

- Forensic Dentistry, Chapter 6 "Forensic Photography"; first edition, 6/97, CRC Press, Boca Raton, FL

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- Forensic Dentistry, 2nd edition, edited by Drs. David Senn and Paul Stimson, Ch.11 Forensic Photography (January, 2010)

-The Use of Full Spectrum Digital Photography for Evidence Collection and Preservation in cases involving forensic odontology, Forensic Science International, vol. 201 Nos. 1-3, September, 2010; pgs 59-67

-Bitemark Evidence, edited by Dr. Robert B. J. Dorion, {photography- chapter 7}"Collection of Evidence: Non-invasive Analyses: Photography" Second Edition, January ,2011

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-Manual of Forensic Odonotology 5th edition, edited by David R. Senn; Richard A. Weems; Chapter 9; CRC Press, Boca Raton, FL February, 2013

-"Patterned bruises on 2 infants"; Luyet, F.; Feldman, K.; Wright, F.; Knox, B.;

Contemporary Pediatrics; February 2013; pgs 21-22

Lectures:

- "Forensic Dentistry"- Cincinnati Dental Assistant's Society,
October 17, 1988 - March 20, 1991 - March 21, 1994 - April 21, 1997

- Hamilton County Dental Mass Disaster Team, "Dentistry's Role in a Mass Disaster in Cincinnati", January 6, 1990

- "Dental Identification" -Cincinnati Dental Society, March 12, 1990

- "Forensic Dentistry" - Lima Dental Study Club, January 14, 1992

- "Forensic Dentistry"- All Ohio Dental Career Day, The Ohio State University
March 1992; April 1993

- "Distortional Correction in Bitemark Photography - an Unusual Case" &
"Problems and Solutions to the Formation of a Statewide Dental Disaster Team"
American Academy of Forensic Sciences - Annual Meeting, Boston February 1993

- "Forensic Dentistry- A Look At Dentistry As You Have Never Seen It Before"
Radisson Hotel, Lexington Kentucky, Sponsored by the University of Kentucky, College of Dentistry - Commonwealth Continuing Education Dept., August 28, 1993 and
December 16, 1994

-"Forensic Dentistry- A New Look at an Old Friend", Eastside Dental Study Club
May 1994

-"Forensic Dentistry- Course and Workshop", Republica de Colombia Instituto Nacional de Medicina Legal y Ciencias Forenses Bogotá, Colombia, South América,
December 12-17, 1994

-"Bitemark Case Workup" - A.S.F.O. Annual Meeting, Seattle, WA February 14, 1995

-"Forensic Dentistry: A Look at Dentistry as You've Never Seen It Before"
:Ohio Expanded Dental Function Assistants Association at the Annual Meeting of the Ohio Dental Association, September 1995
:Stark County (Canton, Ohio) Dental Society, November 1995
:Greater Cincinnati Oral Health Council, December 1995
:Raymond Walters College- Dental Hygiene Program University of Cincinnati,
January 1996
:Greater Cincinnati Dental Study Club, October 1996
:Cincinnati Dental Hygienists' Association, November 1997

-Death Investigation Seminar, Hamilton Co. Coroner's Office, Odontology Presentation-

"Forensic Dentistry, Pattern Injuries, Photography", 10/17/96, 9/9/97, 9/98; 9/99

- "Evidence Recovery with Dental Materials", FBI Evidence Recovery Team, Cincinnati Office, 10/18/96

- "Bitemark Evidence Recovery", Hamilton Co. Sexual Assault Team, 1991,1993, 1997

- "Computers in Dental Identification"; "Human Abuse"; "Bitemark Update: Computers, DNA and Digital Images" IX Congress de la Instituto de Medicina Legal y Ciencias Forenses, Bogotá, Colombia, S.A. Sept. 17-20, 1997

- George Furst Bitemark Seminar, AAFS meeting, 2/14/98 case presentation, San Francisco, CA

- "Forensic Dentistry: the basics and some nuggets for your office" Cincinnati Dental Society, 3/9/98

- "Forensic Evidence" keynote speaker, Domestic Violence Conference "Effective Investigation and Prosecution" workshop, Cincinnati, 4/2/98

- "Forensic Photography" California Attorney General's National Missing & Unidentified Persons Violent Crime Workshop, 7/21-7/25/98, Sacramento, California

- "Forensic Dentistry- It's All in How You Look at It!"
University of Kentucky- Commonwealth Continuing Dental Education
University of Kentucky, 8/28/98

- "Child Abuse" & "Forensic Dentistry" Division of Pediatric Dentistry, Children's Hospital Medical Center, Montgomery Inn, Cincinnati, Ohio 2/4/99

- 2nd George Furst Bitemark Seminar, AAFS Annual Meeting "Forensic Photography" and "Overlay Fabrication", Saturday, 2/20/1999, Orlando, FL

- "Forensic Dentistry" Northwest (Ohio) Dental Society, Lima, Ohio, 3/17/99

- "Forensic Photography" - Ohio State Coroners Association Annual Meeting Columbus, Ohio, 5/14/99

- "The ODA Mass Disaster Identification Team and Forensic Dentistry: an Introduction" Ohio Dental Association Annual Session, Columbus, Ohio, 9/23/99

- "Forensic Dentistry" T.I. Law Dental Study Club, Cincinnati, Ohio, 9/27/99

- 3rd George Furst Bitemark Seminar AAFS Annual Meeting Three part Course Review and Summary, Reno, NV, February 19,2000

- "Forensic Dentistry: Dental Identification Exercise and Bitemark Case Analysis" University of Kentucky College of Dentistry-Commonwealth Dental Continuing Education, Lexington, KY, 3/24/00

- "Forensic Dentistry: Bitemarks – Who did It?"
Ohio Dental Association Annual Session, Columbus, Ohio, 9/16/00

-" Human Abuse", teacher in-service: Lawrenceburg School System
Lawrenceburg, Indiana, January 10, 2001

-"The Trials and Tribulations of Bitemarks Analysis: Seeing What is Really There"
AAFS annual meeting Abstract presentation, Thursday February 22,2001
Seattle, Washington

-"Forensic Odontology 2001", Instituto de Medica Legal y Ciencias Forenses
June 3-9, 2001, Bogotá, Colombia, South América

- "Forensic Dental Identification Workshop" Annual Session, Ohio Dental Association, September 14, 2001 Columbus, Ohio

-Dental Identification Unit, Office of the Chief Medical Examiner, New York City, NY
World Trade Center Disaster (Dental Identification of WTC victims) 9/15-9/23/01; 12/5-12/10/01

-VI Jornada de Medican Legal, Ministerio Publico: Instituto de Medicina Legal
"Forensic Evaluation: Collection and Process of Identification at the Scene of the Crime"; "Identification by Human Bitemarks", "Identification by Forensic Dentistry", "DNA in Forensic Dentistry", Panama City, Republic of Panama, Central America
October 23-25, 2002

-"Forensic Dentistry: Crime Scene Incidents"
Northern Kentucky University Advanced Crime Scene Class
Friday 11/8/02 - Prof. Jill Shelley, Highland Heights, KY 41099

-"Forensic Dentistry", Cincinnati Dental Hygienists Association
Raymond Walters College, University of Cincinnati, 11/12/02, Cincinnati, Ohio

-"Advanced Forensic Photography" University of Texas, San Antonio
San Antonio, TX December 6-8, 2002, lecture & workshop; with Dr. Greg Golden, Upland, CA and Dr. James Lewis, Alabama

-ABFO Bitemark Workshop #5: Didactic Lecture: "ABFO Bitemark Terminology and Report Writing"; Moderator: oral presentations by candidates, AAFS Annual Meeting, Chicago, IL Sunday February 16, 2003

-"Dental Identification Workshop Using Computers", sponsored by the Ohio Dental Association at the Ohio State University College of Dentistry April 12, 2003 Columbus, Ohio

-"Mass Disaster Identification Workshop", Tennessee Dental Association Annual Meeting, Nashville, TN May 22, 2003

-"Introduction to Forensic Dentistry", Ohio Dental Association Annual Session, Columbus, Ohio September 13, 2003

"Ominous Signs of Abuse, including Bite Mark Analysis and Patterned Injuries", Ohio Sexual Assault Nurses Association/Forensic nurses, MedCentral Hospital, Mansfield, Ohio Nov. 5,2003

"Photography in documentation of bitemark and patterned injuries in child abuse and assault" Multi-disciplinary Child Abuse Team- Cincinnati Children's Hospital Medical Center, Mayerson Center for Child Abuse, Children's Hospital, Cincinnati, Ohio November 21, 2003

"Forensic Dentistry: A Look at Dentistry as You Have Never Seen It Before", Lorain County Dental Society, Holiday Inn, Ohio St. Rt. 57, Lorain, Ohio, January 21, 2004

"Forensic Dentistry" Northern Kentucky University Criminal Justice Seminar Farris Auditorium, NKU Campus 3/26/04

"Advanced Forensic Photography: Human Bitemarks: Detection, Photography and other Evidence Collection", NYU College of Dentistry/New York Society of Forensic Dentistry 345 E. 24th St. NY, NY 3/29/04

"Be Careful Who You Bite: An Introduction to Bitemark Analysis" Cincinnati Dental Society Scientific Meeting Monday 4/19/04 Gregory Conference Center Cincinnati, Ohio

"Forensic Dentistry: CSI" University of Kentucky College of Dentistry Continuing Education Network, Lexington, KY 12/3/04

"Forensic Dentistry: An Introduction for Dental Hygienists" Ohio Dental Hygiene Association Annual Meeting, Cincinnati, Ohio 1/22/05

"Forensic Dentistry: An Introduction" Ohio Dental Association Annual Session Saturday 9/17/05 Greater Columbus Convention Center Columbus, Ohio

"Forensic Dentistry CSI" North Central Hygiene Association October 7, 2005 Sandusky, Ohio

"Forensic Dentistry: A Look as Dentistry as You've Never Seen it Before Toledo Dental Society October 19, 2005 Toledo, Ohio

"Forensic Dentistry in Child Abuse: First Annual James Steiner Lecture Series Cincinnati Children's Hospital Medical Center, Oct. 31, 2005

"Photography in Forensic Dentistry to Document Bitemarks and Patterned Injuries Grand Rounds, Cincinnati Children's Hospital Medical Center November 1, 2005

"Photographic Documentation of Bitemarks and Patterned Injures in Child Abuse and Domestic Violence" Kentucky Association of Sexual Assault Programs annual Meeting Marriott Griffin Gate Resort, Lexington, KY 12/8/05

-"Patterned Injuries in Sexual Assault" Innovative Healthcare for Victims- Kentucky Association of Sexual Assault Programs; University of Kentucky Medical Center Lexington, KY 2/7/06

-"Forensic Dentistry CSI" Hocking Valley Dental Hygiene Association Lancaster, Ohio 2/06

-"Report Writing in Bitemark Analysis" American Board of Forensic Odontology Bitemark Workshop Seattle, Washington 2/19/06

-"Forensic Dentistry Introduction" and Ohio State Dental Board Update, Stark County

Dental Society, Akron, Ohio 4/4/06
-"Forensic Photography in the Documentation of Bitemarks and Other Patterned Injuries Pediatric Sexual Assault Nurse Examiners Annual Meeting, Columbus, Ohio Children's Hospital, Columbus 4/28/06
-"Introduction to Forensic Dentistry" part of forensic series in collegiate course titled "Introduction to Forensic Science", University of Cincinnati, Professor Gideon Labiner, 5/3/06; also 5/2009
-"Mass Disaster Training and Preparation" National Mass Fatalities Institute Seminar sponsored by the Hamilton County Coroner's Office, Cincinnati, OH Scarlet Oaks Joint Vocational School 5/25/06
-"Bitemark Analysis, Evidence Collection and Report Writing" Southwest Symposium on Forensic Dentistry University of Texas-San Antonio, San Antonio, TX 6/8- 6/10/06
-"Bitemarks" US Public Health Service Annual Session, Dental Category, Cincinnati, Ohio June 5, 2007
-"Forensic Odontology and the Coroner/Medical Examiner"; International Association of Coroners and Medical Examiners, millennium Hotel, Cincinnati, Ohio June 10, 2008
-"Bitemark Analysis, Evidence Collection and Report Writing" Southwest Symposium on Forensic Dentistry, University of Texas-San Antonio, San Antonio, TX 6/4-6/7/2008
-"Forensic Dentistry; CSI" Ohio Expanded Function Dental Auxiliaries, Columbus, Ohio; 6/27/2008
- "Effects of the National Academy of Science (NAS) Preliminary Report on the Practice of Forensic Odontology, American Academy of Forensic Science Annual Meeting, Denver, CO, 2/2009

-"Bitemark Workshop", Ohio Dental Association Forensic Dental Team; Annual Meeting of the Ohio Dental Association, Greater Columbus Convention Center, Columbus, Ohio, September, 2009

- "Forensic Dentistry" Santiago, Chile, South America, 10/3- 10/12/2009; Inaugural meeting of the Latin American Society of Forensic Dentistry, at the invitation of the Division of Medicina Legal, Attorney General's Office, Country of Chile

-"Summary of the Findings of the National Academy of Science" American Academy of Forensic Sciences Annual Meeting, Denver, Colorado 2/20/2009
-"Forensic Dentistry- Human Abuse and Dental-Legal Issues" Ohio Dental Hygienists Association Annual Meeting, 4/23/10, Mason, Ohio
-Forensic Dentistry" Introduction to Forensics, Guest Lecturer , Un. of Cincinnati, Professor Gideon Labiner, Course Director 5/12/10 Cincinnati, Ohio
-"Introduction to Forensic Dentistry", Guest Lecturer, Advanced General Dentistry Program, Un. of Cincinnati, Dr. Jerome McMahon, Program Director
-Southwest Symposium on Forensic Dentistry, "Bitemark Analysis" and "Advanced Forensic Photography", Un of Texas- San Antonio, San Antonio, TX; June 9-12, 2010
-"The Use of Full Spectrum Digital Photography for Evidence Collection and Preservation in cases involving forensic odontology", International Organization of Forensic Odonto-Stomatology, Lueven, Belgium September 2010
-"Human Bitemarks, NAS Report and *Daubert"* Executive Office of the President of the United States National Science and Technology Council, Committee on

Science, Subcommittee on Forensic Science, Washington, DC; January 12,2011
-"Forensic Dentistry and the NAS Report: then and now, really?" American Society of Forensic Odontology Annual Meeting, Chicago, Ill February 22, 2011
-"Pitfalls of Bitemark Analysis: where does one end and the other begin?" American Academy of Forensic Sciences, Hyatt Regency Hotel, Chicago, Ill, February 24, 2011
-"Bitemark Management 2011" American Board of Forensic Odontology Bitemark Workshop, Hyatt Regency Hotel, Chicago, Ill February 25, 2011
-"Forensic Odonotology" Ohio Association of Pediatric Dentistry, Nationwide Children's Hospital, Columbus, Ohio March 4, 2011
-"Bitemark Analysis, Conclusions and Report Writing" American Society of Forensic Odontology Annual Meeting February 21, 2012 Atlanta, GA

-"Bitemark Analysis" University of Kentucky College of Dentistry- Senior Elective April, 2012, Lexington, KY
-"The Dental Record- Saving or Kicking your Butt", Cincinnati Dental Society May 7, 2012 Cincinnati, Ohio
- Introduction to Forensic Dentistry, University of Cincinnati, Advanced Dental Practice Residency May 10, 2012 Cincinnati, Ohio
-Southwest Symposium on Forensic Dentistry-Bitemark , University of Texas, San Antonio; San Antonio, TX June 6-9, 2012
-"The Use of Bitemark Evidence, Analysis and Comparison in Violent Crime; 43rd Annual Session of the American Society of Forensic Sciences, Feb. 19, 2013 Washington, DC
-"Bitemark Analysis: Foundation, lessons from the Past and the Paradigm Shift to the Present and the Future"; American Academy of Forensic Sciences Annual Meeting, Washington DC, Feb. 22, 2013
-"Does Bitemark Evidence Meet Modern Evidentiary Reliability Standards? A Subject Expert Panel Discussion"; American Academy of Forensic Sciences Annual Meeting, Washington DC, Feb. 22, 2013
-"Human Bitemark Analysis"; University of Kentucky, College of Dentistry; Lexington, KY 3/8/2013
-" Forensic Dentistry" Introduction to Forensics, Guest Lecturer , Un. of Cincinnati, Professor Gideon Labiner, Course Director Cincinnati, Ohio 4/4/2013
-"Forensic Dentistry" University of Cincinnati, Advanced Dental Practice Residency May 9, 2013 Cincinnati, Ohio
-"Human Abuse in the Practice of Dentistry" Cincinnati Children's Hospital Medical Center Pediatric Residency Program, Montgomery Inn, Montgomery, Ohio October 8, 2013; Cincinnati, Ohio
-"Contemporary Forensic Dentistry: Bites, Burns, Slaps, Age and Dental Record- Where Modern Dentistry Meets the Law"; University of Kentucky College of Dentistry, October 25, 2013; Lexington, KY

Affiliations:

Diplomat, American Board of Forensic Odontology (1989-) (ABFO)
Member, American Society of Forensic Odontology (1986-) (ASFO)
Fellow, American Academy of Forensic Sciences (1992-) (AAFS)
Fellow, International College of Dentists (2000-2010)
Member, PANDA Coalition- Delta Dental of Ohio and the Ohio Dental Association (1994-) (PANDA =prevent abuse and neglect through dental

awareness)
National Dental Advisor, Parents of Murdered Children (1993-)
Hamilton Co. Coroner's Office, Forensic Dental Consultant (1986-)
Disaster Committee Member, Greater Cincinnati- Northern Kentucky International Airport, Dental Mass Disaster Team (1988-)
American Dental Association, Ohio Dental Association (ODA)
Cincinnati Dental Society (CDS) (1984-)
CDS Council Member (1997-2005) Delegate, ODA (1998-2005)
-Chairman, CDS Public Relations Committee (2004-08)
Forensic dental consulting provided in many states throughout the US, Central and South America, Europe

Offices Held:

Forensic Dental Consultant, Hamilton Co. Coroner's Office (1986-)
Chairman, Mass Disaster Identification Team, Ohio Dental Association (1990-1998)
Chairman, Forensic Dental Team, Ohio Dental Association (1998-2010)
Chief, Hamilton County, Ohio-Dental Disaster Team (1986-)
American Board of Forensic Odontology (ABFO):
- Board of Directors, A.B.F.O. (1994-1997) (1998-2001) (2004-2005)
-ABFO Bitemark Proficiency Examination Development Committee (2011-..)
-ABFO Ethics Committee (2013-2016)
-ABFO Immediate Past President (2011-2012)
-ABFO President (2010-2011)
-ABFO President-Elect (2009-2010)
-ABFO Vice President (2008-09)
-ABFO Secretary (2006-08)
-Member, ABFO Human Abuse, Bitemark and Mass Disaster Committees Certification and Examination Committee, Human Identification Committee, Executive Committee, Nominating Committee
-Chairman, ABFO Strategic Plan Committee (2003-2006)
-Cincinnati Center for Children's Dentistry, Board of Directors, Trustee (2006-)
Chairman, Cincinnati Dental Society Forensic Dental Team (2002-)
Chairman, Human Abuse Committee, A.B.F.O. (2000-2002)
Board of Governors- A.S.F.O. (1995- 1998)
Editorial Board, A.S.F.O. Newsletter (1999- 2006)
Odontology Section Program Chairman, A.A.F.S. (1997-1999)
Odontology Section Secretary, A.A.F.S. (1999-2001)
Odontology Section Chairman, A.A.F.S. (2001-2003)
AAFS: Local Arrangements, Cincinnati, 1990
Continuing Education Committee (1997-2003)
Nominating Committee (2000- 2002)
Ethics Committee (2000- 2002)
Council (1998-2002)
Journal of Forensic Sciences, Peer Review, scientific articles (2009-)

Ohio State Dental Board :
Term: 4/04 through 3/31/08
Committees: Policy Committee (2004 -08)
Laws & Rules Committee (2004 - 08)
Communication Committee (2004- 08)
Scope of Practice (2004- 08)

Recognized Meetings:

Symposium on Mass Disasters, A.D.A. Headquarters, Chicago, Illinois, March 1986
Airport Disaster Exercise, Greater Cincinnati International Airport
October 1988-December 1991, September 1993-September 1996
September 1997- present
American Academy of Forensic Sciences (AAFS)- Annual Meeting
Cincinnati, Ohio – February 1990
Anaheim, California – February 1991
New Orleans, LA – February 1992
Boston, MA – February 1993
San Antonio, TX – February 1994
Seattle, WA – February 1995
Nashville, TN - February 1996
New York, NY – February 1997
San Francisco, CA - February 1998
Orlando, FL - February 1999
Reno, NV - February 2000
Seattle, WA - February 2001
Atlanta, GA - February 2002
Chicago, IL - February 2003
Dallas, TX – February 2004
New Orleans, LA February, 2005
Seattle, WA February 2006
San Antonio, TX February, 2007
Washington DC February, 2008
Denver, CO February 2009
Seattle, WA February 2010
Chicago, IL February 2011
Atlanta, GA February 2012
Washington DC February 2013
American Society of Forensic Odontology Annual Meeting: 1986- present
American Board of Forensic Odontology Annual Diplomates Meeting 1989- present
Second Symposium on Mass Disaster, ADA Headquarters, Chicago, Illinois, 6/96
Mass Disaster Workshop, ADA Headquarters, April 1997
C.A.R.E. Symposium (Child Abuse Recognition Education),
ADA Headquarters, 7/31- 8/1/98

Continuing Education:

- "Forensic Odontology", Armed Forces Institute of Pathology Washington, D.C. September 1986
- "Forensic Odontology", University of Louisville, Louisville, KY
Mark Bernstein, D.D.S. 1985
- "Forensic Odontology", ADA Mid-Winter Meeting, Chicago, Illinois
John Kenney, D.D.S. 1987
-Mini- A.F.I.P Course, Indiana University- Purdue University, Indianapolis, IN
A.F.I.P. Faculty, 1988,
- Annual A.A.F.S meeting: 1990- 2013, Annual A.S.F.O. meeting: 1990- 2013; A.B.F.O. Annual meeting: 1989-2013

Research Interest:

- Photo-documentation of patterned injuries using non-visible light (Infra-red and ultra violet light)- research on-going

- Digital Imaging and Enhancement, on-going

I have been involved in litigation, both in civil and criminal cases, as well as the review of many cases that were not litigated Specifics available upon request.

IN THE UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

DANNY LEE HILL,	)	**Case No. 99-4317**
	)	
Appellant/Petitioner,	)	**District Court Case No. 96-CV-795**
	)	
v.	)	***Capital Habeas Corpus Case***
	)	
CARL ANDERSON, Warden,	)	
	)	
Appellee/Respondent.	)	

REQUEST FOR AUTHORIZATION FOR HABEAS COUNSEL TO CONDUCT STATE COURT LITIGATION

Appellant, Danny Lee Hill, through undersigned counsel, requests from the Court authorization to conduct state court litigation. Specifically, Mr. Hill requests permission to litigate a Motion for New Trial under Ohio Crim. R. 33, in order to exhaust newly discovered evidence before the state court as required by Supreme Court precedent *Cullen v. Pinholster*, 131 S. Ct. 1388 (2011). This newly discovered evidence indicates Mr. Hill may be innocent of the horrendous murder of Raymond Fife and thus entitled to a new trial. *State v. Petro*, 76 N.E.2d 370, 371 (Ohio 1947). Counsel is required to obtain judicial authorization to initiate state court litigation. *See* Declaration of Dennis G. Terez, Exhibit A.

Pursuant to 6 Cir. R. 25(h), counsel also requests permission to file the Report of Bitemark Analysis and Comparison by Dr. Franklin Wright dated March 30, 2014 (Exhibit B), and CV of Dr. Franklin Wright (Exhibit C), that is the basis of the newly discovered evidence under seal. While counsel recognizes the Court prefers that all documents should be available to the public, the sensitive nature of the information contained within the report compels counsel to proceed with great caution. If counsel were not required by current policies and procedures to obtain judicial authorization to initiate state court litigation, there would be no need to file the report under seal. Counsel will serve a copy of the report to counsel for the Warden, Stephen Maher, Assistant Attorney General via email when this motion is filed.

This Court has jurisdiction to consider this request

Mr. Hill filed his original petition for writ of habeas corpus December 2, 1996. The district court denied the petition September 29, 1999. Mr. Hill appealed the denial of the habeas petition to this Court. The appeal had been fully briefed and argued when the Supreme Court issued its opinion in *Atkins v. Virginia*, 536 U.S. 304 (2002), banning the execution of the mentally retarded. In light of the fact that Mr. Hill's intellectual disability was a central issue in his case, the Court remanded to the district court with instructions to counsel for Mr. Hill to commence a state court

action raising the *Atkins* claim. *Hill v. Anderson*, 300 F.3d 679 (6th Cir. 2002). The Circuit retained jurisdiction over the appellate case.

The *Atkins* claim was litigated fully in state court. On August 26, 2009, the Warden filed a motion to reopen the habeas case, notifying the district that the state litigation on the *Atkins* claim had been accomplished. (Motion to Reopen Case Due to Completion of State Court Proceedings, R. 63, PageID 1-2). Counsel for Mr. Hill filed a similar motion September 22, 2009. (Motion to Reopen Case and Conduct a Status Conference, R. 65, PageID 6-8). On October 1, 2009, the district court granted the motions to reopen. (Order, R. 68, PageID 12).

On November 25, 2009, the district court appointed undersigned counsel with the Capital Habeas Unit of the Office of the Federal Public Defender for the Northern District of Ohio to represent Mr. Hill in the habeas proceeding. (Order, R. 85, PageID 113-114). The Amended Habeas Petition was filed on March 15, 2010. (Amended Petition for Writ of Habeas Corpus, R. 94, PageID 134-216). The Warden filed a Supplemental Return of Writ on April 30, 2010. (Supplemental Return of Writ, R. 98, PageID 283-289). Counsel for Mr. Hill filed a Traverse on August 2, 2010. (Traverse to Return of Writ, R. 102, PageID 295-391).

Counsel for Mr. Hill filed a Motion for Discovery September 20, 2010. (Motion for Discovery, R. 117, PageID 449-467). The district court granted the

motion in part December 14, 2010. (Memorandum of Opinion and Order, R. 132, PageID 620-638). Discovery was completed and filed with the district court April 27, 2011. (Motion to Expand the Record with Discovery, R. 140, PageID 670-681). The district court granted the motion to expand the record with the discovery "for the sole purpose of determining whether an evidentiary hearing is appropriate." (Marginal Entry Order, R. 145, PageID 694). As of the filing of this motion, the district court has yet to rule on the request for an evidentiary hearing or the Amended Habeas Petition.

Statute contemplates authorization for habeas counsel

The plain language of 18 U.S.C. § 3599 provides that the appointment of counsel shall extend to subsequent state court proceedings. If the language is not clear enough, dicta contained in the Supreme Court's decision in *Harbison v. Bell*, 556 U.S. 180 (2009), confirms that with the federal court's permission, the appointment of counsel under § 3599 may be properly extended to state court proceedings that are being litigated in the context of the habeas case to comply with the state exhaustion requirements of the AEDPA. Because Ohio law does not provide for the appointment of counsel at all, much less "adequate representation," to pursue subsequent state court exhaustion, there are no barriers to Mr. Hill's counsel's continued representation.

Section 3599, titled "Counsel for financially unable defendants," provides for the appointment of counsel for two classes of indigents, described, respectively, in subsections (a)(1)[1] and (a)(2). Subsection (a)(2) states:

> In any post conviction proceeding under section 2254 or 2255 of title 28, United States Code, seeking to vacate or set aside a death sentence, any defendant[2] who is or becomes financially unable to obtain adequate representation or investigative, expert, or other reasonably necessary services shall be entitled to the appointment of one or more attorneys and the furnishing of such other services in accordance with subsections (b) through (f).

After subsections (b) through (d) discuss counsel's necessary qualifications, subsection (e) sets forth counsel's responsibilities. It provides:

> Unless replaced by similarly qualified counsel upon the attorney's own motion or upon motion of the defendant, each attorney so appointed shall represent the defendant throughout every subsequent stage of available judicial proceedings, including pretrial proceedings, trial, sentencing, motions for new trial, appeals, applications for writ of certiorari to the Supreme Court of the United States, and all available post-conviction process, together with applications for stays of execution and other appropriate motions and procedures, and shall also represent the defendant in such competency proceedings and proceedings for executive or other clemency as may be available to the defendant.

---

[1] Subsection (a)(1) describes federal capital defendants and is not relevant to this discussion.

[2] § 3599 uses the term "defendant" to describe post-conviction litigants.

Under the plain language of the statute, subsection (a)(2) triggers the appointment of counsel for habeas petitioners, and subsection (e) governs the scope of appointed counsel's duties. See § 3599(a)(2) (stating that habeas petitioners challenging a death sentence shall be entitled to "the furnishing of ... services in accordance with subsections (b) through (f)"). The scope of appointed counsel's duties is very broad under the statute. Thus, once federally funded counsel is appointed to represent a state prisoner in § 2254 proceedings, he "shall represent the defendant throughout . . . all available post-conviction process." § 3599(e). *See also Martel v. Clair*, 132 S. Ct. 1276, 1283 (2012) ("Section 3599 first guarantees that indigent defendants in federal capital cases will receive the assistance of counsel. From pretrial proceedings through stay applications. See §§ 3599(a)(1), (a)(2), (e). It next grants a corresponding right to people like Clair who seek federal habeas relief from a state death sentence, for all post-conviction proceedings and related activities.")

The broad language of the appointment statute extends habeas counsel's appointment to the state court proceedings that are contemplated here, which are "post-conviction proceedings and related activities." These proceedings are within the scope of the appointment. The litigation could be a "subsequent stage of available judicial proceedings, including . . . motions for new trial," in that these state

proceedings are "subsequent" to the filing of Mr. Hill's federal habeas petition. Further, the litigation could be characterized as an "available post-conviction process" and/or "other appropriate motion[]and procedure[]," as Mr. Hill will be pursuing a "post-conviction process" which is still "available" to him, and he is for these reasons also pursuing an "appropriate motion and procedure." *See Martel v. Clair*, 132 S. Ct. at 1283.

As the state court proceedings constitute a "subsequent stage of available judicial proceedings," "available post-conviction process," and/or "other appropriate motions and procedures," their pursuit is unambiguously within the scope of the appointment statute because that statute mandates that counsel's appointment "shall" extend to "**every**" "subsequent stage of available judicial proceedings" and "**all**" "available post-conviction process" and/or "other appropriate motions and procedures." Congress used the terms "every" and "all," and excluded nothing from the statute's resulting broad scope, to make clear that the scope of the appointment extends to exactly the type of proceedings at issue here. The language also confirms Congressional intent to provide to indigent state capital prisoners seeking §2254 relief a correspondingly broad scope of appointed counsel – from inception of the appointment through all subsequent proceedings through and including stays of the client's execution – as provided to indigent federal capital prisoners.

Harbison v. Bell

The Supreme Court in *Harbison v. Bell* confirmed the broad scope of the appointment statute insofar as it applies to state clemency proceedings. *Harbison v. Bell*, 556 U.S. at 194 ("We . . . hold that § 3599 authorizes federally appointed counsel to represent their clients in state clemency proceedings and entitles them to compensation for that representation.") In so doing, the Court rejected the Government's arguments that this statute as a whole was intended to furnish representation only in federal proceedings, that all proceedings listed in subsection (e) should be understood to be federal, and that the statute should not be read expansively:

> We also note that the Government's proposal to read the word "federal" into § 3599(e) would lead to absurd results. It is clear, for example, that a state inmate faced with an imminent execution might be required to apply for a stay from a state court before seeking such relief in a federal court. On our reading of the statute, federally appointed counsel would be permitted to represent her client pursuant to subsection (e)'s reference to "applications for stays of execution and other appropriate motions and procedures." But on the Government's reading, the inmate would have to secure new counsel to file the stay request because his federal counsel would not be authorized to represent him. Such a rigid limit on the authority of appointed federal counsel would be inconsistent with the basic purpose of the statute. Cf. *McFarland v. Scott,* 512 U.S. 849, 854–857, 114 S. Ct. 2568, 129 L. Ed. 2d 666 (1994); *Id.* at 188 ("The directive that counsel "shall represent the defendant throughout every subsequent stage of available judicial proceedings, including ... all available post-conviction process," for example, hardly suggests a limitation on the scope of representation.").

Harbison, 556 U.S. at 187, fn.6; *see generally*, *id.* at 186-188.

The Court also addressed the issue of habeas counsel's representation in "state habeas proceeding occurring after [counsel's] appointment because such proceedings are also 'available post-conviction process.'" *Id.* at 189. The Court noted that one relevant clause of the statute requires representation in "subsequent" stages of available judicial proceedings and "[s]tate habeas is not a stage 'subsequent' to federal habeas. Just the opposite: Petitioners must exhaust their claims in state court before seeking federal habeas relief." *Id.* at 189-90. But the Court also noted that another relevant clause of the statute, which is not prefaced by the "subsequent stage" language, mandates that the representation shall apply to "other appropriate motions and procedures." *Id.* The Court said this latter clause can be applied to extend the appointment of federal habeas counsel to at least some state post-conviction proceedings in which the petitioner is seeking to exhaust a claim in the course of the federal habeas representation:

> Pursuant to § 3599(e)'s provision that counsel may represent her client in "other appropriate motions and procedures," a district court may determine on a case-by-case basis that it is appropriate for federal counsel to exhaust a claim in the course of her federal habeas representation. This is not the same as classifying state habeas proceedings as "available post-conviction process" within the meaning of the statute.

Id. at 190 & n.7 (emphasis supplied).

No state counsel available in Ohio for Mr. Hill

It is simply not feasible for Mr. Hill to obtain new counsel, nor does Ohio law provide for appointment of counsel, much less adequate representation of counsel. Mr. Hill is intellectually challenged and unable to proceed *pro se* in state court. Accordingly, there is no barrier under § 3599 to the continued representation by Mr. Hill's habeas counsel in subsequent state court proceedings.

A panel of the Circuit has interpreted *Harbison* in *Irick v. Bell*, 636 F.3d 289 (6th Cir. 2011). In that case, a Tennessee petitioner filed a motion requesting authorization of federal funding pursuant to § 3599 for his federally appointed counsel to represent him in the reconsidering of his state post-conviction, competency-to-be-executed, and clemency proceedings. The district court granted the motion with respect to clemency proceedings, but denied it as to the state post-conviction and competency proceedings on the basis that § 3599 applies only when adequate representation is unavailable. *Id.* at 291.

On appeal, the Circuit affirmed, holding that:

> We adopt the district court's holding in this case. The district court correctly analyzed Irick's claims. In *Harbison*, the Supreme Court arrived at its holding only after noting that state law did not authorize the appointment of state public defenders for the purpose of pursuing state clemency proceedings. *Id.* at 1484. The Court further emphasized that "[§3599](a)(2) provides for counsel only when a state petitioner is unable to obtain adequate representation." *Id.* at 1488. *See also Rosales*

> *v. Quarterman*, 565 F.3d 308, 312 (5th Cir. 2009) (denying defendant's §3599 request for counsel where the defendant already had adequate representation for the proceeding at issue); *Hill v. Mitchell*, 2009 WL 2898812 at * 4-6 (S.D. Ohio Sept. 4, 2009) (denying defendant's § 3599(e) request for federally appointed counsel for his *Atkins* proceeding because state law entitled him to appointed counsel). **Absent clear direction from the United States Supreme Court or Congress, we decline to obligate the federal government to pay for counsel in state proceedings where the state itself has assumed that obligation**.

Id. (emphasis added). Because Tennessee state law authorized appointed counsel in state competency-to-be-executed proceedings, the Court found Irick's attorneys were not entitled to compensation pursuant to § 3599. *Id.* at 291-92.

With regard to Irick's efforts to reconsider his state post-conviction proceedings, the Court found that Irick was not entitled to federally appointed counsel because his state post-conviction proceedings constituted "the commencement of new judicial proceedings," rather than a stage "subsequent to federal habeas." *Id.* at 292. However, the Court noted that "Irick is not attempting to exhaust a claim in the state courts for the purpose of later presenting it in federal court; rather he is re-opening a state judgment on state-law grounds." *Id.* However, the Court further noted that Irick had a statutory right under Tennessee law to appointed counsel in post-conviction proceedings. Thus, it held that "**even if § 3599 would otherwise apply to Irick's state postconviction proceedings, he would not be eligible for federal**

funding because state law affords him 'adequate representation.'" *Id.* (emphasis added).

That is not the case in Ohio. Ohio law does not provide representation, let alone "adequate representation" to a state capital post-conviction petitioner such as Mr. Hill. While Ohio Revised Code § 2953.21calls for the appointment of counsel to "a person sentenced to death," the appointment clause only applies to one filing a first petition under that statute. (Appointment of counsel applies to one who "intends to file a petition under *this section.*" [2953.21]).

Mr. Hill, on the other hand, plans on filing a Request for Leave to File a Motion for New Trial pursuant to Ohio Crim. R. 33 to further develop his claims with evidence discovered after undersigned counsel's appointment. There is no provision in Ohio law for the appointment of counsel on a motion for a new trial. *See, State v. Clumm*, No. 08-ca-32, 2010 WL 364460 (Ohio App. January 28, 2010).

No available state counsel for Mr. Hill

The Trumbull County Branch of the Ohio Public Defender's office would not be able to take on the representation of Mr. Hill as it was conflicted from representing Mr. Hill at the state *Atkins* hearing. In addition to ineffective assistance of counsel claims against the Public Defender Office that are presently pending before this Court, Morris Hill, the former Warren Police Detective and uncle to Mr. Hill, was

hired by the Public Defender Office as an investigator. Detective Hill extracted a coerced confession from Mr. Hill, which is also the subject of the appeal pending in this Court. *See Hill v. Anderson*, 300 F.3d at 681.

Further, the post conviction unit of the Ohio Public Defender Office is also conflicted from representing Mr. Hill. That office was appointed to represent Mr. Hill at the *Atkins* hearing after the Trumbull County Branch was allowed to withdraw. There have been ineffective assistance of counsel claims lodged against the OPD in the Amended Habeas Petition. Over the years, Mr. Hill has been represented by several different lawyers in Ohio, both within the OPD and privately appointed counsel. To locate a well qualified counsel with sufficient experience to take on the representation of Mr. Hill at this juncture would be impracticable, if not impossible. New counsel would also have to become completely familiar with the case which would delay the proceedings even further.

Conclusion

Therefore, counsel for Mr. Hill requests authorization to conduct state court litigation on the newly discovered evidence that undermines dramatically the legitimacy of the forensic evidence in this case. Counsel requests a reasonable amount of time by which to file the Request for Leave to File a Motion for New Trial in the

Trumbull County Court of Common Pleas.[3] Counsel is not filing this motion for purposes of delay, but to exhaust and preserve critical claims in Mr. Hill's case that directly impact whether he may be innocent of the horrendous murder of Raymond Fife. Counsel is not requesting that the current Amended Habeas Petition pending with the district court be stayed.

Respectfully submitted,

/s/ Vicki Ruth Adams Werneke
VICKI RUTH ADAMS WERNEKE (0088560)
Assistant Federal Public Defender
Capital Habeas Unit
Office of the Federal Public Defender
1660 West Second Street, Suite 750
Cleveland, Ohio 44113
(216) 522-4856
(216) 522-1951 (fax)
vicki_werneke@fd.org

Counsel for Appellant/Petitioner
Danny Hill

[3] Counsel also represents Arthur Tyler who is scheduled to be executed by the State of Ohio on May 28, 2014. The clemency hearing for Mr. Tyler is scheduled for April 24, 2014.

CERTIFICATE OF SERVICE

I hereby certify that on March 31, 2014, a copy of the foregoing **Request for Authorization for Habeas Counsel to Conduct State Court Litigation** was filed electronically. Notice of this filing will be sent by operation of the Court's electronic filing system to all parties indicated on the electronic filing receipt. All other parties will be served by regular U.S. Mail. Parties may access this filing through the Court's system.

/s/ Vicki Ruth Adams Werneke
VICKI RUTH ADAMS WERNEKE
Assistant Federal Public Defender

Counsel for Appellant/Petitioner
Danny Hill

Declaration of Dennis G. Terez

I, Dennis G. Terez, declare as follows:

1. I am the Federal Public Defender for the Northern District of Ohio. In June 2008, our office created a capital habeas unit to represent clients on Ohio's death row to whom we are appointed.

2. Vicki Werneke, an assistant federal public defender with that unit, requested this declaration to clarify when she is permitted to represent her client, Danny Hill, before an Ohio state court.

3. The federal statutes that are most relevant are 18 U.S.C. §§ 3006A and 3599. Assistant federal public defenders are prohibited from initiating new state court actions without prior federal judicial authorization unless the representation is considered one of the "ancillary matters appropriate to the proceedings," as 18 U.S.C. § 3006A(c) provides. The underlying purpose of this language is to ensure that federal funds are spent primarily representing individuals in federal proceedings.

4. While an "ancillary matter" may extend in the habeas context to initiating new state court proceedings, it is the practice of the Defender Services Office and of our office to require prior federal judicial authorization. Since the appointment power in § 3006A rests with federal judicial officers, this approach is consistent with the language and intent of the statute.

5. The second, more specific statute states that capital counsel "shall represent the [client] throughout *every subsequent stage of available judicial proceedings, . . . and all available post-conviction process*, together with stays of execution and *other appropriate motions and procedures, . . .*" *See* § 3599(e). Seeking prior judicial authorization is consistent with *Harbison v. Bell*, 129 S. Ct. 1481, 1489 n.7 (2009) ("Pursuant to § 3599(e)'s provision that counsel may

represent her client in 'other appropriate motions and procedures,' a district court may determine on a case-by case basis that it is appropriate for federal counsel exhaust a claim in the court of her federal habeas representation.")

6. Furthermore, prior authorization is required because a new trial motion has the potential of triggering an entirely new case, which would likely entail the expenditure of significant resources. Before that step is taken, I would want the assurance of a federal judicial officer that the appointment power initially allowing our office to represent the defendant extends to the anticipated state court proceeding so that federal resources can be expended even though the representation will be carried out in state court.

7. It is also not feasible for Ms. Werneke to file with the Trumball County Court of Common Pleas a request for appointment as it is not one of the judicial bodies in which § 3006A vests appointment authority. Although common pleas judges often welcome the appearance of an assistant federal public defender in state court proceedings, the permission to make such an appearance should first come from a federal judicial officer or be embodied in § 3006A as an ancillary matter appropriate to the ongoing federal proceedings.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 25th of March, 2014.

Dennis G. Terez

NOT RECOMMENDED FOR FULL-TEXT PUBLICATION

Case No. 99-4317

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

FILED
Apr 18, 2014
DEBORAH S. HUNT, Clerk

Danny Hill,

Petitioner,

v.

Betty Mitchell, Warden,

Respondent.

ORDER

Before: MERRITT, MOORE, and CLAY, Circuit Judges.

Petitioner Danny Hill, an Ohio death-row prisoner represented by counsel, filed a motion with our court requesting that counsel currently representing Hill in a pending habeas case in federal district court[1] be appointed to represent Hill in his request for a new trial in state court based on newly discovered evidence. *See* 18 U.S.C. § 3599(e).[2]

[1] *Hill v. Anderson*, No. 96-cv-795 (N.D. Ohio).

[2] 18 U.S.C. § 3599(e) says:

> [E]ach attorney so appointed shall represent the defendant throughout every subsequent stage of available judicial proceedings, including pretrial proceedings, trial, sentencing, motions for new trial, appeals, applications for writ of certiorari to the Supreme Court of the United States, and all available post-conviction process, together with applications for stays of execution and other appropriate motions and procedures, and shall also represent the defendant in such competency proceedings and proceedings for executive or other clemency as may be available to the defendant.

Hill v. Mitchell
No. 99-4317

The district court has Hill's pending habeas petition before it, and that court is in a better position to rule on the merits of Hill's motion concerning his request for counsel to represent him in further state proceedings. Ruling on Hill's motion would require us to admit and consider new evidence, and we do not generally allow a party to supplement the record with evidence not put before the district court in the first instance. *Taft Broad. Co. v. United States*, 929 F.2d 240, 243 (6th Cir. 1991) (arguments should be presented in the first instance to the district court). We have adhered to this rule "[i]n the interests of judicial economy . . . and mindful of our role as an appellate court." *Sigmon Fuel Co. v. Tenn. Valley Auth.*, 754 F.2d 162, 164 (6th Cir. 1985).

Hill is directed to file his request with the district court. His motions to file various documents under seal in this court are denied. The Warden's motion for a procedural order regarding the pendency before the district court of the same motion requesting the same relief as that sought before this court is denied as moot.

Accordingly, it is so ordered.

ENTERED BY ORDER OF THE COURT

Deborah S. Hunt, Clerk

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT
100 EAST FIFTH STREET, ROOM 540
Deborah S. Hunt
Clerk
POTTER STEWART U.S. COURTHOUSE
CINCINNATI, OHIO 45202-3988
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Filed: April 18, 2014

Mr. Stephen E. Maher
Office of the Ohio Attorney General
150 E. Gay Street
16th Floor
Columbus, OH 43215

Ms. Vicki Ruth Adams Werneke
Federal Public Defender's Office
1660 W. Second Street
Suite 750
Cleveland, OH 44113

Re: Case No. 99-4317, *Hill v. Anderson*
Originating Case No. : 96-00795

Dear Sir or Madam,

The Court issued the enclosed Order today in this case.

Sincerely yours,

s/Jill Colyer
Case Manager
Direct Dial No. 513-564-7024

cc: Ms. Amanda P. Lenhart
Mr. Christopher R. McDowell
Geri M. Smith
Mr. Mark A. Vander Laan
Mr. Charles L. Wille

Enclosure

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

DANNY LEE HILL,	)	**CASE NO. 4:96-CV-795**
	)	
Petitioner,	)	**JUDGE JOHN ADAMS**
	)	
v.	)	
	)	***Capital Habeas Corpus Case***
CARL ANDERSON, Warden,	)	
	)	
Respondent.	)	

PETITIONER'S REQUEST FOR AUTHORIZATION
FOR HABEAS COUNSEL TO CONDUCT STATE COURT LITIGATION

Appellant, Danny Lee Hill, through undersigned counsel, requests from the Court authorization to conduct state court litigation. Specifically, Mr. Hill requests permission to litigate a Motion for New Trial under Ohio Crim. R. 33, in order to exhaust newly discovered evidence before the state court as required by Supreme Court precedent *Cullen v. Pinholster*, 131 S. Ct. 1388 (2011). this newly discovered evidence indicates Mr. Hill may be innocent of the horrendous murder of Raymond Fife and thus entitled to a new trial. *State v. Petro*, 76 N.E.2d 370, 371 (Ohio 1947). Counsel is required to obtain judicial authorization to initiate state court litigation. *See* Declaration of Dennis G. Terez, Exhibit A.

The newly discovered evidence

On March 30, 2014, counsel obtained the Report of Bitemark Analysis and Comparison (Exhibit B) from Franklin D. Wright, D.M.D., a forensic dental consultant (Exhibit C, Dr. Wright's CV). In that report, Dr. Wright stated that in his opinion, "to a reasonable degree of medical/dental certainty, that the patterned injury on the penis of the victim is not a human bitemark." (Report at

page 6). Further, Dr. Wright shared for the first time that Dr. Mertz, the state's expert at the 1986 trial, who was a friend and mentor of Dr. Wright, had reservations about this opinion in this case, and about whether the injury was even a bitemark. (Report at page 5).

This Court has jurisdiction to consider this request

Mr. Hill filed his original petition for writ of habeas corpus December 2, 1996. The district court denied the petition September 29, 1999. Mr. Hill appealed the denial of the habeas petition to the Sixth Circuit Court of Appeals. The appeal had been fully briefed and argued when the Supreme Court issued its opinion in *Atkins v. Virginia*, 536 U.S. 304 (2002), banning the execution of the mentally retarded. In light of the fact that Mr. Hill's intellectual disability was a central issue in his case, the Circuit remanded to the district court with instructions to counsel for Mr. Hill to commence a state court action raising the *Atkins* claim. *Hill v. Anderson*, 300 F.3d 679 (6th Cir. 2002).

The *Atkins* claim was litigated fully in state court. On August 26, 2009, the Warden filed a motion to reopen the habeas case, notifying the district that the state litigation on the *Atkins* claim had been accomplished. (Motion to Reopen Case Due to Completion of State Court Proceedings, R. 63, PageID 1-2). Counsel for Mr. Hill filed a similar motion September 22, 2009. (Motion to Reopen Case and Conduct a Status Conference, R. 65, PageID 6-8). On October 1, 2009, the district court granted the motions to reopen. (Order, R. 68, PageID 12).

On November 25, 2009, the district court appointed undersigned counsel with the Capital Habeas Unit of the Office of the Federal Public Defender for the Northern District of Ohio to represent Mr. Hill in the habeas proceeding. (Order, R. 85, PageID 113-114). The Amended Habeas Petition was filed on March 15, 2010. (Amended Petition for Writ of Habeas Corpus, R. 94, PageID 134-216). The Warden filed a Supplemental Return of Writ on April 30, 2010. (Supplemental Return

of Writ, R. 98, PageID 283-289). Counsel for Mr. Hill filed a Traverse on August 2, 2010. (Traverse to Return of Writ, R. 102, PageID 295-391).

Counsel for Mr. Hill filed a Motion for Discovery September 20, 2010. (Motion for Discovery, R. 117, PageID 449-467). The district court granted the motion in part December 14, 2010. (Memorandum of Opinion and Order, R. 132, PageID 620-638). Discovery was completed and filed with the district court April 27, 2011. (Motion to Expand the Record with Discovery, R. 140, PageID 670-681). The district court granted the motion to expand the record with the discovery "for the sole purpose of determining whether an evidentiary hearing is appropriate." (Marginal Entry Order, R. 145, PageID 694). As of the filing of this motion, the district court has yet to rule on the request for an evidentiary hearing or the Amended Habeas Petition.

Counsel for Mr. Hill filed a Request for Authorization for Habeas Counsel to Conduct State Court Litigation with the Circuit on March 31, 2014. On April 18, 2014, the Circuit directed counsel for Mr. Hill to file the request with the district court. This Court has jurisdiction to address this request.

Statute contemplates authorization for habeas counsel

The plain language of 18 U.S.C. § 3599 provides that the appointment of counsel shall extend to subsequent state court proceedings. If the language is not clear enough, dicta contained in the Supreme Court's decision in *Harbison v. Bell*, 556 U.S. 180 (2009), confirms that with the federal court's permission, the appointment of counsel under § 3599 may be properly extended to state court proceedings that are being litigated in the context of the habeas case to comply with the state exhaustion requirements of the AEDPA. Because Ohio law does not provide for the appointment of

counsel at all, much less "adequate representation," to pursue subsequent state court exhaustion, there are no barriers to Mr. Hill's counsel's continued representation.

Section 3599, titled "Counsel for financially unable defendants," provides for the appointment of counsel for two classes of indigents, described, respectively, in subsections (a)(1)[1] and (a)(2). Subsection (a)(2) states:

> In any post conviction proceeding under section 2254 or 2255 of title 28, United States Code, seeking to vacate or set aside a death sentence, any defendant[2] who is or becomes financially unable to obtain adequate representation or investigative, expert, or other reasonably necessary services shall be entitled to the appointment of one or more attorneys and the furnishing of such other services in accordance with subsections (b) through (f).

After subsections (b) through (d) discuss counsel's necessary qualifications, subsection (e) sets forth counsel's responsibilities. It provides:

> Unless replaced by similarly qualified counsel upon the attorney's own motion or upon motion of the defendant, each attorney so appointed shall represent the defendant throughout every subsequent stage of available judicial proceedings, including pretrial proceedings, trial, sentencing, motions for new trial, appeals, applications for writ of certiorari to the Supreme Court of the United States, and all available post-conviction process, together with applications for stays of execution and other appropriate motions and procedures, and shall also represent the defendant in such competency proceedings and proceedings for executive or other clemency as may be available to the defendant.

Under the plain language of the statute, subsection (a)(2) triggers the appointment of counsel for habeas petitioners, and subsection (e) governs the scope of appointed counsel's duties. See § 3599(a)(2) (stating that habeas petitioners challenging a death sentence shall be entitled to "the furnishing of ... services in accordance with subsections (b) through (f)"). The scope of appointed

---

[1] Subsection (a)(1) describes federal capital defendants and is not relevant to this discussion.

[2] § 3599 uses the term "defendant" to describe post-conviction litigants.

counsel's duties is very broad under the statute. Thus, once federally funded counsel is appointed to represent a state prisoner in § 2254 proceedings, he "shall represent the defendant throughout . . . all available post-conviction process." § 3599(e). *See also Martel v. Clair*, 132 S. Ct. 1276, 1283 (2012) ("Section 3599 first guarantees that indigent defendants in federal capital cases will receive the assistance of counsel. From pretrial proceedings through stay applications. See §§ 3599(a)(1), (a)(2), (e). It next grants a corresponding right to people like Clair who seek federal habeas relief from a state death sentence, for all post-conviction proceedings and related activities.")

The broad language of the appointment statute extends habeas counsel's appointment to the state court proceedings that are contemplated here, which are "post-conviction proceedings and related activities." These proceedings are within the scope of the appointment. The litigation could be a "subsequent stage of available judicial proceedings, including . . . motions for new trial," in that these state proceedings are "subsequent" to the filing of Mr. Hill's federal habeas petition. Further, the litigation could be characterized as an "available post-conviction process" and/or "other appropriate motion[]and procedure[]," as Mr. Hill will be pursuing a "post-conviction process" which is still "available" to him, and he is for these reasons also pursuing an "appropriate motion and procedure." *See Martel v. Clair*, 132 S. Ct. at 1283.

As the state court proceedings constitute a "subsequent stage of available judicial proceedings," "available post-conviction process," and/or "other appropriate motions and procedures," their pursuit is unambiguously within the scope of the appointment statute because that statute mandates that counsel's appointment "shall" extend to "**every**" "subsequent stage of available judicial proceedings" and "**all**" "available post-conviction process" and/or "other appropriate motions and procedures." Congress used the terms "every" and "all," and excluded nothing from the

statute's resulting broad scope, to make clear that the scope of the appointment extends to exactly the type of proceedings at issue here. The language also confirms Congressional intent to provide to indigent state capital prisoners seeking §2254 relief a correspondingly broad scope of appointed counsel – from inception of the appointment through all subsequent proceedings through and including stays of the client's execution – as provided to indigent federal capital prisoners.

Harbison v. Bell

The Supreme Court in *Harbison v. Bell* confirmed the broad scope of the appointment statute insofar as it applies to state clemency proceedings. *Harbison v. Bell*, 556 U.S. at 194 ("We . . . hold that § 3599 authorizes federally appointed counsel to represent their clients in state clemency proceedings and entitles them to compensation for that representation.") In so doing, the Court rejected the Government's arguments that this statute as a whole was intended to furnish representation only in federal proceedings, that all proceedings listed in subsection (e) should be understood to be federal, and that the statute should not be read expansively:

> We also note that the Government's proposal to read the word "federal" into § 3599(e) would lead to absurd results. It is clear, for example, that a state inmate faced with an imminent execution might be required to apply for a stay from a state court before seeking such relief in a federal court. On our reading of the statute, federally appointed counsel would be permitted to represent her client pursuant to subsection (e)'s reference to "applications for stays of execution and other appropriate motions and procedures." But on the Government's reading, the inmate would have to secure new counsel to file the stay request because his federal counsel would not be authorized to represent him. Such a rigid limit on the authority of appointed federal counsel would be inconsistent with the basic purpose of the statute. Cf. *McFarland v. Scott,* 512 U.S. 849, 854–857, 114 S. Ct. 2568, 129 L. Ed. 2d 666 (1994); *Id.* at 188 ("The directive that counsel "shall represent the defendant throughout every subsequent stage of available judicial proceedings, including ... all available post-conviction process," for example, hardly suggests a limitation on the scope of representation.").

Harbison, 556 U.S. at 187, fn.6; *see generally, id.* at 186-188.

The Court also addressed the issue of habeas counsel's representation in "state habeas proceeding occurring after [counsel's] appointment because such proceedings are also 'available post-conviction process.'" *Id.* at 189. The Court noted that one relevant clause of the statute requires representation in "subsequent" stages of available judicial proceedings and "[s]tate habeas is not a stage 'subsequent' to federal habeas. Just the opposite: Petitioners must exhaust their claims in state court before seeking federal habeas relief." *Id.* at 189-90. But the Court also noted that another relevant clause of the statute, which is not prefaced by the "subsequent stage" language, mandates that the representation shall apply to "other appropriate motions and procedures." *Id.* The Court said this latter clause can be applied to extend the appointment of federal habeas counsel to at least some state post-conviction proceedings in which the petitioner is seeking to exhaust a claim in the course of the federal habeas representation:

> Pursuant to § 3599(e)'s provision that counsel may represent her client in "other appropriate motions and procedures," a district court may determine on a case-by-case basis that it is appropriate for federal counsel to exhaust a claim in the course of her federal habeas representation. This is not the same as classifying state habeas proceedings as "available post-conviction process" within the meaning of the statute.

Id. at 190 & n.7 (emphasis supplied).

The state court litigation proposed is that contemplated by Harbison v. Bell

The *Harbison* Court provided this Court with guidance as to what constitutes "subsequent litigation." Although the Court observed that state habeas litigation typically is not "subsequent to" federal habeas proceedings, it acknowledged that "state postconviction litigation sometimes follows the initiation of federal habeas because a petitioner has failed to exhaust [a claim]." *Id.* at 190. The Government in that case argued that, taken to an extreme, this interpretation could permit federal

habeas counsel to represent a successful habeas petitioner at his state retrial. The Court rejected this argument. *Id.* at 189. In a separate, concurring opinion, Justice Roberts further explained the types of litigation that would be excluded from § 3599's purview. He noted, for example, that the "subsequent stage[s]" provision of § 3599 did not include "a challenge to prison conditions or a suit for divorce in state court, even if these available judicial proceedings occur subsequent to federal habeas."*Id.* at 195. The Supreme Court contemplated permitting federal habeas counsel to do precisely what Mr. Hill's counsel have requested here, i.e., return to state court to litigate an issue appurtenant to his habeas litigation.

No state counsel available in Ohio for Mr. Hill

It is simply not feasible for Mr. Hill to obtain new counsel, nor does Ohio law provide for appointment of counsel, much less adequate representation of counsel. Mr. Hill is intellectually challenged and unable to proceed *pro se* in state court. Accordingly, there is no barrier under § 3599 to the continued representation by Mr. Hill's habeas counsel in subsequent state court proceedings.

A panel of the Circuit has interpreted *Harbison* in *Irick v. Bell*, 636 F.3d 289 (6th Cir. 2011). In that case, a Tennessee petitioner filed a motion requesting authorization of federal funding pursuant to § 3599 for his federally appointed counsel to represent him in the reconsidering of his state post-conviction, competency-to-be-executed, and clemency proceedings. The district court granted the motion with respect to clemency proceedings, but denied it as to the state post-conviction and competency proceedings on the basis that § 3599 applies only when adequate representation is unavailable. *Id.* at 291.

On appeal, the Circuit affirmed, holding that:

> We adopt the district court's holding in this case. The district court correctly analyzed Irick's claims. In *Harbison*, the Supreme Court arrived at its holding only after noting that state law did not authorize the appointment of state public defenders for the purpose of pursuing state clemency proceedings. *Id.* at 1484. The Court further emphasized that "[§3599](a)(2) provides for counsel only when a state petitioner is unable to obtain adequate representation." *Id.* at 1488. *See also Rosales v. Quarterman*, 565 F.3d 308, 312 (5th Cir. 2009) (denying defendant's §3599 request for counsel where the defendant already had adequate representation for the proceeding at issue); *Hill v. Mitchell*, 2009 WL 2898812 at * 4-6 (S.D. Ohio Sept. 4, 2009) (denying defendant's § 3599(e) request for federally appointed counsel for his *Atkins* proceeding because state law entitled him to appointed counsel). **Absent clear direction from the United States Supreme Court or Congress, we decline to obligate the federal government to pay for counsel in state proceedings where the state itself has assumed that obligation**.

Id. (emphasis added). Because Tennessee state law authorized appointed counsel in state competency-to-be-executed proceedings, the Court found Irick's attorneys were not entitled to compensation pursuant to § 3599. *Id.* at 291-92.

With regard to Irick's efforts to reconsider his state post-conviction proceedings, the Court found that Irick was not entitled to federally appointed counsel because his state post-conviction proceedings constituted "the commencement of new judicial proceedings," rather than a stage "subsequent to federal habeas." *Id.* at 292. However, the Court noted that "Irick is not attempting to exhaust a claim in the state courts for the purpose of later presenting it in federal court; rather he is re-opening a state judgment on state-law grounds." *Id.* However, the Court further noted that Irick had a statutory right under Tennessee law to appointed counsel in post-conviction proceedings. Thus, it held that "**even if § 3599 would otherwise apply to Irick's state postconviction proceedings, he would not be eligible for federal funding because state law affords him 'adequate representation.**'" *Id.* (emphasis added).

That is not the case in Ohio. Ohio law does not provide representation, let alone "adequate representation" to a state capital post-conviction petitioner such as Mr. Hill. While Ohio Revised Code § 2953.21 calls for the appointment of counsel to "a person sentenced to death," the appointment clause only applies to one filing a first petition under that statute. (Appointment of counsel applies to one who "intends to file a petition under *this section.*" [2953.21]).

Mr. Hill, on the other hand, plans on filing a Request for Leave to File a Motion for New Trial pursuant to Ohio Crim. R. 33 to further develop his claims with evidence discovered after undersigned counsel's appointment. There is no provision in Ohio law for the appointment of counsel on a motion for a new trial. *See State v. Clumm*, No. 08-ca-32, 2010 WL 364460 (Ohio Ct. App. Jan. 28, 2010).

No available state counsel for Mr. Hill

The Trumbull County Branch of the Ohio Public Defender's office would not be able to take on the representation of Mr. Hill as it was conflicted from representing Mr. Hill at the state *Atkins* hearing. In addition to ineffective assistance of counsel claims against the Public Defender Office that are presently pending before this Court, Morris Hill, the former Warren Police Detective and uncle to Mr. Hill, was hired by the Public Defender Office as an investigator. Detective Hill extracted a coerced confession from Mr. Hill, which is also the subject of the appeal pending in the Sixth Circuit. *See Hill v. Anderson*, 300 F.3d at 681.

Further, the post conviction unit of the Ohio Public Defender Office is also conflicted from representing Mr. Hill. That office was appointed to represent Mr. Hill at the *Atkins* hearing after the Trumbull County Branch was allowed to withdraw. There have been ineffective assistance of counsel claims lodged against the OPD in the Amended Habeas Petition. Over the years, Mr. Hill

has been represented by several different lawyers in Ohio, both within the OPD and privately appointed counsel. To locate a well qualified counsel with sufficient experience to take on the representation of Mr. Hill at this juncture would be impracticable, if not impossible. New counsel would also have to become completely familiar with the case which would delay the proceedings even further.

The Warden has no stake in this request

The Warden has no stake in the outcome of Mr. Hill's request and the Court, therefore, should not consider his position as to how the Court should decide this request. The Warden here is similarly situated to Respondent Bell in *Harbison v. Bell*, 556 U.S. 180 (2009). There, the Supreme Court interpreted the scope of capital counsel's appointment pursuant to 18 U.S.C. § 3599 and whether it included representation during state clemency proceedings. Warden Bell determined that because he "ha[d] no real stake in whether an inmate receives federal funding for clemency counsel, respondent expresse[d] no view on Question 1." (Brief of Respondent at 7, *Harbison v. Bell*, 556 U.S. 180 (2009) (No. 07-8521)). Similarly, the Warden should not be permitted to take a position here because the Warden's interests are neither advanced nor subverted regardless of the outcome of the motion.

Conclusion

Therefore, counsel for Mr. Hill requests authorization to conduct state court litigation on the newly discovered evidence that undermines dramatically the legitimacy of the forensic evidence in this case. Counsel requests a reasonable amount of time by which to file the Request for Leave to File a Motion for New Trial in the Trumbull County Court of Common Pleas. Counsel is not filing

this motion for purposes of delay, but to exhaust and preserve critical claims in Mr. Hill's case that directly impact whether he may be innocent of the horrendous murder of Raymond Fife.

Respectfully submitted,

/s/ Vicki Ruth Adams Werneke
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CERTIFICATE OF SERVICE

I hereby certify that on April 21, 2014, a copy of the foregoing **Petitioner's Request for Authorization for Habeas Counsel to Conduct State Court Litigation** was filed electronically. Notice of this filing will be sent by operation of the Court's electronic filing system to all parties indicated on the electronic filing receipt. All other parties will be served by regular U.S. Mail. Parties may access this filing through the Court's system.

/s/ Vicki Ruth Adams Werneke
VICKI RUTH ADAMS WERNEKE
Assistant Federal Public Defender

Counsel for Petitioner
Danny Hill

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

DANNY LEE HILL,	:	**CASE NO. 4:96 CV 00795**
	:	
Petitioner,	:	
	:	**JUDGE JOHN R. ADAMS**
vs.	:	
	:	
CARL ANDERSON, Warden,	:	
	:	**MEMORANDUM OF OPINION**
Respondent.	:	**AND ORDER**

This matter is before the Court upon Petitioner Danny Lee Hill's ("Hill" or "Petitioner") Request for Authorization for Habeas Counsel to Conduct State Court Litigation. (ECF No. 156.) The Respondent, Warden Carl Anderson ("Respondent"), filed an Opposition to Appointment of Counsel to Conduct State Court Litigation. (ECF No. 157.) Hill filed a Reply to Respondent's opposition. (ECF No. 158.) For the following reasons, Hill's request is denied.

I. Relevant Procedural History

On February 28, 1986, a three-judge panel sentenced Hill to death for the aggravated murder of twelve-year-old Raymond Fife ("Fife"). Timothy Combs also was charged and convicted in a separate trial as a principal offender in Fife's murder. *See State v. Combs,* No. 1725, 1988 WL 129449 (Ohio Ct. App. Dec. 2, 1988).

The Ohio Supreme Court summarized the evidence adduced at Hill's trial as follows:

Among the voluminous testimony from witnesses and the numerous exhibits, the

following evidence was adduced:

> Defendant's brother, Raymond L. Vaughn, testified that he saw defendant wash his gray pants on the night of the murder as well as on the following two days. Vaughn identified the pants in court, and testified that it looked like defendant was washing out "something red. * * * It looked like blood to me * * *."
>
> Detective Sergeant William Carnahan of the Warren Police Department testified that on September 15, 1985 he went with eyewitness Donald Allgood to the place where Allgood stated he had seen defendant and Combs coming out of the wooded field, and where he had seen defendant toss "something" into the woods. Carnahan testified that he returned to the area with workers from the Warren Parks Department, and that he and Detective James Teeple found a stick about six feet from the path where Allgood saw defendant and Combs walking.
>
> Dr. Curtis Mertz, a forensic odontologist, stated that: "It's my professional opinion, with reasonable degree of medical certainty, that Hill's teeth, as depicted by the models and the photographs that I had, made the bite on Fife's penis."
>
> The defense called its own forensic odontologist, Dr. Lowell Levine, who stated that he could not conclude with a reasonable degree of certainty as to who made the bite marks on the victim's penis. However, Levine concluded: "What I'm saying is either Hill or Combs, or both, could have left some of the marks but the one mark that's consistent with the particular area most likely was left by Hill."
>
> Doctor Howard Adelman, the pathologist who performed the autopsy of the victim's body, testified that the size and shape of the point of the stick found by Detective Carnahan was "very compatible" with the size and shape of the opening through the victim's rectum. Adelman described the fit of the stick in the victim's rectum as "very similar to a key in a lock."

State v. Hill, 64 Ohio St. 3d 313, 316, 595 N.E.2d 884, 889 (Ohio 1992).

Hill's conviction and sentence were left undisturbed on direct appeal. *See State v. Hill*, Nos. 3720, 3745, 1989 WL 142761 (Ohio Ct. App. Nov. 27, 1989); *State v. Hill*, 64 Ohio St. 3d 313, 595 N.E.2d 884 (Ohio 1992), *reh'g denied*, 65 Ohio St. 3d 1421, 598 N.E.2d 1172 (Ohio 1992); and *Hill v. Ohio*, 507 U.S. 1007 (1993). Hill also was unsuccessful in state post-

conviction proceedings. (*See* App. to Return of Writ, Exs. FF, GG.) *See also State v. Hill*, No. 94-T-5116, 1995 WL 418683 (Ohio Ct. App. June 16, 1995); *State v. Hill*, 74 Ohio St. 3d 1456, 656 N.E.2d 951 (Ohio 1995) (Table).

Hill filed a petition for writ of habeas corpus with this Court on November 27, 1996. (ECF No. 18.) He asserted twenty-eight grounds for relief in his petition. In his third ground for relief, Hill argued that because of his "mental deficiencies," he was "incompetent" to waive his *Miranda* rights and a jury trial, violating his rights under the Fifth, Sixth, Eighth, and Fourteenth Amendments. (*Id.* at 10-11.) Hill also asserted three claims that referenced the bite mark found on Fife. Specifically, in his eighth ground for relief, Hill alleged that photographs of the bite marks that were delivered by the State to him at the time of trial, should have been produced by the State during pre-trial discovery. (*Id.* at 15-16.) In his tenth ground, he alleged the prosecutor improperly stated during closing arguments that the bite mark was Hill's "calling card." (*Id.* at 18.) And in his twenty-sixth ground, Hill alleged that the state post-conviction court should have granted his request for appointment of a new expert to reexamine the bite-mark evidence that was litigated during the trial. (*Id.* at 36-37.) Another judge on this Court denied Hill's petition on September 29, 1999, but granted a certificate of appealability as to several of Hill's claims, including his third, eighth, and twenty-sixth grounds for relief. (ECF No. 54.)

Hill appealed this Court's decision denying the writ to the Sixth Circuit Court of Appeals. While his appeal was pending, the United States Supreme Court decided *Atkins v. Virginia,* 536 U.S. 304 (2002), which held that the execution of mentally retarded offenders violates the Eighth Amendment's prohibition against cruel and unusual punishment. Less than two months later, on August 13, 2002, the Sixth Circuit returned Hill's case to this Court with instructions that it

"remand Hill's *Atkins* claim to a state court and stay his remaining claims pending resolution of the retardation issue." *Hill v. Anderson*, 300 F.3d 679, 680 (6th Cir. 2002). The court explained that it did not dismiss Hill's "mixed petition" containing exhausted claims along with the unexhausted *Atkins* claim, as it was authorized to do under § 2254(b)(2) of the Antiterrorism and Effective Death Penalty Act of 1996 ("AEDPA"), because the issue of Hill's Eighth Amendment mental retardation claim had not been exhausted or conceded, and Ohio should have the opportunity to develop its own procedures for determining whether a particular claimant is retarded and ineligible for death. *Id.* at 682. It also found that Hill's mental status raised "a serious question" regarding the voluntariness of his confession to police. *Id.* at 682-83. The court emphasized the limited nature of its remand, however, stating:

> In *Zarvela v. Artuz*, the Second Circuit faced a similar mixed petition problem. *See* 254 F.3d 374, 380 (2001), *cert. denied*, 534 U.S. 1015, 122 S.Ct. 506, 151 L.Ed.2d 415 (2001). Crafting a solution consistent with the purposes of the Antiterrorism Act, the court remanded to the district court with instructions to dismiss the unexhausted claim and stay the exhausted claims, but conditioned the stay on the petitioner promptly seeking state remedies and, when the state remedies were exhausted, promptly returning to federal court. *See id.* at 381. *Zarvela* has been cited with approval by this Court. *See Palmer v. Carlton,* 276 F.3d 777, 778 (6th Cir.2002).
>
> Here we adopt *Zarvela*'s approach and remand Hill's case to district court with instructions to dismiss his *Atkins* claim to be considered by state court and to stay his remaining claims pending exhaustion of state court remedies. To ensure that Hill does not draw out his state court proceedings, we instruct the district court to condition the stay on Hill's seeking relief from a state court on his *Atkins* claim within 90 days of the date the mandate issues from this Court.

Id. at 683.

In accordance with the Sixth Circuit's remand instructions, this Court dismissed Hill's *Atkins* claim on August 20, 2002, and stayed his remaining claims pending exhaustion of his

state-court remedies. (ECF No. 60.) Hill then filed a petition to vacate his death sentence with the state trial court on November 27, 2002, and an amended petition to vacate on January 17, 2003. (Supp. App., Disc 1, 31-32.) Hill, assisted by appointed counsel and two appointed experts, conducted substantial briefing and discovery regarding his claims. (*See id.* at 1-33.) The trial court, in accordance with the procedures established by the Ohio Supreme Court in *State v. Lott*, 97 Ohio St. 3d 303, 779 N.E.2d 1011 (Ohio 2002), held a twelve-day hearing, at which Hill submitted more than 500 pages of evidence. (*See* Supp. App., Disc 1, 486-1013.) At its conclusion, the trial court issued an 84-page opinion, which thoroughly examined the evidence and explained its decision. (*See id.* at 3399-3483.) Hill then was provided with appointed counsel to appeal the decision. (*See id.* at 3496-4517.) The Ohio court of appeals affirmed the trial court's decision on July 11, 2008. *State v. Hill*, 177 Ohio App. 3d 171, 894 N.E.2d 108 (Ohio Ct. App. 2008). The Ohio Supreme Court declined to review the case on August 26, 2009, with two justices dissenting. *State v. Hill*, 122 Ohio St. 3d 1502, 912 N.E.2d 107 (Ohio 2009) (Table).

After Hill exhausted his *Atkins* claims in state court, both parties promptly moved this Court to "reopen" Hill's habeas action. (ECF Nos. 63, 65.) The Court granted the motions on October 1, 2009, declaring Hill's habeas case "REOPENED" and ordering Hill to file a "supplement" to his petition that "shall contain only those new claims generated by the state court *Atkins* proceedings and shall not re-state the claims contained in the initial petition in this matter." (ECF No. 68.) On March 15, 2010, Hill filed an amended habeas petition in this Court, asserting his *Atkins* and *Atkins*-related claims. (ECF No. 94.) Respondent filed a supplemental return of writ on April 30, 2010. (ECF No. 98.) Hill filed his traverse on August 2, 2010. (ECF

No. 102.) Hill then requested, and was granted permission to conduct limited discovery, which he completed on April 13, 2011. (*See* ECF Nos. 132, 135.) Hill requested additional discovery on May 23, 2012, which this Court denied on July 10, 2012. (ECF No. 148.) Hill's *Atkins* petition currently is pending before this Court.

On March 31, 2014, Hill filed a motion in the Sixth Circuit requesting that it authorize his federally appointed and funded counsel who currently represent him in his habeas case to represent him in state-court litigation. Specifically, he wants his habeas counsel to assist him in obtaining a new trial in state court based on newly obtained evidence, a report from a forensic dental consultant who opines that the bite mark found on Fife "is not a human bitemark [*sic*]." (ECF No. 156, 1-2.) Hill filed a motion with this Court that same day, requesting permission to file his motion with the Sixth Circuit under seal. (ECF No. 150.) The Court granted Hill's motion on April 3, 2014, and Hill filed the sealed document with this Court that day. (ECF Nos. 151, 152, respectively.)

On April 18, 2014, the Sixth Circuit ordered Hill to file his motion with this Court, because, it stated, "[r]uling on Hill's motion would require [the court] to admit and consider new evidence, and [the court does] not generally allow a party to supplement the record with evidence not put before the district court in the first instance." (ECF No. 155, 2 (citations omitted).) Hill complied by filing his request with this Court on April 21, 2014. (ECF No. 156.) Respondent opposed the motion, and Hill replied to Respondent's opposition. (ECF Nos. 157, 158, respectively.)

II. Analysis

A. § 3599 and *Harbison v. Bell*

An indigent federal habeas corpus petitioner is entitled to the appointment of "one or more attorneys" and additional services that are "reasonably necessary" for "adequate representation" pursuant to18 U.S.C. § 3599(a)(2). Subsection (e) of § 3599 outlines the scope of that representation. It provides:

> each attorney so appointed shall represent the defendant *throughout every subsequent stage of available judicial proceedings*, including pretrial proceedings, trial, sentencing, motions for new trial, appeals, applications for writ of certiorari to the Supreme Court of the United States, *and all available post-conviction process*, together with applications for stays of execution and *other appropriate motions and procedures* . . . .

18 U.S.C. § 3599(e) (emphasis added).

The Supreme Court interpreted § 3599 in *Harbison v. Bell*, 556 U.S. 180 (2009), holding that the statute "authorizes federally appointed counsel to represent their clients in state clemency proceedings and entitles them to compensation for that representation." *Id.* at 194. The Supreme Court explained, "[u]nder a straightforward reading of the statute, subsection (a)(2) triggers the appointment of counsel for habeas petitioners, and subsection (e) governs the scope of appointed counsel's duties." *Id.* at 185. The Court noted, however, that appointed counsel is not expected to provide each of the many services enumerated in section (e) for every client. Rather, "counsel's representation includes only those judicial proceedings transpiring 'subsequent' to her appointment." *Id.* at 188. Thus, "[i]t is the sequential organization of the statute and the term 'subsequent' that circumscribe counsel's representation, not a strict division between federal and state proceedings." *Id.*

Of particular relevance here, the *Harbison* Court addressed the Government's concern that under the Court's interpretation of § 3599, federally appointed counsel would be required to represent their clients in state retrial or state habeas proceedings that occur after counsel's appointment because such proceedings are also "available post-conviction process." The Court explained that § 3599(e) does not apply to either of those proceedings because they are not "properly understood as a 'subsequent stage' of judicial proceedings but rather as the commencement of new judicial proceedings." *Id.* at 189. As to state habeas proceedings in particular, the Court noted,

> State habeas is not a stage "subsequent" to federal habeas. Just the opposite: Petitioners must exhaust their claims in state court before seeking federal habeas relief. *See* § 2254(b)(1). That state postconviction litigation sometimes follows the initiation of federal habeas because a petitioner has failed to exhaust does not change the order of proceedings contemplated by the statute.

Id. at 189-90. It added in a footnote,

> Pursuant to § 3599(e)'s provision that counsel may represent her client "in other appropriate motions and procedures," a district court may determine on a case-by-case basis that it is appropriate for federal counsel to exhaust a claim in the course of her federal habeas representation. This is not the same as classifying state habeas proceedings as "available post-conviction process" within the meaning of the statute.

Id. at 190 n.7. The Court further explained that § 3499(a)(2) "provides for counsel only when a state petitioner is unable to obtain adequate representation," and that appointed counsel is constitutionally required for state indigent defendants on retrial. *Id.* at 189.

The Sixth Circuit interpreted *Harbison* in *Irick v. Bell*, 636 F.3d 289 (6th Cir. 2011). The court affirmed a Tennessee district court's ruling granting a habeas petitioner's authorization for funding pursuant to § 3599 for his federally appointed counsel to represent him in clemency

proceedings, but denying it for the reopening of his state post-conviction and competency-to-be-executed proceedings. *Id.* at 291. It noted that in *Harbison,* the Supreme Court interpreted § 3599 to "provide[] for counsel only when a state petitioner is unable to obtain adequate representation," and concluded that "[a]bsent clear direction from the United States Supreme Court or Congress, we decline to obligate the federal government to pay for counsel in state proceedings where the state itself has assumed that obligation." *Id.* The court then held that because Tennessee law authorized appointed counsel in state competency and post-conviction proceedings, Irick's attorneys were not entitled to compensation for services related to those proceedings under § 3599. *Id.* at 291-92. The court further found that the state post-conviction proceedings at issue fell outside the scope of § 3599(e) because they were "the commencement of new judicial proceedings," rather than a stage "subsequent to federal habeas," and Irick was "not attempting to exhaust a claim in the state courts for the purpose of later presenting it in federal court; rather, he [was] re-opening a state judgment on state-law grounds." *Id.* at 292.

In this case, Hill argues that his habeas counsel's appointment is appropriate under the plain language and broad scope of § 3599 as a "subsequent stage of available judicial proceedings[,]" "available post-conviction process" and/or "other appropriate motions and procedures" referenced in § 3599(e). (ECF No. 156, 3-6.) Hill further contends the appointment is authorized by the Supreme Court's dicta in *Harbison* regarding federal funding of counsel for state habeas proceedings, because the state-court proceedings for which Hill seeks representation "are being litigated in the context of the habeas case to comply with the state exhaustion requirements of the AEDPA." (*Id.* at 3, 6-8.) Finally, Hill asserts that Ohio law does not provide for the appointment of counsel for the proceedings at issue. (*Id.* at 8-10.)

Respondent counters that Hill has no "pending" habeas action from which to seek appointment of counsel under § 3599, because his first habeas petition has been denied and reduced to judgment and the claim he wishes to present to state court is not related to his second, *Atkins* habeas action. (ECF No. 157, 1.) He argues that, as in *Irick*, Hill seeks to re-open his state judgment on state-law grounds, under which circumstances he is not entitled to federally funded counsel, rather than exhaust a claim in state court for the purpose of later presenting it in this habeas action in this Court. (*Id.* at 1-2.) This is apparent, he maintains, because the evidence at issue will not support a viable or cognizable federal habeas claim: the expert report is merely a new opinion on a fully litigated topic and therefore does not qualify as "newly discovered evidence"; the Supreme Court has not recognized a freestanding "actual innocence" claim in habeas; and Hill has not identified how such a claim could be used in his habeas case as a gateway to excuse an untimely petition or a procedurally defaulted claim. (*Id.* at 11-12.)

Hill replies that his habeas *Atkins* petition is in fact pending before this Court, and that his request falls within the scope of § 3599(e) because he must move for a new trial based on this evidence "for purposes of exhaustion in anticipation of federal habeas litigation, regardless of how it is subsequently fashioned." (ECF No. 158, 5.) He states that his new claim is "grounded in federal due process concerns." (*Id.* at 2-3.) Hill further argues that Ohio law does not provide "guaranteed" state-appointed counsel for the proceedings at issue. (*Id.* at 3-4.)

B. Exhaustion of Federal Habeas Claims vs. Commencement of New Judicial Proceedings

The Court agrees with Respondent that Hill's request is not authorized by § 3599 because Hill seeks to initiate new state-court proceedings based on new, potentially exculpatory evidence,

rather than exhaust a federal claim related to his pending habeas petition. Although the majority in *Harbison* stated in dicta that district courts "*may* determine on a case-by-case basis that it is appropriate for federal counsel to exhaust a claim in the course of her federal habeas representation," it expressly noted that "[t]his *is not* the same as classifying state habeas proceedings as 'available post-conviction process' within the meaning of the statute." *Harbison,* 556 U.S. at 190 n.7 (emphasis added). In fact, the Court was clear that the opposite is true: "State habeas is not a stage 'subsequent' to federal habeas," and therefore does not fall within the scope of § 3599. *Id.* at 189. The Sixth Circuit emphasized this point in *Irick* when it noted that the petitioner was "not attempting to exhaust a claim in the state courts for the purpose of later presenting it in federal court; rather, he [was] re-opening a state judgment on state-law grounds." *Irick*, 636 F.3d at 292.

Here, Hill requests federal funding of habeas counsel for the "commencement of new judicial proceedings" in order to attack his state-court conviction and sentence, placing this case squarely within *Irick.* All that is currently pending in this Court is Hill's amended habeas petition regarding his Eighth Amendment mental retardation claims. The Sixth Circuit was explicit in its limited remand to this Court: it instructed the Court to remand only Hill's *Atkins* claim to state court and to stay his remaining claims pending resolution of that issue alone. *Hill*, 300 F.3d at 680. This Court also has been clear about the limits of Hill's reopened habeas action. Once Hill completed his state-court *Atkins* proceedings, this Court ordered that Hill's supplemental habeas petition should "contain only those new claims generated by the state court *Atkins* proceedings and . . . not re-state the claims contained in the initial petition in this matter." (ECF No. 68.) Hill's alleged "newly discovered evidence" is completely unrelated to Hill's *Atkins* claims, and

any claims founded on that evidence would not be related to, or necessary for, the full disposition of Hill's pending petition. Although that evidence may relate to certain claims in Hill's initial habeas petition, the Court has ruled on those claims and that petition is no longer within this Court's jurisdiction.

The procedural posture of Hill's case is different than a habeas case in which the district court stays proceedings pursuant to *Rhines v. Weber*, 544 U.S. 269 (2005), to allow a petitioner to return to state court to exhaust certain claims asserted in a pending federal habeas petition. *See, e.g., Conway v. Houk*, No. 3:07 CV 345, 2013 WL 6170601, at *3 (S.D. Ohio Nov. 22, 2013); *Gapen v. Bobby*, No. 3:08 CV 280, 2013 WL 5539557, **4-5 (S.D. Ohio Oct. 8, 2013) (both finding it appropriate for federal habeas counsel to represent petitioner in state court to exhaust pending federal habeas claims). The Eleventh Circuit case, *Gary v. Warden, Georgia Diagnostic Prison*, 686 F.3d 1261 (11th Cir. 2012), is instructive. In *Gary*, a federal habeas petitioner sought federal funding under § 3599 for, among other things, an expert to assist appointed counsel in pursuing DNA testing, the results of which might serve as the basis for a motion for new trial. The court of appeals affirmed the district court's denial of funding. It explained,

> As the language of § 3599(e) and the Court's opinion in *Harbison* indicate, federally-funded counsel is available only for *certain* subsequent proceedings. A state court motion for DNA testing does not ordinarily follow the commencement of a federal habeas action and is, therefore, not a subsequent proceeding contemplated by § 3599(e), even when filed after the prisoner's federal habeas case has concluded.

Id. at 1274-75 (emphasis original). The court distinguished the petitioner's request from the scenario contemplated in the *Harbison* footnote regarding habeas petitioners' efforts to exhaust certain claims in a mixed petition. It noted that "[i]t is quite another matter, however, for an

indigent prisoner to expect federally-funded counsel to initiate an entirely *new* state court proceedings to obtain relief from a conviction and death sentence on a state law ground – in Gary's case, on the ground of newly discovered evidence." *Id.* at 1277 (emphasis original).

Similarly, here, Hill does not seek to exhaust a federal habeas claim currently pending before this Court. Instead, he requests funding for counsel to initiate an entirely new state-court proceeding by filing a motion for a new trial based on newly discovered evidence–wholly outside the context of his pending habeas case and clearly outside the scope of § 3599(e).

C. Available State-Funded Representation

Furthermore, even if Hill's request for federally funded counsel were appropriate and authorized by § 3599, it would be precluded under *Harbison* because Hill has not demonstrated that Ohio does not provide "adequate representation" for him in his efforts to obtain a new trial. Indigent criminal defendants have a right to appointed counsel under the United States and Ohio Constitutions, which "extends to the first appeal of right, and no further." *Pennsylvania v. Finley*, 481 U.S. 551, 555 (1987); *State v. Crowder,* 60 Ohio St. 3d 151, 573 N.E.2d 652, syllabus ¶ 1 (Ohio 1991) ("an indigent petitioner does not have a state or a federal constitutional right to representation by an attorney in a postconviction proceeding"). Accordingly, Ohio Rule of Criminal Procedure 44(A) requires the appointment of counsel for indigent defendants "from [a defendant's] initial appearance before a court through [the defendant's] appeal as of right . . . ." Ohio R. Crim. P. 44(A). And Ohio Rev. Code § 2953.21(I) provides for the appointment of counsel for indigent capital petitioners in a *first* post-conviction proceeding. But Ohio courts of appeals have held that § 2953.21(I) does not allow for appointment of counsel in successive post-conviction proceedings, including motions for a new trial. *See State v. Conway*, No. 12AP-412,

2013 WL 4679318, at *13 (Ohio Ct. App. Aug. 29, 2013) ("appointment of counsel is required [under § 2953.21(I)] only in the case of a timely-filed first petition for post-conviction relief"); *State v. Clumm*, No. 08 CA 32, 2010 WL 364460, at *2 (Ohio Ct. App. Jan. 28, 2010) (finding no right to appointed counsel to file motion for new trial twenty-eight years after court decided defendant's first appeal).

Nevertheless, Hill may be able to obtain state-funded representation under Ohio's Public Defender Act. The Act provides:

> (A)(1) The county public defender shall provide legal representation to indigent adults and juveniles who are charged with the commission of an offense or act that is a violation of a state statute and for which the penalty or any possible adjudication includes the potential loss of liberty and in postconviction proceedings as defined in this section.

Ohio Rev. Code § 120.16(A)(1). As Hill notes, this representation is not guaranteed. The Act also states:

> (D) The county public defender shall not be required to prosecute any appeal, postconviction remedy, or other proceeding, unless the county public defender is first satisfied there is arguable merit to the proceeding.

Ohio Rev. Code § 120.16(D). *See also Crowder*, 60 Ohio St. 3d at 153, 573 N.E.2d at 654 (recognizing that in post-conviction proceedings, "the petitioner, pursuant to R.C. 120.16(A)(1) and (D), is entitled to representation by a public defender at such a proceeding if the public defender concludes that the issues raised by the petitioner have arguable merit"). Still, as long as Ohio law affords Hill with an opportunity for "adequate representation" in his state-court proceedings, federally funded counsel is not permitted under *Harbison*. *See Harbison*, 556 U.S. at 189 ("[§ 3599(a)(2)] provides for counsel only when a state petitioner is unable to obtain adequate representation").

Hill argues that the Ohio Public Defender's Office cannot represent him because the Trumbell County branch and the post-conviction unit of the office represented him during his state *Atkins* proceedings and are currently the subject of ineffective-assistance and other claims in his habeas action. (ECF No. 156, 10.) He also cites the difficulty in finding qualified counsel and the potential delay caused by the involvement of new counsel in his case as reasons supporting his current habeas counsel's appointment. (*Id.* at 10-11.) The Court notes again, however, that Hill's *Atkins* claims are separate and distinct from the claims Hill now wishes to pursue in state court. The Court is not convinced that the Ohio Public Defender cannot provide Hill with effective and efficient representation.

III. Conclusion

Accordingly, Hill's request that the Court authorize his federally appointed and funded counsel who currently represent him in his habeas case in this Court to represent him in state-court litigation is denied.

IT IS SO ORDERED.

/s/ John R. Adams
JOHN R. ADAMS
UNITED STATES DISTRICT JUDGE

May 15, 2014

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

DANNY LEE HILL,	)	**CASE NO. 4:96-CV-795**
	)	
Petitioner,	)	**JUDGE JOHN ADAMS**
	)	
v.	)	
	)	***Capital Habeas Corpus Case***
CARL ANDERSON, Warden,	)	
	)	
Respondent.	)	

MOTION TO RECONSIDER MEMORANDUM OF OPINION AND ORDER DENYING REQUEST FOR AUTHORIZATION FOR HABEAS COUNSEL TO CONDUCT STATE COURT LITIGATION

On April 21, 2014, counsel for Petitioner Danny Hill filed with this Court a *Request for Authorization for Habeas Counsel to Conduct State Court Litigation*. (ECF #156). On May 15, 2014, the Court denied the request. (ECF #159). In light of additional information, counsel respectfully requests the Court to reconsider and find sufficient cause to allow habeas counsel to conduct state court litigation on behalf of Mr. Hill.

I. THE OHIO PUBLIC DEFENDER CANNOT PROVIDE MR. HILL WITH EFFECTIVE AND EFFICIENT REPRESENTATION

In the order denying the request for authorization, the Court stated it was "not convinced that the Ohio Public Defender cannot provide Hill with effective and efficient representation." (ECF #159, at 15, PageID #894). During the state *Atkins* proceedings, OPD counsel Gregory Meyers filed two pleadings with the state court detailing the conflicts with Mr. Hill: Petitioner Hill's Counsel Gregory W. Meyers' Motion to Withdraw (Supplemental Atkins Appendix at 461-469); and Attorney Affidavit Attesting to Danny L. Hill's Indigency and to a Conflict Between the Office of

the Ohio Public Defender and Petitioner Hill that Prevents Attorneys from the Ohio Public Defender's from Representing Petitioner Hill on Appeal (Supplemental Atkins Appendix at 3484-3485). Mr. Meyers made it abundantly clear that there were "irreconcilable differences" between Mr. Hill and himself (Motion at 8, Appx at 468), as well as with "all lawyers employed by the Office of the Ohio Public Defender." (Affidavit at ¶ 7).

Pamela J. Prude-Smithers, the current Chief Counsel of the Death Penalty Division for the Office of the Ohio Public Defender states in an affidavit that "the Ohio Public Defender is unable to represent Danny Hill in state court proceedings" because of a "strong conflict" and lack of adequate resources. (Exhibit A, ¶ 5, 6, 7.) The conflict between Mr. Hill and the Ohio Public Defender cannot be isolated to just the *Atkins* proceedings in state court.

II. THE SIGNIFICANCE OF THE NEWLY DISCOVERED EVIDENCE

The newly discovered evidence is based on the report from Dr. Franklin Wright from his review of the purported bitemark on the homicide victim in this case. (ECF #156-2, PageID #838-845, Exhibit B, Report of Franklin Wright, DMD, D-ABFO; ECF #156-3, PageID #846-857, Exhibit C, CV of Franklin Wright, DMD, D-ABFO). Dr. Wright's review of the relevant materials in this case reveals that the injury to the homicide victim was not even a human bitemark. Therefore, any trial testimony that Mr. Hill inflicted a bitemark on the victim was erroneous. The State's reliance on the bitemark evidence was critical to their case against Mr. Hill, both to secure a conviction and a death sentence against him. The Ohio appellate courts relied on the bitemark evidence to uphold the convictions and death sentence against Mr. Hill. *State v. Hill*, 595 N.E.2d 884 (Ohio 1992). The bitemark evidence was the only forensic evidence presented at trial that directly implicated Mr. Hill in the assault and murder of the victim. Further, Dr. Wright knew Dr. Mertz who confided to him

that he "was not as sure the injury was a definite bitemark nor was he so sure, if the injury was a bitemark, that he could identify a biter." (ECF #156-2, PageID #842). The significance of this newly discovered evidence cannot be overstated.

A. The Transcripts Illustrate The Government's Reliance On The Bitemark Evidence.

1. Prosecutor's Opening Statement and Closing Argument

Both the prosecutor's opening and closing statements referred extensively to the bitemark evidence against Mr. Hill. While the opening statement laid out a time line of the events regarding the analysis of the bitemarks, the closing argument is where the prosecutor emphasized the paramount importance of this evidence. In his opening statement, the prosecutor explained that during the autopsy, Dr. Adelman, the coroner, first noticed the marks on the victim's penis and thought they could be human bitemarks. (Trial Tr. Vol. 1 at 30). Adelman was not an odontologist, and therefore not an expert in the field, something the prosecutor admitted. (*Id.*) Adelman contacted Dr. Mertz, a forensic odontologist, to examine the bitemarks further. (*Id.*) Dr. Mertz examined the victim's corpse, requested dental impressions of the suspects, and eventually determined that the bitemarks on the victim's penis must have come from Mr. Hill, who therefore must have raped the boy by way of fellatio. (*Id.* at 32.)

In the context of this sequence of events, it is important to note that Adelman was the person who first identified the marks as bitemarks, even though he was not an expert. Therefore, when Adelman contacted Dr. Mertz and told him about the marks, Dr. Mertz was pre-disposed to believe the marks were bitemarks, even though Adelman did not necessarily have the background to make

such a determination.[1] In regard to the prosecutor's description of these events, he noted early on that teeth leave the same kind of identifying characteristics as fingerprints. (*Id.*) The prosecutor tried to imply that a potential bitemark was as probative as if Mr. Hill's fingerprints had been found on the body. The science of forensic odontology though does not support that conclusion.

In his closing argument, the prosecutor mentioned multiple times how important the bitemark evidence was and concluded his argument by relying on the expert testimony from both Dr. Mertz and Dr. Levine. The prosecutor began his argument by specifically noting Mr. Hill's confession, but then indicated that "more importantly, the other evidence proves beyond question that this defendant was a principal in the offense." (Trial Tr. Vol. 4 at 1166.) Mr. Hill's confession and the physical bitemarks were the two most important pieces of evidence in the case, but the prosecutor specifically stated in the beginning of his closing argument that the "other evidence," which included the bitemark, was more important than the confession. Therefore, without the bitemark evidence, the government would no longer have the means of proving Mr. Hill was principal offender.

Throughout his story of the case, the prosecutor made a couple of vague references to the bitemark before he analyzed the expert testimony. (*Id.* at 1167, "Wherein he destroyed and devoured a little boy."); (*id.* at 1170, "So, we use circumstantial evidence, which alone, if shown to exclude a reasonable hypothesis of innocence, is sufficient to convict."). The prosecutor concluded by discussing the bitemark evidence and the testimony from both Dr. Mertz and Dr. Levine. Once again, the prosecutor stated that the odontology evidence was "important evidence" and "especially significant." (*Id.* at 1199.) He emphasized the fact that both experts implicated Mr. Hill in at least

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[1] Dr. Wright's report states that Dr. Mertz admitted he was influenced by the heinous nature of the crime and regretted his conclusions and testimony.

one of the bites and that Mr. Hill's broken tooth was the "best evidence because that's what Doctor Mertz says is a trademark and blueprint that we can follow in the pattern of injury on that little boy's private." (*Id.* at 1200.) Not only did the prosecutor conclude with what he believed to be his strongest piece of evidence, but he also came full circle by referring to the bitemark as a blueprint, much like the reference in his opening statement to the bitemark being like a fingerprint.

Clearly defense counsel recognized how much the prosecution relied on the bitemark evidence, because he spent a significant portion of his closing argument attempting to explain the "battle of the experts." (*Id.* at 1240-45.) Finally, in response to defense counsel's explanation of the experts, the prosecution once again referenced the bitemark evidence in rebuttal, and highlighted the fact that Dr. Mertz had the opportunity to examine the victim's body in person, unlike Levine, who only looked at photographs. (*Id.* at 1266.) Based on the explicit references to the importance of the bitemark evidence, as well as its placement as the final piece of evidence in the prosecutor's closing argument, the bitemarks clearly represented the government's key evidence of guilt.

2. Witness And Expert Testimony

Five different non-expert witnesses testified regarding the bitemark evidence throughout the trial. Therefore, in addition to using an expert forensic odontologist to connect Mr. Hill to the crime, the government also used lay witnesses to describe, explain, and validate the bitemark findings. For example, Detective Teeple's testimony described what Dr. Walton, the dentist, did when he took dental impressions of Mr. Hill and Combs, as well as how the government protected that evidence. (Trial Tr. Vol. 1 at 149.) Sergeant Stewart's testimony referenced the search warrants used for the dental impressions. (Trial Tr. Vol. 2 at 546.) In Dr. Walton's testimony, he discussed his process and the distinctions in Mr. Hill's teeth, but also noted that such distinctions are common. (Trial Tr. Vol.

3 at 826.) Although Walton's testimony did not specifically address the bitemarks on the penis, the extensive questioning and testimony helped prove that Walton's methods were legitimate. Dr. Adelman stated he discovered contusions and abrasions around the penis and that the abrasions "appeared" to be bitemarks. (Trial Tr. Vol. 2 at 363). Adelman continued to use "contusion" and "abrasion" interchangeably throughout his testimony, indicating that the marks varied in their extent of injury. Finally, like in the prosecutor's opening statement, Adelman explained that, "[A] bitemark can be as specific as a fingerprint." (*Id.* at 364.) Not only was this statement misleading, because in fact the government did not have any evidence of Mr. Hill's fingerprints, but it was improper coming from someone who is not a forensic odontologist, and therefore, not an expert.

After questioning an array of witnesses who referenced the bitemark evidence, the government presented its main expert witness, Dr. Mertz, a forensic odontologist. Dr. Mertz's testimony is hundreds of pages long and goes into significant detail regarding his examination and determination that the bitemarks came from Mr. Hill. Dr. Mertz, like the prosecutor and Adelman, analogized a bitemark to a fingerprint. (Trial Tr. Vol. 3 at 912.) Although this comment was slightly more legitimate coming from an expert, it was still misleading based on the fact that the government did not possess any fingerprint evidence against Mr. Hill. Although Dr. Mertz admitted in the beginning of his testimony that bitemark evidence usually is not strong enough to make a solid determination, in this case he ended up testifying "with reasonable degree of medical certainty, that Mr. Hill's teeth, as depicted by the models and the photographs that I had, made the bite on the victim's penis." (*Id.* at 915, 937.) Despite his "reasonable degree of medical certainty," Dr. Mertz later cited an attenuated study of 18 year old male erections in order to explain why his measurements between the marks and impressions were off. (*Id.* at 956.) The trial transcripts

illustrate that the three-judge panel picked up on this uncertainty, the judges began asking many questions about Dr. Mertz's analysis. (*Id.* at 942.) These questions continued throughout Dr. Mertz's testimony and are the only portion of the trial where the judges are so actively vocal.

Unfortunately, defense's expert witness, Dr. Levine, did not do much to discredit Dr. Mertz's testimony. In fact, as described above, the prosecutor was able to rely on both Dr. Mertz's and Levine's testimony in his closing argument. Although Levine testified on direct that he could not come to a conclusion with a reasonable degree of certainty, he admitted that the marks could have been made by both suspects, and that one mark in particular was likely made by Mr. Hill. (Trial Tr. Vol. 4 at 1145-46, 1153.) The prosecutor was able to bolster his own argument by again getting Levine to admit that Mr. Hill likely made one of the bitemarks, "to the exclusion of Timmy Combs." (*Id.* at 1158.)

B. The State Appellate Courts Relied On The Bitemark Evidence.

1. State Court Direct Appeal

a. Court of Appeals of Ohio

The Court of Appeals decision referenced the bitemark evidence in both the fact and analysis sections. *See State v. Hill*, Nos. 3720, 3745, 1989 WL 142761, at *1 (Ohio App. 11 Dist. Nov. 27, 1989). The factual description of the autopsy indicated that an inspection of the victim's body "disclosed teeth marks on his penis." *Id.* at *1. The opinion noted that a forensic odontologist "concluded that appellant inflicted the bitemarks on the victim's penis" and that the defense's expert also concluded that Mr. Hill likely left one of the marks. *Id.* at *2-3. The analysis first discussed the bitemarks in Assignment #3 regarding Adelman's testimony about asphyxiation. The court not only decided that Adelman's testimony was probative because it helped explain Dr. Mertz's testimony,

but also that the testimony "shed[] light on precisely what occurred that fateful day." *Id.* at *16. This statement indicates that the court believed that the bitemark evidence, as explained by Dr. Mertz and Adelman, is what told the true story of what happened to the victim, even though there is no way of truly knowing what happened. The next significant discussion of the bitemark evidence occurred in Assignment #19, reviewing the factors related to Mr. Hill's death sentence. *Id.* at *28. The court described the different pieces of evidence that made up the "evidential table," which included the expert testimony from Dr. Mertz and Dr. Levine. *Id.* ("The evidential table is more than sufficient to permit a finding of guilt."). The court also noted that the biting of the penis acted as evidence of rape. *Id.* at *29. Although the court admitted that "the exact sequence and extent of appellant's actual direct involvement is not specifically detailed in the evidence," it was satisfied with the direct and circumstantial evidence proving that Mr. Hill engaged in the assault. *Id.* at 31 ("This direct evidence base provides, at the very least, that appellant was the only other person when the victim was experiencing the pinnacle of excruciating pain from these egregious assaults.").

Finally, and most importantly, the court highlighted the importance of the bitemark evidence in its discussion of Mr. Hill's participant versus co-principal claim. "Appellant's contention suggesting that he merely observed while co-defendant Timothy Combs tortured and assaulted the victim is *overwhelmingly negated* by his personal odontological 'signature' on the penis of the victim." *Id.* at *33 (emphasis added). This quote illustrates the fact that the court considered the bitemark evidence to be much more valuable than any statements made by Mr. Hill regarding his involvement in the crime. Therefore, without that "personal signature," the "direct physical evidence" demonstrating Mr. Hill's guilt is lost. *Id.* at *35.

b. Supreme Court of Ohio

The Supreme Court of Ohio opinion is similar to the Court of Appeals opinion. *See State v. Hill*, 595 N.E.2d 884 (Ohio 1992). The facts are basically identical and many of the findings the same. The most significant portion of the opinion is in regard to Mr. Hill's contention that he was denied his right to due process when he was denied his statutory right to counsel. *Id.* Although the court determined that Mr. Hill's confession was valid despite his lack of an attorney at the time, the court also examined the effect if the confession were not valid. *Id.* at 320 ("Even assuming, *arguendo*, that defendant's statements should have been suppressed, the other evidence in the instant cause is so overwhelming as to render any error harmless beyond a reasonable doubt."). Although the court did not specifically reference the bitemark evidence, it is appropriate to infer based on the way the prosecutor presented his case and the state courts came to their conclusions, that the bitemark was the most significant physical evidence. Additionally, the Supreme Court used the same language of "overwhelming" that the Court of Appeals used when referencing the bitemark evidence. *Id.*; *see also Hill*, 1989 WL 142761, at *33.

III. NEED FOR EXHAUSTION OF FEDERAL HABEAS CLAIMS

As the above detail illustrates, the bitemark evidence used by the prosecution to secure a conviction and death sentence against Mr. Hill was exceedingly significant. As Justice Breyer stated in his concurrence to in *Cullen v. Pinholster,* 131 S. Ct. 1388, 1412-13 (2011), the factual bases for any claim must be fully exhausted before a federal habeas court may even consider a request to file a successor habeas petition. If counsel would attempt to supplement the record with Dr. Wright's report in support of claims pending on appeal to the Sixth Circuit, counsel suspects the Warden would object to such as the report would be unexhausted.

Further, if Mr. Hill were not indigent and could retain counsel, then counsel would not need to seek authorization from the Court, but could initiate the state court proceedings unfettered. To deny appointed counsel authorization would be to deny Mr. Hill equal protection under the law and therefore a denial of due process.

IV. CONCLUSION

Counsel respectfully requests the Court to reconsider the request for authorization to conduct state court litigation in light of the additional information provided. Counsel has demonstrated more thoroughly that there is no efficient and effective representation available to Mr. Hill in state court, the significance of this newly discovered evidence to the entire case, and that the facts generated by this newly discovered evidence need to be exhausted in state court before Mr. Hill may initiate any federal habeas proceedings.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on May 23, 2014, a copy of the foregoing **Motion to Reconsider Memorandum of Opinion and Order Denying Request for Authorization for Habeas Counsel to Conduct State Court Litigation** was filed electronically. Notice of this filing will be sent by operation of the Court's electronic filing system to all parties indicated on the electronic filing receipt. All other parties will be served by regular U.S. Mail. Parties may access this filing through the Court's system.

/s/ Vicki Ruth Adams Werneke
VICKI RUTH ADAMS WERNEKE
Assistant Federal Public Defender

Counsel for Petitioner, Danny Hill

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

DANNY LEE HILL,	:	**CASE NO. 4:96 CV 00795**
	:	
Petitioner,	:	
	:	**JUDGE JOHN R. ADAMS**
vs.	:	
	:	
CARL ANDERSON, Warden,	:	
	:	**MEMORANDUM OF OPINION**
Respondent.	:	**AND ORDER**

This matter is before the Court upon Petitioner Danny Lee Hill's ("Hill" or "Petitioner") Motion for Reconsideration Memorandum of Opinion and Order Denying Request for Authorization for Habeas Counsel to Conduct State Court Litigation. (ECF No. 160.) The Respondent, Warden Carl Anderson ("Respondent"), filed an Opposition to Reconsideration. (ECF No. 160.) For the following reasons, Hill's motion is denied.

I. Relevant Background

Hill currently has pending in this Court an amended habeas petition asserting claims under *Atkins v. Virginia,* 536 U.S. 304 (2002), which held that the execution of intellectually disabled offenders violates the Eighth Amendment's prohibition against cruel and unusual punishment. (ECF No. 94.) On April 21, 2014, Hill filed a motion in this Court requesting that it authorize his federally appointed and funded counsel who currently represent him in his habeas *Atkins* case to represent him in state-court litigation. Specifically, he wants his habeas counsel to

assist him in obtaining a new trial in state court based on newly obtained evidence, a report from a forensic dental consultant who opines that the bite mark found on Fife "is not a human bitemark [*sic*]." (ECF No. 156, 1-2.)

On May 15, 2014, this Court denied Hill's request. (ECF No. 159.) It concluded that Hill's request does not meet the requirements of 18 U.S.C. § 3599, which authorizes federal funding for indigent petitioners in capital habeas cases, or the United States Supreme Court decision interpreting that statute, *Harbison v. Bell*, 556 U.S. 180 (2009). It explained that Hill seeks to initiate new state-court proceedings based on new, potentially exculpatory evidence, rather than exhaust a federal claim related to his pending habeas petition. And, furthermore, even if Hill's request for federally funded counsel were appropriate and authorized by § 3599, it would be precluded because Hill has not demonstrated that Ohio does not provide "adequate representation" for him in his efforts to obtain a new trial.

Hill now argues that the Court should reconsider that ruling. (ECF No. 160.) He states, with a supporting affidavit, that the Ohio Public Defender's Office cannot represent him because attorneys from the office had represented him in the past, resulting in a "strong conflict," and because the office lacked adequate resources. (ECF No. 160, 2; ECF No. 160-1.) He also explains in detail the significance of the newly discovered evidence upon which he plans to seek a new trial. (ECF No. 160, 2-9.) Finally, Hill stresses his obligation to exhaust any potential federal habeas claim. (ECF No. 160, 9-10.)

Respondent counters that neither the ability and/or willingness of the Ohio Public Defender's Office to represent Hill in this matter nor the significance of the newly discovered evidence changes the fact that Hill's new claim is unrelated to his *Atkins* claims and would

therefore support an entirely new state-court proceeding for which federally funded counsel is not authorized under § 3599.

II. Analysis

The Court agrees with Respondent. An indigent federal habeas corpus petitioner is entitled to the appointment of "one or more attorneys" and additional services that are "reasonably necessary" for "adequate representation" pursuant to18 U.S.C. § 3599(a)(2). Subsection (e) of § 3599 outlines the scope of that representation. It provides:

> each attorney so appointed shall represent the defendant *throughout every subsequent stage of available judicial proceedings*, including pretrial proceedings, trial, sentencing, motions for new trial, appeals, applications for writ of certiorari to the Supreme Court of the United States, *and all available post-conviction process*, together with applications for stays of execution and *other appropriate motions and procedures* . . . .

18 U.S.C. § 3599(e) (emphasis added).

In *Harbison*, however, the Supreme Court explained that, although district courts "*may* determine on a case-by-case basis that it is appropriate for federal counsel to exhaust a claim in the course of her federal habeas representation . . ., [t]his *is not* the same as classifying state habeas proceedings as 'available post-conviction process' within the meaning of [§ 3599(e)]." *Harbison,* 556 U.S. at 190 n.7 (emphasis added). In fact, the Court was clear that the opposite is true: "State habeas is not a stage 'subsequent' to federal habeas," and therefore does not fall within the scope of § 3599. *Id.* at 189. The Sixth Circuit emphasized this point in *Irick v. Bell*, 636 F.3d 289 (6th Cir. 2011), when it concluded that the habeas petitioner in that case was "not attempting to exhaust a claim in the state courts for the purpose of later presenting it in federal court; rather, he [was] re-opening a state judgment on state-law grounds." *Irick*, 636 F.3d at 292.

As the Court explained, Hill's request for federal funding of habeas counsel, as in *Irick*, is for the "commencement of new judicial proceedings" in order to attack his state-court conviction and sentence. All that is currently pending in this Court is Hill's amended habeas petition regarding his *Atkins* claims. The Sixth Circuit was explicit in limiting its remand of Hill's petition to this Court to litigation of Hill's *Atkins* claims. *Hill*, 300 F.3d at 680. Hill's alleged "newly discovered evidence" is completely unrelated to Hill's *Atkins* claims, and any claims founded on that evidence would not be related to, or necessary for, the full disposition of Hill's pending petition. Although that evidence may relate to certain claims in Hill's initial habeas petition, the Court has ruled on those claims and that petition is no longer within this Court's jurisdiction.

Accordingly, the ability and/or willingness of the Ohio Public Defender's Office to represent Hill in seeking a new trial based on allegedly new evidence is irrelevant and does not alter the Court's decision regarding Hill's request.

III. Conclusion

Hill's motion to reconsider the Court's denial of his request that the Court authorize his federally appointed and funded counsel who currently represent him in his habeas case in this Court to represent him in state-court litigation is therefore denied.

IT IS SO ORDERED.

/s/ John R. Adams
JOHN R. ADAMS
UNITED STATES DISTRICT JUDGE

June 25, 2014

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF OHIO
EASTERN DIVISION

DANNY LEE HILL,	)	CASE NO.: 4:96CV795
	)	
Petitioner,	)	JUDGE JOHN ADAMS
	)	
	)	
	)	
CARL ANDERSON, Warden,	)	**JUDGMENT ENTRY**
	)	
Defendant.	)	
	)	

For the reasons set forth in the Memorandum of Opinion filed contemporaneously with this Judgment Entry, IT IS HEREBY ORDERED, ADJUDGED and DECREED that Danny Lee Hill's Amended Petition for a Writ of Habeas Corpus is hereby DENIED. The Court further certifies, pursuant to 29 U.S.C. § 1915(a)(3), that an appeal from this decision as to Hill's first ground for relief can be taken in good faith and hereby issues a certificate of appealability for solely that ground for relief.

IT IS SO ORDERED.

June 25, 2014

/s/ John R. Adams
JUDGE JOHN R. ADAMS
UNITED STATES DISTRICT JUDGE

IN THE COURT OF COMMON PLEAS
FOR TRUMBULL COUNTY

STATE OF OHIO,	)	CASE NO. 85-CR-317
	)	
Plaintiff/Respondent,	)	CAPITAL CASE
	)	
vs.	)	
	)	
DANNY LEE HILL,	)	
	)	
Defendant/Petitioner.	)	

PROPOSED MEMORANDUM IN SUPPORT OF PETITIONER'S MOTION FOR NEW TRIAL

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PRELIMINARY STATEMENT

Pursuant to Ohio Rule of Criminal Procedure 33(B), Defendant Danny Lee Hill ("Mr. Hill") respectfully submits this memorandum of law in support of his motion for a new trial. Mr. Hill's conviction and sentencing for the assault and murder of Raymond Fife constitute precisely the circumstances for which Rule 33(B) was intended to provide relief. In light of newly discovered material evidence, which calls Mr. Hill's conviction into serious doubt, including a recantation by the State's "bite-mark" expert responsible for the only "physical" evidence purportedly tying Mr. Hill to the crime, a new trial should be ordered.

Mr. Hill has always maintained his innocence – an innocence wrongly obscured at his trial by the State's presentation of inflammatory pseudoscience under the imprimatur of objective expert opinion. In place of empirically verifiable evidence, the prosecution relied on the baseless testimony of two experts, Dr. Curtis Mertz and Dr. Howard Adelman. Dr. Mertz, a dentist and oral surgeon, testified that an injury found on Raymond Fife's penis could be definitively linked to the dentition of Mr. Hill, to the exclusion of any other possible contributor. Dr. Adelman, a pathologist, opined that a stick found by police near the scene fit like a "key in a lock" into the injuries found to Fife's anus and internal organs. Both experts testified that there was medical support for the probability that Fife sustained an erection during his attack due to asphyxiation. The State supplemented this testimony with a purported confession obtained from Mr. Hill over three separate interviews, which included sustained custodial interrogation.

The asphyxiation/erection testimony provided by Drs. Mertz and Adelman was not just sensational and inflammatory, it was also fundamental to the bite-mark identification used to convict Mr. Hill. Dr. Mertz originally found he could not "use direct measurements with any degree of great accuracy" to match the marks found on Fife to Mr. Hill. 12/19/1985 Notes on Fife Bite Mark Procedures and Findings – Fife Homicide, at 2 ("Mertz Notes") (attached as Ex.

A). Only by speculating that Fife's "penis may have been in a state of full or partial erection at the time the bite was inflicted" could Dr. Mertz "explain" the one-third disparity in size and scale between the marks on Fife and Mr. Hill's teeth. *Id.*; Trial Transcript at 956:5-17 (attached as Ex. B). Dr. Mertz's testimony, which the State characterized as "especially significant" and as its "best evidence" in its closing arguments, Trial Tr. at 1199:8-1200:7, constituted the only evidence presented that directly tied Mr. Hill to the scene of the crime. And yet, years later, while Mr. Hill awaited execution on death row, Dr. Mertz twice recanted his entire opinion to his friend and mentee, Dr. Franklin Wright.[1]

There are four categories of new, material evidence, each of which was discovered subsequent to Mr. Hill's 1986 trial and conviction, and each of which, standing alone, warrants granting Mr. Hill a new trial. In the aggregate, this evidence undeniably demands a new trial. *See State v. Gillispie*, 2d Dist. No. 24456, 2012-Ohio-1656, ¶ 58 ("[N]ewly discovered evidence [may be] considered cumulatively). The four categories of evidence are:

> (1) The Relevant Scientific Community Has Now Recognized That It Is Impossible To Identify a Single Biter to the Exclusion of All Others: As evidenced by a recent, authoritative report from the National Academy of Sciences ("NAS"), it is not scientifically possible to positively match a single biter to a patterned injury, as Dr. Mertz purported to do at Mr. Hill's trial. In August 2013, the American Board of Forensic Odontology ("ABFO"), the organization responsible for accrediting and establishing standards for bite-mark analysts, stated for the first time, in its *Reference Manual*, that the identification of a single biter from an open population of possible biters (like Dr. Mertz's identification of Mr. Hill) is no longer sanctioned.
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> (2) New Expert Bite-Mark Opinions – Including that of Dr. Mertz – Confirm that the Patterned Injury on Raymond Fife Was Not Even a Human Bite-Mark: Dr. Mertz, the centerpiece of the State's prosecution, recanted his trial testimony, and admitted not only that he could not reliably identify Mr. Hill as the source of Fife's injury, but also that he could not reliably determine that the relevant injury was even a human bite-mark. Further, Drs. Franklin Wright and Iain Pretty, respected odontologists, have independently concluded (i) that Dr. Mertz's

[1] Dr. Mertz died in 2005.

opinion deviated from the methodology established by the ABFO; (ii) that Dr. Mertz's opinion was unreliable and unscientific; and (iii) that the injury was not a human bite-mark.

(3) New Pathology Evidence Undermines the State's Asphyxiation Theory: Independent pathologist Dr. Zhongxue Hua has determined that the opinions presented by Drs. Mertz and Adelman regarding the injuries found to and on Fife were speculative and unscientific, and that there was no basis to conclude that Fife sustained a genital erection at the time of his attack or to extrapolate a size differential for that hypothetical erection.

(4) New Evidence Relating To Mr. Hill's Confession: Dr. Debra Davis, a renowned psychology professor and expert on the psychology surrounding confessions in criminal cases, has provided testimony that (i) the "confession" solicited from Mr. Hill is unreliable; (ii) that scientific research over the last ten years has confirmed that the application of interrogation techniques like those used on Mr. Hill pose a significant risk of producing a false confession; and (iii) that Mr. Hill, who was mentally retarded and without counsel, was particularly susceptible to falsely confessing.

These new facts and opinions, which sever any and all ties between Mr. Hill and Fife, are powerful proof of Mr. Hill's actual innocence. At a minimum, these new revelations indisputably raise a "strong probability" that Mr. Hill would not be convicted and sentenced to death for the rape and murder of Fife if he were to be retried.

None of the new evidence cited above was available to Mr. Hill at the time of his trial. His ability to present it now results from fundamental changes in the scientific understanding of the evidence presented at trial – changes which have brought to light many wrongful convictions.[2] In this case, the evidence presented against Mr. Hill at trial was so flawed and scientifically baseless that it led to a subsequent recantation by the State's "especially significant" expert witness, as well as the excoriating analysis of independent experts. Finally, Mr. Hill's

[2] At least sixteen prisoners who were "matched" to a crime by bite-mark evidence and convicted have been exonerated by DNA evidence since Mr. Hill's trial. They include Robert Lee Stinson, Willie Jackson, Roy Brown, Ray Krone, Calvin Washington, Joe Sidney Williams, James O'Donnell, Levon Brooks, Kennedy Brewer, Bennie Starks, Michael Cristini, Jeffrey Moldowan, Anthony Keko, Harold Hill, Dan Young Jr., and Greg Wilhoit. *See* Appendix A for a description of these cases.

conviction on the basis of since-discredited evidence constitutes a violation of his Fifth, Eighth, and Fourteenth Amendment rights. For all of the reasons above and those further discussed below, Mr. Hill's conviction should be vacated and a new trial ordered.

PROCEDURAL HISTORY

The Trumbull County Grand Jury indicted Mr. Hill for the September 10, 1985 aggravated murder of Raymond Fife. On January 7, 1986, Mr. Hill executed a waiver of his right to a jury trial. A three-judge panel presided over his trial during January 21-31, 1986. After a five-hour deliberation, the panel unanimously found Mr. Hill guilty of capital felony murder. The panel held a mitigation hearing beginning on February 26, 1986, and concluded that the aggravating circumstances outweighed the mitigating factors beyond a reasonable doubt. Two days later, on February 28, 1986, the panel sentenced Mr. Hill to twenty-five years' imprisonment for aggravated arson and kidnapping, life imprisonment for rape and felonious sexual penetration, and the death penalty for aggravated murder with specifications.

Mr. Hill appealed his conviction and sentence to the Eleventh District Court of Appeals and the Ohio Supreme Court on the basis that he was intellectually disabled, and that, because of his condition, his constitutional rights were violated during the police interrogation and trial. The Ohio courts affirmed his conviction and sentence on direct appeal. Having exhausted all avenues for relief in state court, Mr. Hill filed a habeas petition in the U.S. District Court for the Northern District of Ohio, again rooted in his intellectual disability claims. The Northern District of Ohio denied that petition on September 29, 1999, and Mr. Hill timely appealed to the Sixth Circuit. While that appeal was pending, the Supreme Court decided *Atkins v. Virginia*, 536 U.S. 304, 122 S. Ct. 2242, 153 L. Ed. 2d 335 (2002), which barred the execution of intellectually disabled offenders.

Mr. Hill filed a petition to vacate his death sentence with this Court based on an *Atkins* claim on November 27, 2002, and filed an amended petition to vacate on January 17, 2003. This Court denied the *Atkins* petition on February 15, 2006. The Eleventh District Court of Appeals affirmed that decision on July 11, 2008, *State v. Hill*, 177 Ohio App. 3d 171, 2008-Ohio-3509, 894 N.E.2d 108, and on August 26, 2009, the Ohio Supreme Court declined to review the case. *State v. Hill*, 122 Ohio St. 3d 1502, 2009-Ohio-4233, 912 N.E.2d 107 (table). Mr. Hill then filed a habeas petition in the Northern District of Ohio on March 15, 2010. On June 25, 2014, the Northern District of Ohio denied Mr. Hill's habeas petition. That decision is currently being appealed to the Sixth Circuit Court of Appeals.

LEGAL STANDARD

A trial court may grant a motion for a new trial based on newly discovered evidence when such evidence is material and "could not with reasonable diligence have [been] discovered and produced at the trial." Crim. R. 33(A)(6).[3] In order to warrant a new trial based on newly discovered evidence, the defendant must "show that the new evidence (1) discloses a strong probability that it will change the result if a new trial is granted, (2) has been discovered since the trial, (3) is such as could not in the exercise of due diligence have been discovered before the trial, (4) is material to the issues, (5) is not merely cumulative to former evidence, and (6) does not merely impeach or contradict the former evidence." *See State v. Petro*, 148 Ohio St. 505, 505, 76 N.E.2d 370 (1947). The *Petro* test was not intended to "establish[] a *per se* rule excluding newly discovered evidence as a basis for a new trial simply because that evidence is in the nature of impeaching or contradicting evidence." *City of Dayton v. Martin*, 43 Ohio App. 3d

[3] This Court has "jurisdiction to decide a motion for a new trial based on newly discovered evidence when the specific issue has not been decided upon direct appeal," as is the case here. *State v. Davis*, 131 Ohio St. 3d 1, 2011-Ohio-5028, 959 N.E. 2d 516, 524, ¶ 37.

87, 90, 539 N.E.2d 646 (2d Dist. 1987). Instead, the question is whether the "newly discovered evidence, though it is impeaching or contradicting in character, would be likely to change the outcome of the trial." *Id.*

The *Petro* analysis is not applied in a vacuum; where, as here, the evidence offered at trial is weak, "the less compelling the newly discovered evidence would have to be in order to produce a strong probability of a different result." *Gillispie* at ¶ 35. Further, "[w]hile the granting of a new trial based on newly discovered evidence obviously involves consideration of newly discovered evidence, the requirement that there be a strong probability of a different result less obviously requires consideration of the evidence adduced at trial." *Id.* Finally, because the ultimate burden of proof in criminal cases rests with the prosecution, "newly discovered evidence need not conclusively establish a defendant's innocence in order to create a strong probability that a jury in a new trial would find reasonable doubt." *Id.*

THE EVIDENCE AGAINST DANNY LEE HILL

Danny Lee Hill's conviction for the assault and murder of Raymond Fife rests solely on circumstantial evidence and expert opinion testimony. The State acknowledged as much in its opening and closing statements, admitting it would "like to have . . . forensic evidence," but conceding it could point to "no evidence of blood" and "no blood test" linking Mr. Hill to the crime. Trial Tr. at 21:22-22:4; 1196:4. In fact, there was no physical evidence linking Mr. Hill to the scene of the crime: there was no DNA, no blood, no fingerprints, no hair, and no skin found on the victim or at the crime scene. In the absence of biological evidence, the State offered pseudoscience under the guise of expert testimony regarding (i) an injury found on Fife's penis that purportedly matched the dentition of Mr. Hill, and (ii) a stick that the State's expert pathologist, Dr. Howard Adelman, testified "fit" the injuries to Fife's anus and internal organs like a "key in a lock." The State suggested – falsely – that Fife's injuries could be analyzed and

interpreted in a distinctive, singular fashion, like a "fingerprint," "blueprint," or "trademark," which tied Mr. Hill, and only Mr. Hill, to the crime. Trial Tr. at 383:1-3; *see also id.* at 1192:15-25 ("[W]e don't even have to have Danny admit [it] because Doctor Adelman . . . gave excellent testimony."); *id.* at 1200:1-10. This, in addition to a rambling, incoherent statement that Mr. Hill provided the police over three separate interrogations without legal representation,[4] in which he never once deviated from his assertion that he did not assault or harm Fife, constituted the core of the State's case against him.

I. THE BITE-MARK OPINION AND TESTIMONY OF DR. MERTZ WAS BASELESS AND UNSCIENTIFIC

A. Mr. Hill's Conviction Was Based in Large Part on Dr. Mertz's Unscientific Identification of Mr. Hill as "the Biter" of Raymond Fife

Crucial to the State's case against Mr. Hill was the testimony of Dr. Curtis Mertz, a dentist and oral surgeon who, at the time of trial, was Chief of Dental Staff at Ashtabula Medical Center, in Ashtabula, Ohio. Dr. Mertz was also a Diplomate, and former President, of the American Board of Forensic Odontology ("ABFO"). *See* Trial Tr. at 908:5-6; *id.* at 908:11-909:7. "On or about September 13th, 1985," the Trumbull County Coroner's Office contacted Dr. Mertz and asked him to "come down and view what the pathologist felt may well be a bite mark on a homicide victim" Raymond Fife. *Id.* at 917:5-11. Dr. Mertz testified unequivocally at trial that the injuries found on Fife's penis were human bite-marks caused by Mr. Hill. *See id.* at 937:1-7 ("It's my professional opinion, with reasonable degree of medical certainty, that Hill's teeth, as depicted by the models and photographs that I had, made the bite on [the victim]."). He also testified that he could ascertain the precise mechanism or method through which Mr. Hill left the marks on Fife. *See id.* at 941:18-942:5 ("And the bites undoubtedly were inflicted in this

[4] *See infra* Part III for more on Mr. Hill's interrogation and so-called "confession."

manner.") (emphasis added). Departing from the scientific protocols that governed at the time of his testimony, Dr. Mertz assured the court: "My opinion is very strong that you can exclude [co-defendant], and my opinion is, if you want to put it on a varying scale, slightly stronger that it is [Mr. Hill's] bite." *Id.* at 952:18-20.

The State, aware that the bite-mark evidence constituted the only "physical" evidence linking Mr. Hill to the crime, emphasized it repeatedly in both its opening and closing arguments:

> Evidence will show that in odontology, that teeth, like fingerprints in a way, leave identifying characteristics . . . Doctor Mertz will tell this Court that in his opinion, with reasonable medical and dental certainty, that the teeth marks on the private part of Raymond Fife were made by [Mr. Hill] . . . [Mr. Hill] has a rotated tooth and a chipped tooth which is sufficient enough for Doctor Mertz to come to the conclusion that [Mr. Hill]'s teeth marks are on [the victim].
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> I think that especially significant is the odontology evidence in this case . . . [N]ot only do we have exclusion of [co-defendant], we have, with reasonable medical certainty from Doctor Mertz, that [Mr. Hill's] tooth . . . gives us the best evidence because that's what Doctor Mertz says is a trademark and blueprint that we can follow in the pattern of injury on [the victim].

Trial Tr. at 30:23-32:8; *id.* at 1199:8-1200:7 (emphasis added).[5] According to the State, Dr. Mertz was able to identify a distinct, direct, and exclusive similarity between Fife's injuries and Mr. Hill's dentition. But, as explained in detail below, bite-mark evidence is not like fingerprint evidence, and even under the best of conditions, a human bite-mark left in human skin is not a

[5] In addition to Dr. Mertz, another forensic odontologist, Dr. Lowell Levine, testified as a defense witness that it was "likely that one portion of the patterned injury was caused by [Mr. Hill]." Tr. at 1157; *see also* Tr. at 1158. Dr. Levine originally consulted on the case at the behest of the State, and did not reach the same conclusions as Dr. Mertz. Regardless, Drs. Wright and Pretty explain in their attached affidavits that Dr. Levine's testimony was vague and unscientific, and deviated from the relevant standards. *See* 9/22/2014 Affidavit of Dr. Franklin Wright (attached as Ex. C); 9/29/2014 Statement of Dr. Iain Pretty (attached as Ex D). It should be accorded no weight.

"trademark" or "blueprint" that can be traced back to a single individual. Here, moreover, the conditions were far from ideal – the marks on Fife's penis were irregular and indistinct, and located in an area prone to gross distortion. In fact, Dr. Mertz wrote in his notes that he could not "use direct measurements with any degree of great accuracy" and thus could not match the injury to Mr. Hill without unsupported statistical manipulation and speculation about the supposed size and state of Fife's penis at the time of the injury. Mertz Notes at 2. Only through this baseless manipulation and speculation was Dr. Mertz able supposedly match this injury to Mr. Hill's dentition.

B. Since Mr. Hill's Conviction, Bite-Mark Identification of a Single "Biter," Like That Proffered Against Mr. Hill, Has Been Rejected

In the twenty-eight years since Mr. Hill's conviction, the erroneous nature of Dr. Mertz's testimony – that the marks on Fife could be conclusively and reliably linked to Mr. Hill, and only Mr. Hill – has become abundantly clear. Not only has subsequent expert opinion revealed flaws specific to his testimony, but a searching examination of bite-mark analysis as a forensic science by the National Academy of Sciences ("NAS") has eroded the biological, statistical, and, finally, epistemological foundation of the field. The resulting, authoritative, 2009 report, *Strengthening Forensic Science in the United States: A Path Forward* ("NAS Report") (relevant pages attached as Ex. F), subjected bite-mark evidence to a scathing critique.[6] Although the report discussed

[6] Committee on Identifying the Needs of the Forensic Sciences Community, National Research Council (2009). The 2009 NAS Report was the culmination of nearly four years of work by a select committee of members of the forensic, scientific and legal communities, who were directed by Congress to assess the current state of forensic science in this country and make recommendations to strengthen it. The committee heard extensive testimony from a vast array of scientists, law enforcement officials, medical examiners, crime laboratory officials, investigators, attorneys and leaders of professional and standard-setting organizations. The NAS Report is the most comprehensive assessment of bite-mark evidence to date, and was conducted by highly-respected members of the scientific and legal communities, including a federal judge, prosecutor and defense attorney.

numerous forensic fields and specializations, no other subject was so severely critiqued as bite-mark evidence. Tellingly, the NAS Report constituted the first independent examination of the validity and reliability of bite-mark evidence by a neutral committee of scientists. Up until that point, forensic odontologists had set their own standards, approved their own methodologies, and identified the permissible scope of their own testimony. Under the independent analysis of NAS scrutiny, however, any pretense of validity and reliability for bite-mark "science" disappeared. The report's conclusions were damning. Specifically, the NAS concluded that:

> (1) The uniqueness of the human dentition has not been scientifically established.
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> (2) The ability of the dentition, if unique, to transfer a unique pattern to human skin and the ability of the skin to maintain that uniqueness has not been scientifically established.
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> (3) A standard for the type, quality, and number of individual characteristics required to indicate that a bite mark has reached a threshold of evidentiary value has not been established.

NAS Report at 175-76. In reaching its conclusions, the NAS heard testimony from leading experts in the field, including then-ABFO president Dr. David Senn, and conducted an extensive review of recent bite-mark literature and research. Based on its review, the NAS concluded that, at a minimum, there existed "considerable dispute" in the scientific community "about the value and reliability" of bite-mark evidence. NAS Report at 176. This is due to the "inherent weaknesses" and "basic problems inherent in bite mark analysis" which have "led to questioning of the value and scientific objectivity" of the discipline. *Id.* at 174, 176.

The only way to validate a scientific discipline and establish its reliability is by testing its basic hypotheses through the scientific method. Even assuming an injury can be determined to be a bite-mark – and, as explained below, it is clear that no such determination was proper in this case – the identification of a single "biter" to the exclusion of anyone else, like that proffered against Mr. Hill, rests on two hypotheses. First, that a properly trained forensic dentist can

determine that a bite-mark and a suspect's dentition are indistinguishably similar, i.e., a "match." Second, that once an association is made, a forensic dentist can provide a scientifically valid estimate of the rareness or frequency of that association. Neither of these hypotheses has ever been scientifically validated. In fact, the NAS determined that there are no criteria and no objective standards to render conclusions about whether a particular suspect's dentition can be reliably associated with a bite-mark. The NAS Report found that no scientifically valid studies had ever been conducted to determine what aspects of the teeth and bite-mark should be measured to make any such comparisons.[7] No study has demonstrated whether the instruments dentists use for measurements or comparisons are reliable under non-ideal and non-uniform conditions, or whether, after a measurement is taken, that measurement would be considered "unique" or "different" enough to distinguish the bite-mark or teeth from the general population.

Dr. Mertz identified the biter of Fife as Danny Lee Hill. But the NAS study found that there is "no science" establishing how to quantify the probability of a "match," and "no evidence of an existing scientific basis for identifying an individual to the exclusion of all others." NAS Rep. at 176 (emphasis added). According to the NAS, forensic odontologists lack "the capacity to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source," *id.* at 7, and thus "[a]lthough forensic odontologists understand the anatomy of teeth and the mechanics of biting . . . the scientific basis is insufficient to conclude that bite mark comparisons can result in a conclusive match." *Id.* at 175 (emphasis added). Moreover, there is no way to determine the probability of a match because "there is no established science indicating what percentage of the population or subgroup of the population

[7] NAS Report at 176 ("A standard for the type, quality and number of individual characteristics required to indicate that a bite mark has reached a threshold of evidentiary value has not been established.").

could also have produced the bite." *Id.* at 174. In other words, there is no existing scientific basis for the bite-mark testimony that Dr. Mertz provided at Mr. Hill's trial.

In addition to these substantial shortcomings and inherent flaws, the NAS also recognized the bias risk posed by a pressurized legal or judicial context in which biter-identification analysis takes place:

> [F]orensic odontology suffers from the potential for large bias among bite mark experts in evaluating a specific bite mark in cases in which police agencies provide the suspects for comparison and a limited number of models from which to choose in comparing the evidence. Bite marks often are associated with highly sensationalized and prejudicial cases, and there can be a great deal of pressure on the examining expert to match a bite mark to a suspect.

Id. at 175. In doing so, the NAS perfectly described Mr. Hill's prosecution – not only did the State and Dr. Mertz fall prey to these methodological issues, but the investigation and trial created a pressurized, sensationalized environment.

The NAS criticism did not go unnoticed by the ABFO. For decades, ABFO board-certified dentists have claimed (with no basis in science) the ability to identify "the Biter": the single individual responsible for a bite-mark to the exclusion of all other potential sources. No longer. In the wake of wrongful convictions and indictments, lawsuits against the dentists who proffered false and misleading testimony, the devastating conclusions of the NAS Report, and mounting criticism from independent researchers,[8] the ABFO, in August 2013, finally conceded

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[8] The amount of research and analysis questioning the validity of bite-mark analysis since the NAS report in 2009 (and Mr. Hill's 1986 trial and conviction) is substantial. *See* Bush, M.A., Bush, P.J., and Sheets, H.D., *A Study of Multiple Bitemarks Inflicted in Human Skin by a Single Dentition Using Geometric Morphometric Analysis*, For. Sci. Int'l 211:1-8 (2011); Bush, M.A., Miller, R.G., Bush, P.J., and Dorion, R.B., *Biomechanical Factors in Human Dermal Bitemarks in a Cadaver Model,* J. Forensic Sci. 54(1):167-176 (2009); Sheets, H.D., Bush, P.J., Brzozowski, C., Nawrocki, L.A., Ho, P., and Bush, M.A., *Dental Shape Match Rates in Selected and Orthodontically Treated Populations in New York State: A Two Dimensional Study*, J. Forensic Sci. 56(3):621-626 (2011); Bush, M.A., Bush, P.J., and Sheets, H.D., *Similarity and Match Rates of the Human Dentition In 3 Dimensions: Relevance to Bitemark Analysis*, Int'l J. Leg. Med. 125(6):779-784 (2011); Bush, M.A., Bush,

that individualization claims are invalid in "open" or "undefined population" cases – cases like Mr. Hill's in which the universe of potential suspects (and thus potential biters) is unknown. Previously, "the Biter," i.e., a single individual responsible for the bite-mark at issue, was the highest level of certainty sanctioned by the ABFO. That conclusion was authorized until August of 2013, when the ABFO Reference Manual was updated. *See* American Board of Forensic Odontology, Inc. Diplomates Reference Manual, 2013 ABFO Standards for Bite Mark Terminology at 117 ("The ABFO does not support a conclusion of 'The Biter' in an open population case(s)").[9] Additionally, current president-elect of the ABFO, Dr. Peter Loomis, stated in July, 2013 that bite-mark evidence "shouldn't be used to identify a suspect," and that it should only "'be used to either include or exclude' a suspect,'" rather than to individualize in open population cases. Jack Nicas, *Flawed Evidence Under a Microscope: Disputed Forensic Techniques Draw Fresh Scrutiny; FBI Says It Is Reviewing Thousands of Convictions*, Wall St. J., July 18, 2013. This dramatic and unprecedented change in the guidelines is a tragically overdue admission that this testimony is scientifically baseless. Put differently, both the

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P.J., and Sheets, H.D., *Statistical Evidence for the Similarity of the Human Dentition,* J. Forensic Sci. 56(1):118-123 (2011); Bush, M.A., Thorsrud, K., Miller, R.G., Dorion, R.B.J., and Bush, P.J., *The Response of Skin to Applied Stress: Investigation of Bitemark Distortion in a Cadaver Model*, J. Forensic Sci. 55(1):71-76 (2010); Miller, R.G., Bush, P.J., Dorion, R.B., and Bush, M.A., *Uniqueness of the Dentition as Impressed in Human Skin: A Cadaver Mode*l, J. Forensic Sci. 54(4):909-914 (2009); Bush, M.A., Cooper, H.I., and Dorion, R.B., *Inquiry into the Scientific Basis For Bitemark Profiling and Arbitrary Distortion Compensation*, J. Forensic Sci. 55(4):976-983 (2010); Sheets, H.D., and Bush, M.A., *Mathematical Matching of a Dentition to Bitemarks: Use and Evaluation of Affine Methods*, Forensic Sci. Int'l 207(1-3):111-118 (2011); Sheets, H.D., Bush, P.J., and Bush, M.A., *Bitemarks: Distortion and Covariation of the Maxillary and Mandibular Dentition as Impressed in Human Skin*, Forensic Sci. Int'l (2012). Broadly speaking, this research scientifically establishes that, even assuming the uniqueness of human dentition, human skin is not capable of capturing that uniqueness with sufficient fidelity to identify a "biter," as Dr. Mertz purported to do in this case.

[9] The relevant portions of the 2012 and 2013 Reference Manual are attached as Ex. G.

relevant, and objective, scientific community as well as Dr. Mertz's erstwhile peers in the ABFO have rejected as invalid – and, in fact, as scientifically indefensible – the forensic opinions and conclusions proffered to the trial court and used to convict Mr. Hill and sentence him to death.

Other Ohio trial courts have recognized the dramatic changes in the scientific perception of bite-mark evidence. The Summit County Court of Common Pleas concluded just last year that, "'new [bite mark] research and studies [including the NAS Report] cast serious doubt to a degree that was not able to be raised by the expert testimony presented at the original determination of guilt by the fact-finder [in a trial held in 1998].'" *State v. Prade*, Summit C.P., No. CR 1998-02-0463, 2013 WL 658266 (Jan. 29, 2013) (citation omitted), rev'd, 9th Dist. No. 26775, 2014-Ohio-1035, 9 N.E. 3d 1072. The *Prade* court based its recognition that "forensic odontology is a field in flux" in part on the NAS Report. *Id.* at 14.[10]

C. Independent Experts Dr. Franklin Wright and Dr. Iain Pretty Agree That Dr. Mertz's Testimony Was Baseless, Unscientific, and Contrary to ABFO Standards

Even if bite-mark identification had not fallen into broad and general disrepute, independent forensic odontologists, applying ABFO-approved methodology, have found that Dr. Mertz's opinions about the bite-marks found on Fife amount to nothing more than inflammatory pseudoscience. Indeed, as Drs. Wright and Pretty explain, Dr. Mertz's testimony cannot meet even the AFBO standards – a fact Dr. Mertz conceded in the years subsequent to Mr. Hill's trial, when he privately recanted his testimony to Dr. Wright.

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[10] The trial court's opinion in *Prade* was reversed on appeal based on the Ohio Supreme Court's rejection of "actual innocence" due to the "enormity of the evidence in support of Prade's guilt." *State v. Prade*, 9th Dist. No. 26775, 2014-Ohio-1035, 9 N.E. 3d 1072, ¶ 130. Dr. Wright testified for the State in *Prade*, in defense of the bite-mark evidence. That he has chosen to criticize the testimony offered at Mr. Hill's trial is telling.

Dr. Franklin D. Wright, a forensic dental consultant to the Hamilton County, Ohio Coroner's Office since 1986, is a Diplomate and past president of the ABFO. Over nearly thirty years in the field, Dr. Wright has investigated, consulted on, and reviewed hundreds of bite-mark cases. He has been proffered as a bite-mark expert on behalf of the State of Ohio in numerous trials, including homicides. Wright Affidavit at ¶ 4. At the behest of Mr. Hill's counsel, Dr. Wright recently analyzed the photographs, expert opinions, and expert testimony relating to the alleged bite-marks on the victim attributed to Mr. Hill. Wright Affidavit at ¶ 8.

According to Dr. Wright, Dr. Mertz served as his "mentor" and he considered Dr. Mertz "a respected teacher and scholar in the forensic odontology community." Wright Affidavit at ¶ 20. Nonetheless, during Dr. Wright's review of the materials, he revealed to Mr. Hill's counsel that Dr. Mertz had privately recanted all of the testimony he proffered at trial, acknowledging that it was scientifically unsupportable and that, if asked to testify again that Mr. Hill bit Fife, he would not have given the same testimony. Wright Affidavit at ¶ 20, ¶ 22. This recanted testimony included not only Dr. Mertz's identification of Mr. Hill as the source of the victim's injury, but even his conclusion that the injury could be classified as a human bite-mark. *Id.* at ¶ 22. Dr. Mertz related these doubts to Dr. Wright on two separate conversations, telling him that he "regretted the testimony" against Mr. Hill. *Id.* at ¶ 20.

As noted above, Dr. Wright also conducted his own review of the materials from the 1986 trial. His opinions help explain Dr. Mertz's post-trial recantation. According to Dr. Wright, Dr. Mertz's testimony and opinions are wholly unsupported, and unsupportable; Dr. Wright further states not only that – given the available evidence – "analysis and comparison to any suspected biter is not sanctioned [by ABFO-approved methodology]," but also that "the patterned injury on the victim . . . is not a human bitemark." Wright Affidavit at ¶¶ 11-12.

According to Dr. Wright, Dr. Mertz's testimony was speculative and biased, and the underlying assumptions Dr. Mertz accepted in an attempt to make his analysis coherent "suggest that, rather than objective, expert opinion, Dr. Mertz's testimony suffered from predictive outcome bias and confirmation bias." Wright Affidavit at ¶ 18.[11] Further, Dr. Mertz selectively analyzed "only those aspects of the patterned injury that he felt he could link to Mr. Hill's dentition," and ignored "other aspects of the patterned injury that he could not link to Mr. Hill," which only make this bias more apparent. Wright Affidavit at ¶ 19.

Dr. Wright's opinions are corroborated, and elaborated upon, by Dr. Iain Pretty, a British dental surgeon and forensic odontologist, and current president of the American Academy of Forensic Science's Odontology Section. Unlike Dr. Wright, Dr. Pretty has no personal connection to Dr. Mertz, the State of Ohio, or Mr. Hill's conviction. His review of the same materials likewise found that a "conclusion of a definite human bitemark cannot be reached" under current forensic standards and that:

> there is insufficient evidence to reach a conclusion at any level of certainty regarding the causation of the small circular wounds to the glans penis of Raymond Fife. Given this conclusion, any further analysis of the injury is inappropriate. Even if the evidence had supported a conclusion of "suggestive of a bitemark" (which it does not) further analysis, according to the ABFO decision model, would still be considered inappropriate.

Pretty Statement at ¶ 3.6. According to Dr. Pretty, the bite-mark analysis used to convict Mr. Hill "offer[ed] little in the way of scientific justification" and was "not based on scientific

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[11] "Bias" as the term is used here is not a form of conscious prejudice. Rather, studies have increasingly shown that "contextual contamination" – the exposure of otherwise objective scientists to "contextual cues, irrelevant details of the case, prior experiences, expectations and institutional pressures," among other things – affects the interpretation and analysis of evidence. *See generally* Edmond, G. et al, *Contextual Bias and Cross-contamination in the Forensic Sciences: the Corrosive Implications for Investigations, Plea Bargains, Trials and Appeals*, Law Prob & Risk (2014); Page, M. et al, *Context Effects and Observer Bias-Implications for Forensic Odontology*, 57 J Forensic Sci, 108-111 (Jan. 2012).

principles or processes." *Id.* at ¶ 6.5. Further, Dr. Mertz was guilty of relying on "spurious data to account for inconsistencies in measurements." *Id.* at ¶¶ 6.6-6.7.

D. Dr. Mertz's Bite-Mark Opinions Embody the Lack of Standards Criticized By the NAS

The subjectivity and speculation in Dr. Mertz's opinions are even more troubling when viewed in light of the NAS's analysis of the field of bite-mark evidence. At the core of the NAS's criticism is the need for standardized metrics, a validated measurement or comparison process, and a substantiated statistical basis in order for a reliable bite-mark identification to be feasible. *See* Subsection B, *supra*, at 10-11. As the NAS made clear, in the absence of these elements, an expert's opinion is impossible to verify, reducing acceptance to an article of faith – a faith Mr. Hill's trial court far-too-readily extended to Dr. Mertz, who did not even bring his measurements and calculations with him to trial so that they could be reviewed on cross-examination. *See* Trial Tr. at 977:14-22 ("I do not have the measurements here with me . . . And I do not have them from memory nor do I have a metal rule with me to give you the measurements.") Dr. Mertz's opinions and testimony – speculative, subjective, and unsupported – embody the fundamental flaws and limitations inherent in bite-mark comparison analysis.

As noted above, the ability of skin to retain a reliable impression or injury such that a match to human dentition can be ascertained has been called into question over the last five years. *See*, Subsection B, *supra*, at 12. But even if human skin was not unreliable, "the location of the patterned injury in this case renders it impossible to make any positive association between a suspected biter and the patterned injury in question." Wright Affidavit at ¶ 18. According to Dr. Pretty, this is because

> [t]he tissue is highly distortable and it is, of course, impossible to assess if the penis was flaccid, erect or semi-erect during the infliction of the injury. The surface is curved, soft and the risk of postural distortion high.

Pretty Statement at ¶ 3.1. The injury on Fife was located on the *glans*, or "corona," of the penis. Rather than acknowledging the impossibility of drawing a reliable conclusion from Fife's injury, however, Dr. Mertz instead relied on the variability in penile skin as an explanation for why his measurements were off by "consistently about a third." Trial Tr. at 956:13-17; *id.* at 979:10-12. Indeed, Dr. Mertz accounted for this difference in scale by opining that (i) Fife's penis was erect at the time of the purported bite as a result of his asphyxiation, and (ii) that the erection accounts for the "approximately" 33% size differential between the marks in Fife's skin and Hill's teeth. To be clear, Dr. Mertz's opinion rests entirely on these assumptions, which were the only means by which Dr. Mertz could match the marks on Fife to Hill's teeth – no "direct measurements" with any "great accuracy" were otherwise feasible. Mertz Notes, at 2.

As Dr. Wright explains, Dr. Mertz's methods suggest serious confirmation bias – a bias Dr. Mertz implicitly conceded at trial when he explained that "the reason [he] went to [the medical] literature" was to find something to "explain[] the difference in the measured size of approximately a third less than in the measurements when teeth mark sizes are compared." Trial Tr. at 954:7-23; *id.* at 956:14-17; *id.* at 979:8 ("I didn't know anything about the 1.307 until after I had made all the measurements."). It is telling that Dr. Mertz expressed his confidence that "the bitemarks found on the penis of Raymond Fife match those of the models of the teeth of Danny Lee Hill" in a November 4, 1985 letter to prosecutor Dennis Watkins, nearly a month and a half before the December 19, 1985 date on the "notes" he "made in studying these cases." *Id.* at 947:1-6. Put plainly, contrary to the basic tenets of independent scientific analysis, Dr. Mertz sought out obscure literature in a conscience effort to concoct a theory that would allow him to "match" Mr. Hill to the injury.

Not surprisingly, two forensic odontologists and a pathologist who reviewed Dr. Mertz's testimony each characterized his opinions regarding asphyxiation, genital erection, and penis size as baseless and irresponsible. Dr. Wright characterizes this portion of Dr. Mertz's testimony as "nothing but a blind guess," impermissible under the ABFO guidelines. Wright Affidavit at ¶ 18. Dr. Pretty labels this testimony as "unscientific, unsubstantiated, and speculative." Pretty Statement at ¶ 5.2. And Dr. Hua, and independent pathologist, has opined that "Dr. Mertz ignore[d] both biological reality and statistical methodology, rendering his opinion speculative, unscientific, and fatally flawed." Hua Affidavit, attached as Ex. E, at ¶ 21.

Dr. Mertz cited just two sources in support of his foundational opinion that Fife "probably" sustained an erection while being asphyxiated: the introduction to a chapter on asphyxiation from the 1968 edition of *Gradwohl's Legal Medicine* (attached as Ex. H), and a 1971 article by L.G. Farkas, "Basic Morphological Data of External Genitals in 177 Healthy Central European Men," in the American Journal of Physical Anthropology (attached as Ex. I.)[12] This "review of the literature was cursory and inadequate, and the texts he relied upon inapposite and outdated." Hua Affidavit at ¶ 17. To be sure, Dr. Mertz's testimony regarding these articles was inexpert to the point of fantasy and fabrication. In using the introduction to a chapter on various forms of asphyxiation in *Gradwohl's Legal Medicine*, Dr. Mertz:

> Selectively ignored the qualifications provided by his own authority, including the fact that there is 'undoubtedly great variation' and there are 'many factors [that]

[12] To the extent that Dr. Mertz's entire opinion is based on the validity of medical literature authored by others, it should have been excluded at the time of his trial. *See Beard v. Meridia Huron Hosp.*, 106 Ohio St.3d 237, 240, 2005-Ohio-4787, 834 N.E.2d 323, ¶ 23 (2005), *citing Piotrowski v. Corey Hosp.*, 172 Ohio St. 61, 69, 173 N.E. 2d 355 (1961) (exclusion required where expert relies on "statements from professional literature to prove the truth of the matter asserted in those statements [because] the witness would be acting as a conduit for the out-of-court statements of the authors of those literary works").

> may interfere' with the symptoms listed, as well as the statement that 'it is usually difficult or impossible to predict the physiological results' of asphyxia 'with any accuracy at all.' No reliable opinion that a penile erection was 'probable' during manual strangulation could be based upon these limited findings.

Hua Affidavit at ¶ 18. Similarly, Dr. Mertz's "explanation" for his identification of Mr. Hill in spite of the absence of an actual match in size and scale, Farkas's *Basic Morphological Data of the External Genitals in 177 Healthy Central European Men*, also does not support his opinion:

> First, there is no scientific basis for extrapolating the size differential between the erect and flaccid penis of a post-pubescent adult and that of a twelve-year old child. Second, there is no scientific basis for applying an average measurement of that differential to a singular case. Third, none of the cited healthy men were under the extreme suffering of Raymond Fife, with fatal head trauma, strangulation and sexual assault.

Hua Affidavit at ¶ 21.

As Dr. Hua concludes, Dr. Mertz's opinion is "post-hoc guesswork" and "do[es] not constitute reliable scientific opinion." Hua Affidavit at ¶ 22. Among his errors, Dr. Mertz ignored the fact that the Farkas study was based on circumference measured at "the mid portion of the penile shaft," Farkas at 325, while the injury on Fife was located on the *glans*. Dr. Mertz provided no evidence that the increase of the size of the *glans* occurs in the same proportion as the increase in the size of the shaft, nor did he look at any medical literature discussing studies of the growth of the glans during erection. Further, Dr. Mertz's calculations – the statistical manipulations necessary to match the injury to Mr. Hill – are erroneous. Even assuming some scientific foundation for these calculations existed (and none did), Dr. Mertz ignored the lack of uniformity in the underlying data: the Farkas study actually indicates flaccid-to-erect size differential can range between 1.307 and 1.5.[13] In other words, Dr. Mertz's attempt to extrapolate an "average" increase in erect state is rebutted by his own evidence.

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[13] The underlying study on which Farkas relied for his 20-30mm increase actually found a "medium measurement" of 90 mm after that 20-30 mm increase in circumference, for an

II. NEW EVIDENCE ESTABLISHES THAT THE TESTIMONY AND OPINION OF DR. HOWARD ADELMAN WAS UNSCIENTIFIC AND UNRELIABLE

The State also presented Dr. Howard Adelman, a Warren County, Ohio pathologist, who performed an autopsy on Raymond Fife on September 13, 1985. Dr. Adelman identified blunt force trauma; ligature strangulation; subdural hemorrhage; retroperitoneal and abdominal contusions; penetration and perforation of the anus, the rectum, and urinary bladder; and third-degree burns. *See* Trial Tr. at 349-63. Like Dr. Mertz, Dr. Adelman testified that it was "know[n] that asphyxia can cause erections, and in legal hangings, it's been described that there are erections and ejaculations that occur." *Id.* at 418:5-14. And like Dr. Mertz's testimony on this subject, Dr. Adelman proffered nothing but empty speculation. Dr. Adelman also testified that a stick found near the scene fit Fife's anus like a "key in a lock." *Id.* at 383:1-3. The State linked Dr. Adelman's testimony regarding the stick to "the specificity and the fine description of the stick that [Mr. Hill] had." *Id.* at 1194:1-5.

Neither opinion was challenged with expert testimony at trial. And neither can withstand scrutiny. As Dr. Hua makes clear, "Dr. Adelman's reliance on anecdotal evidence and/or historical narratives as a basis for his opinion [on Fife's possible erection] is . . . inappropriate and renders his opinions in this specific case speculative and unreliable." Hua Affidavit at ¶ 11.[14] There was no basis, for instance, for the speculation that Fife could have sustained an erection during his assault based on judicial hanging and autoerotic asphyxia because, as we know now, "the differences between the biological mechanisms involved in judicial hanging, autoerotic asphyxiation, and strangulation are substantial, and any extrapolation from the effects

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average flaccid circumference of 60-70mm. This indicates that the ratio of flaccid-to-erect circumference can range up to 1.5. *See* Farkas at 327.

[14] Dr. Adelman admitted he was "not exactly sure of the mechanism" through which asphyxia causes an erection, but rather that it "just occurs." Trial Tr. at 418:16-17.

of one to the others is baseless." Hua Affidavit at ¶ 12. As for the stick, "it [was] not scientifically possible to reliably identify the instrument that caused the injuries in question through the type of examination performed on Fife by Dr. Adelman – let alone, to identify the instrument to the level of specific certainty necessary to describe it through the analogy of a key and a lock." Hua Affidavit at ¶ 8. Like the testimony of Dr. Mertz, Dr. Adelman's opinions amount to nothing more than speculation: a purportedly "scientific" discipline stretched beyond recognition in an attempt to compensate for the glaring holes in the State's case.

III. MR. HILL WAS SUBJECTED TO INTERROGATION TECHNIQUES THAT THE SCIENTIFIC AND LEGAL COMMUNITIES BOTH NOW RECOGNIZE GREATLY INCREASE THE RISK OF INDUCING A FALSE CONFESSION

Beyond the expert testimony described above, the State's remaining evidence against Danny Lee Hill was a statement he gave to the police over three separate interviews and interrogations. There is no basis to refer to any of Mr. Hill's statements as a "confession." But the circumstances of that purported "confession" are as troubling as the rampant speculation of the State's expert witnesses. At the time of Mr. Hill's trial, there had never been a case where a confession had been proven false post-trial by DNA evidence. Today, we know that false confessions are common. Medical professionals, social scientists, and the United States Supreme Court have all acknowledged the mounting evidence that interrogation techniques like that used against Mr. Hill produce false confessions at an alarming rate. These authorities and studies also acknowledge that the rate of false confessions increases dramatically when the techniques are applied to highly-susceptible individuals like Mr. Hill.

Mr. Hill was 18 years old when he "confessed" to being present (but not a participant) when Raymond Fife was assaulted and killed. Mr. Hill has been identified as intellectually disabled (also known as mentally retarded) all of his life. *See* 4/27/2011 Report of Dr. Stephen Greenspan at 23 (attached as Ex. J). By the time of the crime, his IQ had been estimated at

various times to be between 49 and 70. He struggled most with vocabulary, spelling, and word recognition. Given all of this, it is not surprising that Mr. Hill was not aware that he could refuse to talk to the police and was not competent to understand his rights when he was subjected to repeated, lengthy interviews.[15] Nor was he capable of comprehending the grave and complicated long-term ramifications of waiving those rights.[16] Already highly susceptible to influence given his age and mental capacity,[17] Mr. Hill's pliability was augmented by the fact that the police used a family member and authority figure, his uncle Morris Hill, a police detective, to apply pressure. The State relied heavily on Mr. Hill's statements to the police during its closing argument, cherry-picking details in a protracted recounting that takes up pages of the trial transcript. *See, e.g.*, Trial Tr. at 1179:21-1184:18; *id.* at 1190:15-1195:24.

In the years since Mr. Hill's conviction, the Supreme Court has repeatedly acknowledged the grave threat posed by false confessions, identifying "mounting empirical evidence that these pressures [associated with custodial police interrogation] can induce a frighteningly high percentage of people to confess to crimes they never committed." *Corley v. United States*, 556 U.S. 303, 321, 129 S. Ct. 1558, 173 L.Ed. 2d 443 (2009) (citing Drizin & Leo, *The Problem of False Confessions in the Post–DNA World*, 82 N.C. L. Rev. 891, 906-07 (2004)); *accord J.D.B. v. North Carolina*, -- U.S. --, 131 S. Ct. 2394, 2401 (2011). The Innocence Project, which tracks

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[15] In fact, an attorney, Roger Bauer, did appear at the police station and tried to advise Mr. Hill not to talk to the police. Attorney Bauer was removed by the interrogating detectives, however. The Warren Police Department later filed a grievance against Attorney Bauer. 9/8/2014 Affidavit of Roger Bauer (attached as Ex. K).

[16] *See, e.g.*, Steinberg, L., et al., *Age differences in future orientation and delay discounting,* 80 Child Dev. 1, 28-44 (2009).

[17] *See, e.g.*, Grisso, T., et al., *Juveniles' Competence to Stand Trial: A Comparison of Adolescents' and Adults' Capacities as Trial Defendants*, 27 Law Hum. Behav. 4, 333-363 (2003); Cleary, Hayley, M.D., *Police Interviewing and Interrogation of Juvenile Suspects: A Descriptive Examination of Actual Cases*, 38 Law Hum. Behav. 3, 271-28 (2014).

DNA exonerations nationally, reports that innocent individuals have falsely confessed in approximately 27% of 321 known DNA exonerations, and that false confessions are the leading cause of wrongful conviction in homicide cases, "contributing to 64 (62%) of the 104 homicide wrongful convictions that were overturned by DNA evidence."[18] The National Registry of Exonerations, which has compiled data on all wrongful convictions since 1989 (whether uncovered by DNA evidence or otherwise), has identified at least 177 false confessions among 1,405 known wrongful convictions nationwide (12.5%).[19] Even more troubling, however, is the greatly increased risk of a false confession when tactics like those espoused in the "Reid Technique," a "method" developed and refined by John E. Reid & Associates, Inc. over the last 70 years, are deployed against children, adolescents, or functional adolescents like Mr. Hill. *See* Inbau, Reid, Buckley & Jayne, *Criminal Interrogations and Confessions* (5th ed. 2013); Kassin et al., *Police-Induced Confessions: Risk Factors and Recommendations*, 34 Law & Hum. Behav. 3, 20 (2010).[20]

There is no question that Mr. Hill was subjected to interrogation techniques designed to produce a confession. Indeed, whether they knew it or not, the Trumbull police officers who

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[18] Innocence Project, Know the Causes, False Confessions, http://www.innocenceproject.org/understand/False-Confessions.php (last checked November 5, 2014).

[19] National Registry of Exonerations, Browse the Cases, Filtered by False Confession, available at https://www.law.umich.edu/special/exoneration/Pages/browse.aspx?View={B8342AE7-6520-4A32-8A06-4B326208BAF8}&FilterField1=Contributing%5Fx0020%5FFactors%5Fx0020&FilterValue1=False%20Confession (last checked November 5, 2014).

[20] The Reid Technique *begins* with the assumption that the interviewee is guilty. *See also* Meyer & Reppucci, *Police Practices and Perceptions Regarding Juvenile Interrogation and Interrogative Suggestibility*, 25 Behav. Sc. L. 1, 1-24 (2007).

interrogated him hewed closely to the now-archetypal blueprint of the Reid Technique. Among the techniques applied during Mr. Hill's interviews and interrogations:

- The Trumbull police separated Hill from his family and friends and isolated him in a small interrogation room specially designed to increase his anxiety. *See* Kassin et al., 34 Law & Hum. Behav. at 7, 16.
- The officers attempted to build rapport with Mr. Hill before deploying a series of tactics intended to shake his adherence to his claim of innocence. *Id.* at 11-12; *see also* 9/16/85 Interview Transcript Part 1, at pp. 45-46 (attached as Ex. L); 9/16/85 Interview Transcript Part 2 at p. 3 (attached as Ex. M).
- The officers became confrontational, directly and repeatedly accusing Hill of lying, refusing to listen to his claims of innocence, and exuding unwavering confidence in his guilt. *See* Ofshe & Leo, *The Decision to Confess Falsely: Rational Choice and Irrational Action*, 74 Den. U. L. Rev. 979, 990 (1997); *see also* 9/16/85 Interview Tr. Part 1 at pp. 35, 42-43.
- The officers invented incriminating evidence to convince Mr. Hill that his guilt was a foregone conclusion and that nothing he said would change their mind about this "fact" in an attempt to make Mr. Hill feel thoroughly hopeless and trapped. *See* Kassin *et al*, 34 Law & Hum. Behav. at 16-17; *see also* 9/16/85 Interview Tr. Part 1 at p. 42; 9/16/85 Interview Tr. Part 2 at pp. 15-16, 33, 40-41.
- The officers then provided Mr. Hill a way out: confession, minimizing or rationalizing his purported involvement in the crime, focusing on his role as a witness, in an attempt to make confessing seem less damaging. *See* Drizin & Leo, 82 N.C. L. Rev. at 1056-60; *see also* 9/16/85 Interview Tr. Part 1 at p. 44.
- The officers assured Mr. Hill that confessing was in his best interests, playing on Mr. Hill's lack of knowledge about the adult justice penal system. *See id.*; *see also* 9/16/85 Interview Tr. Part 1 at pp. 42-43.

By deploying these tactics at the right psychological pressure points, experienced interrogators can be extraordinarily effective in causing a suspect to produce self-incriminating information. With Mr. Hill, a functional adolescent suffering from severely diminished intellectual capacity and denied unconflicted familial or legal assistance, the success of these techniques was a foregone conclusion.

In fact, the interrogators were so effective at soliciting their own version of events from Mr. Hill that they could not help but comment on the efficacy of their techniques during the

interrogation, stating to Mr. Hill "it seems like everything we suggest to you, you agree with us [.]" 9/16/85 Interview Tr. Part 2 at 35; 9/3/14 Affidavit of Dr. Debra Davis at ¶ 32 (attached as Ex. N). As Dr. Debra Davis, a psychologist at the University of Nevada, Reno who specializes in false confessions, points out, the videos and transcripts make it clear that Mr. Hill received prompts and was provided facts from his interrogators, through suggestive questions and outright factual assertions. Davis Affidavit at ¶ 34. In other words, rather than revealing knowledge and culpability, Mr. Hill's "confession" amounts to nothing more than his "answers essentially agreeing with what he was asked." *Id.* The State thought otherwise, however, and during closing argument the State leaned heavily on the "confession" as proof not only of Mr. Hill's culpability, but also his alleged depravity. *See* Trial Tr. at 1169:6-8 ("But I submit the term "animal" . . . does not fit. It's too kind!"). As Dr. Davis's opinion illustrates, however, the substantial prejudice of the State's argument far outweighs the "confession's" probative value, and thus it never should have been admitted:

> Given Danny Hill's personal characteristics and vulnerability to influence, his personal history with his interrogators, the demands placed on him to confess, and the way in which the content of his confession was fed to him, little weight should be given to his confession as evidence of his guilt.

Davis Affidavit at ¶ 39.

At no point during these extensive interviews and interrogations did Mr. Hill fashion a coherent narrative; repeatedly he proved incapable of getting the timing, the setting, and the actual events correct. At various points he stated that the attack took place over two or three hours, when in fact it was likely no more than fifteen minutes in duration. *See* 9/16/85 Interview Tr. Part 1 at p. 23; 9/16/85 Interview Tr. Part 2 at p. 27. At another point, Mr. Hill testified that Timothy Combs (who was also charged with the crime) had torn Fife's penis wholly from his body. *See* 9/16/85 Interview Tr. Part 2 at p. 10. As Dr. Davis explains, Mr. Hill's story is "not

plausible . . . because he didn't know the real facts," and its inconsistencies are the result of a give-and-take in the interrogation room, where the officers "corrected him and told him what they believe happened" whenever "he gave an answer inconsistent with what interrogators knew (or thought they knew)." Davis Affidavit at ¶ 34. To compensate for these inconsistencies, the State's closing argument cherry-picked isolated pieces from his interrogations, stringing them together to "prove" that Hill was able to "describe[ ] [events] to a tee." Trial Tr. at 1190:15-20. The State also argued that Mr. Hill's inability to construct a coherent narrative of events – that he instead gave "the most ridiculous, unbelievable story"[21] – was in fact proof of his guilt under the law:

> This defendant on Thursday and Friday comes back to the police station and gives an exculpatory story; he lies and this leads police officers . . . The general rule in this country "is that guilty knowledge, as well as intent to violate the law, may be shown by any false or misleading statements that the defendant makes to arresting officers demonstrated by independent evidence to have been made for the purpose of misleading the officer or warding off suspicion. . . . '[A]n attempt to fabricate evidence is to be considered as evidence of guilt as to the main facts charged.'

Id. at 1172:2-1173:7.

Although the State acknowledged Mr. Hill's limited mental capacity, calling him "stupid," it suggested he was not "stupid" enough to be fooled into confessing to a crime he did not commit. Trial Tr. at 1191:2-16; *id.* at 1267:18-21. In the last ten years, an increasing number of DNA exonerations and clinical studies have shown that one does not need to be "stupid" to confess falsely to a crime – individuals of varying intelligence and aptitude have falsely confessed to crimes when subjected to the interrogation techniques used on Mr. Hill. These exonerations and clinical studies have also shown that the application of these techniques

[21] Trial Tr. at 1173:8-20.

to the young and/or mentally-challenged (like Mr. Hill) significantly heightens the risk that a false confession will be elicited.

IV. THE NEWLY DISCOVERED EVIDENCE SATISFIES THE *PETRO* TEST

As noted above, in order to warrant a new trial based on newly discovered evidence, a defendant must show that the new evidence "(1) discloses a strong probability that it will change the result if a new trial is granted, (2) has been discovered since the trial, (3) is such as could not in the exercise of due diligence have been discovered before the trial, (4) is material to the issues, (5) is not merely cumulative to former evidence, and (6) does not merely impeach or contradict the former evidence." *Petro*, *supra,* at 505. Mr. Hill has provided abundant new evidence in the form of the expert affidavits of Drs. Davis, Hua, Pretty, and Wright. This "newly discovered evidence, when considered cumulatively, may be of even greater significance . . . when considered in light of studies . . . that have been conducted in the years since [defendant's] trial." *Gillispie, supra,* at ¶ 58; *see also id.* (considering developments in the field of eyewitness testimony to buttress new evidence).

First, none of the evidence discussed in this motion and memorandum existed as of January 21-31 1986, the time of Mr. Hill's trial, and thus no amount of diligence would have allowed its discovery before trial.

- The NAS Report, which was the first independent and comprehensive assessment of the scientific reliability of bite-mark evidence, was not completed until August 2009. The ABFO did not stop supporting individual "biter" identification until 2013.
- The first time that Dr. Wright learned that Dr. Mertz had doubts about his trial testimony was more than two years *after* Mr. Hill's trial concluded. Further, Mr. Hill could not have known about Dr. Mertz's change of heart – it was only by happenstance that, when Mr. Hill's counsel solicited an opinion from Dr. Wright, Dr. Wright revealed Dr. Mertz's related recantation.
- Neither Dr. Wright nor Dr. Pretty became board-certified forensic odontologists until after trial, and it was only through the application of an

evolving understanding of bite-mark methodology and recently adopted ABFO Guidelines (which did not exist at the time of Mr. Hill's trial) that they were able to provide the specific opinion testimony they provide here.

- Dr. Hua's testimony reflects changes in the study of pathology since Mr. Hill's trial. For instance, the science regarding hangings and asphyxiation has been in constant development in the years subsequent to Mr. Hill's conviction, with the analysis of the mechanisms intensifying over the last ten years. *See, e.g.*, Rutty, et al (ed.), *Essentials of Autopsy Practice*, Springer (2014) ("Despite great advances in the forensic sciences in the last few decades our understanding of the pathophysiology of hanging, as summarized previously, is still largely based on historical writings and experimentation from the end of the nineteenth and beginning of the twentieth centuries. Since that time, there were very limited advances in our knowledge of the pathophysiology of hanging until recent studies of filmed hangings by the Working Group on Human Asphyxia.").
- The work of Dr. Davis is based on voluminous evidence regarding false confessions that has accumulated after 1986. It has only been in the last fifteen years that significant empirical evidence regarding the psychological and statistical impact of interrogation techniques like that used against Mr. Hill has become available. *See* Cleary, *Police Interviewing and Interrogation of Juvenile Suspects: A Descriptive Examination of Actual Cases*, 38 Law & Hum. Behav. 3, 271-282 (2014) ("Although empirical attention to police interrogation has gained traction in recent years, comparatively few studies have examined interrogation of juvenile suspects, and virtually none have examined actual interrogations.").[22]

Second, there can be no genuine dispute that the newly discovered evidence is both material and relevant to the issues surrounding Mr. Hill's conviction. The case against Mr. Hill was long on innuendo, hyperbole, and pseudoscience but remarkably threadbare when it came to evidence tying Mr. Hill to the crime. The facts and expert opinion provided with this motion serve to sever the last threads tying Mr. Hill to the crime, and reveal, for the first time, the total lack of valid and reliable scientific evidence supporting the State's case. In sum, nothing could be more material than new evidence that calls into question – in fact, negates – the very evidence

[22] *See also* Brodsky, *Psychological Assessments of Confessions and Suggestibility in Mentally Retarded Suspects*, 33 J. Psych. & Law 359-366 (2005); O'Connell, *Miranda Comprehension in Adults with Mental Retardation and the Effects of Feedback on Style and Suggestibility*, 29 Law & Hum. Behav. 359-369 (2005).

the prosecution itself characterized as "especially significant." Trial Tr. at 1199:8-1200:7; *see Ege v. Yukins*, 485 F.3d 364, 377 (6th Cir. 2007) ("If the prosecution felt that the bite mark evidence was so important, it does not take much of a cognitive leap to believe that the jury viewed it as important as well."); *see also Ege v. Yukins*, 380 F. Supp. 2d 852, 880 (E.D. Mich. 2005), *aff'd in relevant part*, 485 F.3d 364 (6th Cir. 2007) (finding bite mark analysis evidence "plainly . . . 'material in the sense of a crucial critical highly significant factor'") (citation omitted). The significance and materiality of the expert evidence used to convict Mr. Hill is only heightened in this case by the notable absence of any corroborating physical evidence tying Mr. Hill to the crime.

Third, the newly discovered evidence is not cumulative to evidence introduced at trial, nor is it mere impeachment testimony. Mr. Hill never benefited from testimony about the limits of forensic odontology as a field, nor did any expert testify that the injury found on Fife could not even be classified as a human bite-mark. Mr. Hill's confession was never challenged by expert evidence regarding the general and case-specific psychological effects of coercive interrogation techniques. And Mr. Hill never benefited from an expert pathologist who could challenge the grossly unscientific testimony of Drs. Adelman and Mertz.

For all of these reasons, the newly proffered evidence cannot be characterized as impeachment evidence. Instead, it calls into question the very "rationale that [the expert] used to reach his conclusion provided at trial," and necessarily would have resulted in "different testimony and different evidence to be considered by the jury." *State v. Holzapfel*, 10th Dist. Nos. 10AP-17, 10AP-18, 2010-Ohio-2856, ¶ 24. As the Ohio Court of Appeals in *Holzapfel* noted, new evidence that "provides specific areas of conflict between the two experts and their analysis . . . is not 'merely cumulative' nor 'merely' contradictory." *Id.* There can be little

question that, if proffered today, the testimony and evidence from Drs. Adelman and Mertz would be inadmissible. Absent this evidence, it is unlikely that Mr. Hill would have faced trial, let alone a conviction for murder.

V. THE TRIAL AND CONVICTION OF MR. HILL VIOLATED HIS FIFTH, EIGHTH, AND FOURTEENTH AMENDMENT RIGHTS

The egregiousness of the prosecution and conviction of Mr. Hill on the basis of unscientific bite-mark evidence constitutes a violation of his Due Process rights pursuant to *Chambers v. Mississippi*, 410 U.S. 284, 294, 93 S. Ct. 1038, 35 L. Ed. 2d 297 (1973); *see also Napue v. Illinois*, 360 U.S. 264, 271, 79 S. Ct. 1173, 3 L. Ed. 2d 1217 (1959) (conviction based on misleading evidence a violation of Due Process); *Alcorta v. Texas*, 355 U.S. 28, 31, 78 S. Ct. 103, 2 L. Ed. 2d 9 (1957) (same).[23]

Courts around the country – including the federal Sixth Circuit Court of Appeals, in a bite-mark case – have recognized that the Constitution's fundamental guarantee of due process requires courts to intervene and overturn a conviction when the basic tenets of fairness have been violated. *See Ege*, *supra*, at 376-78. In *Ege*, the Sixth Circuit held that the use of erroneous and unreliable scientific evidence – that a bite-mark on the victim established 3.5–million–to–one odds that anyone but the defendant could have made the bite mark – violated the defendant's Due

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[23] The bite-mark evidence may also constitute a *Brady* violation. Under *Brady v. Maryland*, "the suppression by the prosecution of evidence favorable to an accused upon request violates due process where the evidence is material either to guilt or punishment, irrespective of the good faith or bad faith of the prosecution." 373 U.S. 83, 87, 83 S. Ct. 1194, 10 L. Ed. 2d 215 (1963). "There are three components of a true *Brady* violation: The evidence at issue must be favorable to the accused, either because it is exculpatory, or because it is impeaching; that evidence must have been suppressed by the State, either willfully or inadvertently; and prejudice must have ensued." *Strickler v. Greene*, 527 U.S. 263, 281-82, 119 S. Ct. 1936, 144 L. Ed. 2d 286 (1999). Further, "the nondisclosure" must have been "so serious that there is a reasonable probability that the suppressed evidence would have produced a different verdict." *Id.* at 281.

Process right to a fair trial. *Id.*[24] The testimony proffered by Dr. Mertz against Mr. Hill goes far beyond the trumped-up odds ratio at issue in *Ege*, however; in addition to testifying beyond the limits of his field, Dr. Mertz also opined outside his expertise, manipulated his data, and eventually (and privately) recanted his testimony while Mr. Hill awaited execution. In hindsight, Dr. Mertz's trial testimony was so contrary to science and logic – so demonstrably false at the time he gave it – that it can only be labeled pure fabrication.[25]

As other courts have noted, the threat to Due Process posed by false expert testimony, particularly testimony by forensic scientists (a leading cause of wrongful conviction), is far greater than that of a lay witness.[26] The authority granted, and ceded to, forensic scientists is enormous – the veneer of scientific objectivity combined with subject matter beyond the knowledge of a lay-person risks placing the testimony beyond the reach of informed critique. When experts parade pseudoscience before a fact-finder that is unable to challenge its veracity, the adversarial process is denied its essential truth-seeking function.

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[24] *See also Han Tak Lee v. Glunt*, 667 F.3d 397 (3d Cir. 2012); *Maxwell v. Roe*, 628 F.3d 486, 507 (9th Cir. 2010); *United States v. Young*, 17 F.3d 1201 (9th Cir. 1994); *Armstead v. Maryland*, 342 Md. 38, 84, 673 A.2d (1996); *Ex Parte Turner*, 394 S.W.3d 513 (Tex. Crim. App. 2013).

[25] For instance, Dr. Mertz testified that his opinion was "very strong that you can exclude [co-defendant]," while simultaneously being "slightly stronger that it is [Mr. Hill's] bite." Trial Tr. at 952:18-20. But this is fundamentally impossible: a bite-mark identification is based on the "exclusion of all others" and thus the confidence in an exclusion necessarily must be stronger than the confidence in an inclusion

[26] Approximately 50% of all wrongful convictions overturned through post-conviction DNA evidence involved the use of invalid or improper forensic science. *See* INNOCENCE PROJECT, *Unreliable or Improper Forensic Science*, http://www.innocenceproject.org/understand/Unreliable-Limited-Science.php (last visited Feb. 11, 2014); *Hinton v. Alabama*, -- U.S. --, 134 S. Ct. 1081, 1090, 188 L. Ed. 2d 9 (2014) ("we have recognized the threat to fair criminal trials posed by the potential for incompetent or fraudulent prosecution forensics experts" and "that '[s]erious deficiencies have been found in the forensic evidence used in criminal trials'").

Here, in particular, the introduction of the now discredited bite-mark evidence, proffered to the panel and hyped by the State as infallible "scientific" evidence of guilt – a trademark stamped by Mr. Hill (that could only have been stamped by Mr. Hill) on the adolescent body of Raymond Fife – was so unfair it resulted in just such a "breakdown in the adversarial process." *Strickland v. Washington*, 466 U.S. 668, 696, 104 S. Ct. 2052, 80 L. Ed. 2d 674 (1984); *see also Brecht v. Abrahamson,* 507 U.S. 619, 639, 113 S. Ct. 1710, 123 L. Ed. 2d 353 (1993) (Stevens, J., concurring) ("The Fourteenth Amendment prohibits the deprivation of liberty 'without due process of law'; that guarantee is the source of the federal right to challenge state criminal convictions that result from fundamentally unfair trial proceedings.").[27]

The trial court's abdication of its gatekeeping role goes far beyond the decision to let Dr. Mertz take the stand. Once there, he was permitted to opine about anatomy, biomechanics, sexuality, and other topics far beyond his expertise. He testified, under oath, that he could be "certain" of his identification of Danny Lee Hill – a conclusion that is now recognized as scientifically indefensible. Dr. Mertz's inaccurate and pseudoscientific opinions about asphyxiation, erection, and genital size differential were essential to his opinions tying Mr. Hill to the murder and were likely the primary factor in Mr. Hill's conviction and sentencing. The violation of Mr. Hill's constitutional rights is only exacerbated by the fact that Dr. Mertz privately recanted his testimony in the years after he presented it, while Mr. Hill awaited execution on death row. In light of the above, it is clear that the events that led to Mr. Hill's conviction constitute a violation of his Fifth, Eighth, and Fourteenth Amendment rights. Now that we have the benefit and clarity of time, and an evolved understanding of the science at issue, letting the conviction stand in spite of the facts would constitute an even more egregious

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[27] *See also Estelle v. McGuire*, 502 U.S. 62, 70, 12 S. Ct. 475, 116 L. Ed. 2d 385 (1991); *Spencer v. Texas,* 385 U.S. 554, 563-64, 87 S. Ct. 648, 17 L. Ed. 2d 606 (1967).

violation – of Mr. Hill's rights, but also of the principles of fairness and justice the Fifth, Eighth and Fourteenth Amendment were enacted to guarantee.

CONCLUSION

For the reasons set forth above, Danny Lee Hill respectfully requests that this Honorable Court grant his motion for a new trial.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing **MEMORANDUM IN SUPPORT OF MOTION FOR NEW TRIAL** was hand delivered to the Trumbull County Prosecutor's Office and to the Honorable Andrew D. Logan on this _____ day of _____, 2014.

SARAH R. KOSTICK
(510) 701-2017

DESCRIPTION OF BITE MARK EXONERATIONS SINCE HILL CONVICTION

1. **Willie Jackson:** On May 26, 2006, Willie Jackson was exonerated after post-conviction DNA testing proved his innocence in a 1986 sexual assault case. He had spent 17 years in prison for a crime he did not commit. At Jackson's trial, Dr. Robert Barsley, past president of the American Board of Forensic Odontology (ABFO), told the jury that the bite marks on the victim matched Jackson, testifying: "My conclusion is that Mr. Jackson is the person who bit this lady." Ultimately, DNA evidence showed that it was Willie Jackson's brother, Milton Jackson, who attacked and raped the victim.[1]

2. **Roy Brown:** In January 2007, Roy Brown was exonerated of stabbing and strangling Sabina Kulakowski after spending 15 years in prison. He was convicted of her murder in January 1992 based on bite mark evidence which was the centerpiece of the prosecution's case against Brown. Kulakowski's body had been discovered with multiple bite marks on her back, arm and thigh, all of which board-certified ABFO Diplomate Dr. Edward Mofson[2] claimed matched Brown's teeth. Mofson testified to a "reasonable degree of dental certainty" that Brown's dentition was "entirely consistent" and "completely consistent" with all of the bite marks, noting that the bite marks depicted the absence of the same two teeth Brown was missing.

   15 years after the conviction, however, DNA testing performed on saliva stains left by the perpetrator excluded Brown and matched another suspect, Barry Bench. Nevertheless, citing the prosecution's bite mark evidence at the original trial, which the jury asked to review during deliberations, the judge in the case initially refused to release Brown. Ultimately, in January 2007, the district attorney acknowledged Brown's innocence and he was exonerated after spending 15 years in prison for a murder he did not commit.[3]

3. **Ray Krone:** On December 31, 1991, Ray Krone was arrested and charged with the murder, kidnapping, and sexual assault of a woman who worked at a bar he frequented. Police asked had a Styrofoam impression made of Krone's teeth for comparison to bite marks found on the victim's body and thereafter, he became known in the media as the "Snaggle Tooth Killer" due to his crooked teeth. Dr. Raymond Rawson, a board-

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[1] *The Innocence Project – Know the Cases: Browse Profiles: Willie Jackson, http://www.innocenceproject.org/Content/Willie_Jackson.php*; *Jackson v. Day*, No. Civ. A. 95-1224, 1996 WL 225021, at *1 (E.D. La. May 2, 1996), *rev'd*, 121 F.3d 705 (5th Cir. 1997); Barsley 1989 trial court testimony, *transcript available at http://www.law.virginia.edu/pdf/faculty/garrett/innocence/jackson.pdf.*

[2] All representations that the dentists at issue in this appendix were "board certified ABFO Diplomates" are based on the *American Board of Forensic Odontology Diplomate Information, available at http://www.abfo.org/wp-content/uploads/2012/08/ABFO-Diplomate-Information-revised-November-2012.pdf.*

[3] Fernando Santos, *In Quest for a Killer, an Inmate Finds Vindication*, N.Y. Times (Dec. 21, 2006), *http://www.nytimes.com/2006/12/21/nyregion/21brown.html?pagewanted=all&_r=0*; *The Innocence Project - Know the Cases: Browse Profiles: Roy Brown, http://www.innocenceproject.org/Content/Proven_Innocent_by_DNA_Roy_Brown_Is_Fully_Exonerated.php*; Brandon L. Garret, *Convicting the Innocent: Where Criminal Prosecutions Go Wrong* 172 (Harvard University Press 2011); Mofson 1992 trial court testimony, *transcript available at http://www.law.virginia.edu/pdf/faculty/garrett/innocence/brown1.pdf.*

certified ABFO Diplomate, testified that the bite marks found on the victim's body matched Krone's teeth. Based on this, Krone was convicted of murder and kidnapping, and sentenced to death.

In 1996, Krone won a new trial on appeal, but was convicted again based mainly on the state's supposed expert bite mark testimony. This time, however, the judge sentenced him to life in prison, citing doubts about whether or not Krone was the true killer. It was not until 2002, after Krone had served more than 10 years in prison, that DNA testing proved his innocence.[4]

4. **Calvin Washington & Joe Sidney Williams:** Calvin Washington was convicted of capital murder in 1987 after a woman was found beaten, raped, and murdered in Waco, Texas. It was alleged that Washington and Williams murdered and sexually assaulted the victim in the course of committing a burglary. Forensic dentist and former president of the American Academy of Forensic Sciences, Dr. Homer Campbell testified that a bite mark found on the victim was "consistent with" Williams' dentition. While Campbell excluded Washington as the source of the bite mark, his bite mark testimony about Williams (which was given at Washington's trial) tied Washington to the crime.

   After serving more than 13 years of this sentence, Washington was finally exonerated in 2000 when DNA testing showed that blood on a shirt found in Washington's home did not come from the victim, as previously asserted; testing conducted a year later pointed to another man as the perpetrator.[5] Prior to Washington's exoneration, the Texas Court of Criminal Appeals had set aside Williams' conviction in 1992 and dismissed the charges against him on June 30, 1993.

5. **James O'Donnell:** James O'Donnell was convicted in 1998 of attempted sodomy and second-degree assault. Board-certified ABFO Diplomate, Dr. Harvey Silverstein, opined that a bite mark on the victim's hand was consistent with O'Donnell's dentition. Based on the eyewitness identification and the bite mark evidence, and despite testimony from his wife and son that he had been at home with them when the crime occurred, the jury convicted O'Donnell. He was sentenced to three and a half to seven years in prison.

   In 2000, after DNA samples from a rape kit excluded O'Donnell as the source of the semen found on the victim, his conviction was formally vacated.[6]

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[4] *The Innocence Project – Know the Cases: Browse Profiles: Ray Krone, http://www.innocenceproject.org/Content/Ray_Krone.php.*

[5] *The Innocence Project – Know the Cases: Browse Profiles: Calvin Washington, http://www.innocenceproject.org/Content/Calvin_Washington.php*; Michael Hall, *The Exonerated*, Texas Monthly (Nov. 2008), *available at http://www.texasmonthly.com/story/exonerated.*

[6] *The Innocence Project – Know the Cases: Cases Where DNA Revealed That Bite Mark Analysis Led to Wrongful Arrests and Convictions, http://www.innocenceproject.org/Content/Cases_Where_DNA_Revealed_that_Bite_Mark_Analysis_Led_to_Wrongful_Arrests_and_Convictions.php*; Silverstein 1998 trial court testimony, *transcript available at http://www. law.virginia.edu/pdf/faculty/garrett/innocence/odonnell.pdf.*

6. **Levon Brooks:** Levon Brooks spent16 years in prison for the rape and murder of a three-year-old girl that he did not commit. Forensic dentist Dr. Michael West claimed that the marks on the victim's body were human bite marks and he testified at Brooks' trial that, of 13 suspects whose bite marks he had compared to the ones on the victim's body, Brooks' teeth "matched" the marks on the victim. As he explained, "it could be no one but Levon Brooks that bit this girl's arm." Based on this, Brooks was convicted of capital murder and sentenced to life in prison.

   In 2001, DNA testing and a subsequent confession revealed that Justin Albert Johnson committed the murder. Johnson had been one of the 12 other suspects whose dental impressions Dr. West had determined did not match the bite marks on the victim's body. Following Johnson's confession, Brooks was freed on February 15, 2008.[7]

7. **Kennedy Brewer:** In 1992, Kennedy Brewer was arrested in Mississippi and accused of killing his girlfriend's three-year-old daughter. The medical examiner who conducted the autopsy, Steven Hayne, testified that he had found several marks on the victim's body that he believed to be bite marks. Hayne called in Dr. West to analyze the marks and Dr. West concluded that 19 marks found on the victim's body were "indeed and without a doubt" inflicted by Brewer. Brewer was convicted of capital murder and sexual battery on March 24, 1995, and sentenced to death. His conviction was based almost entirely on the bite mark evidence.

   In 2001, DNA tests proved that Justin Albert Johnson, not Kennedy Brewer, committed the crime. Johnson was the same perpetrator responsible for murdering the child in the Levon Brooks case. As a result of the DNA testing, Brewer's conviction was overturned. He had served seven years on death row and one year in jail awaiting trial.[8]

8. **Robert Lee Stinson:** Robert Lee Stinson served over 23 years in a Wisconsin prison for a brutal rape and murder of 63-year-old victim Ione Cychosz. The only physical evidence against Stinson at his 1985 trial was the bite mark testimony of two board certified ABFO Diplomates, Drs. Lowell Thomas Johnson and Raymond Rawson. Dr. Johnson concluded that the bite marks "had to have been made by teeth identical" to Stinson's, and claimed that there was "no margin for error" in his conclusion. Dr. Rawson, the chairman of the Bite Mark Standards Committee of the ABFO testified that the bite mark evidence was "high quality" and "overwhelming." Both experts testified "to a reasonable degree of scientific certainty", that the bite marks on the victim had been inflicted at or near the time of death, and that Stinson was the only person who could have inflicted the wounds. After examining Dr. Johnson's workup, Dr. Rawson stated that the methods Dr. Johnson used in gathering the evidence complied with the "standards of the American Board of Forensic Odontology."

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[7] *The Innocence Project – Know the Cases: Browse Profiles: Levon Brooks, http://www.innocenceproject.org/Content/Levon_Brooks.php.*

[8] *The Innocence Project – Know the Cases: Browse Profiles: Kennedy Brewer, http://www.innocenceproject.org/Content/Kennedy_Brewer.php.*

The Wisconsin Innocence Project accepted Stinson's case in 2005, and sought DNA testing of saliva and blood-stains on the victim's sweater, which ultimately excluded Stinson. On January 30, 2009, Stinson, then 44, was freed and his conviction was vacated.[9]

9. **Bennie Starks:** Bennie Starks was convicted of raping and assaulting a 69-year-old woman in 1986, based in part on testimony by two forensic dentists, Drs. Russell Schneider and Carl Hagstrom. Both dentists testified that a bite mark on the victim's shoulder matched Starks' dentition. Starks spent 20 years in prison before an appeals court ordered a new trial after DNA testing on semen recovered from the victim excluded Starks. On January 7, 2013, the district attorney dismissed all charges against Starks.[10]

10. **Michael Cristini & Jeffrey Moldowan:** In 1991, Michael Cristini and Jeffrey Moldowan were convicted of the rape, kidnapping, and attempted murder of Moldowan's ex-girlfriend, Maureen Fournier. At trial, two board-certified ABFO Diplomates, Drs. Allan Warnick and Dr. Pamela Hammel, testified that bite marks on the victim's body had to have come from both defendants, to the exclusion of all others. Both men were convicted. Cristini was sentenced to 44 to 60 years, and Moldowan to 60 to 90 years.

    After the conviction, an investigator hired by the Moldowan family found a witness who said he had seen four black men standing around a naked woman at the scene of the crime. The witness' story contradicted Fournier's, as Cristini and Moldowan are both white. Dr. Hammel then recanted her testimony, saying that she had been uncertain that either defendant had in fact been responsible for the bite marks. According to Dr. Hammel, she had agreed to testify only when Dr. Warnick had assured her that a third odontologist had also confirmed that the bite marks could be matched to Cristini and Moldowan to the exclusion of all others.

    On October 20, 2003, the Macomb County Circuit Court granted Cristini a new trial, citing the new eyewitness evidence, Dr. Hammel's recantation, and stronger alibi evidence. Cristini was acquitted by a jury on April 8, 2004, after having served 13 years in prison. Later, Cristini filed wrongful conviction lawsuits against the city of Warren, Macomb County, and Dr. Warnick. The suit against Dr. Warnick was settled quickly for an undisclosed amount.

    In 2002, the Michigan Supreme Court reversed Moldowan's conviction. On retrial, in February 2003, Moldowan was acquitted of all charges and released, having served

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[9] *The Innocence Project – Know the Cases: Browse Profiles: Robert Lee Stinson, http:// www.innocenceproject.org/ Content/Robert_Lee_Stinson.php*; *State v. Stinson*, 134 Wis. 2d 224, 228, 231, 397 N.W.2d 136, 137-38 (Ct. App. 1986).

[10] *The Innocence Project – Innocence Blog: Bennie Starks Exonerated After 25 Year Struggle to Clear His Name, http://www.innocenceproject.org/Content/Bennie_Starks_Exonerated_After_25_Year_Struggle_to_Clear_His_Nam e.php*; Lisa Black, *Exonerated Man's Ordeal Ends: 'I Am Overwhelmed with Joy'*, Chicago Tribune (Jan. 7, 2013), *http://articles.chicagotribune.com/2013-01-07/news/chi-bennie-starks-lake-county-charges-dropped_1_bennie-starks-mike-nerheim-ordeal-ends*; Donna Domino, *Dentists Sue Over Bite Mark Testimony, http://www.drbicuspid. com/index.aspx?sec=nws&sub=rad&pag=dis&ItemID=309572.*

nearly twelve years in prison. Moldowan's lawsuit was settled for $2.8 million in 2011.[11]

11. **Anthony Keko:** Anthony Keko was convicted in 1994 for the 1991 murder of his estranged wife Louise Keko. Dr. Michael West testified that a bite mark on the victim's shoulder matched Anthony Keko's dentition. Dr. West's testimony was the only direct evidence linking Keko to the crime, and prosecutors conceded that without the bite mark evidence there was no case. Keko was found guilty and sentenced to life in prison. In December 1994, however, the trial judge became aware of previously undisclosed disciplinary proceedings against Dr. West. The judge began to express doubts regarding West's forensic abilities and ultimately reversed Keko's conviction.[12]

12. **Harold Hill & Dan Young Jr.:** Harold Hill was 16 when he and his co-defendant, Dan Young, Jr. were convicted of the rape and murder of 39-year-old Kathy Morgan in 1990. Both men would end up spending 15 years in prison for a crime they did not commit. At trial, board-certified ABFO Diplomate Dr. John Kenney linked a bruise and a bite mark on the victim's body to Hill and Young. Both were found guilty and sentenced to life in prison without parole. It wasn't until 2004 that DNA tests excluded both Hill and Young as the source of DNA evidence found on the victim. In 2005 prosecutors finally dismissed the charges against both men. Dr. Kenney later said that the prosecution pushed him to exaggerate his results.[13]

13. **Greg Wilhoit:** Greg Wilhoit's wife, Kathy, was murdered in Tulsa, Oklahoma in June 1985. Wilhoit was left to raise his two daughters – a 4-month-old and a 1-year-old. A year later, he was arrested and charged with the murder based on the opinions of two forensic odontologists, Drs. R.T. Glass and R.K. Montgomery, that his dentition matched a bite mark on his wife's body. Wilhoit was found guilty and sentenced to death.

    During his appeal, other forensic odontologists examined the bite mark evidence and independently concluded that the bite mark could not be matched to Wilhoit. He was released on bail for two years and when a retrial was finally held in 1993 the judge issued a directed innocence verdict. In total, Wilhoit dealt with this tragedy for 8 years, fighting

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[11] *People v. Moldowan*, 466 Mich. 862, 643 N.W.2d 570 (2002); *Moldowan v. City of Warren*, 578 F.3d 351 (6th Cir. 2009); Ed White, *Warren Settles Rape Case Lawsuit for $2.8 Million – Falsely Imprisoned Man Sued for Violation of His Civil Rights*, Detroit Legal News (Oct. 19, 2011). *http://www.legalnews.com/detroit/1109085*; Jameson Cook, *Michael Cristini Wants Bigger Settlement than Jeffrey Moldowan*, Macomb Daily (Dec. 25, 2012), *http://www.macombdaily.com/article/20121225/NEWS01/121229769/michael-cristini-wants-bigger-settlement-than-jeffrey-moldowan#full_story*; Michael S. Perry, *Exoneration Case Detail: Michael Cristini*, Nat'l Registry of Exonerations, *http://www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=3133* (last visited Apr. 12, 2013); Hans Sherrer, *Prosecutor Indicted For Bribery After Two Men Exonerated of Kidnapping and Rape*, Justice: Denied, no. 27, 2005, at 10, *available at http://www.justicedenied.org/issue/issue_27/Moldowan_cristini_exonerated.html*.

[12] *A Dentist Takes The Stand*, The Daily Beast, Newsweek & The Daily Beast (Aug. 19, 2001, 8:00 P.M.), *http://www.thedailybeast.com/newsweek/2001/08/20/a-dentist-takes-the-stand.html*; Mark Hansen, *Out of the Blue*, ABA J., Feb. 1996, *available at http://www.abajournal.com/magazine/article/out_of_the_blue/print/*.

[13] Ctr. on Wrongful Convictions, *Exoneration Case Detail: Harold Hill*, Nat'l Registry of Exonerations, *http://www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=3296* (last visited Apr. 12, 2013).

a case built entirely on bite mark analysis. Wilhoit's story was documented by John Grisham in "The Innocent Man".[14]

[14] *Greg Wilhoit: Unsung Hero from Death Row to Freedom Witness to Innocence*, Greg Wilhoit: Philadelphia, PA, *available at http://www.witnesstoinnocence.org/view_stories.php?Greg-Wilhoit-19*

NOTES ON FIFE BITE MARK PROCEDURES AND FINDINGS---FIFE HOMICIDE

Following a thorough visual study of the body of Fife in the morgue, materials used in the analysis of this case---15 8 x 12 color enlargements of original color slides, 6 Black & White (Panatomic X film) prints and enlargements, models of the teeth and arches of both Hill and Combs. Records of a comple oral examination and complete mouth radiographs, of both suspects, were provided. Measurments were made with a magnifying glass, dividers, and a metal rule.

Upon receipt of the models of the suspects Hill & Combs I made comparisons of the teeth and arch forms of both.

Combs's arch of the maxilla is slighly smaller than that of Hill. The lower teeth of Combs, when the mouth is closed together, occlude lingual to and closer to the incisal angles of his upper anterior teeth. This relationship of the lower to the upper teeth would, in all likelyhood, have left clear incisal marks on the penis of Fife following a bite.

Combs

Tooth #11, the upper left cuspid, of Combs is missing. There is no area of tissue entrapment on the bite marks on the penis.

There is a diastema, abnormal space between the upper right central incisors (#8) and the upper left central incisor (#9), present in the maxillary arch of Mr. Combs. This has been reported in the Journal of Prosthetic Dentistry by McVay and Latta, Vol 52, Number 6, December 1984 to be present in 3.5% in whites, 5.2% in blacks, and 3.4% in Mongolians of the American population in the 18 to 25 year age range.

Combs

It is my conclusion that Combs, in all likelyhood, did not make the bite on the penis of Fife.

The study of Hill's models and all materials reveals the following:

The arch form, and size of Hill's mouth is consistant with the marks found on the penis of Fife.

The upper right central incisor (#8) has a sharp mesio-incisal angle and the distal, incisal, and lingual surfaces are fractured on an angle. This would give a sharp mesial cervical incisal mark found on the penis of Fife. Because of the angle of the fracture, as expected, a less sharp wound was present. Distal

#8

1 through 16 - typed lower

A diastema, or space, was found between the upper right central incisor (#8) and the mark left by the upper left central incisor (#9) on the penis of Fife. This matches the model of HILL's teeth and arch form.

The model of Hill's maxillary teeth reveal that the upper right lateral incisor, (#7), has a slighly longer point located about midway between the mesial and distal incisal surfaces on the incisal edge. The tooth is set back from the distal of #8. This is consistant with the bite mark on the penis of Fife.

The upper left lateral incisor of HILL is about one mm shorter(incisally) to the adjacent tooth, #9. The position of the lightly marked area on the penis of Fife would be consistant with a mark left by this tooth.

The arch form of Hill's mandible is consistant with the bite mark left on Fife's penis. (Black & White Picture #2 and Color enlargment # III)

The bite was inflicted on the penis in a slighly rotated (not perpendicular) to its shaft.

The reason the marks of the lower teeth do not match or imprint clearly is becasuse when the teeth are closed the lower incisors occlude with the lingual high up near the beginning of the hard palate(roof of the mouth) and leave only puncture marks of #26(the lower right lateral incisor) and possibly #24, the lower left central incisor.

Usually in a bite on a flat or slightly curved surface of more stable skin the lower teeth will leave a more distinct impression because the mandibular lower teeth are forcing the tissue to move upward against the lingual and incisal edges of the upper teeth with more firm tissue in between.

Both Hill and Combs have a midline(#8--#9) diastimas.

The reason that you cannot use direct measurments with any degree of great accuracy(like would be possible in a piece or cheese or an apple) is that the penis may have been in a state of full or partial erection at the time the bite was inflicted.This often occurs following in partial strangulations or in hangings.

Curtis A. Mertz, D. D. S.
Diplomate, American Board of Forensic Odontology
December 19, 1985

99-4317

4:96cv795

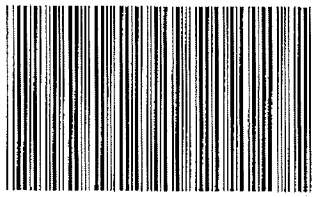
STATE OF OHIO

VS.

DANNY LEE HILL

CASE NO. 85-CR-317

TRIAL TRANSCRIPT
(VOLUME 3)



26

we're objecting to this document as well. Same basis.

JUDGE McLAIN: Overruled at this time. Go ahead.

A This was measuring the difference in the sizes of the flaccid penis and the erect penis in a hundred and seventy-seven healthy men aged 18 to 20 years of age. And in here -- if I can find the spot -- well, it ends up with the average circumference of a penis upon erection is 1.3075 larger than in the flaccid state. Now, there's a lot of other things in here, but that is what I think is significant in this case.

Q (By Attorney Watkins) Why is it significant?

A Because based on this research; in my mind, valid research, this explains the difference in the measured size of approximately a third less than in the measurements when teeth mark sizes are compared.

Q Now, I notice that was studied for 18-year olds.

A Yeah.

Q Did you look for studies, if there are any known, as to young 12-year olds, 14-year olds --

A The -- our hospital librarian could not find any reference to size differentials in younger individuals. There may be in the literature.

Q From your own experiences, would you have an opinion as

IN THE COURT OF COMMON PLEAS
TRUMBALL COUNTY, OHIO

THE STATE OF OHIO,	:	
Plaintiff,	:	
v.	:	Case No.: 85-CR-317
DANNY LEE HILL,	:	
Defendant.	:	

AFFIDAVIT OF FRANKLIN D. WRIGHT, D.M.D.

I, Dr. Franklin D. Wright, hereby declare as follows:

BACKGROUND

1. I am a board-certified practicing forensic dentist with nearly three decades of experience as the forensic dental consultant to the Hamilton County, Ohio, Coroner's Office. I have presented lectures and workshops in forensic odontology throughout the United States, Europe, Central America, and South America, including to the President of the United States National Science and Technology Council, Committee on Science, Subcommittee on Forensic Science.

2. I am a past president of the American Board of Forensic Odontology ("ABFO"), and currently chair of the ABFO Bitemark Proficiency Examination Development Committee.

3. I have reviewed, investigated, and consulted on hundreds of bite-mark cases.

4. I have been retained by the State of Ohio on numerous occasions to analyze bitemarks in criminal investigations and trials. I have also testified on behalf of the State of Ohio in criminal trials, including homicides.

5. A detailed curriculum vitae is attached as Exhibit A to this Affidavit.

6. On January 26, 2014, Counsel for Danny Lee Hill requested that I review certain case files and evidence relating to the prosecution of Mr. Hill for the murder of Raymond Fife. I understand that Mr. Hill was tried and convicted in the Trumbull County Court of Common Pleas in January 1986. At that trial, the court heard testimony relating to alleged bitemark evidence from two forensic dentists: Dr. Curtis Mertz and Dr. Lowell Levine. Such evidence is directly in my field of expertise.

7. After my review of the materials provided to me, I authored a letter to Mr. Hill's counsel, dated March 30, 2014, in which I reported my findings. This Affidavit confirms and supplements my findings as set forth in that letter, which is incorporated by reference and a copy of which is attached as Exhibit B to this Affidavit.

MATERIALS CONSIDERED

8. In reaching my opinions and as part of preparing this Affidavit, I have reviewed the following materials: Report of Dr. Curtis Mertz Report, Report of Dr. Lowell Levine, Trial Testimony of Dr. Mertz, Trial Testimony of Dr. Levine, and twenty-two black-and-white images that were photographs of the victim in the case of *State v. Danny Lee Hill*. I have been informed these were admitted as evidence during the trial of Danny Lee Hill.

9. In addition, I have relied on the experience and training acquired over my nearly three-decade career as a forensic dentist and consultant.

10. Finally, I have considered conversations that I had with Dr. Curtis Mertz, who is now deceased.

OPINION

11. It is my opinion, to a reasonable degree of medical/dental certainty, that the patterned injury on the victim, Raymond Fife, is not a human bitemark.

12. Using the ABFO Bitemark Decision Tree first adopted by the ABFO in February 2013, when a patterned injury is defined by the ABFO Bitemark Terminology Guidelines as not representing a human bitemark, then analysis and comparison to any suspected biter is not sanctioned under any circumstances, and as a rule cannot be performed to a reasonable degree of medical/dental certainty.

13. Even if the patterned injury on the victim was a human bitemark, which it is not, its location on the penis of the victim makes the scientifically supportable identification of a particular biter impossible.

~~14.~~ It is not possible to determine from the evidence reviewed by Drs. Mertz and Levine that patterned injury on Raymond Fife's penis was created by a human teeth.

15. It is not possible to determine from the evidence reviewed by Drs. Mertz and Levine that the patterned injury on Raymond Fife's penis was created by Danny Lee Hill to the exclusion of millions of other individuals in the open universe of possible biters.

THE TESTIMONY AND OPINION OF DR. CURTIS MERTZ

16. Dr. Mertz erred when he conclusively identified Mr. Hill as the source of the patterned injury on the victim.

17. In my opinion, applying the current guidelines and standards of the ABFO, there is no scientific support for the conclusion that Mr. Hill left any portion of the patterned injury on the victim.

18. Furthermore, it is my opinion that the location of the patterned injury in this case renders it impossible to make any positive association between a suspected biter and the patterned injury in question. Dr. Mertz's assertion that Mr. Hill caused the injury on the victim's penis required him to speculate that the victim's penis was erect when the bite occurred, that this erect penis would have been one and a third the size of a flaccid penis, and that therefore the dimensions of the bite-mark that were actually measured were approximately a third smaller than the dentition of the alleged biter. This speculation is nothing but a blind guess. Such blind guessing is not a reasonable or reliable scientific methodology, nor is it permitted under the ABFO Guidelines (or the ABFO-recommended "Decision Tree" based on those Guidelines). In my opinion, the extrapolations that Dr. Mertz made from his actual measurements (based on his speculation regarding the presence of erection and erect versus flaccid penis circumference) are not scientifically supportable, and suggest that, rather than objective, expert opinion, Dr. Mertz's testimony suffered from predictive outcome bias and confirmation bias.

19. This bias is evidenced by the fact that Dr. Mertz chose to address only those aspects of the patterned injury that he felt that he could link to Mr. Hill's dentition, ignoring other aspects of the patterned injury that he could not link to Mr. Hill.

DR. MERTZ'S POST-TRIAL STATEMENTS

20. Dr. Mertz passed away in 2005. He was my mentor, as well as a respected teacher and scholar in the forensic odontology community. However, Dr. Mertz confided in me

that he regretted the testimony that he gave in this case, and that he did not believe that it was scientifically supportable.

21. These statements, or statements like them, were made to me by Dr. Mertz on two occasions. I discussed this case with Dr. Mertz at the time that I was preparing to take my ABFO certification examination in 1988 and then again in the 1990s. During both conversations, Dr. Mertz and I discussed the testimony that he gave in Mr. Hill's case.

22. On both occasions, in 1988 and again in the 1990s, Dr. Mertz confided to me that he no longer believed, to a reasonable degree of medical/dental certainty, that the patterned injury on the victim in this case was a human bitemark. He also stated, on both occasions, that he no longer believed, to a reasonable degree of medical/dental certainty, that Mr. Hill's dentition was the source of that injury. Dr. Mertz clarified that if he had the opportunity to give further testimony in proceedings involving Mr. Hill, he would not have given the same opinion and testimony that the Court admitted as evidence.

THE TESTIMONY AND OPINION OF DR. LOWELL LEVINE

23. Dr. Lowell Levine erred when he opined that the injury on the victim represents a human bitemark.

24. Dr. Levine further erred when he stated (i) that either Mr. Hill, or his co-defendant, Tim Combs, could have been the biter, and (ii) that it is likely that one portion of the patterned injury was caused by Mr. Hill.

25. In my opinion, the only reasonable and reliable scientific conclusion that could be asserted given Dr. Levine's recorded observations about the patterned injury was either (i) that the patterned injury lacked specificity, and thus could not supply a basis for identifying either

Mr. Hill or Mr. Combs (or anyone else) as the biter, or (ii) that Mr. Hill's and Mr. Comb's dentitions were similar enough that a bitemark left by either of them would leave a pattern indiscernible from a bitemark pattern left by the other.

I declare under penalty of perjury that the foregoing is true and correct.

Franklin D. Wright, D.M.D.

Executed this 22 day of September, 2014.

Subscribed and sworn to me by the person known to me as Franklin D. Wright, D.M.D., this 22 day of September, 2014.

Notary Public: Melanie Sauter

My commission number: 3/3/2018

My commission expires: 3/3/2018

NOTARY PUBLIC STATE OF OHIO

MELANIE A. SAUTER
Notary Public, State of Ohio
My Commission Expires
March 3, 2018

FRANKLIN D. WRIGHT, D.M.D.

FORENSIC DENTAL CONSULTANT

FRANKLIN D. WRIGHT, D.M.D

GENERAL INFORMATION

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OFFICE: Full Time Family Practice
1055 Nimitzview Dr.
Cincinnati, Ohio 45230
PHONE (513) 231-5353
FAX (513) 231-6404

EDUCATION:

University of Kentucky
College of Dentistry
A.B. Chandler Medical Center
Lexington, Kentucky
GRADUATE: **1984**

University of Kentucky
College of Arts and Sciences
Lexington, Kentucky
GRADUATE: May 1980

Anderson Senior High School
Cincinnati, Ohio 45255

GRADUATE: 1976

PUBLICATIONS, LECTURES, AFFILIATIONS

Publications:

- Cincinnati Dental Society "Bulletin"
"Forensic Odontology", April 1988 Vol. 57 No. 4 Pg. 16

Manual of Forensic Odontology
(A publication of the Amer. Society of Forensic Odontology)

- "Postmortem Dental Radiography", Second Edition, 1991

- Chapter 2,"Dental Identification", Third Edition, 1995

- Dental Identification, Fourth Edition, 2007

-Chapter 7 Bitemark Analysis, Fifth Edition, 2012

- Forensic Dentistry, Chapter 6 "Forensic Photography"; first edition, 6/97, CRC Press, Boca Raton, FL

- Photography in Bite Mark and Patterned Injury Documentation, Part 1 and part 2- a case study, Journal of Forensic Sciences, vol.43; num.5; pgs 871-881; July 1998

- Dental Clinics of North America: Forensic Odontology, Bitemark Chapter, April, 2001, pgs 365-397

- Bitemark Evidence, edited by Dr. Robert B.J. Dorion, {photography- chapter 7}"Collection of Evidence: Non-invasive Analyses: Photography" First edition 2004;

- Forensic Dentistry, 2nd edition, edited by Drs. David Senn and Paul Stimson, Ch.11 Forensic Photography (January, 2010)

-The Use of Full Spectrum Digital Photography for Evidence Collection and Preservation in cases involving forensic odontology, Forensic Science International, vol. 201 Nos. 1-3, September, 2010; pgs 59-67

-Bitemark Evidence, edited by Dr. Robert B. J. Dorion, {photography- chapter 7}"Collection of Evidence: Non-invasive Analyses: Photography" Second Edition, January ,2011

- Forensic Science: Current Issues, Future Directions; Odontology- Dentistry's Contribution to Truth and Justice; (publication of the American Academy of Forensic Sciences) Pretty, I.; Barsley, R.; Bowers, C.M.; Bush, M.; Bush, P.; Clement, J.; Dorion, R.; Freeman, A.; Lewis, J.; Senn, D.; Wright, F. September 2012; pgs 179-210

-Manual of Forensic Odonotology 5th edition, edited by David R. Senn; Richard A. Weems; Chapter 9; CRC Press, Boca Raton, FL February, 2013

-"Patterned bruises on 2 infants"; Luyet, F.; Feldman, K.; Wright, F.; Knox, B.;

Contemporary Pediatrics; February 2013; pgs 21-22

Lectures:

- "Forensic Dentistry"- Cincinnati Dental Assistant's Society,
October 17, 1988 - March 20, 1991 - March 21, 1994 - April 21, 1997

- Hamilton County Dental Mass Disaster Team, "Dentistry's Role in a Mass Disaster in Cincinnati", January 6, 1990

- "Dental Identification" -Cincinnati Dental Society, March 12, 1990

- "Forensic Dentistry" - Lima Dental Study Club, January 14, 1992

- "Forensic Dentistry"- All Ohio Dental Career Day, The Ohio State University
March 1992; April 1993

- "Distortional Correction in Bitemark Photography - an Unusual Case" &
"Problems and Solutions to the Formation of a Statewide Dental Disaster Team"
American Academy of Forensic Sciences - Annual Meeting, Boston February 1993

- "Forensic Dentistry- A Look At Dentistry As You Have Never Seen It Before"
Radisson Hotel, Lexington Kentucky, Sponsored by the University of Kentucky, College of Dentistry - Commonwealth Continuing Education Dept., August 28, 1993 and
December 16, 1994

-"Forensic Dentistry- A New Look at an Old Friend", Eastside Dental Study Club
May 1994

-"Forensic Dentistry- Course and Workshop", Republica de Colombia Instituto Nacional de Medicina Legal y Ciencias Forenses Bogotá, Colombia, South América,
December 12-17, 1994

-"Bitemark Case Workup" - A.S.F.O. Annual Meeting, Seattle, WA February 14, 1995

-"Forensic Dentistry: A Look at Dentistry as You've Never Seen It Before"
:Ohio Expanded Dental Function Assistants Association at the Annual Meeting of the Ohio Dental Association, September 1995
:Stark County (Canton, Ohio) Dental Society, November 1995
:Greater Cincinnati Oral Health Council, December 1995
:Raymond Walters College- Dental Hygiene Program University of Cincinnati,
January 1996
:Greater Cincinnati Dental Study Club, October 1996
:Cincinnati Dental Hygienists' Association, November 1997

-Death Investigation Seminar, Hamilton Co. Coroner's Office, Odontology Presentation-

"Forensic Dentistry, Pattern Injuries, Photography", 10/17/96, 9/9/97, 9/98; 9/99

- "Evidence Recovery with Dental Materials", FBI Evidence Recovery Team, Cincinnati Office, 10/18/96

- "Bitemark Evidence Recovery", Hamilton Co. Sexual Assault Team, 1991,1993, 1997

- "Computers in Dental Identification"; "Human Abuse"; "Bitemark Update: Computers, DNA and Digital Images" IX Congress de la Instituto de Medicina Legal y Ciencias Forenses, Bogotá, Colombia, S.A. Sept. 17-20, 1997

- George Furst Bitemark Seminar, AAFS meeting, 2/14/98 case presentation, San Francisco, CA

- "Forensic Dentistry: the basics and some nuggets for your office" Cincinnati Dental Society, 3/9/98

- "Forensic Evidence" keynote speaker, Domestic Violence Conference "Effective Investigation and Prosecution" workshop, Cincinnati, 4/2/98

- "Forensic Photography" California Attorney General's National Missing & Unidentified Persons Violent Crime Workshop, 7/21-7/25/98, Sacramento, California

- "Forensic Dentistry- It's All in How You Look at It!"
University of Kentucky- Commonwealth Continuing Dental Education
University of Kentucky, 8/28/98

- "Child Abuse" & "Forensic Dentistry" Division of Pediatric Dentistry, Children's Hospital Medical Center, Montgomery Inn, Cincinnati, Ohio 2/4/99

- 2nd George Furst Bitemark Seminar, AAFS Annual Meeting "Forensic Photography" and "Overlay Fabrication", Saturday, 2/20/1999, Orlando, FL

- "Forensic Dentistry" Northwest (Ohio) Dental Society, Lima, Ohio, 3/17/99

- "Forensic Photography" - Ohio State Coroners Association Annual Meeting Columbus, Ohio, 5/14/99

- "The ODA Mass Disaster Identification Team and Forensic Dentistry: an Introduction" Ohio Dental Association Annual Session, Columbus, Ohio, 9/23/99

- "Forensic Dentistry" T.I. Law Dental Study Club, Cincinnati, Ohio, 9/27/99

- 3rd George Furst Bitemark Seminar AAFS Annual Meeting Three part Course Review and Summary, Reno, NV, February 19,2000

- "Forensic Dentistry: Dental Identification Exercise and Bitemark Case Analysis" University of Kentucky College of Dentistry-Commonwealth Dental Continuing Education, Lexington, KY, 3/24/00

- "Forensic Dentistry: Bitemarks – Who did It?"
Ohio Dental Association Annual Session, Columbus, Ohio, 9/16/00

-" Human Abuse", teacher in-service: Lawrenceburg School System
Lawrenceburg, Indiana, January 10, 2001

-"The Trials and Tribulations of Bitemarks Analysis: Seeing What is Really There"
AAFS annual meeting Abstract presentation, Thursday February 22,2001
Seattle, Washington

-"Forensic Odontology 2001", Instituto de Medica Legal y Ciencias Forenses
June 3-9, 2001, Bogotá, Colombia, South América

- "Forensic Dental Identification Workshop" Annual Session, Ohio Dental Association, September 14, 2001 Columbus, Ohio

-Dental Identification Unit, Office of the Chief Medical Examiner, New York City, NY
World Trade Center Disaster (Dental Identification of WTC victims) 9/15-9/23/01; 12/5-12/10/01

-VI Jornada de Medican Legal, Ministerio Publico: Instituto de Medicina Legal
"Forensic Evaluation: Collection and Process of Identification at the Scene of the Crime"; "Identification by Human Bitemarks", "Identification by Forensic Dentistry", "DNA in Forensic Dentistry", Panama City, Republic of Panama, Central America
October 23-25, 2002

-"Forensic Dentistry: Crime Scene Incidents"
Northern Kentucky University Advanced Crime Scene Class
Friday 11/8/02 - Prof. Jill Shelley, Highland Heights, KY 41099

-"Forensic Dentistry", Cincinnati Dental Hygienists Association
Raymond Walters College, University of Cincinnati, 11/12/02, Cincinnati, Ohio

-"Advanced Forensic Photography" University of Texas, San Antonio
San Antonio, TX December 6-8, 2002, lecture & workshop; with Dr. Greg Golden, Upland, CA and Dr. James Lewis, Alabama

-ABFO Bitemark Workshop #5: Didactic Lecture: "ABFO Bitemark Terminology and Report Writing"; Moderator: oral presentations by candidates, AAFS Annual Meeting, Chicago, IL Sunday February 16, 2003

-"Dental Identification Workshop Using Computers", sponsored by the Ohio Dental Association at the Ohio State University College of Dentistry April 12, 2003 Columbus, Ohio

-"Mass Disaster Identification Workshop", Tennessee Dental Association Annual Meeting, Nashville, TN May 22, 2003

-"Introduction to Forensic Dentistry", Ohio Dental Association Annual Session, Columbus, Ohio September 13, 2003

"Ominous Signs of Abuse, including Bite Mark Analysis and Patterned Injuries", Ohio Sexual Assault Nurses Association/Forensic nurses, MedCentral Hospital, Mansfield, Ohio Nov. 5,2003

"Photography in documentation of bitemark and patterned injuries in child abuse and assault" Multi-disciplinary Child Abuse Team- Cincinnati Children's Hospital Medical Center, Mayerson Center for Child Abuse, Children's Hospital, Cincinnati, Ohio November 21, 2003

"Forensic Dentistry: A Look at Dentistry as You Have Never Seen It Before", Lorain County Dental Society, Holiday Inn, Ohio St. Rt. 57, Lorain, Ohio, January 21, 2004

"Forensic Dentistry" Northern Kentucky University Criminal Justice Seminar Farris Auditorium, NKU Campus 3/26/04

"Advanced Forensic Photography: Human Bitemarks: Detection, Photography and other Evidence Collection", NYU College of Dentistry/New York Society of Forensic Dentistry 345 E. 24th St. NY, NY 3/29/04

"Be Careful Who You Bite: An Introduction to Bitemark Analysis" Cincinnati Dental Society Scientific Meeting Monday 4/19/04 Gregory Conference Center Cincinnati, Ohio

"Forensic Dentistry: CSI" University of Kentucky College of Dentistry Continuing Education Network, Lexington, KY 12/3/04

"Forensic Dentistry: An Introduction for Dental Hygienists" Ohio Dental Hygiene Association Annual Meeting, Cincinnati, Ohio 1/22/05

"Forensic Dentistry: An Introduction" Ohio Dental Association Annual Session Saturday 9/17/05 Greater Columbus Convention Center Columbus, Ohio

"Forensic Dentistry CSI" North Central Hygiene Association October 7, 2005 Sandusky, Ohio

"Forensic Dentistry: A Look as Dentistry as You've Never Seen it Before Toledo Dental Society October 19, 2005 Toledo, Ohio

"Forensic Dentistry in Child Abuse: First Annual James Steiner Lecture Series Cincinnati Children's Hospital Medical Center, Oct. 31, 2005

"Photography in Forensic Dentistry to Document Bitemarks and Patterned Injuries Grand Rounds, Cincinnati Children's Hospital Medical Center November 1, 2005

"Photographic Documentation of Bitemarks and Patterned Injures in Child Abuse and Domestic Violence" Kentucky Association of Sexual Assault Programs annual Meeting Marriott Griffin Gate Resort, Lexington, KY 12/8/05

-"Patterned Injuries in Sexual Assault" Innovative Healthcare for Victims- Kentucky Association of Sexual Assault Programs; University of Kentucky Medical Center Lexington, KY 2/7/06

-"Forensic Dentistry CSI" Hocking Valley Dental Hygiene Association Lancaster, Ohio 2/06

-"Report Writing in Bitemark Analysis" American Board of Forensic Odontology Bitemark Workshop Seattle, Washington 2/19/06

-"Forensic Dentistry Introduction" and Ohio State Dental Board Update, Stark County

Dental Society, Akron, Ohio 4/4/06
-"Forensic Photography in the Documentation of Bitemarks and Other Patterned Injuries Pediatric Sexual Assault Nurse Examiners Annual Meeting, Columbus, Ohio Children's Hospital, Columbus 4/28/06
-"Introduction to Forensic Dentistry" part of forensic series in collegiate course titled "Introduction to Forensic Science", University of Cincinnati, Professor Gideon Labiner, 5/3/06; also 5/2009
-"Mass Disaster Training and Preparation" National Mass Fatalities Institute Seminar sponsored by the Hamilton County Coroner's Office, Cincinnati, OH Scarlet Oaks Joint Vocational School 5/25/06
-"Bitemark Analysis, Evidence Collection and Report Writing" Southwest Symposium on Forensic Dentistry University of Texas-San Antonio, San Antonio, TX 6/8- 6/10/06
-"Bitemarks" US Public Health Service Annual Session, Dental Category, Cincinnati, Ohio June 5, 2007
-"Forensic Odontology and the Coroner/Medical Examiner"; International Association of Coroners and Medical Examiners, millennium Hotel, Cincinnati, Ohio June 10, 2008
-"Bitemark Analysis, Evidence Collection and Report Writing" Southwest Symposium on Forensic Dentistry, University of Texas-San Antonio, San Antonio, TX 6/4-6/7/2008
-"Forensic Dentistry; CSI" Ohio Expanded Function Dental Auxiliaries, Columbus, Ohio; 6/27/2008
- "Effects of the National Academy of Science (NAS) Preliminary Report on the Practice of Forensic Odontology, American Academy of Forensic Science Annual Meeting, Denver, CO, 2/2009

-"Bitemark Workshop", Ohio Dental Association Forensic Dental Team; Annual Meeting of the Ohio Dental Association, Greater Columbus Convention Center, Columbus, Ohio, September, 2009

- "Forensic Dentistry" Santiago, Chile, South America, 10/3- 10/12/2009; Inaugural meeting of the Latin American Society of Forensic Dentistry, at the invitation of the Division of Medicina Legal, Attorney General's Office, Country of Chile

-"Summary of the Findings of the National Academy of Science" American Academy of Forensic Sciences Annual Meeting, Denver, Colorado 2/20/2009
-"Forensic Dentistry- Human Abuse and Dental-Legal Issues" Ohio Dental Hygienists Association Annual Meeting, 4/23/10, Mason, Ohio
-Forensic Dentistry" Introduction to Forensics, Guest Lecturer , Un. of Cincinnati, Professor Gideon Labiner, Course Director 5/12/10 Cincinnati, Ohio
-"Introduction to Forensic Dentistry", Guest Lecturer, Advanced General Dentistry Program, Un. of Cincinnati, Dr. Jerome McMahon, Program Director
-Southwest Symposium on Forensic Dentistry, "Bitemark Analysis" and "Advanced Forensic Photography", Un of Texas- San Antonio, San Antonio, TX; June 9-12, 2010
-"The Use of Full Spectrum Digital Photography for Evidence Collection and Preservation in cases involving forensic odontology", International Organization of Forensic Odonto-Stomatology, Lueven, Belgium September 2010
-"Human Bitemarks, NAS Report and *Daubert"* Executive Office of the President of the United States National Science and Technology Council, Committee on

Science, Subcommittee on Forensic Science, Washington, DC; January 12,2011
-"Forensic Dentistry and the NAS Report: then and now, really?" American Society of Forensic Odontology Annual Meeting, Chicago, Ill February 22, 2011
-"Pitfalls of Bitemark Analysis: where does one end and the other begin?" American Academy of Forensic Sciences, Hyatt Regency Hotel, Chicago, Ill, February 24, 2011
-"Bitemark Management 2011" American Board of Forensic Odontology Bitemark Workshop, Hyatt Regency Hotel, Chicago, Ill February 25, 2011
-"Forensic Odonotology" Ohio Association of Pediatric Dentistry, Nationwide Children's Hospital, Columbus, Ohio March 4, 2011
-"Bitemark Analysis, Conclusions and Report Writing" American Society of Forensic Odontology Annual Meeting February 21, 2012 Atlanta, GA

-"Bitemark Analysis" University of Kentucky College of Dentistry- Senior Elective April, 2012, Lexington, KY
-"The Dental Record- Saving or Kicking your Butt", Cincinnati Dental Society May 7, 2012 Cincinnati, Ohio
- Introduction to Forensic Dentistry, University of Cincinnati, Advanced Dental Practice Residency May 10, 2012 Cincinnati, Ohio
-Southwest Symposium on Forensic Dentistry-Bitemark , University of Texas, San Antonio; San Antonio, TX June 6-9, 2012
-"The Use of Bitemark Evidence, Analysis and Comparison in Violent Crime; 43rd Annual Session of the American Society of Forensic Sciences, Feb. 19, 2013 Washington, DC
-"Bitemark Analysis: Foundation, lessons from the Past and the Paradigm Shift to the Present and the Future"; American Academy of Forensic Sciences Annual Meeting, Washington DC, Feb. 22, 2013
-"Does Bitemark Evidence Meet Modern Evidentiary Reliability Standards? A Subject Expert Panel Discussion"; American Academy of Forensic Sciences Annual Meeting, Washington DC, Feb. 22, 2013
-"Human Bitemark Analysis"; University of Kentucky, College of Dentistry; Lexington, KY 3/8/2013
-" Forensic Dentistry" Introduction to Forensics, Guest Lecturer , Un. of Cincinnati, Professor Gideon Labiner, Course Director Cincinnati, Ohio 4/4/2013
-"Forensic Dentistry" University of Cincinnati, Advanced Dental Practice Residency May 9, 2013 Cincinnati, Ohio
-"Human Abuse in the Practice of Dentistry" Cincinnati Children's Hospital Medical Center Pediatric Residency Program, Montgomery Inn, Montgomery, Ohio October 8, 2013; Cincinnati, Ohio
-"Contemporary Forensic Dentistry: Bites, Burns, Slaps, Age and Dental Record- Where Modern Dentistry Meets the Law"; University of Kentucky College of Dentistry, October 25, 2013; Lexington, KY

Affiliations:

Diplomat, American Board of Forensic Odontology (1989-) (ABFO)
Member, American Society of Forensic Odontology (1986-) (ASFO)
Fellow, American Academy of Forensic Sciences (1992-) (AAFS)
Fellow, International College of Dentists (2000-2010)
Member, PANDA Coalition- Delta Dental of Ohio and the Ohio Dental Association (1994-) (PANDA =prevent abuse and neglect through dental

awareness)
National Dental Advisor, Parents of Murdered Children (1993-)
Hamilton Co. Coroner's Office, Forensic Dental Consultant (1986-)
Disaster Committee Member, Greater Cincinnati- Northern Kentucky International Airport, Dental Mass Disaster Team (1988-)
American Dental Association, Ohio Dental Association (ODA)
Cincinnati Dental Society (CDS) (1984-)
CDS Council Member (1997-2005) Delegate, ODA (1998-2005)
-Chairman, CDS Public Relations Committee (2004-08)
Forensic dental consulting provided in many states throughout the US, Central and South America, Europe

Offices Held:

Forensic Dental Consultant, Hamilton Co. Coroner's Office (1986-)
Chairman, Mass Disaster Identification Team, Ohio Dental Association (1990-1998)
Chairman, Forensic Dental Team, Ohio Dental Association (1998-2010)
Chief, Hamilton County, Ohio-Dental Disaster Team (1986-)
American Board of Forensic Odontology (ABFO):
- Board of Directors, A.B.F.O. (1994-1997) (1998-2001) (2004-2005)
-ABFO Bitemark Proficiency Examination Development Committee (2011-..)
-ABFO Ethics Committee (2013-2016)
-ABFO Immediate Past President (2011-2012)
-ABFO President (2010-2011)
-ABFO President-Elect (2009-2010)
-ABFO Vice President (2008-09)
-ABFO Secretary (2006-08)
-Member, ABFO Human Abuse, Bitemark and Mass Disaster Committees Certification and Examination Committee, Human Identification Committee, Executive Committee, Nominating Committee
-Chairman, ABFO Strategic Plan Committee (2003-2006)
-Cincinnati Center for Children's Dentistry, Board of Directors, Trustee (2006-)
Chairman, Cincinnati Dental Society Forensic Dental Team (2002-)
Chairman, Human Abuse Committee, A.B.F.O. (2000-2002)
Board of Governors- A.S.F.O. (1995- 1998)
Editorial Board, A.S.F.O. Newsletter (1999- 2006)
Odontology Section Program Chairman, A.A.F.S. (1997-1999)
Odontology Section Secretary, A.A.F.S. (1999-2001)
Odontology Section Chairman, A.A.F.S. (2001-2003)
AAFS: Local Arrangements, Cincinnati, 1990
Continuing Education Committee (1997-2003)
Nominating Committee (2000- 2002)
Ethics Committee (2000- 2002)
Council (1998-2002)
Journal of Forensic Sciences, Peer Review, scientific articles (2009-)

Ohio State Dental Board :
Term: 4/04 through 3/31/08
Committees: Policy Committee (2004 -08)
Laws & Rules Committee (2004 - 08)
Communication Committee (2004- 08)
Scope of Practice (2004- 08)

Recognized Meetings:

Symposium on Mass Disasters, A.D.A. Headquarters, Chicago, Illinois, March 1986
Airport Disaster Exercise, Greater Cincinnati International Airport
October 1988-December 1991, September 1993-September 1996
September 1997- present
American Academy of Forensic Sciences (AAFS)- Annual Meeting
Cincinnati, Ohio – February 1990
Anaheim, California – February 1991
New Orleans, LA – February 1992
Boston, MA – February 1993
San Antonio, TX – February 1994
Seattle, WA – February 1995
Nashville, TN - February 1996
New York, NY – February 1997
San Francisco, CA - February 1998
Orlando, FL - February 1999
Reno, NV - February 2000
Seattle, WA - February 2001
Atlanta, GA - February 2002
Chicago, IL - February 2003
Dallas, TX – February 2004
New Orleans, LA February, 2005
Seattle, WA February 2006
San Antonio, TX February, 2007
Washington DC February, 2008
Denver, CO February 2009
Seattle, WA February 2010
Chicago, IL February 2011
Atlanta, GA February 2012
Washington DC February 2013
American Society of Forensic Odontology Annual Meeting: 1986- present
American Board of Forensic Odontology Annual Diplomates Meeting 1989- present
Second Symposium on Mass Disaster, ADA Headquarters, Chicago, Illinois, 6/96
Mass Disaster Workshop, ADA Headquarters, April 1997
C.A.R.E. Symposium (Child Abuse Recognition Education),
ADA Headquarters, 7/31- 8/1/98

Continuing Education:

- "Forensic Odontology", Armed Forces Institute of Pathology Washington, D.C.
September 1986
- "Forensic Odontology", University of Louisville, Louisville, KY
Mark Bernstein, D.D.S. 1985
- "Forensic Odontology", ADA Mid-Winter Meeting, Chicago, Illinois
John Kenney, D.D.S. 1987
-Mini- A.F.I.P Course, Indiana University- Purdue University, Indianapolis, IN
A.F.I.P. Faculty, 1988,
- Annual A.A.F.S meeting: 1990- 2013, Annual A.S.F.O. meeting: 1990- 2013; A.B.F.O. Annual meeting: 1989-2013

Research Interest:

- Photo-documentation of patterned injuries using non-visible light (Infra-red and ultra violet light)- research on-going

- Digital Imaging and Enhancement, on-going

I have been involved in litigation, both in civil and criminal cases, as well as the review of many cases that were not litigated Specifics available upon request.

Odontology Report

In the matter of Danny Hill v. Betty Mitchell, Warden

Report consists of 7 Pages, 2 Figures, 0 Appendices and 0 Attachments

My name is Iain Alastair PRETTY and I am a qualified dental surgeon. I obtained my dental qualification, BDS(Hons), in 1998 from the University of Newcastle upon Tyne. I have obtained a further qualification in forensic dentistry, MSc, from the University of British Columbia, Vancouver, BC, Canada, a doctoral degree (PhD) from the University of Liverpool and a Masters of Public Health (MPH) from the University of Manchester. I am a member of the American Society of Forensic Odontology, a fellow of the American Academy of Forensic Sciences, a fellow of the Forensic Science Society, a member of the British Association of Forensic Odontology and the British Academy of Forensic Science. I am a Fellow of the Royal College of Surgeons of Edinburgh. I have published numerous articles and several book chapters on various aspects of forensic dentistry, in particular bitemark injuries and their analysis. A copy of my curriculum vitae has been previously provided.

I have been instructed by attorneys representing Mr. Danny Hill. In particular, I have been asked to examine a number of photographs documenting injuries to a child (Raymond Fife) - and to consider:

a) Is the injury to Raymond's penis consistent with a bitemark?
b) If so, are there sufficient details to enable a comparison with a suspect's dentition
c) The reports of Drs Mertz and Levine.

1. MATERIALS SUPPLIED

1.1 I have been supplied with the following materials:

a) Reports of Drs Mertz (November 4, 1985) and Levine (November 19, 1985)
b) Collection of black and white photographs (9)
c) Autopsy report of Dr Adelman (23rd October 1985)
d) Trial testimony
e) Defendant's dental records

2. INJURIES

2.1 When considering whether or not an injury is a bitemark there are a number of possible conclusion levels that can be drawn. These conclusion levels are those of the American Board of Forensic Odontology and have been recently adopted by the British Association of Forensic Odontology:

- Insufficient evidence
- Not a human bitemark
- Suggestive of a human bitemark
- A human bitemark

2.2 Bitemarks typically present as two semi-circular injuries that are separated at their open ends, and there may be an area of unaffected tissue in the centre. Bitemarks can present with a range of differing severities but a common feature is that focal points of bruising or laceration can be seen that relate to the class characteristics of teeth. Bitemarks vary in size but fall within an accepted range.

2.4 In preparing this report I have relied upon the photographs supplied to me in order to render my opinion.

3. SUSPECTED BITEMARK INJURY TO RAYMOND FIFE

3.1 I have studied the photographs supplied to me carefully. There is a single anatomical location that is of interest – the glans of the penis. Injuries to the penis are difficult to assess. The tissue is highly distortable and it is, of course, impossible to assess if the penis was flaccid, erect or semi-erect

during the infliction of the injury. The surface is curved, soft and the risk of postural distortion high. Indeed, looking at the photographs supplied the positioning of the metal scale and the holding of the penis by forceps demonstrates this. The injury in question is shown in Figures 1 and 2 attached to this report.

3.2 The injury appears to consist of a number of roughly circular injuries that may be lacerations. As I am basing my assessment purely from photographs (which is not unusual) I cannot be sure of the exact nature of the marks. I am not helped by the reports of either Levine of Mertz who do not describe the injuries in any detail other than stating that the injuries represent a bitemark. There are no measurements, descriptors or locators present in their written reports. One would normally expect a bitemark to be described in detail, with salient features supporting the conclusion that the injury was caused by human teeth.

3.3 Each of the individual circular injuries ranges from approximately 2 through 4mm. The appearance of these injuries is inconsistent with the appearance of human incisor teeth – but demonstrate *some* of the class characteristics of canine teeth. However, the arrangement, spacing, and overall morphological appearance of these marks is inconsistent with the normal arrangement of a dental arch.

3.4 The forensic significance of the injury is *extremely low*. This is largely due to the anatomical location, which, for reasons described in 3.1 is difficult to assess. It is impossible to identify a dental midline, maxillary or mandibular arches, or class characteristics of incisor teeth. It is my opinion that the identification of these gross characteristics are essential before the identification of a bitemark can be made.

3.5 The absence of these features, and the presence of the injury on a highly distortable anatomical location, mean that a conclusion of a definite human bitemark cannot be reached. Indeed it is my opinion that there is simply insufficient evidence presented to reach any conclusion regarding the

likely the nature of these wounds. I understand that the body was discovered with the genitals exposed – raising the suspicion that the injuries may be related to animal predation in the peri-mortem period.

3.6 It is therefore my conclusion that there is insufficient evidence to reach a conclusion at any level of certainty regarding the causation of the small, circular wounds to the glans penis of Raymond Fife. Given this conclusion, any further analysis of the injury is inappropriate. Even if the evidence had supported a conclusion of "suggestive of a bitemark" (which it does not) further analysis, according the ABFO decision model, would still be considered inappropriate.

4. LEVINE

4.1 Levine provides a one-page report in the form of a letter with three bullet points. I am not aware if a more comprehensive report was generated – with details of measurements undertaken, reasons for conclusions or the scientific processes underpinning those conclusions. Levine simply states that human teeth caused the patterned injury, that he cannot be sure if one or both defendants caused the injury but that he feels it is "likely" that "Hall" *sic* caused one portion of it. There is no information to support which element. There is no level of certainty provided to indicate what "likely" means – for example if it is at the level of medical certainty or below.

4.2 In his Court testimony, at 1143 – 4 he accepts that the condition of the penis is unknown in such cases and "could either be flaccid or erect....you really don't know.." Nothing else is provided in his testimony that enables us to understand how he reached his conclusion that this collection of injuries was a bitemark, nor was he asked in detail to support this conclusion. The majority of the testimony concerns his linkage of suspects to the alleged bite. Cross-examination is limited and is largely based on trying to get Levine to provide a level of certainty for his "Likely" conclusion. He concedes that the injury could have been produced by several bites and possibly from both defendants. This goes to support the lack of forensic significance of the

injury.

5. MERTZ

5.1 Mertz's report is again a single page of conclusions, although there are two pages of notes that accompany it. Again, these are focussed mainly on the comparative analysis and offer us no further insight into the reasons why the odontologist reached his conclusion that this collection of injuries should be considered a bitemark.

5.2 Testimony again is unhelpful and concentrates largely on the comparison of the injury to the dentition of the two suspects, without any real assessment of why Mertz felt that the injury was a bitemark. Mertz states that the measurements he took were inconsistent between the dentition of Hill and the injuries on the penis, to a "consistent" one-third. He states that, had the penis been erect during the time of biting, this would account for this difference. This is clearly unscientific, unsubstantiated and speculative.

5.3 In cross examination, we find that the injuries are described as "areas of ecchymosis" (970-10) rather than "indentations". The remainder of the testimony is a tortuous examination of the erect vs. flaccid argument in relation to the measurements of teeth and features such as diastemas.

6. CONCLUSIONS

6.1 Returning to my original instructions I can conclude that:

6.2 There is insufficient evidence within the photographs supplied to me to reach a conclusion regarding the causation of this injury.

6.3 It is impossible to identify crucial elements of a bitemark injury including the midline, the maxillary or mandibular teeth, or class characteristics of human incisors.

6.4 Current bitemark standards would indicate that no further analysis of the injuries would take place.

6.5 The reports of Levine and Mertz offer little in the way of scientific justification for their conclusions that the injuries are caused by human teeth.

6.6 It is my conclusion that this injury should not have been considered a bitemark and should not have been compared to the dentitions of the suspects.

6.7 The opinions rendered by Drs Levine and Mertz in this case are not based on scientific principles or processes – each odontologist agrees that bitemarks on the penis are difficult to assess and subject to distortion. These facts alone should suggest a cautious approach. Mertz utilised unrelated and spurious data to account for inconsistencies in his measurements compared to his favoured biter. I would hope that in a contemporary Court such evidence would not be allowed.

7. CONFLICTS OF INTEREST

7.1 I confirm that I have no conflict of interest of any kind in this case.

7.2 I will advise the party by whom I am instructed if, between the date of this report and the final hearing, there is any change in circumstances which affects my position in relation to conflicts of interest.

Overriding duty to the Court

'I understand my duty to the Court and I have complied with that duty.'

Statement of truth
'I confirm that insofar as the facts stated in my report are within my own knowledge I have made clear which they are and I believe them to be true, and that the opinions I have expressed represent my true and complete professional opinion.'

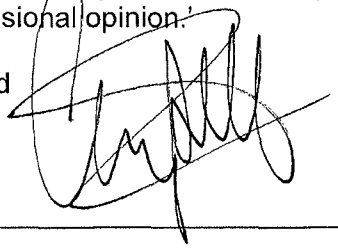
Signed  Date 29th September 2014

FIGURE 1 Injury to penis of Raymond Fife – view 1.

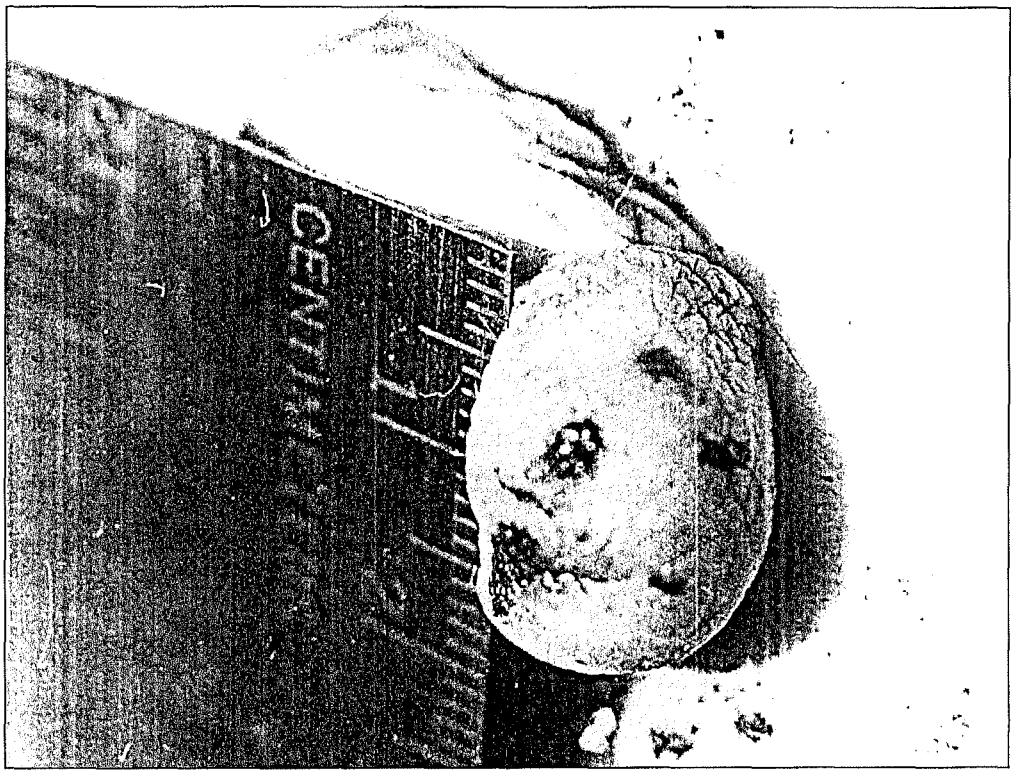
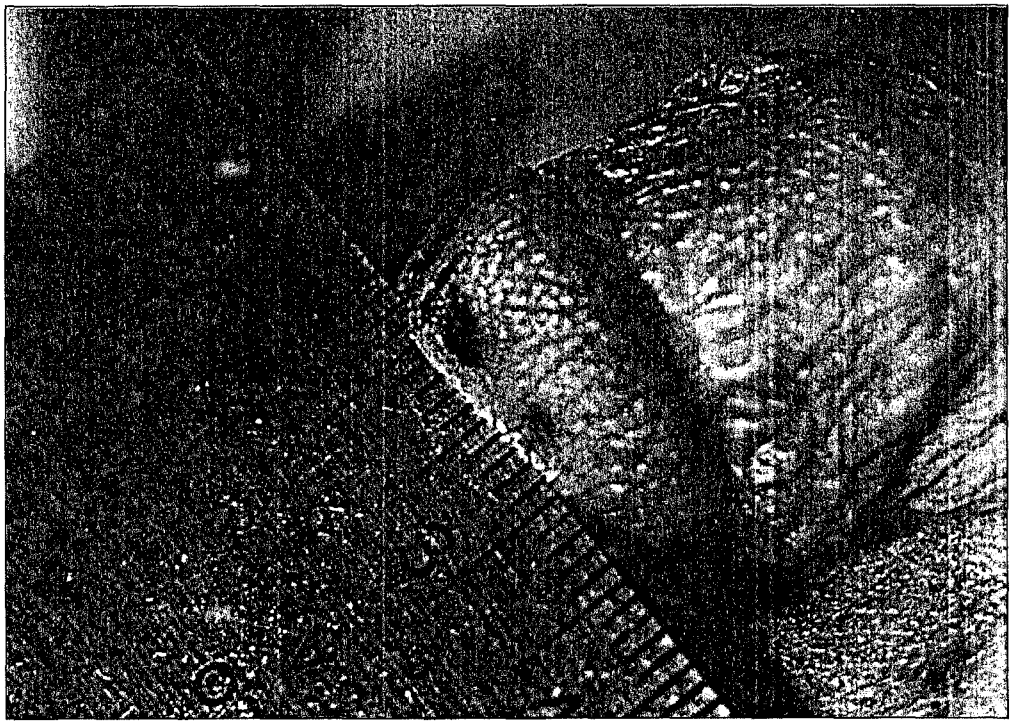


FIGURE 2 Injury to penis of Raymond Fife – view 2.



Forensic Curriculum Vitae

Dr. Iain A Pretty

BDS(Hons), MSc, MPH, MFSSoc, PhD, MFDS RCS(Ed)

DR. IAIN A PRETTY

Personal Details

Name	Iain Alastair Pretty
Date of Birth	30th December 1974
Nationality	British

Education

1998	Bachelor of Dental Surgery, (BDS) with Honours Faculty of Medicine, Sub-Faculty of Dentistry University of Newcastle upon Tyne Merit awarded in Restorative Dentistry Merit awarded in Child Dental Health
2000	Master of Science, Dental (MSc) Faculty of Dentistry University of British Columbia, Vancouver, Canada
2003	PhD Faculty of Medicine, Department of Clinical Dental Sciences University of Liverpool, Liverpool, England
2004	MFDS Royal College of Surgeons of England

Professional Credentials

1998 - Present	Licensed dental practitioner in Great Britain General Dental Council Registration number: - 74417
2004 – Present	Member of the Royal College of Surgeons of Edinburgh

Professional Associations

1996 - Present	British Dental Association
1997 - Present	Forensic Science Society of Great Britain
1997 - Present	American Society of Forensic Odontology
2000 - Present	International Association for Dental Research, (British Division)
2000 - Present	British Association of Forensic Odontology
2000 - Present	British Academy of Forensic Sciences
2000 - Present	American Academy of Forensic Sciences (Member)
2001 - Present	European Organisation for Caries Research

Honours & Awards

1998	Award for Excellence in Health Care University of British Columbia
1998	Dental Protection & Deans' Prize University of Newcastle Upon Tyne
1998	John Hopkins' Prize University of Newcastle Upon Tyne
1999	George S. Beagrie Scholarship University of British Columbia
1999	Part Time Faculty Teaching Award – Clinical Instructor University of British Columbia
1999	University Graduate Fellowship (Full) University of British Columbia
1999	Forensic Scholarship for Research Forensic Science Society, UK
2000	Full Studentship University of Liverpool
2001	Travel award British Society of Dental Research

Court Appearances

Recognised as an expert and provided testimony in Crown, Magistrate and Coroner's Courts throughout the UK. Extensive experience in child care proceedings.

Teaching Experience & Professional Presentations

1998 - 2000	Graduate teaching assistant, undergraduate medical and dental students University of British Columbia, Vancouver, B.C., Canada
1998 - 2000	Clinical supervision (Conservation, Periodontics, Oral Surgery) University of British Columbia, Vancouver, B.C., Canada
1998 - 2000	Didactic teaching and invited lecturer Simon Fraser University, Vancouver, B.C., Canada Kwantlen University College, Vancouver, B.C., Canada
2000 - Present	Invited Speaker, Police National Training Centre, Fire Investigators Course National Fire College, Moreton-in-Marsh, Oxford
2000 - Present	Invited Speaker, Police National Training Centre, Scene of Crime Officers Course NTC, Co. Durham
2000 - Present	Invited Speaker, Undergraduate Forensic Science Course John Moores University, Liverpool, England

Nov 2000	Research Seminar, "QLF – A New Light in Dentistry" The University of Liverpool - Dental School
Nov 2000	Presentation, "Effect of Ambient Light on QLF Analyses" Light in Dentistry – University of Gronigen
July 2000	Lecture, Forensic dentistry in the investigation of murder and rape Forensic Science Society, Summer Meeting, York
March 2001	Research Seminar, "Research Focus in Forensic Dentistry" The University of Liverpool - Dental School
August 2001	Lecturer, "The use of light in diagnostic dentistry" The University of British Columbia, Vancouver, Canada
November 2001	Presentation, "Molecular Biology and Forensic Odontology" Annual Meeting of the Liverpool Medical Inst.
2001 – Present	Invited Speaker, "Topics in Forensic Science" The University of Huddersfield
February 2002	Invited Speaker, "A new diagnostic tool in dentistry – QLF" The University of Newcastle Upon Tyne
April 2002	Invited Speaker, "Developments in forensic dentistry" North West Odontological Society

Service

June - August 1998	Clinical assistant in general dental practice, Jarrow, Tyneside
March 2000-Present	Forensic dentist serving North West Region
March 2000 - Present	Clinical assistant in general dental practice, Northwich, Cheshire
September 2002-Present	Senior Lecturer, The University of Manchester

Publications

Pretty IA, Anderson G, Sweet D. "Human bites and the risk of transmission of HIV and AIDS"; American Journal of Forensic Medicine & Pathology, 1999;36(3):56-62

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Yin W., Feng Y, Hu D.Y., Fan X· Zhang Y.P., Pretty I.A., Ellwood R.P. "A clinical investigation using Quantitative Light Induced fluorescence (QLF) of the anticaries efficacy of a dentifrice containing 1.5% Arginine and 1450 ppm F as sodium monofluorophosphate." Journal of Clinical Dentistry, In Review

Richmond R, Pretty IA. "The Use of Radio-Frequency Identification Tags for Labelling Dentures – Scanning properties." Journal of Forensic Sciences, In Review

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Other publications

MSc Thesis – 2000 – Diagnostic accuracy within forensic odontology

PhD Thesis – 2003 – Diagnostic applications of quantitative light-induced fluorescence

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IN THE COURT OF COMMON PLEAS
TRUMBULL COUNTY, OHIO

STATE OF OHIO,	)	
	)	
PLAINTIFF,	)	
	)	
v.	)	Case No. 85-CR-317
	)	
DANNY LEE HILL,	)	
	)	
DEFENDANT.	)	
	)	

AFFIDAVIT OF ZHONGXUE HUA, M.D., Ph.D.

I, Dr. Zhongxue Hua, being duly sworn under oath, hereby state to the best of my knowledge and belief as follows:

1. I am a forensic pathologist and neuropathological consultant; an assistant clinical professor of pathology at Albert Einstein College of Medicine, Bronx, New York; and an attending neuropathologist and assistant laboratory director at Jacobi Medical Center and North Central Bronx Hospital, New York. Previously, I served as Chief County Medical Examiner, Union County, New Jersey (9/2007 to 9/2012); Chief Regional Medical Examiner, counties of Essex, Hudson, Passaic and Somerset, New Jersey (7/2005 to 9/2007), and Assistant State Medical Examiner, State of New Jersey (2004-2007). I obtained my medical degree from Peking Union Medical College, Beijing, China (1989 M.D.), and a doctorate degree in biochemistry from the University of Rochester, Rochester, New York (1995 Ph.D.). I was a resident in pathology at the Albert Einstein College of Medicine, Bronx, New York (7/1995 to 6/1998), a fellow in neuropathology at Columbia Presbyterian Medical Center, Columbia University, New York, NY (7/1998 to 6/2000), and worked with the City Medical Examiner, Office of the Chief Medical

Examiner, New York, New York (7/2000 to 6/2001). A full list of my educational background, work history, publications, and professional credentials is contained in my annexed curriculum vitae.

2. I submit this Affidavit in support of the Motion for New Trial for Danny Lee Hill at the request of his attorneys. Mr. Hill was convicted and sentenced to death in 1986 for the murder of Raymond Fife, a 12 year old boy.

3. I have been asked to review the scientific and medical opinions, conclusions and testimony proffered by pathologist Dr. Howard Adelman and forensic odontologist Dr. Curtis Mertz concerning the cause and nature of Raymond Fife's injuries and death. I am qualified to comment on these matters because of my training and experience.

4. The victim Raymond Fife was attacked on September 10, 1985, and his death two days later was undisputedly caused by that attack. However, the testimony and opinions of Dr. Adelman and Dr. Mertz about the source, extent, cause and/or mechanism of Raymond Fife's injuries are not based on sound scientific principles. Indeed, the theories advanced by these experts at trial were based on unsupportable assumptions and gross inaccuracies. They do not constitute reliable, objective scientific testimony.

5. There was, and is, no scientific basis for three significant areas of the testimony and conclusions of Drs. Adelman and Mertz. First, there existed no scientific basis at the time of trial which would have supported the conclusions about the varying size of the child's penis in a flaccid or erect state. Second, there was no scientific basis at the time of trial that could have supported the conclusion that the child would have had an erect penis as a result of being strangled. Third, Dr. Adelman's testimony that a stick introduced into evidence fit the injuries to the child's rectum and bladder like a "key in a

lock" was entirely without scientific support. None of these conclusions have any more scientific support today than they did when originally given.

6. I have reviewed the following materials: 11/4/1985 Letter from Curtis Mertz to Dennis Watkins re: Bitemark; 12/19/1985 Curtis Mertz, Notes on Fife Bite Mark; Trial Testimony of Dr. Adelman; Trial Testimony of Dr. Mertz; Autopsy Report; Coroner's Verdict; St. Joseph Riverside Hospital Records on Victim; Photographs of the Victim Raymond Fife; Affidavit of Dr. Deborah Davis re: Hill; Affidavit of Dr. Franklin Wright; *Grandwohl's Legal Medicine; Basic Morphological Data of the External Genitals in 177 Healthy Central European Men* by J.G. Farkas.

THE TESTIMONY AND OPINION OF DR. HOWARD ADELMAN

7. At no point, including at the time the opinions were proffered in 1985-86 or today, has there been a reliable scientific basis for Dr. Adelman's testimony regarding the nature of the wounds to Raymond Fife's rectum, or any object purportedly used to create those wounds.

8. There is no reliable scientific basis for Dr. Adelman's opinion and testimony that the piece of wood entered into evidence as Exhibit 47 at trial fit Raymond Fife's anus and/or wounds like a "key in a lock." Most importantly, it is not scientifically possible to reliably identify the instrument that caused the injuries in question through the type of examination performed on Raymond Fife by Dr. Adelman – let alone, to identify the instrument to the level of specific certainty necessary to describe it through the analogy of a key and a lock. The absence of blood or other biological material tying the object to Fife's injuries strongly indicates that it was not the object used to inflict the injuries. Dr.

Adelman's testimony on this point is unsupported speculation, and his comparison to a key and lock is unscientific and inflammatory pseudo-science.

9. At no point, including at the time Dr. Adelman's opinions were proffered in 1985-86 or today, has there been a reliable scientific basis for Dr. Adelman's testimony that strangulation like that sustained by Raymond Fife causes penile erection to a specific degree.

10. As Dr. Adelmen testified, there have been historical observations that judicial hanging can cause erection and/or ejaculation in its victims. Dr. Adelman's reliance on anecdotal evidence and/or historical narratives as a basis for his opinion is likewise inappropriate and renders his opinions in this specific case speculative and unreliable.

11. Although he claimed that there existed medical articles supporting his opinions, Dr. Adelman did not cite any of those articles. At trial, he conceded that he was "not exactly sure of the mechanism" through which asphyxiation caused penile erection. Dr. Adelman's admission of ignorance was the only part of his testimony regarding asphyxia and erection that was not unscientific or speculative.

12. Even setting aside the absence of a scientific foundation for his opinions, however, the differences between the biological mechanisms involved in judicial hanging, autoerotic asphyxiation, and strangulation are substantial, and any extrapolation from the effects of one to the others is baseless.

13. It is entirely speculative to conclude from such limited observations that the asphyxiation of a prone 12-year-old boy would result in an erection to a very specific degree or that it did so in this case. I am not aware of a single scientific study to support this theory, much less am I aware of any that include children the age of the victim in this

case. Put simply, there is no sound science to support the conclusion that asphyxia under these circumstances causes erection to a specific degree.

14. In sum, Dr. Adelman's testimony analogizing autoerotic asphyxiation and judicial hanging to Raymond Fife's strangulation is wholly without reliable, scientific basis.

OPINION AND TESTIMONY OF DR. CURTIS MERTZ

15. Dr. Curtis Mertz testified that the "probability that [Raymond Fife's] penis was in an erected state" was the basis for his opinion that the pattern injury on his penis matched the teeth of Danny Lee Hill.

16. At no point – including at the time Dr. Mertz proffered his opinions and testimony, in 1985-86, or today – has there been a scientifically reliable method of determining through post-mortem examination the probability that an erection may have occurred during an assault.

17. Dr. Mertz's review of the literature was cursory and inadequate, and the texts he relied upon were inapposite and outdated.

18. Dr. Mertz's reliance on *Grandwohl's Legal Medicine*, edited by Franci Camp, to support his opinion that it was probable Raymond Fife had an erection is misplaced and in error. Dr. Mertz selectively ignored the qualifications provided by his own authority, including the fact that there is "undoubtedly great variation" and there are "many factors [that] may interfere" with the symptoms listed, as well as the statement that "it is usually difficult or impossible to predict the physiological results" of asphyxia "with an accuracy at all." No reliable opinion that a penile erection was "probable" during strangulation could be based upon these limited findings.

19. Dr. Mertz testified that "the average circumference of a penis upon erection is 1.3075 larger than in the flaccid state." He further testified that "this explains the difference in the measured size of approximately a third less" when comparing the purported bite marks on Raymond Fife's penis and the teeth of Danny Lee Hill.

20. Dr. Mertz's claim that there are scientific studies that supported his calculation that the erect penis of a 12-year-old boy is one-third larger than a flaccid penis is unfounded. As far as I am aware, there have never been any such studies, medical or forensic, to support such a theory.

21. The sole study that Dr. Mertz cited, *Basic Morphological Data of the External Genitals in 177 Healthy Central European Men* by J.G. Farkas does not support his opinion. First, there is no scientific basis for extrapolating the size differential between the erect and flaccid penis of a post-pubescent adult and that of a twelve year old child. Second, there is no scientific basis for applying an average measurement of that differential to a singular case. Third, none of the cited healthy men were under the extreme suffering of Raymond Fife, with fatal head trauma, strangulation and sexual assault. As a result, Dr. Mertz ignores both biological reality and statistical methodology, rendering his opinion speculative, unscientific, and fatally flawed.

22. Dr. Mertz's opinions regarding Raymond Fife and the "probability" of his penile erection, as well as any resulting specific size differences between flaccid and erect states, are unsupported and speculative. They are post-hoc guesswork and do not constitute reliable scientific opinion.

Dr. Zhongxue Hua

Sworn to this 16th day of October, 2014

STEFANOPOULOS VITENTIA
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01ST6099670
Qualified in Queens County
Commission Expires 10/06/2015

Notary Public

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Diplomate, American Board of Pathology

- Forensic Pathology
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Current Employment

- Forensic Pathology & Neuropathology Consultant (since 2012)
- Forensic Pathologist (since 2008), Rockland County, New York
- Assistant Clinical Professor of Pathology (since 2001), Albert Einstein College of Medicine, Bronx, New York
- Attending Neuropathologist (since 2001), Jacobi Medical Center and North Central Bronx Hospital, Bronx, New York
- Assistant Laboratory Director (since 2001), Jacobi Medical Center and North Central Bronx Hospital, Bronx, New York

Prior Employment

- Chief, County Medical Examiner (2007 to 2012), Union County, NJ
- Chief, Regional Medical Examiner (2005 to 2007), Counties of Essex, Hudson, Passaic and Somerset, NJ
    - Interim Regional Medical Examiner (07/2004 to 12/2004)
    - Associate Medical Examiner (2003 to 2004)
    - Assistant Medical Examiner (2001 to 2003)
- Director of Forensic Neuropathology (2004 to 2007)
- Director of Forensic Fellowship Training Program (2005 to 2007)
- Toxicology/Medical Review Officer for Law Enforcement Drug Testing Program in the State of New Jersey (2004-2007)
- Assistant State Medical Examiner in the State of New Jersey (2004-2007)

Post-graduate Training

- City Medical Examiner (2000 to 2001), Office of the Chief Medical Examiner, New York, New York
- Fellowship in Neuropathology (1998 to 2000), Columbia Presbyterian Medical Center, Columbia University, New York, New York
- Resident in Pathology (1995 to 1998), Albert Einstein College of Medicine, Bronx, New York

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Publications & Presentations

Fuschino, ME., Hua, Z, et al., Detection of coxsackievirus A10 in multiple tissues of a fatal infant sepsis case. Journal of Clinical Virology. Epub ahead of print, 2011, December 30

Hua, Z., Overview of Forensic Medicine in China and Taiwan. 2010 Annual Meeting Presentation, American Academy of Forensic Science, Seattle, WA

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STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES

A PATH FORWARD

Committee on Identifying the Needs of the Forensic Science Community

Committee on Science, Technology, and Law
Policy and Global Affairs

Committee on Applied and Theoretical Statistics
Division on Engineering and Physical Sciences

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By contrast, much more research is needed on the natural variability of burn patterns and damage characteristics and how they are affected by the presence of various accelerants. Despite the paucity of research, some arson investigators continue to make determinations about whether or not a particular fire was set. However, according to testimony presented to the committee,[118] many of the rules of thumb that are typically assumed to indicate that an accelerant was used (e.g., "alligatoring" of wood, specific char patterns) have been shown not to be true.[119] Experiments should be designed to put arson investigations on a more solid scientific footing.

FORENSIC ODONTOLOGY

Forensic odontology, the application of the science of dentistry to the field of law, includes several distinct areas of focus: the identification of unknown remains, bite mark comparison, the interpretation of oral injury, and dental malpractice. Bite mark comparison is often used in criminal prosecutions and is the most controversial of the four areas just mentioned. Although the identification of human remains by their dental characteristics is well established in the forensic science disciplines, there is continuing dispute over the value and scientific validity of comparing and identifying bite marks.[120]

Many forensic odontologists providing criminal testimony concerning bite marks belong to the American Board of Forensic Odontology (ABFO), which was organized in 1976 and is recognized by the American Academy of Forensic Sciences as a forensic specialty. The ABFO offers board certification to its members.[121]

Sample Data and Collection

Bite marks are seen most often in cases of homicide, sexual assault, and child abuse. The ABFO has approved guidelines for the collection of evidence from bite mark victims and suspected biters.[122] The techniques for obtaining bite mark evidence from human skin—for example, various forms of photography, dental casts, clear overlays, computer enhancement, electron microscopy, and swabbing for serology or DNA—generally are

[118] J. Lentini. Scientific Fire Analysis, LLC. Presentation to the committee. April 23, 2007. Available at www7.nationalacademies.org/stl/April%20Forensic%20Lentini.pdf.

[119] NFPA 921 Guide for Explosion and Fire Investigations, 2008 Edition. Quincy, MA: National Fire Protection Association.

[120] E.g., J.A. Kieser. 2005. Weighing bitemark evidence: A postmodern perspective. *Journal of Forensic Science, Medicine, and Pathology* 1(2):75-80.

[121] American Board of Forensic Odontology at www.abfo.org.

[122] Ibid.

well established and relatively noncontroversial. Unfortunately, bite marks on the skin will change over time and can be distorted by the elasticity of the skin, the unevenness of the surface bite, and swelling and healing. These features may severely limit the validity of forensic odontology. Also, some practical difficulties, such as distortions in photographs and changes over time in the dentition of suspects, may limit the accuracy of the results.[123]

Analyses

The guidelines of the ABFO for the analysis of bite marks list a large number of methods for analysis, including transillumination of tissue, computer enhancement and/or digitalization of the bite mark or teeth, stereomicroscopy, scanning electron microscopy, video superimposition, and histology.[124] The guidelines, however, do not indicate the criteria necessary for using each method to determine whether the bite mark can be related to a person's dentition and with what degree of probability. There is no science on the reproducibility of the different methods of analysis that lead to conclusions about the probability of a match. This includes reproducibility between experts and with the same expert over time. Even when using the guidelines, different experts provide widely differing results and a high percentage of false positive matches of bite marks using controlled comparison studies.[125]

No thorough study has been conducted of large populations to establish the uniqueness of bite marks; theoretical studies promoting the uniqueness theory include more teeth than are seen in most bite marks submitted for comparison. There is no central repository of bite marks and patterns. Most comparisons are made between the bite mark and dental casts of an individual or individuals of interest. Rarely are comparisons made between the bite mark and a number of models from other individuals in addition to those of the individual in question. If a bite mark is compared to a dental cast using the guidelines of the ABFO, and the suspect providing the dental cast cannot be eliminated as a person who could have made the bite, there is no established science indicating what percentage of the population or subgroup of the population could also have produced the bite. This follows from the basic problems inherent in bite mark analysis and interpretation.

As with other "experience-based" forensic methods, forensic odontology suffers from the potential for large bias among bite mark experts in evaluating a specific bite mark in cases in which police agencies provide the suspects for comparison and a limited number of models from which

[123] Rothwell, op. cit.
[124] American Board of Forensic Odontology, op. cit.
[125] Bowers, op. cit.

to choose from in comparing the evidence. Bite marks often are associated with highly sensationalized and prejudicial cases, and there can be a great deal of pressure on the examining expert to match a bite mark to a suspect. Blind comparisons and the use of a second expert are not widely used.

Scientific Interpretation and Reporting of Results

The ABFO has issued guidelines for reporting bite mark comparisons, including the use of terminology for conclusion levels, but there is no incentive or requirement that these guidelines be used in the criminal justice system. Testimony of experts generally is based on their experience and their particular method of analysis of the bite mark. Some convictions based mainly on testimony by experts indicating the identification of an individual based on a bite mark have been overturned as a result of the provision of compelling evidence to the contrary (usually DNA evidence).[126]

More research is needed to confirm the fundamental basis for the science of bite mark comparison. Although forensic odontologists understand the anatomy of teeth and the mechanics of biting and can retrieve sufficient information from bite marks on skin to assist in criminal investigations and provide testimony at criminal trials, the scientific basis is insufficient to conclude that bite mark comparisons can result in a conclusive match. In fact, one of the standards of the ABFO for bite mark terminology is that, "Terms assuring unconditional identification of a perpetrator, or without doubt, are not sanctioned as a final conclusion."[127]

Some of the basic problems inherent in bite mark analysis and interpretation are as follows:

(1) The uniqueness of the human dentition has not been scientifically established.[128]
(2) The ability of the dentition, if unique, to transfer a unique pattern to human skin and the ability of the skin to maintain that uniqueness has not been scientifically established.[129]
    i. The ability to analyze and interpret the scope or extent of distortion of bite mark patterns on human skin has not been demonstrated.
    ii. The effect of distortion on different comparison techniques is not fully understood and therefore has not been quantified.

[126] Bowers, op. cit.
[127] American Board of Forensic Odontology, op. cit.
[128] Senn, op. cit.
[129] Ibid.

(3) A standard for the type, quality, and number of individual characteristics required to indicate that a bite mark has reached a threshold of evidentiary value has not been established.

Summary Assessment

Despite the inherent weaknesses involved in bite mark comparison, it is reasonable to assume that the process can sometimes reliably exclude suspects. Although the methods of collection of bite mark evidence are relatively noncontroversial, there is considerable dispute about the value and reliability of the collected data for interpretation. Some of the key areas of dispute include the accuracy of human skin as a reliable registration material for bite marks, the uniqueness of human dentition, the techniques used for analysis, and the role of examiner bias.[130] The ABFO has developed guidelines for the analysis of bite marks in an effort to standardize analysis,[131] but there is still no general agreement among practicing forensic odontologists about national or international standards for comparison.

Although the majority of forensic odontologists are satisfied that bite marks can demonstrate sufficient detail for positive identification,[132] no scientific studies support this assessment, and no large population studies have been conducted. In numerous instances, experts diverge widely in their evaluations of the same bite mark evidence,[133] which has led to questioning of the value and scientific objectivity of such evidence.

Bite mark testimony has been criticized basically on the same grounds as testimony by questioned document examiners and microscopic hair examiners. The committee received no evidence of an existing scientific basis for identifying an individual to the exclusion of all others. That same finding was reported in a 2001 review, which "revealed a lack of valid evidence to support many of the assumptions made by forensic dentists during bite mark comparisons."[134] Some research is warranted in order to identify the circumstances within which the methods of forensic odontology can provide probative value.

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[130] Ibid.

[131] American Board of Forensic Odontology, op. cit.

[132] I.A. Pretty. 2003. A Web-based survey of odontologists' opinions concerning bite mark analyses. *Journal of Forensic Sciences* 48(5):1-4.

[133] C.M. Bowers. 2006. Problem-based analysis of bite mark misidentifications: The role of DNA. *Forensic Science International* 159 Supplement 1:s104-s109.

[134] I.A. Pretty and D. Sweet. 2001. The scientific basis for human bitemark analyses—A critical review. *Science and Justice* 41(2):85-92. Quotation taken from the abstract.

American Board of Forensic Odontology

Diplomates Reference Manual

January 2012 Edition

- Variation from normal, unusual, infrequent.
- Not one of a kind but serves to differentiate from most others.
- Highly specific, individualized.
- Lesser degree of specificity than unique.

Bitemark Definitions

Bitemark:

• A physical alteration in a medium caused by the contact of teeth.

• A representative pattern left in an object or tissue by the dental structures of an animal or human.

Describing the Bitemark

A circular or oval patterned injury consisting of two opposing (facing) symmetrical, U-shaped arches separated at their bases by open spaces. Following the periphery of the arches are a series of individual abrasions, contusions, and/or lacerations reflecting the size, shape, arrangement, and distribution of the class characteristics of the contacting surfaces of the human dentition.

Variations:

1. Additional features:

    - Central Ecchymosis (central contusion).
    - Linear Abrasions, Contusions or Striations
    - Double Bite - (bite within a bite)
    - Weave Patterns of interposed clothing.
    - Peripheral Ecchymosis

2. Partial Bitemarks

3. Indistinct/Faded Patterned Injury (e.g., fused or closed arches, solid ring pattern)

4. Multiple Bites.

5. Avulsive Bites.

Terms Indicating Degree of Confidence That an Injury is a Bitemark:

Bitemark - Teeth created the pattern; other possibilities were considered and excluded.

• *criteria*: pattern conclusively illustrates a) classic features. b) all the characteristics, or c) typical class characteristics of dental arches and human teeth in proper arrangement so that it is recognizable as an impression of the human dentition.

Suggestive – The pattern is suggestive of a bitemark, but there is insufficient evidence to reach a definitive conclusion at this time.

• *criteria:* general shape and size are present but distinctive features such as tooth marks are missing, incomplete or distorted or a few marks resembling tooth marks are present but the arch configuration is missing.

Not a bitemark – Teeth did not create the pattern.

Descriptions and Terms Used to Relate a Suspected Biter to a Bitemark

All opinions stated to a reasonable degree of dental certainty

The Biter

The Probable Biter

Not Excluded as the Biter

Excluded as the Biter

Inconclusive

ABFO Standards for "Bitemark Terminology"

The following list of Bitemark Terminology Standards has been accepted by the American Board of Forensic Odontology.

1. Terms assuring unconditional identification of a perpetrator, or without doubt, are not sanctioned as a final conclusion.

2. Terms used in a different manner from the recommended guidelines should be explained in the body of a report or in testimony.

3. All boarded forensic odontologists are responsible for being familiar with the standards set forth in this document.

2/2006

American Board of Forensic Odontology

Diplomates Reference Manual

August 2013 Edition

Terms Indicating Degree of Confidence That an Injury is a Human Bitemark:

Human Bitemark – Human Teeth created the pattern; other possibilities were considered and excluded.

• *criteria*: the injury pattern displays features that reflect the class and individual characteristics of human teeth.

Suggestive – The pattern is suggestive of a human bitemark, but there is insufficient evidence to reach a definitive conclusion at this time.

• *criteria:* general shape and size are present but distinctive features such as individual tooth marks are missing, incomplete or distorted or a few marks resembling tooth marks are present but the arch configuration is missing.

Not a human bitemark – Human teeth did not create the injury.

Descriptions and Terms Used to Relate a Suspected Biter to a Bitemark

All opinions stated to a reasonable degree of dental certainty

The Biter

The Probable Biter

Not Excluded as the Biter

Excluded as the Biter

Inconclusive

The ABFO does not support a conclusion of "The Biter" in an open population case(s).

ABFO Bitemark Case Review Guideline

A case review should be performed by a second ABFO Diplomate. The reviewer will not be required to provide a second opinion (but may do so if he/she wishes), but will provide an administrative review of the analysis that was done. This review should determine if the analysis and report adhered to the standards, guidelines, methodology and terminology of bitemark investigation as the required by these standards and guidelines.

GRADWOHL'S
LEGAL MEDICINE

EDITED BY

FRANCIS E. CAMPS

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WITH THE ASSISTANCE OF THE MEMBERS OF THE DEPARTMENT OF FORENSIC MEDICINE, THE LONDON HOSPITAL MEDICAL COLLEGE

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SECOND EDITION, LARGELY REWRITTEN WITH MANY NEW ILLUSTRATIONS

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CHAPTER 18

UNNATURAL DEATH DUE TO ASPHYXIA

GENERAL CONSIDERATIONS

THE term 'asphyxia' is commonly applied to a variety of conditions in which interference with respiratory exchange plays a greater or lesser part. Many of these conditions vary so greatly in their physiological mechanisms and in the pathological appearances they present that the use of the term is best avoided whenever possible.

It is usual to divide the effects of 'asphyxia' into a number of stages, but it is probably only in deaths in which the predominant mechanism is one of respiratory obstruction with hypoxia and carbon-monoxide retention that these stages are seen. There is undoubtedly great variation in the time of appearance of these manifestations, and many factors may interfere with their production, which will be considered under the individual mechanisms causing the obstruction. The stages as usually described are:—

1. A stage of inspiratory dyspnoea, with deep and forceful respiration, and more or less cyanosis, lasting for a minute or so.
2. Spasmodic efforts at expiration: the stage of expiratory dyspnoea. Consciousness is lost and the pupils become dilated. The pulse slows and the blood-pressure rises.
3. The blood-pressure falls, pulse-rate increases, and it is in this stage that spontaneous defaecation, erection, and ejaculation may occur.
4. Respiratory movements cease except for terminal irregular occasional respirations, the heart often continuing to beat for 10–15 minutes.

These sequences have been arrived at in the past by observation on man and experimental animals.

Swann and Brucer (1949) produced anoxia in a variety of ways in unanaesthetized dogs. They found that when the dog's respiration was obstructed by a face mask the animals continued to make violent struggles or to have convulsions even up to the point of heart failure. Rhythmic breathing movements continued right through to circulatory failure. Within 90 seconds the pulse slowed and the slowing was accompanied by a great rise in systolic and a drop in diastolic pressure. Heart failure occurred very abruptly, although electrical activity continued in the heart for about 12 minutes after heart failure.

During the process of pure respiratory obstruction in these animals arterial oxygen-saturations fell progressively and the heart failed about 2 minutes after the oxygen-saturation had fallen below 10 per cent. The carbon-dioxide content at first rose rapidly then, as the blood lactate started to rise, the carbon-dioxide content fell until at death it was similar to the initial content. The carbon-dioxide tension rose throughout and reached very high levels terminally.

It seems probable that the classic description of the sequence of events in 'asphyxia' in man is a compilation of the effects of an obstructed airway, compression of the vessels in the neck, direct stimulation of the carotid sinuses, of the circulatory and biochemical effects of drowning, and possibly other phenomena, formerly all thought to cause death solely by anoxia.

In the sorts of assaults and injuries that result in interference with respiratory exchange in man it is usually difficult or impossible to predict the physiological results with any accuracy at all, and certainly the stages described above are not always followed.

THE INTERPRETATION OF POST-MORTEM APPEARANCES IN DEATH FROM RESPIRATORY OBSTRUCTION AND COMPRESSION OF THE NECK

It is doubtful if there are any constant post-mortem changes produced by the direct effect of anoxia upon the tissues, except the appearance of cyanosis. Most of the abnormal appearances in cases of respiratory obstruction are the result of the local effects of the obstructing or constricting agent, of raised intravascular pressure, and of the terminal heart failure.

Cyanosis

The significance of cyanosis in the cadaver must be evaluated very critically. If the body is examined within a few hours of death the presence of intense cyanosis is of some significance. The loss of oxygen by cadaveric blood is very variable, but certainly after 24 hours the appearance of cyanosis may be due entirely to post-mortem changes. Furthermore, the absence of cyanosis within a few hours of

burial by sand, earth, rock, or fallen masonry, in train crashes and similar accidents, and in crushing by other bodies in crowd accidents. The results are

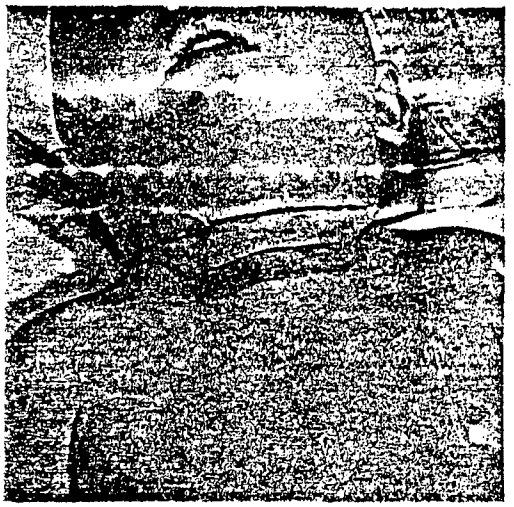

Fig. 229.—Mark caused by attempted strangulation by a nylon stocking 7 days previously. (There is strapping over a tracheostomy performed because of concomitant head injury).

partly due to failure of respiratory exchange and partly to interference with the circulation. If severe crushing takes place cyanosis and congestive changes are very severe. The face is congested, swollen, and covered with petechial haemorrhages. The conjunctivae are oedematous and often there is confluent subconjunctival haemorrhage. The petechiae extend on to the neck and trunk and are often found on the limbs. They tend to form wide bands of congestion, cyanosis, and haemorrhage, and may in places follow the lines of folds in the clothing.

THE LATE EFFECTS OF RESPIRATORY OBSTRUCTION AND TRAUMATIC ASPHYXIA

If the victim survives strangulation the congestive petechial haemorrhages persist for several days. A ligature mark will rapidly become red and swollen and a crust may form on the epidermis if it has been abraded (*Fig.* 229). The mark will gradually disappear over a period of one or two weeks. Bruising from manual strangulation will follow the course of bruising anywhere else in the body. If laryngeal injury has occurred there will be difficulty in swallowing, sore throat, and a hoarse voice for some days or weeks after. Fractures heal by bony and not fibrous union (Thomas and Kluyskens, 1962).

If the period of cerebral anoxia has been long enough, coma may be irreversible. In cases that have recovered from coma there may be changes in consciousness, amounting to a psychosis, sometimes with transient or permanent neurological damage, and retrograde amnesia is common (Gamper and Stiefler, 1937).

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Basic Morphological Data of External Genitals in 177 Healthy Central European Men

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ABSTRACT **Five basic measurements were made of the penis, the scrotum and the testicles of 177 healthy Bohemian (Czechoslovakian) men, 18–20 years of age. The average length of the penis was 72.18 mm. The average circumference of the penis was 95.65 mm. The length of the right testicle was 47.37 mm, the length of the left was 45.17 mm.**

In 16.2% of those examined slight deformations of the urethral opening and mild malformations of the prepuce and the frenum were found. These defects did not disturb function. The method of measurement used has been described.

As a continuation of some recent studies (Trosev, '69; Farkas et al., '68) on the postnatal development of the penis from birth until the age of six or seven years in members of two national populations, I measured the male genitals in normal adults. The information gained might be useful to the surgeon and other specialists dealing with congenital and acquired defects of the male genitalia.

MATERIAL

One hundred and seventy-seven healthy men 18 to 20 years of age, selected at random from among personnel of military units stationed in Prague (Czechoslovakia) were examined during the first half of 1968.

METHOD

Five objective basic measurements of the genitals obtained by anthropometry, and three qualitative signs related to the penis, assessed by anthroposcopy, were recorded in each case. The subject was recumbent during the examination. Measurements were made with the penis flaccid. The maximum-minimum measurements in millimeters were recorded on coded charts and the mean and standard deviations calculated. All measurements were performed by one person.

Measurements

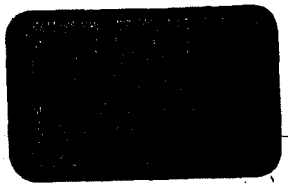
1. The total length of the penis: measured by sliding calipers on the dorsal side of the penis between the root of the penis and the tip of the glans (fig. 1).
2. The circumference of the penis: measured by measuring tape in the mid portion of the penile shaft (fig. 1).
3. The circumference of the scrotum: measured by measuring tape from the right scrotal base along its circumference to the left scrotal base (fig. 1).
4. The size of each testicle: (a) the length: measured by sliding calipers between the two most distant points of its longitudinal axis (fig. 2), (b) the width: measured by sliding calipers in the mid portion of the testicle (fig. 2).

Qualitative signs

1. The site and the shape of the urethral orifice.
2. The shape and the state of development of the frenum.
3. The prepuce: its size, configuration, the size of the opening of the preputial pouch.

RESULTS

The results are shown in table 1 and table 2.



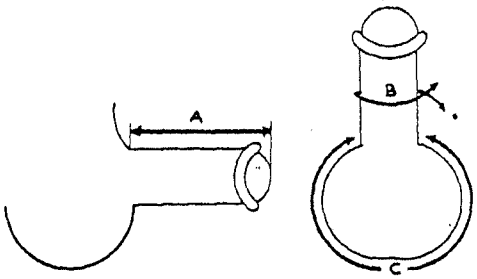


Fig. 1 Showing method of measuring penile length (A) and circumference (B) in flaccid state and circumference of the scrotum (C).

DISCUSSION AND CONCLUSIONS

The findings in both age groups (18 to 19 years and 19 to 20 years) were analyzed in one group because in my experience the size of the genitalia does not change significantly between 18 and 20 years of age. Other authors' findings support this suggestion (Schonfeld, '43; Figalova et al., '68).

The men in this study group were healthy adults, found fit for military service by a military medical committee and were under constant medical supervision. None of them had pathological body configuration, abnormal body size, or manifested endocrine disturbances.

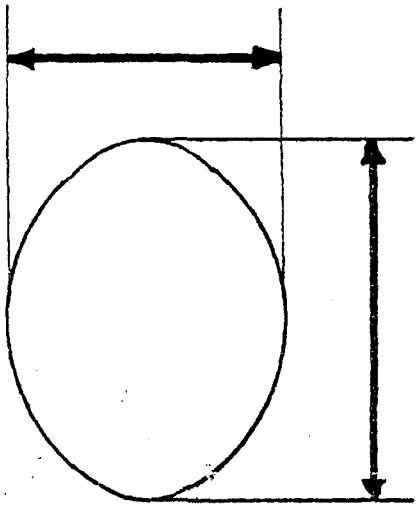


Fig. 2. Showing method of measuring testes.

No measurements other than those of the genitalia were undertaken.

The surgeon repairing congenital or acquired defects of the genitalia prefers to use penile skin (or scrotal skin) for correction of the failure. The length and circumference of the penis in the flaccid state are of great value in the planning

TABLE 1

Metric data of external genitals in study group in millimeters

Region	Sign	N	Max-Min	Mean	SD
Penis	Length	177	110-45	72.18	11.24
	Circumference	176	120-77	95.65	8.31
Scrotum	Circumference	177	250-105	195.14	22.43
Right testicle	Length	176	65-34	47.37	4.71
	Width	176	42-17	28.02	3.44
Left testicle	Length	176	62-34	45.17	4.78
	Width	176	36-15	27.42	3.22

TABLE 2

Qualitative signs of external genitals in study group

Region	Sign	N	%
Urethral orifice	Markedly elongated ventrally	17	9.6
	Blind hole on the tip of glans and the separated urethral meatus situated ventrally	10	5.6
Frenum	Only one of its roots was developed and placed obliquely	1	0.5
Prepuce	Phimosis	1	0.5
Total		29	16.2

of corrective surgery. The circumference of the flaccid hypospadiac penis can be decisive in choosing the method of the urethroplasty (Farkas, '68). For these practical reasons the penis was measured in the flaccid state in all studies dealing with boys with hypospadias and also in controls (Farkas et al., '68; Farkas, '70).

The penis was measured between the same landmarks used by Schonfeld ('43). In only a few cases I found similar difficulties in the localization of the landmark at the penopubic junction as Schonfeld. I do not agree with Schonfeld that assessment of the length of the stretched penis is more precise than that of the flaccid penis. Both methods are open to inaccuracy. The error in measurement of length of the penis was estimated by me ± 1—2 mm, established by repeated measurement in cases where the landmark at the penopubic junction was not sufficiently visible.

The inaccuracies in measuring the scrotal circumference are even greater (± 2—3 mm) than in the length of the penis because it is difficult to determine the exact base of the scrotum.

The thickness of the scrotal skin makes the measured length and width of the testicles greater than they really are.

The average length of the penis (72.18 mm) in the study group is considerably less than the 100—120 mm recorded in some textbooks of anatomy (Borovansky, cited by Hromada), but the method of measuring is not known.

The length of the penis in this study group cannot be compared directly with the data in Schonfeld's paper because of the difference in measurement techniques. In my experience a flaccid penis 72 mm in length can be extended by approximately one-half of the original length when stretched. Thus the length of the penis of men in my study group would be markedly shorter (about 118 mm) in comparison with the findings given by Schonfeld (130 mm).

Hajnis and coworkers ('70) measuring the length of the penis between the tip of the glans and penoscrotal angle in normal Czech boys, from birth to six years of age, found the length of the erect penis almost double the length of the flaccid penis. However, the small number of the observations makes a valid conclusion impossible.

If Schonfeld's calculation is correct stating that on an average there is about 20—30 mm difference between the circumference of a flaccid and erect penis, then the circumference of the penis in males of this study group, recorded in flaccid state as 95.6 mm would be about 125 mm in state of erection which is markedly more than the medium measurement of Schonfeld (90 mm). The differences found between the Schonfeld norms and the study group are not surprising. There are similar differences between the size of the penis of normal Czech and Bulgarian boys from birth up to six years of age (Farkas et al., '68; Trosev, '69) using the same method of measurement.

The method of assessment of the size of testicles I used differed from that used by others (Albert, '53; Schonfeld, '43), which excludes a comparison of the findings. The right testicle in men studied was larger than the left, in accordance with the observation of Trosev ('69) in normal Bulgarian boys, and of Hajnis and coworkers ('70) in normal Czech boys. Schonfeld ('43) found a larger right testis in 23% of boys studied.

The relatively high frequency in my study of slight morphological changes of the urethral orifice and the shape of the frenum is unusual but similar to those found in slight degrees of hypospadias (Farkas, '70). The question remains: which anatomical changes of the urethral opening should be considered as variations of normal state, and which should be classified as microforms (forme frustes or minor defects), of hypospadias or epispadias? A larger sample of the general population would yield more reliable results.

Precise measurements of male genitals would be helpful for evaluating the effect of treatment on hypospadias, epispadias and for establishing the growth potential of the congenitally damaged penis (Figalova et al., '68).

The above mentioned findings in different populations and those observed during my long clinical practice in Central Europe, support our belief that there

exists differences between populations (of the same racial origin) in some anthropometric signs probably caused by different ethnic, social, alimentary, geographical and other factors.

However, a man's reticence to undergo this type of examination limits the number of subjects and makes it difficult to establish the reported or valid norms for each population.

Although the sample studied cannot be regarded as representative of the general population, it offers some valuable information about the size and configuration of the genitalia of adult males.

ACKNOWLEDGMENTS

I am especially indebted to Professor D. R. Hughes and Mr. James Webb of the Department of Anthropology, University of Toronto, for the statistical evaluation of data.

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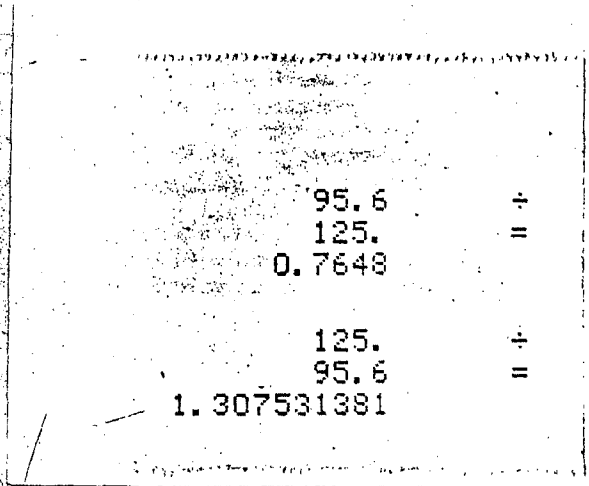

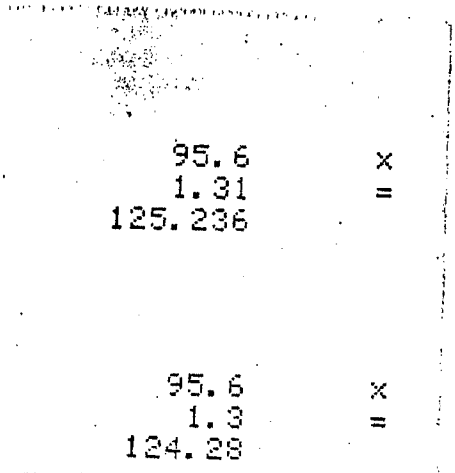

DECLARATION OF STEPHEN GREENSPAN, Ph.D.

I, Stephen Greenspan, declare and state as follows:

All of the facts contained in this declaration are known to me personally and if called as a witness, I could and would testify thereto.

BACKGOUND

1. Danny Lee Hill is a 44-year-old Ohio prison inmate who was condemned to death for his participation in the 1985 rape-murder in Warren, Ohio, of a 12-year-old child: Raymond Fife. Mr. Hill drew attention to himself by presenting himself two days later at the Warren police station, where he volunteered information about the crime in an attempt to collect a $5,000 reward. Following a state "Atkins" hearing held in 2004, Mr. Hill was found not to have mental retardation, and his petition for relief from the death penalty was, consequently, denied. That ruling was subsequently upheld by the Ohio Supreme Court. My understanding is that Mr. Hill's current *habeas* counsel is appealing that decision in Federal court, and that my declaration likely will be used in support of that appeal.

2. My role in this case is that of a teaching expert, informing the court about methodological and conceptual guidelines that should be followed in diagnosing mental retardation in criminal cases, and opining as to whether those guidelines were sufficiently understood or followed by various testifying experts, and as reflected in the 2004 court ruling. My opinions in this declaration are based on a review of various documents, including testimony transcripts. I have not interviewed the defendant, and I do not attempt to make a formal diagnosis. In the interest of full disclosure, I do know three (one now deceased) of the five experts who testified in this case, but I have never discussed the facts of this case with any of them.

3. The standard used by the Ohio court in the earlier Atkins proceeding was spelled out in the Ohio Supreme Court's 2002 *State v. Lott* ruling. As I understand it, the framework laid down in Lott is a clinical definition derived from the section on mental retardation contained in the 2000 Diagnostic and Statistical Manual, 4th edition—text revision (DSM4-TR) published by the American Psychiatric Association. The constitutive definition has three prongs: (a) significant impairments in intellectual functioning, (b) associated with impairments in adaptive functioning, and with (c) onset of the disorder within the developmental years (i.e., prior to the age of 18). That constitutive definition is identical to, and derived from, the definition first developed in 1961 by the American Association on Mental Retardation (now known as the American Association on Intellectual and Developmental Disabilities).

4. In the five decades since that constitutive definition was first propounded, it has remained essentially unchanged (except that initially prong three was set at onset prior to age 16). What has changed over the course of several decades is more in the operational definition: for example, IQ ceiling scores, and criteria for determining prong two (adaptive functioning) deficits. These operational criteria will be discussed in relevant following sections.

MY QUALIFICATIONS

5. Over the past several years, I have been qualified as an expert in psychology and mental retardation, now increasingly referred to as Intellectual Disabilities (ID) by 15 state or Federal judges, in so-called "Atkins" (death penalty exemption) proceedings, at various stages: pre-trial, penalty and habeas. In addition, I have been used as a consultant in numerous other cases. In a sizeable percentage of these cases, I have not supported a diagnosis of ID.

6. I am a Clinical Professor of Psychiatry at the University of Colorado Health Sciences Center, and Emeritus Professor of Educational Psychology at the University of Connecticut. I received a Ph.D. in Developmental Psychology from the University of Rochester, and was a Postdoctoral Fellow in MR and Developmental Disabilities at the UCLA's Neuropsychiatric Institute.

7. I have been elected "Fellow" (a designation given only to the most qualified members) by the MR/ ID division of the American Psychological Association and by the American Association on Intellectual and Developmental Disabilities. I was also elected to a term as President of the Academy on Mental Retardation (the most prestigious research organization in the field) and received a license to practice psychology in the states of Nebraska (expiration January 2013) and Tennessee (status: inactive). I also currently hold temporary visiting psychology licenses in the states of Oregon and Texas.

8. I have published extensively on ID, with particular emphasis on "adaptive behavior." I am a leading scholar in the ID field, as seen in the most recent diagnostic manual of the American Association on Intellectual and Developmental Disabilities MENTAL RETARDATION: DEFINITION, CLASSIFICATION AND SYSTEMS OF SUPPORTS (11th Edition, 2010). I was also the most-cited authority in its predecessor manual, published in 2002. My 2006 book WHAT IS MENTAL RETARDATION, co-edited with H. Switzky, is considered one of the standard reference works in the ID field, and has been described as "the best book ever published on the definition and diagnosis of mental retardation". In 2008, AAIDD granted me its highest honor, the Gunnar and Rosemary Dybwad Award for Humanitarianism. In August 2011, the Intellectual Disability division of the American Psychological Association will award me its highest honor: the John Jacobson Award for critical contributions to the field of ID theory and practice.

9. In the past year, I have testified as a defense expert in Atkins proceedings in three federal district courts (in Ohio, Idaho and Louisiana). In the Ohio case (*in re Antun Lewis*), the judge cited my testimony extensively in support of a positive ruling (the other two cases have not yet been decided). In addition my scholarly writings were cited in support of the ruling by a federal judge in a Maryland capital proceeding (*in re Earl Davis*) in which I did not testify, and an affidavit submitted by me was cited as the basis for a ruling by a federal judge in a Texas case (i*n re Yokoman Hearn*).

MATERIALS REVIEWED

10. The following materials were reviewed by me:

- Video Depositions of Annette Campbell and Debbie Flaherty
- Judge Curran Judgment Entry (Findings of Fact and Conclusions of Law)
- Declaration of Kevin Keith
- Declaration of Gary Johnson
- Declaration of Percy Hutton
- Declaration of Gerald "Bob" Hand
- Dr. Huntsman Atkins Evaluation Report of 6/15/2004
- Declaration of Joe D'Ambrosio
- Dr. Hammer Psychological Consultation Report of 6/5/2004
- Testimony of Dr. Olley
- Dr. Olley Psychological Report of 4/26/2004 through 4/28/2004
- Declarations of John H. Vermeulen, M.D. and his wife, Mary Louise Vermeulen
- Prison Records Review Prepared by Federal Public Defender Office
- Declaration of James Spindler
- Declaration of Annette Campbell
- Declaration of William "Bill" Baer
- Declaration of Karen Weiselberg-Ross
- Volume XI Transcripts of Mitigation Testimony
- Dr. Crush Neuropsychological Report of 2/25/1986
- Dr. Darnall Psychological Report of 1/10/1984
- Danny Hill School Records
- Declaration by Dr. Sara Sparrow
- Declaration by Dr. Timothy Hancock
- Video of police interview with Danny Hill
- Curriculum Vitae for all experts who testified in the Atkins proceeding
- Court transcript for the Atkins proceeding
- Declaration of Dr. J. Gregory Olley, September 2010
- Report by Dr. Hoi Suen on issues pertaining to the Vineland
- Transcript of deposition of Dr. J. Gregory Olley, April 11, 2011

QUESTIONS ADDRESSED IN THIS DECLARATION

11. The questions I address in this declaration are the following:

- Were appropriate methods used by the three psychological experts in conducting the evaluation of Mr. Hill?

- Did the experts who testified in this case have requisite qualifications needed to express an opinion about mental retardation or other matters relating to this case?

- Were the experts justified in their conclusions about prong one (intellectual impairment)?

- Were the experts justified in their conclusions about prong two (adaptive behavior)?

- Were the experts justified in their conclusions about prong three (developmental onset)?

- Were the experts justified in concluding that Mr. Hill was not putting forth an adequate effort?

WERE APPROPRIATE METHODS USED BY THE PANEL OF EXPERTS?

12. The court appointed three experts to participate in an evaluation of Mr. Hill. They were Dr. Hammer (retained by the defense), Dr. Olley (retained by the prosecution) and Dr. Huntsman (appointed by the court). They chose to evaluate Mr. Hill as a team, deciding on the tests to administer and then deciding who would administer which test. As noted by Dr. Olley in a recent declaration, this is a highly unusual approach. In fact, in 30 or more cases in which I testified or consulted, this is the first time I have heard of such an approach being used. In my opinion this group approach is problematic, for a number of reasons, to be discussed below.

13. Although appointed as a panel, the experts were expected to function independently, and to testify as to their individual opinions about Mr. Hill. Yet, human nature being what it is, a group dynamic tends to take over in such a collective approach, and it is possible, indeed likely, that individual perspectives and concerns became subsumed to this group dynamic. This is reflected in comments recently made by Dr. Olley, the expert retained by the prosecution. He now states that he had some reservations at the time about some of the things that were done, but these reservations were not sufficient to cause him to dissent from the group-affected decisions that were made.

14. The American Psychological Association (APA) ethics guidelines generally recommend against having third parties in the testing room, although this recommendation is aimed more at non-psychologists (such as attorneys and family members). There are two concerns stated for this recommendation: (a) protecting the copyright of test materials (not as much a relevant consideration in this instance), and (b) avoiding upsetting, disconcerting or affecting the performance of the subject. In fact, the only reason given by the APA (in a white paper by a special assessment committee) for when additional people should be in the testing room is if it would calm the subject (for example, when a child would be reassured by the presence of his mother) and facilitate better effort. In this case, there is evidence (the defendant struggling and breaking into tears twice) which suggest that the group format had a negative impact on Mr. Hill and was not, therefore, an appropriate testing climate.

15. Dr. Huntsman started off her evaluation by giving Mr. Hill a standard forensic statement warning him that the information obtained was not confidential and could be used against him in court. As Dr. Huntsman reported in a recent deposition, both Dr. Olley and Dr. Hammer "took her to task," because they felt she had delivered this warning in too strong a manner, that it appeared to upset Mr. Hill, and that it was not congruent with the friendly and supportive climate they believed was essential for psychological testing. This is another possible contributor to the performance which Dr. Huntsman used to support her diagnosis of malingering but which could have been an artifact of a far from optimal testing climate.

16. An even more serious deviation from recommended practice was the manner in which the videotaping of the session occurred. As with the presence of third parties, the APA's position is that this is not a generally recommended practice, but they stopped short of outlawing it. However, there is a clear instruction to conduct the taping in a way that is not intrusive and that does not affect the ability of the subject to concentrate and to give a maximum effort. Ideally, the videotaping should be done from a remote location or through an unmanned camera left running in the room. Allowing a prosecution investigator who had a negative history with Mr. Hill to be in the room, operating the camera, was a serious breach of assessment protocol. In a recent declaration, Dr. Olley states he was unaware of the identity of the camera operator and his history with Mr. Hill, and would have objected to the arrangement if he had possessed that knowledge. Dr. Huntsman has since stated that she was also unaware of the history between the defendant and the video camera operator as well.

DID THE EXPERTS POSSESS REQUISITE QUALIFICATIONS?

17. The court commented on the excellence of the five main psychologists who testified, almost terming them the "dream team of expert witnesses." At the risk of seeming overly critical, I think the characterization was only partially accurate, in that two, and possibly three, of the five witnesses, while highly qualified for tasks other than what was required of them in this case, lacked requisite qualifications for the testimony that they offered.

18. Two of the psychologists who assessed Mr. Hill--Dr. Hammer (appointed by the defense) and Dr. Olley (appointed by the prosecution)—possessed decades of deep and impressive training and experience in evaluating and working with people with MR. The third psychologist, Dr. Hunstsman (appointed by the court) was almost completely lacking in MR expertise. Looking at her CV, I saw only one item—an early article on which she was second author—that gave any indication that she had ever even been in the presence of someone with MR. That article described an experiment conducted with "retardates," (the title of the article), apparently in an institutional setting. Participating in one study, in the role of junior researcher, hardly qualifies Dr. Huntsman to evaluate individuals with mild MR who live outside of institutional settings.

19. In the past several years (after his testimony in the Hill case), the main prosecution expert, Dr. J. Gregory Olley, has written extensively on the credentials necessary to testify competently on the matter of MR in an Atkins case. He co-chaired a joint committee of the American Psychological Association divisions 33 (mental retardation) and 41 (law and psychology) which worked on the development of professional guidelines for psychologists involved in Atkins proceeding. Furthermore, he authored a frequently-cited article (in a special Atkins issue of APPLIED NEUROPSYCHOLOGY edited by me) which specifically addressed the qualifications needed for psychologists to diagnose MR in a forensic context.

20. In an Arizona case (*in re McGee*), Dr. Olley submitted a 2009 declaration in support of a defense effort to bar a psychologist with nonexistent MR experience comparable to Dr. Huntsman's from testifying. (I know about this, because he submitted the declaration in response to a request from me). In his declaration, Dr. Olley wrote: "Mental retardation is a specialty field within psychology, and, thus, an expert should have training in a doctoral program with specialization in developmental disabilities or should have participated in extensive continuing education in this area. The typical graduate program in clinical, counseling, or forensic psychology contains very little information on this topic, and a generic clinical, counseling, or forensic psychologist would not be expected to have the necessary background in this field. An expert in mental retardation would be expected to be a member of professional organizations that focus on developmental disabilities, ...[and to] be familiar with this [Atkins-related] scholarly literature. The expert should be familiar with the publications on the diagnosis of mental retardation..."

21. Dr. Huntsman clearly met none of these requirements, as reflected in the fact that of all of the experts, she is the only one who did not mention the clinical definition criteria for defining and diagnosing MR. She also demonstrated some of the mistaken stereotypic notions about MR that are held by lay people and by psychologists who lack specialized MR training. In his article about psychologist qualifications needed to conduct competent Atkins evaluations, Dr. Olley pointed to the holding of these stereotypes as the main reason why testimony by clinical psychologists without specialized MR training should not be given much weight by courts.

22. In a landmark Virginia Atkins proceeding for Daryl Atkins (the man after whom these kind of proceedings was named), the trial judge ruled against the Atkins petition, relying heavily on a psychological expert, Dr. Stanton Samenow. He is a highly qualified forensic psychologist, as is Dr. Huntsman, but he testified that he lacked any familiarity with clinical guidelines for defining MR and also that he lacked any specialized training or experience in MR. The high court of Virginia later reversed the judge's decision, citing the excessive reliance on an unqualified expert as a major reason. Given that the courts in Ohio seemed to place great stock on testimony by an equally unqualified expert, Dr. Nancy Huntsman, it seems to me that this is a source of legitimate concern.

23. Two other experts testified in the rebuttal phase of the hearing: Dr. Sara Sparrow (who passed away recently) for the defense and Dr. Timothy Hancock for the prosecution. Their testimony focused on a relatively narrow question, but one to which the court apparently attached great importance. It had to do with the extent to which the Vineland Social Maturity Scale (VSMS) on which Mr. Hill was rated when of school age, predicted a standardized score on its successor test, the Vineland Adaptive Behavior Scale (VABS) that was significantly lower. Dr. Sparrow, a psychologist who was an eminent Yale professor and one of the leading scholars in the MR field, was the senior author of the VABS, and someone well-qualified to talk about the VABS and its predecessor measure, the VSMS. However, she admitted on the stand that she was neither a statistician nor a psychometrist, and she stated that one should be brought in to address technical statistical issues pertaining to the reliability of her concluding from the earlier VSMS that Mr. Hill now met the requirement for adaptive deficits prior to the age of 18.

24. Dr. Timothy Hancock, a psychologist brought in by the prosecution in sur-rebuttal to Dr. Sparrow, described himself as a psychometrics expert, but in my view he lacked qualifications necessary to speak to the specific matter he addressed in the hearing. Dr. Hancock is a clinical psychologist at a mental health clinic, who maintains a consulting practice helping attorneys understand assessment issues. I do not doubt that he is a fine clinician, that he knows something about test construction, or for that matter that he knows about how to diagnose MR (which was not his assigned role in this case).

25. However, Dr. Hancock's CV does not list any academic affiliation or a single refereed publication, in test statistics or psychometrics (or anything else, for that matter). He is second author on one conference presentation with a psychometrics focus, but it is a stretch to describe him as a recognized authority on psychometrics. That impression was certainly reinforced for me by his testimony in this case. The problem with Dr. Hancock's testimony is that he mistakenly assumed that the central question the court should address was whether the VSMS was *equivalent* to the VABS, whereas in fact the central question (which Dr. Sparrow initially raised but was unable to subsequently explain) is whether a score on the VSMS could reliably *predict* a score on the VABS.

26. Dr. Hancock was correct in testifying that a correlation coefficient of 0.55 was insufficient to establish that VSMS and the VABS are equivalent tests (although even there, he committed a fundamental arithmetic error in calculating the degree of that non-equivalence). However, a correlation coefficient of 0.55 is more than sufficient for devising a prediction formula; in fact, many quite reliable prediction formulas have been devised in spite of correlations that are smaller than 0.55. The statistic which Dr. Hancock should have been discussing is not the correlation coefficient but rather the "standard error of estimate", which could have been derived from a prediction equation which likely was contained in an appendix to the VABS manual, where the data linking the VSMS and VABS was supposedly provided. One could then apply those statistics to the VSMS score of Mr. Hill and determine if the range of predicted VABS scores is below the cutoff predicted by the standard error of estimate. This is a very fundamental procedure that a psychometrics expert should be expected to understand and use.

WERE THE EXPERTS JUSTIFIED IN THEIR VIEW OF PRONG ONE?

27. The first prong of the Ohio legal definition of MR is significant impairments in intellectual functioning, and it can be met through various indices of cognitive incompetence. The most widely used index is an IQ score on an individually-administered comprehensive full-scale measure of intelligence (such as the Wechsler scales or the Stanford-Binet) that is below approximately 70-75.

28. Mr. Hill has taken a great many IQ tests, dating back to the childhood years. Without exception, they all fall in the range of mental retardation. That includes a Wechsler Adult Intelligence Scale, 4th edition (WAIS-4) administered by Dr. Huntsman, on which he received a full-scale IQ score of 58, which falls within the MR range. Dr. Huntsman characterized this as an invalid score, arguing that Mr. Hill was malingering. However, it is not dramatically different from earlier scores in the 60's obtained by Mr. Hill, all of which were also squarely in the MR range.

29. In my view, Dr. Huntsman's characterization of Mr. Hill as malingering is debatable, a view which I discuss at greater length later in this declaration. The other two experts agreed that Mr. Hill clearly met prong one of the Ohio definition of MR, a conclusion which to me appears justified. The judge concurred, and ruled that prong one was met. Therefore, I shall devote most of my attention in the remainder of this declaration to the other two prongs.

WERE THE EXPERTS JUSTIFIED IN THEIR VIEW OF PRONG TWO?

30. The decision to deny Atkins relief to Mr. Hill was based on the judge's view that the petitioner failed to meet prong two: impairments in adaptive functioning (which is termed "adaptive behavior" in the AAMR/ AAIDD manuals and in most other state Atkins statutes). In my view, there were many irregularities in the methods and arguments that led two of the three experts to conclude that prong two was not met. I believe that better methods, in addition to new information that has recently come to light, would almost certainly have led Dr. Olley, and possibly Dr. Hunstman, to reach a different conclusion.

31. One of the more questionable aspects of the earlier proceeding was the weight attached to a score on a single administration of a rating instrument, the Vineland Social Maturity Scale (VSMS) in 1984, administered when Danny was 17 years old and evaluated by the Juvenile Court. The informant was Mr. Hill's mother. The report, by psychologist Dr. Douglas Darnall, gave Mr. Hill a "social quotient" of 82.9, in the borderline range. Dr. Darnall observed that the informant, Ms. Vaughn, was motivated to make her son look more competent than he actually was, and he considered the score to overestimate Danny's actual adaptive functioning, which Dr. Darnell estimated to be in the "mildly retarded range."

32. The VSMS was developed in the 1930's, did not have adequate norms or meet other requirements for current psychometric instruments, and is very different in terms of its content from more recent rating measures of adaptive behavior. To counter the impression that the VSMS score might be a disqualifying factor for prong two, the defense brought in Dr. Sara Sparrow, an eminent psychologist and MR expert from Yale University. Dr. Sparrow was the senior author of the Vineland Adaptive Behavior Scale (VABS), a successor instrument to the VSMS, and an instrument with excellent psychometric properties which is widely used today in schools and legal settings. Dr. Sparrow discussed the results of a "linkage" study, with nearly 400 subjects rated on both the VSMS and the VABS, and which she testified enabled one to reliably predict a VABS score from a score on the VSMS. Based on that study, Dr. Sparrow testified that Mr. Hill would have received a much lower score on the VABS, one that was well under the ceiling for diagnosing MR. That conclusion was challenged by Dr. Timothy Hancock, who argued that the correlation between the VSMS and the VABS was insufficient to make such a prediction The judge sided with Dr. Hancock, and cited the results of the Vineland disputation in his order.

33. Unfortunately, neither Dr. Hancock nor Dr. Sparrow possessed the qualifications, in my opinion, to address adequately the complicated statistical issues raised by that question. I recently recommended to Mr. Hill's defense attorney that she seek an opinion on this controversy from Dr. Hoi Suen, who is Distinguished Professor of Educational Psychology at Pennsylvania State University and one of this country's most eminent psychometrics experts. I have seen a report from Dr. Suen, and he concludes that Dr. Sparrow was more correct than Dr. Hanock, in that the correlation of 0.55 was more than high enough to make a reliable prediction, and that the VABS score predicted by the linkage study would definitely be lower than the VSMS obtained from the rating of Mr. Hill as an adolescent. However, insufficient data was available for him to say with confidence exactly what the predicted score would be.

34. Aside from questions about the VSMS-to-VABS prediction, there is a problem in the reliance on a single adaptive behavior rater, because she could be biased or have a skewed view. Parents will often overstate the competence of their child, as was noted by Dr. Darnell, both because of shame about having a deficient family member, but also because they may also be impaired. Dr. Olley has himself subsequently written that one should rely on multiple raters, whenever possible.

35. Regardless of who was correct on the VSMS/ VABS prediction issue (and I believe that Dr Suen is justified in siding more with Dr. Sparrow), I consider it a trivial controversy, not deserving of the importance attached to it by the court. There is no requirement, in Ohio or in any clinical manual, that incompetence on prong two has to be quantified through use of a standardized instrument. One can rely on qualitative and descriptive information alone to see if someone does or does not meet prong two; there is an abundance of such information, including during the developmental period, which supports the view that Mr. Hill was significantly impaired. To dismiss the importance of such information because of a questionable number on an ancient test with inadequate norms and obtained from an unreliable informant is to raise the importance of numbers to an absurd level.

36. That said, it can be useful to obtain standardized prong two rating information, and the evaluators might have done so had they been willing or able to move outside of the prison environment physically or through telephone contact. The current standard practice for rating of adaptive behavior is to ask current raters to fill out a Vineland or ABAS (Adaptive Behavior Assessment System, which is also widely used) retrospectively. This involves asking the rater to answer each rating question as the ratee was at some point in the past, typically before the age of 18. This does two things: (a) it places less emphasis on evaluating the person in a highly structured and restricted prison context, where there are few opportunities to engage in most of the behaviors on the rating instrument and where the most likely informants (i.e., correctional officers) typically do not know the individual well enough to rate him validly; and (b) it enables one to gather additional information about how the individual functioned within the developmental (pre-18) period. The fact that such a method was not used by any of the evaluators in this case is, to me, a significant problem. I have no doubt that if this evaluation was being done today, such a method would have been used by one or more of the evaluators. I know it would have been done today, because Dr. Olley has co-authored a book chapter on using the ABAS in Atkins proceedings, in which he endorsed such a retrospective method.

37. As mentioned, competence within the prison setting is not a reliable source of data about prong two, because: (a) people with MR do much better in a highly restricted and controlled setting such as prison, and have few opportunities to perform most of the community-oriented items on adaptive behavior rating measures; and (b) informants, such as prison guards, even if one overlooks their

possible bias as state employees, typically do not know the individual well enough to rate him. Yet, the panel did collect and rely upon such information, even if they did not use formal rating instruments. It now turns out, from interviews with some of the guards who testified, that their testimony was misunderstood and that Mr. Hill was not as competent as portrayed by them. Furthermore, declarations from other inmates (who are better able than guards to recognize mental retardation in a peer) now provide a picture of Mr. Hill as someone less well able to function adequately than was portrayed to the experts. To my knowledge, none of the experts were allowed access to interview other inmates about Mr. Hill.

38. Two "direct" methods were used to assess prong two. By direct, I am referring to an interview or test session with the petitioner himself. Dr. Olley administered the Street Survival Skills Questionnaire (SSSQ), a measure of Practical Adaptive Skills, one of the three components of adaptive behavior identified by the AAIDD 2010 diagnostic manual, and based on a tripartite model of prong two generally attributed to me. Mr. Hill obtained a standard score of 43, which is within the range of moderate MR, and which could in itself be cited in support of prong two qualifying. Dr. Olley questioned the veracity of the score, noting that Mr. Hill responded in a slow fashion (slow responding, in my experience, is common in people with MR, reflecting a lack of confidence or certainty). There is a literature which today questions the validity of the SSSQ, and its norms are of questionable quality. Dr. Olley would probably not use the SSSQ today but there is nothing in the obtained results which dispute a diagnosis of MR and much which confirms it.

39. The other direct measure was the administration of the ABAS-2 to Mr. Hill as the rater, rating himself. The obtained standardized scores were in the MR range, but it is not recommended practice today to use the petitioner as a self-rater. That is because people with mild MR will typically overstate what they can do, although that does not appear to have occurred here. Mental retardation is a status ascribed by others—laypeople as well as professionals—and self-perception is generally not an adequate basis for making the diagnosis.

40. One of the factors which apparently contributed to the conclusion that Mr. Hill failed to meet prong two was his performance on the stand during the court proceedings before his Akins hearing. Dr. Olley, in particular, stated that this was a consideration which pushed him from (apparently) being on the fence about

prong two, to deciding that prong two was not met. As Dr. Olley is well-aware, the oral language of people with mild MR is generally relatively normal, as one would expect of anyone with a mental age of ten or eleven. It can, therefore, be highly misleading to use evidence of language competence as a basis for ruling out MR.

41. People in prison have much time and many opportunities to talk with others (inmates as well as attorneys) about their cases, and individuals with mild MR can often go on and on at great length about various twists and turns of their case, the problems they have had with various attorneys, the motions that were made or not made, etc. Although superficially impressive, such verbalizations often have an obsessive repetitive quality, are often inaccurate in the particulars (apparently the case here) and are usually not fully responsive or pertinent to the question being asked. The communicative incompetence of people with mild MR is typically more in the area of sociolinguistics (interpersonal uses of language) than in the area of psycholinguistics (formal structure of language). I have not seen anything in the language used by Mr. Hill that is inconsistent with a diagnosis of mild MR.

42. A related consideration, mentioned by Dr. Olley in his April, 2011 deposition is his opinion that people with MR cannot make attributions about feelings. He found it diagnostically indicative of non-MR, therefore, that Mr. Hill accused the judge of taking a break in the proceedings because he feared that he (the judge) was about to start crying on the bench. Ms. Werneke pointed out that the judge denied having that motivation and, therefore, that Mr. Hill's attribution was incorrect. Dr. Olley replied that what mattered was not the correctness of the emotion judgment but, rather, the making of an emotion judgment at all. He asserted that this was unusual in people with MR, citing both his own clinical experience and the research literature. I cannot speak to Dr. Olley's experience but I can speak to the research literature, and it is my view that Dr. Olley's interpretation of the research on this topic is incorrect. It is true that people with mild MR are less likely to interpret others' emotions correctly, and that in fact was the case here (as Dr. Olley acknowledged). However, people with MR can speak the language of emotion, as reflected in the fact that they can correctly identify emotions when they are obvious (as for example say that someone is sad when she is crying). Their problem in identifying emotion comes in when emotions are ambiguous, as for example when someone feels something different than one might expect. Normal children of ten or eleven can talk about emotions, sometimes correctly, often incorrectly. Adults with MR (who may have a mental

age as high as ten or eleven) function in the same inconsistent manner with regard to emotion recognition.

43. I speak to this point as a scholar who has written extensively about "social intelligence," a construct that includes emotion recognition as a sub-topic. I have authored two widely-cited chapters on social intelligence in people with MR, in which I reviewed the literature on emotion recognition among other sub-topics: see S. Greenspan (1979). Social intelligence in the retarded. In N.R. Ellis (Ed.), Handbook of mental deficiency: Psychological theory and research. 2nd ed. Erlbaum, and S. Greenspan & P. F. Love (1997). Social intelligence and developmental disorder: Mental retardation, learning disabilities and autism. In W.F. MacLean, Jr. (Ed.) Ellis' handbook of mental deficiency, 3rd ed. Erlbaum. This research shows, as I stated above, that adults with MR are poor affective perspective-takers, especially in situations of ambiguity.

44. In my view, however, Dr. Olley went too far in asserting that people with MR cannot attend to or talk about emotions. As example, a study in a British MR journal [R.P. Hobson, J. Ouston & A. Lee (1989). Naming emotion in faces and voices: Abilities and disabilities in autism and mental retardation. British Journal of Developmental Psychology, Vol 7(3)] found that people with MR were better at identifying emotion-in-context than people with autism, and that some people with MR were able to accurately identify emotion under some circumstances. Certainly, there was no evidence that people with MR could not talk about others' emotions at all. Thus, to the extent that Dr. Olley's diagnostic conclusion was, as he said, heavily influenced by his (to my mind, mistaken) view of that research literature, his diagnostic conclusion should be reexamined.

45. As part of her attempt to convince the court that Mr. Hill did not meet prong two of the Ohio definition of mental retardation, Dr. Huntsman characterized the Vineland Adaptive Behavior Scale (VABS) as a poor measure of adaptive functioning, and compared it unfavorably to the Scales of Independent Behavior, revised edition (SIB-R). In my opinion, this is a distinctly minority opinion, as the VABS (now VABS-2) is one of the most widely-used and respected measures in the fields of mental retardation and school psychology while the SIB-R, which is a test with inadequate and outdated norms, is rarely used. In the Atkins cases on which I have consulted or testified, the two most widely-used measures of adaptive functioning are the VABS and the Adaptive Behavior Assessment

System (ABAS, now ABAS-2), while the SIB-R is almost never used. Unless I misunderstood her testimony, if Dr. Huntsman was saying that the Vineland lacks scientific or professional support, then that is an opinion with which I disagree.

46. In this case, because Ohio relies on DSM4-TR (based on the 1992 AAMR manual), the standard used for establishing prong two impairment is not the one-out-of-three deficits approach reflected in the 2002 and 2010 AAMR/ AAIDD manuals, but rather the two-out-of-eleven deficits approach reflected in DSM4-TR. In this approach, one can qualify if one has significant impairments in at least two adaptive skill areas. The eleven skill areas are as follows: communication, community use, functional academics, home living, health, safety, leisure, self-care, self-direction, social and work. Dr. Olley and, I believe, Dr. Huntsman, felt that Mr. Hill was significantly impaired only in functional academics. Based on new information from Ms. Campbell and also from prison inmate informants about serious hygiene problems, Dr. Olley in a recent deposition indicated that he now believes that Mr. Hill is significantly impaired in self-care as well. Thus, prong two now perhaps appears to be met in the opinion of at least two of the evaluators.

47. Dr. Huntsman indicated that Mr. Hill's diagnosis of antisocial personality disorder explains his impaired adaptive functioning, because of the presence of "maladaptive behaviors" which might explain or mask the presence of adaptive behaviors. However, both DSM4-TR and the AAIDD "green book" both state that adaptive behavior deficits should be evaluated according to whether or not an individual can perform certain tasks, without regard for any inferred cause or explanation. Furthermore, the manuals make clear that MR is not an exclusionary diagnosis, and someone with MR can have other diagnoses. The existence of another diagnosis, regardless of how reliable or unreliable it might be, should not be used to argue against meeting prong two. Lastly, the notion of maladaptive behavior as a diagnostic construct was specifically excluded from both DSM and AAMR in the 1990's. This was partly in response to a paper by me in which I pointed out that MR is a disorder marked by an inability to perform age-expected tasks and is not defined by how "nice" or 'well-adjusted" one might be.

48. In sum, I believe that there is little credible evidence to justify the view that Mr. Hill does not meet prong two. To the contrary, there is much evidence which suggests that Danny Lee Hill has significant impairments in adaptive functioning, and that these impairments became evident at an early age.

WERE THE EXPERTS JUSTIFIED IN THEIR VIEW OF PRONG THREE?

49. Prong three refers to the requirement that the disability (as defined by deficits in prongs one and two) first manifest itself during the "developmental period," which is usually interpreted as before the age of 18 (in at least two states it is before the age of 22). Another way of framing prong three is as a failure to ever develop adult competencies beyond what would be expected of someone aged eleven or twelve. This reflects a view of MR as a "developmental disability," i.e., a disorder rooted in brain abnormality or insufficient brain development, and which is traceable to factors—known or unknown—which manifest early in life.

50. Prong three does not mean that there was a formal diagnosis of MR made during the developmental period, as that could be affected by many factors, including: availability of services; school policies and practices; location (rural versus urban); family resources and persistence, etc. Obviously, when a diagnosis occurs in childhood, establishing prong three is made easier.

51. Mr. Hill was evaluated for special education by Warren City Schools psychologist Karen L. Weiselberg in 1973, when he was six years old. He was given a diagnosis of "EMR" (Educable Mental Retardation, roughly comparable to mild MR). To my mind, this fact alone establishes that prong three has been met.

52. Many concerns were expressed about the developmental delays of Danny Lee Hill when he was a young person. These have recently been confirmed by new declarations of teachers who knew Danny as a child. At the time of the hearing, Dr. Hammer detailed Danny's developmental problems, and indicated a conviction that, in spite of a relative absence of school information, he felt that Danny met prongs one and two within the pre-18 period and also (despite some indication of poor effort) within adulthood as well. Based on what I have seen, I believe that Dr. Hammer's conclusions were justified.

WERE THE EXPERTS JUSTIFIED IN POINTING OUT MALINGERING?

53. A picture of Mr. Hill that was presented during the hearing, particularly by Dr. Huntsman, was one of Mr. Hill faking "dumb," that is deliberately giving a poor effort and consciously attempting to be seen as having mental retardation. Dr.

Huntsman even went so far as to give Mr. Hill an Axis-1 DSM4-TR diagnosis of "malingering disorder." This testimony, by an expert witness who in my view lacked sufficient training and expertise in diagnosing mental retardation, was apparently very persuasive, as it was cited heavily by Judge Curran in his ruling. However, in my view, the basis for Dr. Huntsman's diagnosis of malingering rests on very shaky ground.

54. A major reason given by Dr. Huntsman for concluding Mr. Hill was malingering was his low score on the Test of Memory Malingering (TOMM). That is a widely-used measure of effort on cognitive tasks, which is based on the notion that on tasks which are very easy, poor performance must be an indication of poor effort rather than poor task-relevant ability. A problem with Dr. Huntsman's reliance on the TOMM results is that the measure was developed for use with people with relatively intact intelligence, and it has never been validated for use with subjects with seriously impaired intelligence. In fact, the author of the test has acknowledged that individuals with MR were not included in the test standardization sample, and he has cautioned against using the TOMM to infer lack of efforts in subjects who have MR. The reason for this caution is that the assumption of test easiness is unproven for a MR population, and thus poor performance may reflect poor ability rather than poor effort.

55. Dr. Karen Salekin, a professor of psychology at the University of Alabama, has co-authored a widely-cited article on the validity of efforts tests (in a special Atkins issue of the journal APPLIED NEUROPSYCHOLOGY that I edited). Her conclusion, after reviewing the research on a number of measures, including the TOMM, was that these measures are of questionable validity for diagnosing malingering in people with IQs in or near the MR range, and should not be used with that population. Furthermore, psychologists who participate in Atkins evaluations typically administer two or three (sometimes more) measures of effort. That practice was not followed in this case.

56. Dr. Huntsman relied heavily in her conclusion that Mr. Hill was malingering on her belief that Mr. Hill was lying when he stated that he could not read or write. That belief was based on a statement by a person who said she had observed Mr. Hill writing. That witness has now clarified her testimony, by admitting that she observed him one time from a distance and did not know what he was writing. Furthermore, there are now statements from inmates who support

Mr. Hill's claim that he could not read or write. Thus, a major basis for Dr. Huntsman's diagnosis of malingering now appears to be of questionable validity.

57. Dr. Huntsman stated that it was her belief that Mr. Hill was malingering not only adaptive functioning but also a low score on the WAIS-4 which she administered. In support of this view, she also noted that his performance was variable, with good performance on hard items and poor performance on easy items, but she provided no specific details to support that observation. One way of determining the validity of an IQ score is to see if it agrees with earlier scores, and there is strong consistency across these many IQ tests, some of which were given long before Mr. Hill had any reason to fake a low score.

58. The diagnosis of malingering in an Atkins context rests on the assumption that the defendant understands that being diagnosed with MR would be to his benefit. I have participated in many Atkins proceeding and I have yet to encounter more than one or two defendants who: (a) fully understood the nature of the evaluation, and (b) wanted to be labeled as having MR, regardless of that understanding. MR is a label which people with MR hate (that is the main reason for switching to a new term "Intellectual Disability"). Many spend a lifetime trying to dispute or cover up their limitations (there is an extensive literature on such "passing", pioneered by UCLA professor Robert Edgerton under the rubric of "cloak of competence"). Malingering requires some degree of sophistication, and it does not appear to me that Mr. Hill possesses that degree of sophistication. There is an extensive research literature (by Yale professor Edward Zigler among others) which explains why people with mild MR often give up in testing situations, and it has to do not with malingering but with the fact that they have always failed on academic (including testing) tasks, and they find such tasks very aversive, threatening and difficult. In my professional opinion, a diagnosis of cognitive malingering should be backed up by at least some evidence that Mr. Hill was aware of the purpose of the evaluation and was motivated to support a diagnosis of MR, and I have not seen any discussion of such evidence.

59. A recent declaration by retired psychiatrist Dr. John H. Vermeulen, states that he diagnosed Mr. Hill as having mental retardation when he was first admitted to the Ohio adult correctional system. This was long before the Atkins decision and long before Mr. Hill had any motive to feign cognitive incompetence. Mr. Hill was first labeled as possessing mental retardation in elementary school and he was

also given that label as an adolescent, when he was evaluated by the juvenile justice system. Throughout his whole life he has scored in the range of mental retardation on standardized tests of intelligence. If this were not such a serious matter, I would say that it is laughable to assert that Danny Lee Hill has feigned, and continues to feign, mental retardation, especially given the questionable methods and evidence that were relied upon to reach that conclusion.

SUMMARY AND CONCLUSIONS

60. The evaluation of Danny Lee Hill occurred early in the history of Atkins proceedings, in Ohio and the United States, and many of the methods, concepts and arguments used in this case would today be considered inappropriate. The chief state expert, Dr. J. Gregory Olley, has become one of the leading published authorities on how to conduct such evaluations, and he has come out strongly against some of the approaches used in this evaluation. For example, he has argued in a series of papers on prong two (adaptive functioning) assessment that it is inappropriate to administer an adaptive behavior rating instrument to the defendant himself, and also that one should not rely on a single adaptive behavior rater. Yet, both of these were done in this case.

61. Dr. Hammer, the defense expert, and a man with decades of experience in the mental retardation field, testified that Mr. Hill qualified for a diagnosis of mental retardation under clinical and Ohio guidelines. I believe, if he were conducting the evaluation today and the methods that are now standard, that Dr. Olley (a man with experience comparable to Dr. Hammer's) would possibly reach the same conclusion.

62. Dr. Huntsman lacked, in my view, the experience and training needed to rule in or out a diagnosis of MR in this case. However, she was given misleading information by prison guards, about Mr. Hill's abilities, and that information factored into her conclusion that he was malingering mental retardation. Furthermore, Dr. Huntsman relied on an instrument (the TOMM) which, as a qualified forensic psychologist, she likely now understands to be inappropriate for use with low IQ subjects. For these reasons, I believe that Dr. Huntsman (who as the court's expert, was especially heavily relied upon) would today possibly reach a different conclusion as well.

63. There were significant problems with the group approach used by the panel of three experts in conducting their evaluation of Mr. Hill. It was a highly unusual practice, which blurred the ability of the experts to arrive at independent conclusions, and it appeared to have the effect of upsetting the defendant and thus created a non-optimal evaluation climate. An especially egregious aspect of the approach followed was allowing a prosecution employee with a negative history with Mr. Hill to conduct the videotaping while in the same room with him and the experts. In my view, these deviations from standard or optimal practice make it difficult to consider the experts' results, or conclusions drawn from those results, to be valid.

64. As reflected in the court's ruling, the judge relied on misleading and inadequate testimony regarding the linkage between the earlier and later Vineland rating scales. The evidence actually supports a different conclusion than was reached, but at any rate, the matter is in my view trivial and irrelevant, as there is an abundance of qualitative evidence regarding Mr. Hill's meeting prong two. There is no requirement in Ohio or in clinical manuals, which require that prong two data be quantified in order to be considered, and the whole controversy, in my view, placed way too much emphasis on the importance of a qualifying number however questionable the number or the norms on which it was based.

65. Mr. Hill is a person who has been viewed all of his life as having mental retardation. Everything that I have read suggests to me that the label still applies. Based upon all of these factors enumerated by me in this declaration, it is my scientific, professional, and expert opinion, which I provide with a reasonable degree of scientific certainty, that the evidence pertaining to Danny Lee Hill is much more congruent with a diagnosis of Intellectual Disability than was the conclusion reached by two of the three experts in the original hearing.

I declare under penalty of perjury under the laws of the State of Ohio and the United States of America that the foregoing is true and correct.

Executed this 27th day of April, 2011, at Littleton, Colorado.

Stephen Greenspan, PhD

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Married (Helen Apthorp), two children (Alex, Eli)

Education: Bronx H.S. of Science
Johns Hopkins University, BA (Liberal Arts)
Northwestern University, MA (History)
Univ. of Rochester, MA, PhD (Developmental Psychology)
UCLA, Post-Doc (Developmental Disabilities)

Employment: U.S. Army, Private soldier (Artillery), 1965-66
Research Analyst, Rochester Center for Governmental Research, 1966-1970.
Pre-Doc Fellow, U of Rochester, 1970-76
Post-Doc Fellow, UCLA, 1976-77
Assistant Professor of Psychology, George Peabody College for Teachers of Vanderbilt University, 1977-1979.
Scientist, Boys Town Center for the Study of Youth Development, Omaha, NE, 1979-1985. Also Visiting Assistant Professor (Ed. Psychology and Psychiatry), University of Nebraska, 1979-1985
University of Connecticut, Department of Educ. Psychology. Assoc. Prof.,1985-1994.Tenure-1989. Professor, 1995-. Emeritus 1998-.
University of Colorado Health Sciences Center, Clinical Professor of Psychiatry (psychology), 1999-present.

Scholarly Interests:
Adaptive behavior, multiple intelligences and personal competence
Gullibility and foolish action in at-risk populations
Classification and criminal justice issues in human services
Parenting competence and child adjustment outcomes
Ethics and professionalism in education and human services

Professional Affiliations:
American Psychological Association (Fellow)
American Psychological Society (Fellow)
American Association on Mental Retardation (Fellow)
National Board member, 1997-1998. President of Region 10, 1997-1998.
Academy on Mental Retardation, Board Member ('90-'99) President (95-97)

Certifications:

Licensed Psychologist, State of Nebraska (#100295, exp. Jan. 2013).
Licensed Psychologist, State of Tennessee (#P-636) inactive status.

References: A list of references will be furnished upon request.

Administrative/ Grant Experience:

Scientist, John F. Kennedy Center for Research on Education and Human Development, Peabody College of Vanderbilt University, 1977-1979 (Project Director for part of NICHD Program Project Grant).

Research Scientist, Boys Town Center for the Study of Youth Development, Omaha, Nebraska, 1979-1985. (Project Director for "social competence research program" funded through Boys Town endowment).

Director of Special Services, Father Flanagan HS (Boys Town Urban Program, 1982-1985.

Principal Investigator, "A comprehensive school-based approach to adolescent pregnancy and parenthood". Grant awarded by US Office of Adolescent Pregnancy Programs (HHS) to the Boys Town Urban Program for period 1983-86. Total awarded: $382,906.

Acting Director, Connecticut's University Affiliated Program on Developmental Disabilities. 1987-1988. (Principal Investigator for several Federal and state grants and contracts).

Acting Director, A.J. Pappanikou Center on Special Education and Rehabilitation, University of Connecticut, 1988-1990 (oversaw several million dollars in outside funding).

Principal Investigator, contract to evaluate foster care transition projects, CT Dept. of Child and Youth Services, $35,000, 1990.

Principal Investigator, contract to conduct utilization review of community residential services, CT Department of Mental Retardation, $30,000, 1991.

Principal Investigator, contract with Washington Legisl. Budget Comm. to study deinstitutionalization in the State of Washington, $60,000, 1992.

Coordinator, Program in Special Education, UConn, 1996-1998.

Editorial Work:

Special Services in the Schools, Editorial Bd., 1985-1989.
Newsletter of the Academy on Mental Retardation, Editor. 1991-1993.
Exceptional Children, Associate Editor, 1981-1984.

American Journal on Mental Retardation, Consulting Editor, 1978-80; 1993-1995.
Occasional editorial reviewing for:
Developmental Psychology, Child Development, School Psychology Review, Research in Developmental Disabilities, Int'l. J of Disability, Development & Education, Mental Retardation.
International Review of Research in Mental Retardation Monograph Series of AAMR, Member Ed. Adv. Comm., 1995-1997.
Editor, Special issue on diagnosing mental retardation in death penalty cases. Applied Neuropsychology, June 2009.

Major Consultancies/ Volunteer Activities

Chairperson, Behavior Programming Review Committee, Eastern Neb. Community Office on Retardation, '79-'81
Chief Hearing Officer for Client Appeals, Eastern Nebraska Community Office on Retardation, 1981-82.
Member, Nebraska Foster Care Review Board, 1982-1985.
Member, Program Review Committee, Mansfield Training School, CT Dept. of Mental Retardation, 1986-1987.
Member of Board, Connecticut Association of Residential Facilities, 1988-1989.
Peer Reviewer, National Institute for Child Health and Human Development, 1990.
Peer Reviewer, National Institute for Disability and Rehabilitation Research, 1985-1989, 1993- .
Panel member for selecting exemplary secondary schools, U.S Department of Education, 1991.
Board member, Hartford ARC, 1994-1996.
Member of Science and Policy Advisory Committee, for 1995 Int'l Spec. Olympics Summer Games, 1993-1995.
Diss. Examiner, Sydney & Adelaide Universities, '92 & '94
Member, Connecticut Developmental Disabilities Planning Council (Gubernatorial appointment), 1994-1998.
Chair, Connecticut Office of Protection and Advocacy for Persons with Disabilities (Governor's Appointment) 1997-1998.
Expert consultant in numerous Atkins (death penalty exemption) cases.
Charter Member, The Friends of Richard Lapointe, 1992 to present.

Corporate Status

Managing partner, Ethical Service Systems, LLC (a consulting firm providing psychological services around disability, forensic and organizational issues).

Community Service

Former president and lay leader, Beth Ami-Colorado Congregation for Humanistic Judaism, Denver and Boulder, Colorado.

Service to Own Institution

Member, Human Subjects Comm., Peabody College, 1978-1979.
Member,Boys Town Human Rights Review Committee (Institutional Review Board), 1980-85.
Member, Curriculum & Courses Committee of the UConn School of Education, 1986-1989, (Secretary in 1986-87), 1995- present.
Member, Promotion, Tenure & Reappointment Committee, Dept. of Educ. Psych., Univ. of Conn., '86-87.
Member, Graduate Faculty Council, University of Connecticut, 1988-1993.
Member, Executive Committee of the Graduate School, University of Connecticut, 1989-1993.
Chair, Committee on Faculty Standards, University of Connecticut Graduate Faculty Council, 1989-1993.
Chair, Blue Ribbon Panel on the Future of Doctoral Studies, University of Connecticut School of Education, 1989-1990.
Member, Ad-Hoc Review Panel on Visiting Lectureships, University of Connecticut Research Foundation, 1990.
Chair, Area Review Committee (Dissertation Prospectus Review Committee) in Education, 1990-1993.
Member, University Senate, University of Connecticut, Fall semester, 1990.
Chair, Harris Kahn Memorial Scholarship Committee, Department of Educational Psychology, 1991-1998.
Member, Committee on Research Misconduct, U Conn, 1994-1996.

Theoretical Contributions

Comprehensive model of personal competence and adaptive behavior (incorporating the tripartite model of intelligence)
Model of parenting competence (incorporating the nine-principle model of caregiver discipline)
Action model of gullibility, foolishness, common sense and wisdom

Honors

New York State Regents' Scholarship (declined to attend college out-of-state)
Woodrow Wilson Fellowship (Honorable Mention)
U.S. Public Health Service Predoctoral Fellow
National Institutes of Health Postdoctoral Fellow
Government Research Association, Prize for Best Research
Eric Denhof Memorial Lecturer, Brown University
Elected Fellow, American Psychological Association
Elected Fellow, American Psychological Society
Elected Fellow, American Assn. on Mental Retardation
Willowbrook Memorial Lecturer, CUNY-Staten Island
Dybwad Award for Humanitarianism, Amer. Assn. on Int. and Dev. Dis

Doctoral Advisees (Completed Only)

Gwyn Brown, EdD (Human Development), Vanderbilt, 1982
Mary Ellen Javel, PhD (Ed. Psych.), U. of Nebraska, 1983
Susan Gregory, PhD (Special Education), U Conn, 1988
James Granfield, PhD (Special Education), U Conn, 1990
Tom Callahan, PhD (Special Education), U Conn, I993
Diane Twachtman, PhD (Special Education), U Conn, 1994
Sally Swanson, PhD (School Psychology), U Conn, 1995
Elsy Negron, PhD (Special Education), U Conn, 1996
Timothy Shriver, PhD (Special Education), U Conn, 1997
Deborah Fritz, PhD (Special Education), U Conn, 1997.
Jean Gillen, PhD (School Psychology), U Conn, 1997.
Timothy Musheno, PhD (Special Education), U Conn, 1998.
Shira Yalom-Chamovitz, Phd (Special Education), UConn, 1999
John Driscoll, PhD (Ed Psych), U Conn, 2000
Peter Love, PhD (Special Ed), U Conn, 2002

PUBLICATIONS

Books, Monographs, Dissertation

Greenspan, S. (1976). Relationship between socio-emotional competence of preschoolers and maternal responses to overt and symbolic expressions of children's defiance. Unpublished doctoral dissertation, University of Rochester.

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Columns

Monthly contributor of a column titled "Incompetence" to the on-line edition of Psychology Today. (http://www.psychologytoday.com/blog/incompetence)

Tests

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Gilg, J.E. and Greenspan, S. (1981). A "normalized" educational alternative for high-risk youth: Desciption and rationale of the Boys Town Urban Program. Omaha, Nebraska. (ERIC Document Reproduction Service No. ED 206 781).

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Wandersman, A. and Greenspan, S. (1979). The promise of interactional psychology. Contemporary Psychology, 24, 991-992. (Review).

Greenspan, S. (1981). Review of Gottlieb's "Educating mentally retarded persons in the mainstream". Applied Research in Mental Retardation, 2, 383-384.

Greenspan, S. (1981). Review of F. Earls (Ed.), "Studies of children: Monographs in psychosocial epidemiology, Vol. 1". American Journal of Mental Deficiency, 86, 214-215.

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Greenspan, S. (1995). Review of Kirk and Kutchins' "The selling of DSM: The rhetoric of science in psychiatry". AJMR, 99, 683-685.

Greenspan, S. (1997). Am I jealous or is it my stupid amygdala? (Review of D. Goleman, "Emotional Intelligence"). Contemporary Psychology.

Greenspan, S. (2002). Review of the documentary "The Collector of Bedford Street". The Coleman Institute on Cognitive Disabilities, University of Colorado.

Articles in Refereed Journals

Chandler, M.J. and Greenspan, S. (1972). Ersatz egocentrism: A reply to H. Borke. Developmental Psychology, 7, 104-106.

Chandler, M.J., Greenspan, S., and Barenboim, C. (1973). Judgments of intentionality in response to videotaped and verbally presented moral dilemmas: The medium is the message. Child Development, 44, 315-320.

Chandler, M.J., Greenspan, S., and Barenboim, C. (1974). The assessment and training of role-taking and referential communication skills in institutionalized emotionally disturbed children. Developmental Psychology, 10, 546-533.

Greenspan, S., Burka, A., Zlotlow, S. and Barenboim, C. (1975). A manual of referential communication games. Academic Therapy, 11, 97-106.

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STATE OF OHIO)
) ss:
COUNTY OF TRUMBULL)

AFFIDAVIT OF ROGER R. BAUER

1. I have been a licensed attorney in the State of Ohio since 1973.
2. My practice has been in Warren, Trumbull County, Ohio.
3. In 1985, I was on contract with the Ohio Public Defender to provide legal representation to indigent people charged with crimes in Trumbull County.
4. I recall very clearly in September 1985, the case involving the brutal attack on Raymond Fife, a 12 year old boy from Warren, Ohio, who died a few days after the attack.
5. After the boy died, I learned from George Kalafaut, the head of the Ohio Public Defender office, that a suspect was at the Warren Police Station and probably about to be questioned. He directed me to go the Warren Police Department.
6. I recall that it was daylight when I was at the police station.
7. When I got there, I saw Danny Hill. I knew Morris Hill, Danny's uncle, who was a police detective. I believe I saw him there that day as well.
8. I spoke with Danny at the police station. I recall very clearly telling Danny to not talk to the police.
9. The detectives would not let me to talk to him anymore though, since I had not been appointed yet. I had to leave the police station then.
10. After the incident, a grievance was filed against me with the Trumbull County Bar Association. I believe it was filed by the Warren Police Department who said I did not represent Danny Hill and therefore could not advise him. I responded to the grievance at

the time with the details. The grievance was dismissed as unfounded. Unfortunately, I do not have the documents associated with the grievance in my possession.

11. When Danny Hill's case was returned to Trumbull County to litigate the *Atkins* claim, Danny contacted me requesting my assistance with his case. For a short time, I was involved in the litigation, but had to withdraw.

12. In 2004, Danny filed a grievance against me with the Disciplinary Counsel of the Ohio Supreme Court. I filed a response to that grievance on August 13, 2004. A copy of that response is attached to this affidavit.

13. None of Danny's attorneys over the years have ever asked me about my involvement with Danny's case at the beginning, or the grievance filed against me by the Warren Police Department. I would have provided this same information back then had anyone inquired.

FURTHER AFFIANT SAYETH NAUGHT.

Date

Roger R. Bauer

SWORN TO BEFORE ME, and subscribed in my presence, this 8 day of September, 2014.

NOTARY PUBLIC

MELANIE GADLEY
NOTARY PUBLIC
STATE OF OHIO
TRUMBULL COUNTY
My Comm. Exp.
October 16, 2017

ROGER R. BAUER
Attorney at Law

Roger R. Bauer
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Area Code: 330
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August 13, 2004

Disciplinary Counsel
The Supreme Court of Ohio
Attn: Brian Shinn
250 Civic Centre Drive, Suite 325
Columbus, Ohio 43215-7411

RE: File No. A4-1779
Letter of Inquiry

Dear Mr. Shinn:

This letter is addressed as a response to the grievance filed by Mr. Danny Lee Hill. He has also filed a grievance against Attorney Greg Meyers and Attorney Maridee Costanzo.

Approximately in February of 2004, I was contacted by Mr. Hill via telephone. Mr. Hill told me that he trusted me and wanted my representation in his capital murder case. Attorney Costanzo, who practices in the same building, has also been contacted but I am not aware of the specifics.

Mr. Hill trusted me because I represented him when he was first arrested on the case for which he now sits on death row. I spoke to him early about not giving a statement and the Warren Police Department filed a grievance against me for consulting him. I was cleared on any wrong doing.

After I spoke with Attorney Costanzo, I called Attorney Meyers. It was my understanding that Attorney Meyers represented Mr. Hill in an effort to stop his execution for the reason that Mr. Hill was mentally retarded at the time of the act and still is retarded. It seemed to me that Attorney Meyers desired my assistance because Mr. Hill trusted me. I told Attorney Meyers, Attorney Costanzo and Mr. Hill that I would only work on the case only if Attorney Meyers

DANNY HILL:

(NOTE: INTERVIEW)

INTERVIEW:

By the Warren Police Department.

Q Dan, would you raise your right hand. Do you swear that the statement you are about to give is the truth, the whole truth, and nothing but the truth.

A I do.

Q Okay. Danny, for the record, state your name and your address and your age.

A I am 18. I stay at 1394 Fifth Street, Aparment 8, Hampshire House.

Q And, your full name is?

A Danny Lee Hill.

Q Okay, Danny, you have been advised of your Constitutional Rights?

A Yes.

Q You are aware of what your rights are?

A Yes.

Q They have been read to you several times; is that not true?

A Yes. Okay. We are going to question you in regards to the facts about the death of Raymond Fife, which was September 10, 1985. That was a Tuesday. Okay. You do understand that when Seargent and Detective Hill came to your residence, you were not under arrest. And, we told you that you weren't under arrest. We told you and your mother to come down to the Police Station, that we wanted to talk to you. Am I correct?

A Yes.

Q Okay. Danny, let's start on that particular day. Briefly, just what time did you get up in the morning, and what did you do the first part

of that morning and that afternoon --

INVESTIGATOR OLIVA: This initial Interview is September 10, 1985.

A 12:00. Around 12:00 in the afternoon, and I walked up to Southwest Park -- I had walked up there, and I seen these people that always be up there at the park that I know.

Q What are their names?

A Lewis -- I don't know his wife's name. And, I was up there talking to him.

Q What did you wear that day?

A A white jersey, No. 77, grey pants, and these tennis shoes.

Q The same shoes you have on now?

A Yes.

Q Okay.

A And, when they had left, I had left. And I went walking over towards Westlawn, and I had went over this girl's house, and I had came, I had came --

Q Who was at the girl's house when you got there?

A Maurice Lowery's cousin.

Q Virgil Lowery -- they call him Virgil?

A Yes.

Q And, you went in the girl's apartment?

A Yes.

Q Did you have anything to eat?

A No.

Q Did you have anything to drink?

A No.

Q No weed?

A No.

Q How long did you stay there?

A About three hours. At the most, three hours.

Q And, then, where did you go from there?

A I went back to the park.

Q Back to Southwest Park?

A Yes.

Q That's the park behind the fire station on Palmyra Road?

A Right.

Q Who was there the second time you went there on Tuesday?

B. Caldwell?

A Yes. B. Caldwell come and -- the first time, when I had walked back over to Southwest Park, there was this one dude that was sitting up there, and he said, "Have you seen B. Caldwell." I said, "No. They might be up there at -- (inaudible) -- Park. Then, about that time, B. Caldwell came up there and we had -- he said he only had two dollars on a 40, and he asked us did we have any change, because he was going to get two 40's. So, didn't nobody have no change, and he said he was going to walk to the store. And, we had walked to the store, and he had went and got one 40, and then we had went over B. Caldwell's house. And we had went there for about an hour and a half, and we had left.

Q So, you went from Thomas to -- (inaudible) -- and you went to B. Caldwell's house?

A Yes.

Q And you stayed there for about an hour and a half?

A Right.

Q And where did you go from B. Caldwell's house?

A I went back up towards the Southwest Park and walked down towards Valu-King. I went out by Colt Court.

Q Did you go to Colt Court?

A Yes. I had took the pathway that leads to Colt Court.

Q From Southwest Park?

A Yes. And, I was walking through there, and I had came out at Colt Court because I went over my cousin's house, Tysons, and they was looking for me anyways. So, when I had went over there, they said that they was gone looking for me. So, I had walked back towards Westlaw, and, then, that's when I seen Tim Combs.

Q What's Tim Comb's nickname?

A "Shmoo".

Q Okay. Have you known "Shmoo" for a long time?

A Yes.

Q Okay. He just got out of the pen, right?

A Right.

Q How many times have you talked to him since he's been out of the pen?

A Since he been out?

Q Yes.

A Two times.

Q You had seen him a couple of times before Tuesday, right?

A No. He had got out about a week.

Q When you were coming out of Colt Court and walking towards Westlawn, you run into Tim Combs?

A Right.

Q Is that the first time you seen him since he's been back from the penitentiary?

A Yes.

Q When you walked out from Colt Court, that road -- you were on that road. Am I right; is that the road you call Orlean?

A Right.

Q Right across from Valu-King?

A Right.

Q Were you walking with "Shmoo" then?

A Yes, because he was coming through the pathway. He was coming behind when I had went through there, because I didn't see him at first. And, he was walking up, and he had hollered my name, and I had turned around and looked and it was him. And we started walking out toward the path.

Q What did "Shmoo" have on that Tuesday?

A He had on a pair of blue jean baggies, and some Nike tennis shoes, but I don't know what color his shirt was. And, he had on a black hat.

Q Anything else on him -- have on?

A No.

Q Did you walk across Palmyra Road again?

A Yes.

Q And, you walked through the Valu-King parking lot?

A Right.

Q And, did you have conversation? Did you talk back and forth while you were walking?

A Yes. I asked him, "How did you do when you was up there?" And, he said he had went to this -- what's -- this mental institution, because he was in Columbus, I think J.C.Y. And, I guess, they had sent him from there to the mental institution.

Q And you were talking about his time he did when he was in?

A Yes.

Q Did you ever go inside and buy anything in Valu-King or at the Right Aid?

A No.

Q Okay. You walked around the back of Valu-King together?

A Yes.

Q Is that the first time you saw the white boy?

A Yes. The way he was coming up the path.

Q Did you know him, the white boy, from before?

A No.

Q You mean you never saw him before?

A I seen him, because Juni -- Juni Dukes stay right across the street from him, from the boy.

Q From the Fife boy?

A Yes.

Q Did you know the boy by name or anything about him?

A No.

Q So, you and "Shmoo" were behind Valu-King?

A Right.

Q And up comes the white boy on a bike?

A Right.

Q And, did you say anything to "Shmoo" about the white boy?

A No.

Q Did he say anything to you about the white boy?

A Yes. He said -- before, when we had went around there -- he said that he needed a bike because he was living by Austin Village Plaza. He said he needed a bike for -- you know -- coming back and forth from there to either the East Side or the West Side, by Highland Homes. So, then, he said that, "There goes somebody on a bike, right there." He said, "You want to help me get it?" I said, "No, because I don't steal no more."

So, then, I seen him go back there on the pathway. So I circled around. And, around about that time, that's when I seen him knock the boy off the bike. He dragged him with a head lock and knocked him off the bike. So, then --

Q Wait a minute. Slow down now. "Shmoo" asked you if you wanted to help him steal that bike, and you told him no?

A Right.

Q So, did you stay with "Shmoo" then?

A No.

Q Where did the white boy go?

A He was still coming up the pathway.

Q In the weeds?

A Yes.

Q Toward the Valu-King?

A Yes.

Q And, you were real close to the Valu-King?

A Yes.

Q So, did "Shmoo" walk into the weeds then?

A Yes.

Q And, where did you walk to?

A I walked to the other side. Like, there is this side street that you can go down.

Q So, you walked close to the laundromat end of the building is?

A Yes. I walked straight on down.

Q Why did you stop walking? What made you stop?

A Because I know how Tim Combs is.

Q And, what did you think was going on?

A Either -- if he didn't go. When he knocked him off the bike --

A person that knocks somebody off the bike would take the bike and leave. You know, they will take the bike and leave and either strip it or paint it or something. But, he stayed back there for about ten or fifteen minutes. And, then, I had circled around and looked, and he had the little boy on the ground.

Q So, you went back in the weeds?

A Yes.

Q And, "Shmoo" had the boy?

A On the ground.

Q Did you see him knock him off the bike?

A Yes. He hit him on the head -- about --

Q Show me what you mean.

A Like you get somebody in a head lock, like, right here, and you be choking them like this. And, they can't do nothing, because if they're standing up, you've got them up in the air. And, all that you do is just bang on their head. And, he was just someone about this tall, something like this. And, you see, he kind of short; and he just had him up in the air, and he was losing his breath.

Q What did the white boy have on when he was riding that bike?

A Some shorts and --

Q What color?

A I don't know, because I didn't see him, because he just had on his underwear when he had -- when Tim had him up in the air.

Q Well, how did his shorts get off?

A I guess he pulled them off of him.

Q You guess who pulled them off of him?

A Tim Combs.

Q Well, when did he have time to do that?

A When he grabbed him from off the bike, and when he was wrestling around with him, he just -- you know -- pulled them off of him.

Q And, then he put him in a choke hold?

A Yes.

Q So, when you saw the boy dangling, all he had on was his underwear?

A Yes.

Q And a shirt?

A Yes.

Q What color was the shirt?

A I couldn't see, because when I had made it up there that close, the boy had got away from him because "Shmoo" had him up in the air, and the boy hit him like right here -- he had hit him. And, then, he had let go, and the boy had started running. So, Tim Combs couldn't catch up with him. So, he dived at him, and when he hit him, he hit him from the back of the neck, like with his arm. So the boy had fell, and then he had got him back up. And, then, he had dragged him. And, then he had picked him up and slammed him on top of the bike. And, his head had hit -- like the --

Q (Inaudible)

A Yes.

Q "Shmoo" chased the boy, right?

A Yes.

Q And, he picked him up and slammed him?

A Yes.

Q He had to bring him back to where the bike was?

A No. Because the bike -- from where he had ran -- the bike was right like from here to here to about right up there to the end of the table.

Q So the boy didn't get too far?

A No. So he just picked him up and slammed him. And, then, the boy was knocked out for a minute. And, then, you know -- he just pulled off his drawers and -- you know -- started to -- having sex with him.

Q What did he do to the boy?

A Started to --

Q I want you to say it all out.

A Butt-fucked him.

Q What time of day was this?

A It had to be, like, in the evening.

Q Was it daylight?

A Yes. It was daylight out.

Q Do you know what time it was?

A About 6:30 or 7:00.

Q So, he slammed the boy on the ground?

A Right.

Q Put the boy on his stomach?

A Yes.

Q And, he started -- he pulled his underwear down -- did "Shmoo" just pull his zipper down, or what did he do?

A He pulled out his -- he pulled down his zipper and pulled out his privates, and the little boy was knocked out at the time. And, you know, he just pulled down his underwear and you know -- started to have -- you know --

Q Butt-fucked him?

A Yes. And, I guess, you know, he had came, you know back out of the --

Q Came to?

A Yes. And, he had looked up, and Tim Combs know that he had come to, and he picked him up and slammed him again. But, the second time he slammed him, he hit him on his head, right here. And, then, the boy was still moving because he wasn't knocked out all the way. So, Tim Combs ran up there and kicked him right on the side of his head. And, then, I had turned around and looked again and he had his -- like his hand -- had tore the little boys privates, and he had like his foot on top of his stomach pulling it.

Q Okay. The first time he stuck his dick in the little boy's butt, he pulled his underwear down?

A Yes.

Q Did he pull them all the way off of him?

A Yes.

Q And, what did he do with them?

A I don't know. He pulled them all the way off because the boy was running naked. He didn't have a stitch of clothes on.

Q How close were you when this was taking place?

A About from here to him.

Q About ten feet?

A Yes.

Q You were that close to Tim?

A Yes.

Q Did the boy cry?

A Yes, he was crying, but Tim Combs had his mouth covered so he couldn't holler or nothing.

Q Was he making moaning noises or what?

A Yes.

Q Did you pull Tim Combs off of him?

A No.

Q What other things did Tim Combs do to the boy while he had him down?

A He had him suck his privates and he -- after he had him suck his privates, he turned around and flipped him back on his stomach and started to -- you know -- butt-fuck him again.

Q Let me ask you this, Danny: At any given time, did you see Tim Combs suck this boy's penis?

A No.

Q Did you see him have his mouth anywhere close to this kid's privates.

A Yes. Yes.

Q What time? What did you see?

A I didn't see his head. I didn't see Tim Comb's head. All I seen was his legs and his back. I didn't see his head.

Q You saw whose back?

A Tim Combs.

Q But you seen him down in the grass?

A Yes. He was down on his knees. All I could see was his back. I couldn't see his head.

Q You couldn't see the white boy?

A No. All I seen was Tim Combs bending over him.

Q Now, you told us you were only ten feet away. Now, you are pretty close. You can see what is going on the whole time.

A Yes.

Q Why couldn't you see what was going on this time?

A Because he was over him. You see Tim Combs is bigger than him. He was over him like.

Q On the boy's back?

A He was on his back.

Q He was laying like this?

A Yes.

Q Was he awake?

A No. He was knocked out.

Q What was "Shmoo" doing to the boy's privates?

A He had his foot on top of his stomach holding him.

Q But what about when he had his mouth down there. Did you see his mouth down there any time?

A I only seen his back. I guess, you know -- he was probably sucking his thing.

Q Now, yes or no; did you see "Shmoo" suck the boy?

A No.

Q Did you see "Shmoo" bite the boy?

A No.

Q Did "Shmoo" put his teeth on that boy anywhere; on his chest, on his back?

A I didn't see it.

Q You didn't see none of that?

A No.

Q Did anyone around there put their teeth on that boy?

A No.

Q But, you stated to me that you seen Tim Combs down on top of this boy. Could it have been possible that he was doing something oral to him?

A Yes. Because I didn't see his head. All I seen was, like, his back and his knees. And, he was in the grass.

Q Now, Danny, when we first started this interview this morning; we told you to be honest, number one. We don't want you to come in here and be bullshiting anyone. Now, number one, he wanted the bike off the boy, right?

A Right.

Q Now, you say you had no part in that? You didn't go along?

A Right.

Q And, he goes and grabs this boy and knocks this boy off the bike?

A Right.

Q And, you saw that? You saw that?

A Right.

Q By this time, you go around the landromat?

A Right.

Q And, that's a pretty good ways from where they was at, right?

A Yes.

Q Well, how do you know the boy took off and ran from him?

A Because when I had came around there, I seen like a white, you know, like a white parking light. And, he was running. I seen Tim Combs running. And, I seen him like jump. And, when he hit him, he hit him right back here. And, his face had hit -- like hit the ground.

Q You say he picked him up?

A Yes, and slammed him on the bike.

Q To get the bike?

A Yes.

Q He would have to throw him to get that bike.

A Yes. He just picked him up and tossed him you might -- just like this. Just like this. He had him up. He didn't have him, like, you know, where he could just slam him. He had him up in the air. He

was dropping.

Q That's when he probably hit the bike. Did you see his head hit the bike?

A Yes. Because when his head hit the bike, the back tire started rolling. Like when his head hit the bike, the pedal turned, like.

Q This all occurred behind the Valu-King. Did "Shmoo" get any blood on him?

A He was wiping something off of his shirt.

Q Okay. Did you see anything on the young Fife kid at all; around his face or anything?

A Yes.

Q What did you see around his face?

A His mouth was bleeding like right here.

Q What else did you see?

A It looked like he had a scar right here, like he was cut right here, right up in here.

Q Nothing else on that boy. You stated earlier this morning that after he was done butt-fucking him, he wiped his privates off with something?

A Yes, with like a sponge.

Q Was that before he tried to force him to suck him, or what?

A No, it was after.

Q Was the boy awake when he tried to get him to suck him?

A No. He was still knocked out.

Q Well, how did he get his mouth open?

A He stuck his hand -- like -- his fingers in his mouth and pryed it open.

Q And then tried to stick his dick in?

A Yes.

Q Why did you stay around all of this time? Why didn't you leave? Why didn't you go tell the Police?

A Because, at the time, when I was standing there, he had already seen me. So, if I would have ran and tried to find my uncle or you or one of you all, tell one of you all -- his mother don't like me anyway. She would have found him down here, he would have went home and told his mother that I was the one that did it, and she would have followed him down here and said that she probably know that I would do something like that.

Q You said, at one point -- after this -- I don't know, was this after he had fucked the boy -- or, let's say rape -- after he tried to get the boy to suck him, you said "Shmoo" then left. You went out there by Valu-King? You stayed there and watched him. The boy was laying down -- (inaudible)

A He was on his back. He was still moving.

Q And, you are standing there watching the boy?

A Yes.

Q What are you doing, just standing there looking at him?

A Yes, because the way I was looking at it, it had dazed me because I thought that he wouldn't do nothing like that. I thought he was just going to go up there and take the bike.

Q Now, this is before he pulled on his penis?

A Yes.

Q This is before he ripped -- now, "Shmoo" went over by the Valu-King. Did you see where he went?

A No. He just went around the corner. And, when he came back --

Q Wait a minute. How long was he gone?

A About fifteen minutes.

Q He went by Valu-King and was gone about fifteen minutes?

A Five to ten minutes.

Q I think -- five ain't too cool is it? How much did you drink prior to this?

A Huh?

Q How much beer did you drink prior to this incident?

A I only had a 40.

Q You had a 40. Now, here comes "Shmoo". He comes back. You are still watching the boy. What's he going to do now?

A He had something, and he was squirting it on him like.

Q What do you mean he had something?

A It was something in, like, a plastic container.

Q What color was the container?

A It was white.

Q Any other color on it?

A I think it was just white.

Q What did he do with it?

A He squirted it on him?

Q Was it an aerosol can, was it like a paint can?

A It was squeezable, like. It was like a plastic canister that you could squeeze.

Q What color stuff came out of it?

A I don't know. I didn't see what color stuff. Like up here by his head and down lower a little bit.

Q Lower, where?

A Around by his privates and stuff like that.

Q Okay. Did he catch on fire? Did you throw a match on him?

A No.

Q What did you do when he did that?

A Huh?

Q What did you do when he did that?

A When he was squirting him with the stuff, I was still standing there. I didn't go nowhere.

Q Did you say, "Shmoo, don't do that"?

A Well, when I had looked down there, he had already seen me. And, I said, "Look what you done did."

Q Did he light it?

A Yes.

Q What did he light it with?

A He had a lighter. He had a piece of cloth, and he just threw it and it started smoking. And, then, when I had came down there, I was trying to sneak up on him. And, he was with the boy, and he said, "Get your ass back up the hill."

Q Why did he do this? Like you said earlier, back by the Valu-King you got a board, and you brought it down, and you were going to do something to Tim with it, right?

A But he seen me.

Q And, what did he say to you?

A He told me to get my ass back up the hill.

Q What did you do with the board?

A I threw it back over there by the machine thing. The machines that are back there behind the store.

Q Now, did the young boy -- the little boy, did he cry, moan or say anything to you at all?

A He was just looking at me.

Q He was looking at you?

A Yes. Like he wanted me to come over there. That's the reason I grabbed the board. That's the way he was looking at me, like he wanted me to come over there and get him.

Q It's hard for us to -- I don't know about these other officers, but it is hard for me to comprehend all of this, you know, what's going on. And, even if you are not participating -- tell us the God's Truth. You are under oath now. You are swearing unto God that you didn't do anything to this boy. You just stood there and watched this whole damned ordeal and you didn't do a damn thing. Are you scared of Tim?

A No. He could beat me running, though.

Q I mean, that doesn't mean anything. Were you afraid he could hurt you, physically?

A Yes, if he get ahold of anything, like a gun or something, he would probably try to shoot me.

Q That's the reason why you didn't try to stop him?

A Yes.

Q You said earlier this morning when we were taking a statement from you that you had seen some vomit or something on the Fife kid --

A Like on his arm, like right here. Like by his stomach. He had -- like -- like somebody had threw up. Like he had threw up. Like he was laying down and it just landed right on his stomach.

Q Did you see the Fife boy throw up?

A Yes.

Q You saw it? What was making him throw up?

A When he had -- when Tim Combs was pulling his privates.

Q That made the boy throw up?

A Yes.

Q When Tim Combs walked away from the boy to go up to the Valu-King to get that can, what was the Fife boy doing? You stayed there with the Fife boy, right. Did Tim say, "I want you to stay here with him?"

A No.

Q But, Tim knew you were there?

A He knew I was there.

Q You just stayed on your own?

A Yes.

Q What was the Fife boy doing while Tim was getting that can?

A He was moving like -- moving.

Q Was he on his back or his stomach?

A He was on his back.

Q Danny, what if Timmy says that you stuck somthing up that boy's ass?

A No, I didn't.

Q Well, somebody did it. Did someone stick something up his ass?

A Tim Combs.

Q What did he stick up his ass other than his penis?

A A stick. Like a broom, you know like a broom handle thing, but it was kind of bigger like.

Q Why didn't you tell us that before? Timmy's telling us things. Where did he get it at?

A From up there by the corner of the store. It was right up there by the Valu-King. They've got like -- they had all kinds of sticks up there. Like, by the garbage, when they be throwing those crates and stuff in there.

Q Isn't it true that you got that -- that he didn't really get a stick? You got a stick to stick up the boy's ass?

A No.

Q You didn't?

A No.

Q Are you sure that this board that you were supposed to have gotten wasn't this stick that was used to stick up the boy's rectum?

A No.

Q Now, we ain't saying that you stuck it up the boy. We are telling you what we hear. Do you understand. But, we think maybe you went and picked it up for Tim.

A No.

Q Did Timmy stick it up him?

A Probably so. I didn't see it.

Q You just stated, just a few seconds ago, that Timmy took this thing a little bigger than a broomstick and stuck it up the boy's rectum.

A Yes. He had a stick, and he, you know, he just did like this. And, I thought, you know, he just did like this.

Q With both hands?

A Yes.

Q Where was the stick laying when he found it? When Tim found that stick; did he have to walk to go get it, or was it laying --

A Up the hill.

Q What did the stick look like?

A It was like a broom -- like some of them be orange, and some of them be like yellow.

Q A broom handle?

A Yes.

Q How long was it?

A It was long. It was like a broom, but some of it was broke. It had ridged ends like. And, the other end that wasn't ridged, it had like a round -- it was like a round head, and he just did like this with it.

Q How many times?

A About three.

Q He asked you to hold the boy while he did that?

A No, because I wouldn't hold him.

Q Did he stick it in the boy's butt; kind of do this with it -- I mean was fucking him with that stick?

A No, he just did like this.

Q In the boy's butt, though?

A Yes.

Q Was the boy on his stomach when he did this?

A Yes, after he had flipped him over.

Q So, you and Tim and the Fife boy were in the weeds for quite a while weren't you?

A About two hours.

Q Was it raining?

A No.

Q You are only guessing right now of approximately how much time that you all spent back there in the woods with the boy. Am I right?

A Right.

Q What happened to the stick after "Shmoo" poked him with it three times?

A I don't know. I guess he threw it.

Q You didn't see him throw it?

A After he did it, I didn't see the stick. See, because, when he did it, he had pulled it out, and I didn't see the stick no more; like he must of just threw it.

Q Was this before or after he burned the boy?

A After.

Q Okay. In your own words, you tell us everything that he did

to that boy. We'll start out with he butt-fucked him; right?

A Right.

Q And, then, what else did he do to the boy?

A He had the boy to suck his thing, you know -- while he was knocked out. He just pryed his mouth open.

Q Okay. That's two things. What else?

A And, he got a stick, and he grind it in his butt. And, when he poured that stuff on him and he had had that cloth and he had lit it with the lighter --

Q That cloth, was that the boy's underwear?

A Yes, I think.

Q What color was it?

A Like, light colored. I couldn't get the color of it. It was kind of light.

Q Did Tim Combs take his hands and stangle the boy?

A Yes. Because he had him up in the air, because he had something wrapped around his neck, and when he had him, he had him like this. He had him like this, like he had something in his hands that he had wrapped around his neck, and he had him like this.

Q Okay. Did this happen before he fucked him in the butt?

A Yes.

Q Why didn't you leave at any given time? You had all the opportunity in the world to leave there? Why didn't you do it?

A Because, if I would have left, like I said, he would have known that I would go in the store to call the Police and tell them that I seen him back there in the field with that little boy.

Q At no time did he tell you that you better stay there? Did he threaten you at any time to make you stay there? Danny, listen, we

have experts -- (WHEREUPON END OF TAPE, SIDE ONE)

Q -- that boy's penis?

A No.

Q Would you remember if he bit on it?

A Yes.

Q You wouldn't forget that, would you?

A No.

Q At no time did you ever touch that boy's penis with your mouth or anything?

A No.

Q You are sure?

A Yes.

Q Where did you go then?

A I went home.

Q Which way did you go out of there?

A I mean, I had followed him out of the field.

Q Which way did you go out of the field?

A Like out there by Jackson and turned down and went straight on out --

Q You say you followed him out of the field?

A Yes.

Q You followed who out of the field?

A Tim Combs, because he had turned over this way --

Q When you said which way, you meant where?

A Left. He had turned.

Q This is a map. See that map there. This is Valu-King right here. Okay. This is going back in the weeds. Go over there and point where he went out. This is Jackson Street back here, Danny; okay. Now, this is where everything happened, where the boy got beat up. Okay. Now,

you followed "Shmoo" where? Where did you follow "Shmoo"?

A There is like a pathway that you take out of Valu-King. You have got to go like this. And, Jackson Street is up -- either Jackson Street is down. Down. See, that should be down.

Q He was going the other way, then?

A He went down, and he turned and he came right out in front of the house that we used to stay in.

Q That's on Jackson Street?

A Yes. The white house. He came down and turned down Jackson, and cut over by Oak.

Q You didn't go out towards Willow?

A No.

Q Do you see where Willow is? This is Palmyra Road down here, right?

A Right.

Q You and "Shmoo" walked across, came up the front of Valu-King here, and then you walked together around the back of Valu-King; right?

A Right.

Q Where is the laundromat at?

A Laundromat?

Q This is Valu-King, right here.

A Over here?

Q No. This is the front of the store, here. You are looking at Valu-King now. Valu-King is on the left side. And, the laundromat is on this side; right.

A Valu-King is right here. Right Aid is right here, and the laundromat is on the end.

Q Stand this way and do that, then. Tell us if this store is

Valu-King, and you are standing in the parking lot. This end is Valu-King; right.

A Right.

Q And, this end is the laundromat?

A Right.

Q So, you and "Shmoo" walked around this end?

A Yes.

Q Closer to -- (inaudible)?

A Right.

Q And, where did you first see the white boy at?

A He was up here, by the --

Q By the path?

A Yes, the pathway goes all the way up.

Q And, this is where the man had his coat at up here?

A Yes.

Q Okay. Now, the boy got raped and messed up right in here, in this field, right here. Right?

A Right.

Q When you was all done with him, where did Tim Combs go? Did he go out this way, towards Jackson, or out towards --

A No. The pathway that I'm talking about, it ain't over on this end. It comes straight on down.

Q Does it go down to Willow? Do you know where Willow is?

A No. It comes straight out by Jackson, because my house is like -- where we used to stay is right here, and where you are talking about is way down here, by the corner.

Q You can take us out there and show us exactly how you walked.

A Yes.

Q Did you see any football players walking when you came out?

A No, because they was coming from Colt Court.

Q I'm not talking about when you came out of Valu-King. When you came out of there, out of that field, you didn't see any football players walking around?

A No.

Q Was Tim Combs carrying that can with him when he was walking out of the weeds?

A No.

Q Where is that can at?

A I don't know. He threw all the stuff in the field.

Q Right after he got done with the boy?

A Yes. It was all left in the field; the stick, the can, everything.

Q Do you know Daren Ball?

A Daren Ball? No. I know Kirk Ball.

Q Do you know where Willow Drive is? Somebody told me that they saw you and "Shmoo" coming out of the field that day after the boy got beat up. And, someone told me that "Shmoo" was carrying the can that he sprayed on that boy. Is that true?

A Yes.

Q What?

A Yes.

Q We don't want to put nothing in your mouth, Danny. The only thing we want to know is did he happen to have that can or whatever he had in his hand that he sprayed on that boy?

A Yes. He had the plastic right in his hand, right here; because he was walking, and the way he was walking, you couldn't see it unless you was walking on his side. There's all them houses right there. They could see if he's walking, because the houses on this side. Because the field

that I am talking about, you come straight out. And, there is the house where we stayed at, right there, where we hang out.

Q Do you know where Sissy Willie lives?

A Yes.

Q Is it close to Sissy Willie's house?

A Yes. Her house is like -- one -- two houses -- one house down.

Q It's an old house, isn't it Danny. Isn't there Lowery's in there?

A No. This is across the street. The Lowery's live in there on Jackson Street.

Q Did you tell us earlier in a statement that the boy -- Timmy picked the bike up and threw it?

A Yes; he threw it. No. He had stuck it in some bushes. He was putting stuff on it, like branches and all kinds of stuff.

Q Trying to hide it?

A Yes.

Q Did you help him hide it?

A No.

Q Did you touch the bike?

A No.

Q Are you sure?

A The only thing I touched was the boy, right here. That's it.

Q That was the most contact you had with that boy, was touching him on the face? You didn't have no sexual contact with this boy, whatsoever?

A No.

Q What did he do with the cigarette lighter?

A He's still got it.

Q He's still got it. Did "Shmoo" smoke while he was doing this

to the boy? Did he light up?

A Not until we got out of the field.

Q What did he use to light up with?

A His lighter.

Q Now, wait a minute. You told us that you came back the next day to get that lighter?

A He had some matches. See, he had some matches and a lighter. He didn't use the matches, because -- you know, if you use the matches, they'll lay right there, and they could have picked them up. And, you know --

Q Are you lieing to us?

A No.

Q Dan, you told the three of us -- he came the next day to pick up his lighter, and you was with him?

A Right. What he did is he had knocked on my door because it looked like he had something in his shirt.

Q This was Wednesday?

A Friday. It looked like he had something in his shirt. And -- I be sleeping, and he had to knock on the door real hard. So, then, I had came downstairs and looked out the window, and he was going down the pathway.

Q Didn't you tell Ella and --(inaudible)-Bird, Wednesday night around 7:00 that the boy was dead?

A Dead, because I had heard it on the news over that girl's house.

Q I thought it was Wednesday night.

A Wednesday night.

Q The day after the boy was beat?

A No.

Q You didn't tell her that the boy was dead?

A Nope.

Q Did you tell her that Tuesday night?

A No.

Q Right after I heard it on the news and I was over there at Westlawn, I had came home and I heard that the boy had died.

Q How close did you babysit for her Tuesday. You said you didn't.

A I babysat for her Monday. I don't remember Tuesday.

Q The Tuesday, you remember this Tuesday, don't you?

A This Tuesday?

Q You remember that same Tuesday; you remember -- (inaudible). But, I don't remember --

Q Are you protecting anybody?

A No.

Q You're not going to say "Shmoo" was involved because you don't like "Shmoo" or something, are you?

A No.

Q Danny, how many of you young men were in that back field back there?

A Just me and him.

Q Are you sure?

A Yes.

Q Are you sure there wasn't four of you?

A No.

Q You're proud of it. You were back there an awful long time not to have somebody come across you. Did somebody come walking through there?

A Not that I know of.

Q The whole time that he was butt-fucking this boy, nobody came

through there?

A No.

Q Nobody went walking out with you at the same time, out of those weeds?

A No.

Q When you got to Jackson Street, nobody caught up with you and walked out with you?

A No.

Q I didn't say they was with you, just walked with you; they happened to come through about the same time as you?

A No.

Q Did you get any of that boy's blood on you anywhere at all?

A No.

Q You had to get it on your hands when you turned him over?

A No. I didn't get nothing on me. I didn't get nothing on me.

Q The boy have shoes and socks on?

A Yes, he still had on his shoes and his socks; yes.

Q But, aside from that, he was completely naked?

A No. He still had on his shoes and stuff.

Q Other than his shoes, though, he had no pants, no gym trunks, no underwear, no shirt?

A Didn't have nothing.

Q Didn't have none?

A No.

Q You said you seen Lowery on the bike. Was that the next day?

A Yes.

Q That was also Wednesday. You had a busy Wednesday, didn't you? You had a very busy Wednesday. You went back to the scene --

A But, that was earlier, though.

Q Did you look for the bike when you went back?

A No.

Q That lighter --

A Tim went back there and looked for the lighter. I seen him when he picked it up.

Q Describe that lighter for us?

A It probably had like a yellowish color in it. You know, like those brown lighters got different colors and stuff in it.

Q Like a swirl?

A Yes.

Q Did it have a name on it anywhere?

A No.

Q Was it an expensive one, or one of those bic ones or what?

A Bic.

Q What kind of cigarettes do you smoke?

A Newport.

Q How about -- (inaudible)?

A Yes.

Q How about "Shmoo"?

A He only smoke Newports.

Q Did you smoke when this was going on? Did you light up one?

A No.

Q Did "Shmoo" drink a beer?

A No.

Q Did he have a beer that night? When you were watching all of this going on back there, when "Shmoo" was supposed to be poking the kid's behind; did you pull your penis out at any time and jack off?

A No.

Q Are you sure?

A Yes.

Q When you and "Shmoo" came walking across the street, was "Shmoo" carrying anything before you got to the Valu-King?

A No.

Q Was he carrying a 40-ounce?

A No.

Q He had his own cigarettes with him, though; right?

A Yes.

Q When was the first time he lit up a cigarette, though, when you were with him?

A When he was coming out of Colt Court he was smoking one.

Q No, after -- after the kid got beat on.

A After he went on the pathway to go where he was going?

Q Yes.

A He had turned down Jackson Street, and he lit up one, because he had some matches, like I was telling you. He had some matches.

Q Was there anything that you and "Shmoo" were carrying that got left when the boy got beat up?

A No.

Q No clothing, none of "Shmoo's" clothes -- he wasn't carrying a pack of cigarettes that he smoked the last three and threw the pack down.

A Newports?

Q I am asking you. I am not saying. I don't know if it happened or not. You were there.

A I didn't see him throw down no pack.

Q Remember in the interview earlier I told you how serious this was, and remember because of the fact that you are 18, and you will be 19 pretty soon. Now, "Shmoo" has been down there and telling other stories.

We told you, we want the truth from you, right? And, it doesn't appear that you are giving us all the truth. "Shmoo" knows too many more details than you do. I mean, he's got the whole thing down pretty good. He said a lot more. You are going to have to tell us the truth.

A That is the truth. See, he's just telling y'all a lot of stories. See, I'm telling y'all the straight facts of what happened. He's just telling you stories; that's all.

Q He's lieing? Is that what you're saying?

A Yes.

Q Are you sure?

A All you got to do is give him a lie detector test, and I'll take one.

Q Are you sure you didn't kick him down? Didn't you kick that Fife boy?

A No.

Q Did you try to get the bike out of there?

A No. I didn't touch nothing; except right here. That was it.

Q You didn't bite him on the penis?

A No.

Q Not at all?

A No.

Q When he was pulling on his penis, did he snap that real hard?

A He had his stomach -- he had his --

Q On his -- (inaudible) --

A Yes.

Q And, he was pulling at it?

A Yes.

Q He tried to pull his penis off of him? Somebody tell you it

was off of him?

A No. I thought it was.

Q Why?

A Because, if you pulling on something like that kind of hard --

Q How close were you to "Shmoo" when he was pulling on that boy's penis?

A About from here to here.

Q You were that close?

A Yes. Up in the bushes is high up.

Q Was he bleeding down there?

A It looked like it.

Q Did you go over and look at the boy?

A No. I just touched him. I didn't want to look at him, because I knowed he was bleeding, because I saw that blood when it was coming out of his mouth. I didn't want to look at him.

Q Why did you go over and turn the boy over?

A Huh?

Q Why did you go over and turn the boy over?

A To see if he was still living. I thought that -- you know -- that he just got beat up real bad -- that he could get up and crawl or something. You know. That's why -- I didn't think he beat him up that bad.

Q So, you walked over and the boy was laying on his stomach; right? What did you do?

A Just turned him over and reached up under here.

Q So he's laying on his back. Did you move his hand anywhere?

A No.

Q Did you see a lot of blood coming out of the boy's butt?

A Yes.

Q How could you see that?

A Because it was all over the ground. Because when I had flipped him over and flipped him back, there was blood on the ground.

Q So, you put him on his back, and then you put him back over on his stomach?

A Yes.

Q So, when you got there, he was laying on his stomach?

A No. He was laying on his back. No. He was laying on his stomach; right. He was laying on his stomach, because I flipped him over.

Q And, you looked at him and checked him. And, then, you flipped him back over on his stomach. Could you tell if he was still living then?

A Yes. Because he was still breathing, like, but he was breathing hard, like.

Q Well, why did you turn him back over on his stomach, again?

A Huh?

Q Well, why did you flip him back over on his stomach, again?

A Flipped him back the same way, because if I was a lucky man like that, he probably would have died even more quicker -- because the way he was pulling on him -- because when I was moving him, it was like his eyes was moving like. They was closed, but they was moving when I was moving him.

Q What did that have to do with why you turned him back over on his belly?

A Because, if he was in that much pain, if you're trying to move him -- move him back over -- you get (?inaudible--sounds like "jailed"). Because, this guy's eyes was moving.

Q Did you move his body at all, other than rolling him over?

A No.

Q Other than for the bike, where the brain was found?

A No.

Q Was he raped right on the path or off the path?

A Off the path. Right. Right. It was close to it, but it was off of it.

Q The grass was -- you said the grass was there?

A It was pretty high. The grass was pretty high and bushes and trees.

Q Did you see "Shmoo's" -- (inaudible)?

A No.

Q When you found out the boy was dead, did "Shmoo" then get ahold of you and tell you to keep your mouth shut or anything?

A No. I ain't seen him.

Q He ain't called you at any time? How about when he came over the house?

A No. He didn't say nothing. I ain't even seen him.

Q Did you tell anybody that "Shmoo" did it?

A Yes.

Q Who did you tell?

A I told this dude that stay out there in Westlawn.

Q White dude?

A No black.

Q Who is it?

A His last name is Kitchen; Phillip Kitchen.

Q Where do you know this Phillip Kitchen from?

A Huh?

Q Where do you know this Phillip Kitchen from?

A Because when we stayed on Jackson Street, his cousin used to stay nextdoor.

Q Is he an older guy?

A About my age; 18.

Q What made you see this Kitchen dude?

A The next day, when I had came down here and told him that I seen Reesey on the bike.

Q The same day that you talked to Seargent Stuart, you came down to the Police Station, right. And, that's the same day that you saw Kitchen, and where did you see him?

A At Westlawn, because he was out there talking to him.

Q And, what were you talking about?

A He just asked me why we didn't see him. He said, "I ain't seen you around."

Q And what did you say?

A Huh?

Q What did you say?

A I said, "I be out."

Q Wasn't Phillip in the woods with you all?

A No.

Q What if I told you "Shmoo" said he seen -- there was a guy in the woods with you all, but he didn't know his name. You would know -- you might know him? "Shmoo" lied about that, too; right?

A Yes.

Q This Kitchen; what kind of a conversation did you guys have, at all, that following day?

A Because when we was sitting over there --

Q Sitting over where?

A Sitting over this girl's house -- I don't know --

Q Where was this at?

A Westlawn. We was sitting over there, and it came over the news that he had just died.

Q And, then, what happened?

A Then I had walked outside.

Q And then what?

A I was just walking around because I was scared. And, I asked Sadie and then Kitchen was asking me what -- you know?

Q What did Kitchen say?

A He say, "What's the matter?" I said, "I know who did that to that boy." He said, "Who?" I said, "Tim Combs." And then that's when he told me to come down here and tell.

Q Who told you to come down here and tell?

A Phillip Kitchen.

Q He told you to come down here and tell the Police?

A Yes.

Q So, why didn't you come down here and tell the Police?

A Because when I came down here, he had told me that Tim Combs had said that I was with him when he did it, or something like that. And, then that just turned me off.

Q Did Kitchen say that he already talked to Timmy Combs?

A No. When I had came down here and you was talking to me, you said --

Q No. No. No. Detective Hill asked you, "Did you talk to Kitchen?" And, you told him that you knew that Tim Combs did it. And, he said, "Why don't you go tell the Police?"

A Right.

Q So, you did it. You called down that night and you talked to Seargent Stuart. But, you didn't tell Seargent Stuart that this boy was the one that did this to the kid. You lied.

A I was just ready to tell him, but they started to question me and stuff, and when he said that Tim Combs was with me, that's what

turned me off.

Q He wasn't even there. Seargent Stuart was by himself.

A You are talking about Friday?

Q I am talking about Thursday night. Thursday night when I asked you, what did you tell me?

A That I seen Reese Lowery on the bike.

Q And what did we do?

A You all -- we went looking for him.

Q So, you didn't mention nothing to me about Combs -- you showed me where Timmy Combs lived; is that right, and his grandmother?

A And, I kept on telling you that you that (inaudible -- possibly "they's who did it").

Q You said he could have done it.

A No.

Q You didn't say he did it. He's crazy, too. You said -- (inaudible) -- could have done it, too. Was Andre with you that day for a while?

A No.

Q When was the last time you seen Andre?

A When he was coming from over his aunt's house?

Q When was that?

A Tuesday.

Q That's the same day.

A I said I seen him, but it was when I was in the house.

Q That's all after everything was over with?

A Yes. When I was in the house.

Q Danny, you came down to the Police Station and you blamed everybody but yourself; right? You tried to tell us Tim Combs, Reesey Lowery did it; right?

A Because he was riding the bike.

Q But, you knew he didn't do it. You were there; right? Weren't you there? So you know Reesey Lowery didn't have nothing to do with it, right? Or, did you? Was Reesey Lowery there?

A No.

Q Are you scared of Reese? Are you scared of Lowerys?

A No.

Q How about Greg Lowery?

A No.

Q Dan, you know the way I was talking to you this morning, I tried to explain to you -- I tried to explain to you, in a matter whereas, I don't want you to be afraid of anything. If there was anyone else involved in what took place behind that Valu-King, I want to know who it is. If there was somebody else back there other than you and Tim Combs, I want to know who that other one was? "Shmoo's" only 17. I keep telling you that. It's up to you. Where do you think "Shmoo's" at right now?

A Probably out in the homes somewhere.

Q You're probably wrong. Do you know where he's at? He's in the room you just left. All right. Now, you've got to tell us the straight truth, because they've got him in there now, and he is telling on his mom. He is telling about everybody and everything. And, we better hear it from you first. Tim Combs is here.

A Well, I didn't have nothing to do with -- you know -- raping him. I didn't have nothing to do with that. I just was there and I seen it.

Q You know, it is so hard for me to sit here and continue to think that you were back there -- no one was back there -- along with Tim Combs, and you did not do anything. Now, what is that? If you come down here and told me that, what would you think? Seriously; what would you think?

A I'd think you were telling a story.

Q You're damn right you would think I was telling a lie; right? So this is what I am trying to get you to understand. We're sitting here. We want you to sit right here and tell us the truth about everything. If you had anything to do with it, we want to know that, too. But, if there was someone else back there in the woods with you guys, we want to know that, also. Don't protect nobody, because I am going to tell you something: If there was somebody else back there, I can tell you, when it comes down, them guys will be looking out for No. 1. That's what you've got to do. So we don't want you to hide anything. If you've got anything to say, tell us. We want to know the entire truth about what took place behind Valu-King. Can't tell us now, because we're going to -- I don't want you to hide anything.

A I didn't hide nothing.

Q You are going to wait to get to trial and the Judge and the Prosecutor says, "He cooperated with me." And, we are going to say, "He cooperated with us, but he misled us." It doesn't mean it is going to help you, but you have got to be truthful.

A I know.

You've got to be truthful from this point on, all the way down. This boy is dead. This boy no longer here. That is murder, so you have got to be truthful. Do you understand? When they got -- not that you are truthful -- you've got to be truthful. They ain't got us over here to try and bullshit none of us. Because it is all going to come back at once. Believe me, it is going to get you; with God as my Judge. If you keep lieing -- ain't no doubt about it -- and, you are going to look back and say, "God Damn I sure wish I had told them guys the truth." We don't want half of the truth. We want all of it.

A I told you all of it. I told you.

Q Danny, I don't think you had a thing to do with killing that boy. All right. I don't think you had one part in that murder. Okay. You are not guilty of murder. But, I am not thinking that way at all. But, I think you did something to that boy. I think you put your dick in him.

A No.

Q Just once. Or, maybe -- let's put it this way: When Tim Combs was butt-fucking him, maybe you were the one that was having him to such your dick? Huh?

A No.

Q Was that how it happened?

A No.

Q It is possible isn't it?

A No.

Q You know, people do wierd things like that?

A Not me; no. No.

Q Who is the white girl you were at the house with? What's her name; Kim?

A No.

Q What's her name; the white girl?

A I don't know.

Q Is -- (inaudible) -- lay out in there? He went to some white girl's house after this. What was her name? Do you know where she lives? On Westlawn? Who does she live with?

A Herself and her two kids.

Q Who is her boyfriend?

A I don't know his name.

Q Is he a black guy?

A Yes.

Q Danny, who do you get your sex with?

A Huh?

Q Who do you get your sex with?

A Nobody.

Q What you mean?

A Nobody.

Q You are 18-years-old. You've got to have something somewhere?

A Nobody.

Q Well, what do you do to get your nut off?

A Nothing. Just sit down and don't worry about. I don't let that press me.

Q Bad boys are always pressed. You never worry about no pussy?

A No.

Q You never went in the back room and jacked off?

A No. No.

Q When was the last time you had a piece of ass?

A Before I got sent away.

Q That's a long time. You ain't had no pussy since then?

A I don't need none.

Q The only time you got some pussy was when you took it and got arrested for rape?

A No.

Q Did you ever have a girlfriend?

A Yes.

Q Who was it?

A She live in Alabama now.

Q What was her name?

A A friend of Boot Hill's.

Q Did she give you pussy?

A Yes.

A Yes.

Q Is that the only one?

A A lot of them. I don't know their names, though.

Q How come you don't get pussy from other women?

A Because I don't be talking to nobody.

Q Now wait a minute, you told you got a lot of pussy. You got a lot of them.

A I did, but now --

Q You -- (inaudible) -- right?

A Huh?

Q You don't need it?

A No. I don't even think about it.

Q Danny, you haven't turned AC/DC have you?

A No. I don't even think about it. No.

Q Do you know any boys that like to do that?

A Yes. Tim Combs.

Q Anybody ever ask you if they could blow you?

A No.

Q Tim Combs ain't never asked to do it?

A No. He would get punched in the mouth.

Q Tim Combs ain't never asked you to give him one in the butt?

A No. Not something like that.

Q Tim Combs asked you if you wanted to help him steal that bike? Did he say, "Let's fuck him in the butt, too."?

A No. He didn't say nothing like that.

Q He didn't say we're going to steal the bike?

A No.

Q The next thing you know, you seen "Shmoo" what?

A Gettin' him in his butt.

Q Everything that you told us so far -- this morning when we had you in that interview room in there was the truth? And everything that you told us so far when we are sitting here, sitting in front of this camera here, you are telling us the truth?

A Yes.

Q You haven't left anything out? You haven't left nobody else's name out of this all?

A No.

Q You didn't play no part in doing anything to this young man?

A No.

Q But, you watched it. You watched everything that took place? If we took you in the woods, could you find that can for us?

A (No verbal response recorded)

Q How come?

A He might have come back and got it.

Q If we took you there, could you show us the travel; where did you travel along with Tim Combs? How about the stick?

A You can see right there were the garbage was is where those sticks was at.

Q No. He used the stick on the boy, right? What did you call it a stick? What would you call it, a handle, or what?

A A stick.

Q A stick or a handle off of a broom or something like that?

A A handle off of a broom.

Q But it was larger than a handle off of a broom?

A Yes.

Q Do you think that's still back there?

A If the garbage man ain't came.

Q Why would the garbage man be in the woods?

A Because all that stuff -- they be putting garbage right there, and sometimes people be kicking it back there, and they go back there and pick it up.

Q Danny, wait a minute, Man.

A That's why you don't see too much trash back there.

Q Right where -- you know where you turned the boy over -- you touched the boy and turned the boy over; right? Isn't that the same spot that "Shmoo" used the stick on the boy's butt? So, the stick should be right there back in the weeds, right?

A Right.

Q Right?

A But it was -- they come back there to pick up the garbage.

Q No they don't. They wouldn't go way back in the woods to pick up --

A Right at the hill. Right at the top of the hill.

Q Do you know something about that stick?

A No.

Q Did you use the stick on that boy? Is that why you don't want to talk about it?

A No.

Q I didn't use no stick on nobody. I am telling you -- I ain't like that.

Q Timmy Combs stab him with the stick?

A He did. Just like that.

Q And, then, what did he do with the stick?

A He threw it.

Q How?

A Back. He threw it back, like this.

Q So the stick should still be there?

A Unless he came and got it?

Q He did come and get it, right?

A I guess.

Q And, you were with him.

A No. I wasn't with him.

Q All right. When he came back there, and you say he picked up his lighter or whatever he picked up back there, did he pick up the stick, also?

A No. He couldn't find it. I told you he was looking for it.

Q What about the can that had that stuff that he sprayed on the kid?

A He had it when he came out of the field. He had it in his hand.

(WHEREUPON, END OF TAPE.)

A All kinds of stuff.

Q He went in the garbage can to get that?

A Yes. It's right there. There's all kinds of stuff; lighter fluid --

Q What did "Shmoo" say to you? Did he say, "I'm going to go up to the Valu-King and get something?"

A No. He didn't say that. He just walked up there.

Q He didn't say nothing to you?

A He just walked up there. He just looked at me. That was it, and walked right around there.

Q He didn't say one word about it to you? He didn't say one word to you?

A No.

Q He didn't say, "God Damn it; you better stay right here, and you better not leave here?" He didn't say nothing like that?

A He just looked at me and smiled.

Q In other words, you had all the opportunity to --

A To leave.

Q -- to haul ass; right. But, you stayed right there.

A Because -- I was stunned. I was just looking. I wasn't just standing there, like, watching. I was --

Q Were you interested in what was going on?

A No. I was just like stunned like, he's doing that.

Q So, how close did you stand to the boy when "Shmoo" went to the Valu-King?

A I didn't move. I couldn't move.

Q How close were you to the boy?

A About from right here to there. He was still laying there.

Q Then, you see "Shmoo" walking back, right?

A (No verbal response recorded)

Q Was the boy bleeding? Was he dead?

A No. He was still moving.

Q Did you say "Shmoo" -- (inaudible) -- the boy?

A I was just there. I was just standing there.

Q Okay. Do you think you would be able to find the stick that you were supposed to have had in your hand?

A Yes. It was right there by the side of the building. Right there by the back. Right there at the back, it was sitting.

Q How big of a stick was this?

A It was like a crate. You know -- like a crate. Like those crates them boys would be on there -- them little boys about this big.

Q Yes.

A It was one of them.

Q "Shmoo" came back with the can; right? Did you ask him what he was going to do with that?

A No. I couldn't say nothing. I was just looking.

Q When he came back with the can, did he have that stick in his hand, too?

A It was laying right there on the ground. It was laying right there, on the ground.

Q Back there by the wall? How did this stick get back there?

A Not my stick. The one that he had.

Q Now, wait. The stick that "Shmoo" had; how did it get back there by the wall?

A That's where -- it was left right there. That's what he did. He throwed it right there. He ditched it.

Q Where did he go get the stick at? That's what I don't know.

A Right up there by the garbage can. He don't even try to go get the can, when he had went up -- before we had went up there in the field, he had went over there and grabbed a stick, like he had -- was going to hit him off the bike with it. He was going to use it, I guess, to just knock him off the bike; but he just grabbed him.

Q When you two came behind the place, behind the Valu-King; this is when he picked up the stick?

A Yes.

Q When he picked up the boy, did he hit him with it?

A No. Not at that time.

Q So, the first time he made contact with that boy, he had the stick in his hand?

A It was laying down. The stick was laying down while he was having sex with him and stuff. It was laying right there. And, then, he just got it, I guess.

Q And, he picked it up out of the building, and he carried it back in there with him?

A Huh?

Q When you two came around the building --

A When we came around the building, yes. He grabbed the stick, and he pointed it down there, like he was going to hit him and knock him off the bike with it. He layed it down. And, he just grabbed him off the bike.

Q That can he brought back; was it as big as this can (indicating)? The can he used to burn that boy -- like a spray can --

A It was like -- it wasn't no spray can. It was like a plastic

container.

Q Like toothpaste?

A No.

Q Like a glue container?

A Like lighter fluid, like. One of them kind of containers. Like them plastic lighter fluid.

Q Like maybe you would start the charcoal in your barbeque with?

A Yes.

Q Now, did it have a -- (inaudible) -- that you push?

A No. It just had one of those flip-up things.

Q Timmy -- (inaudible) -- Shut it off. (reference made to video tape recording)

(WHEREUPON, THE TAPE RECORDING ENDED)

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MR. STEINBECK: Today's date is September 16, 1985. The time is 11:30 a.m. We are at the Warren Police Department, Warren, Ohio, Trumbull County, State of Ohio. Present in the interrogation room is Sergeant Stewart of the Narcotics Division and Sergeant Steinbeck of the Juvenile Division. Also present is Danny Hill.

INTERVIEW:

By Sgt. Steinbeck.

Q Danny, for the record, state your name and your address and your age, would you, please.

A Danny Hill. I am 18. I stay at 1394 Fifth Street, Apartment 8.

Q Okay. Danny, you know why you are down here. You have been advised of your rights by Sgt. Steinbeck, and you know what your rights are. Is that true?

A Yes.

Q Did Detective Hill advise you of your rights this morning before we started talking, also?

A Yes.

Q Okay. Now Danny, we want to ask you some pertinent questions in regard to the Raymond Fife murder. Are you aware of that?

A Yes.

Q All right. Now, I want you to tell us in detail everything that you know or your part of the Raymond Fife incident; will you please. You go ahead. It would be 3:00.

A I was walking through the field going to the Westlawn. And --

Q About what time of day was it?

A About 5:00; 3:00, somewhere around there. And, I had seen Tim Combs

up there at the store. So, he came up there by me and said that he had just got out about a week ago. And, he started talking about when we was going to hook up and get high and stuff like that. So, then he had asked me do I get in any trouble. I said no, because I just got out about three months ago. So, then I had told him I was going to go over this girl's house out here in Westlawn. So, then, I had looked at him go back there through the field.

Q Was he by himself when he went in the field? He walked into the field by himself? Did you follow him?

A I circled around. But, then, I had turned around and looked, and I seen this little boy riding this bike. So, Tim Combs was looking around to see if anybody was looking. And, I had ducked behind these bushes, and I was looking at him. He grabbed the boy with a head -- a head lock and picked him up and slammed him on top of this bike. So, then I didn't see the little boy moving no more. And, so "Shmoo" thought he had -- I mean Tim Combs thought he had knocked him out. And he had turned away and looked to see if anybody was looking. And, the little boy got up and started running, and he just grabbed him and lifted him up in the air. He grabbed him by his shorts and yanked him down. So, then I was looking around to see if anybody see if I was back there. So, then I had seen him just pick the boy up with one hand and started, you know, choking him. And, he just started slamming him on the bike, slamming him. So, then he had pulled his shorts -- drawers down and started --

Q Say what he did.

A -- started doing it to his butt.

Q Did he fuck him in the ass? Is that what you are trying to say?

A Yeah.

Q Butt fucked him? Is that the term?

A Yeah.

Q You mean he stuck his penis into his rectum?

A Yeah.

Q Right? Okay.

A Yeah.

Q Go ahead.

A And, then the little boy wasn't moving. And, then I seen him when he got up and walked over there by the bushes and grabbed a piece of paper and whiped off his penis, and I didn't see the little boy moving. And, then I had turned around and looked and, like, the little boy was getting up, and Tim Combs ran over there and kicked him in his head. And, then he just grabbed him and started choking him. And, then he just started to beat -- he was hitting him hard.

Q Okay. Now, you remember what Sergeant Steinbeck -- Morris Hill, who is your uncle, and myself told you prior to us taking the statment, right? We want to know the truth about everything. Okay?

A Okay.

Q Now, what was the boy wearing, Danny? What kind of clothes did he have on?

A Some grey shorts, and his bike was maroon with some gum wall, like tires that was kind of light brown. And, it looked like he was coming up out of the field -- like he was coming up out of the field, and Tim Combs was going down in there, and he just grabbed him and yanked him off his bike.

Q What was your thoughts at this time?

A To run like I didn't see nothing.

Q You didn't do anything to the boy at all? Nothing?

A I was on the other side of the field.

Q You didn't grab his penis? You didn't fuck him in the ass? Did you hit him at all? What color shirt did the boy have on?

A He had grabbed his shirt. He didn't have no shirt on. After when I had -- about the time I had went down there and circled around he didn't have no clothes on.

Q The first time you seen the boy, was he laying down or sitting up?

A He was running.

Q And, "Shmoo" grabbed him and he ripped his pants off of him. And, you said "Shmoo" put his dick in his butt?

A Yeah.

Q Was the boy standing up or laying down when that happened?

A Laying down.

Q "Shmoo" was on top of him fucking him. He don't have no shirt on. And, then, "Shmoo" gets up and go wipes off?

A Yeah.

Q Wasn't the boy screaming?

A No, because he had his mouth -- he had his hand over the boy's mouth, like this. And, when he slammed him, he hit his head on the bike pedal thing. He had hit his head on the bike pedal. And, he wasn't moving. And, then, he just got up and started running, and "Shmoo" just yanked him up in the air with a head lock and started doing like this. He had him up in the air. He was doing like this; yanking him. And, then the boy still wouldn't -- he was moving. And, then "Shmoo" just started hitting him dead in his face and stuff.

Q Was he hitting him with his hands?

A And, he kicked him. He kicked him a lot of times.

Q How far away were you?

A About up there by the hill in the back of Valu King. Up there by the hill.

Q Is there any way "Shmoo" could have seen you watching? Did he know you was watching? He saw you watching?

A Yeah. Because he looked up there at me. And, then he started running.

Q So, he saw you?

A Because he had threw the bike in the woods.

Q Did he say anything to you?

A No, because when he started running, I didn't see him no more. He cut down by Jackson Street.

Q I want to get back to one part, now. Okay. He wipes his dick off with something. What did he whipe it off with?

A A piece of foam. Like a chair cover thing.

Q Vinyl?

A A piece of like a cushion.

Q A seat cover, you mean? Like a car seat type thing?

A It was brown. It was like spongy like.

Q Like the inside of a car seat?

A Yeah. Like, if you ripped it you could see it.

Q Foam type? What color was it?

A Like a brownish color.

Q What time of the day was this, Danny?

A Early. It was still daylight.

Q Like how early? Do you remember?

A All the kids was out of school. About that time.

Q When Timmy gets done wiping his dick off, he goes back over and grabs the boy again, and what did he do?

A Started -- he had grabbed him --

Q By the balls? What did he do when he grabbed him by the balls?

A Started pulling him.

Q Pulled him by his dick?

A Because he had his foot down on his stomach and started pulling him.

Q Was he trying -- like -- trying to pull his dick off his body? Did he do anything else? I want you to think hard. What did he do with the boy's underwear?

A Set them on fire.

Q How?

A With a brown lighter.

Q He had a brown lighter. One of those bic lighters? Where was the underwear when he lit them up?

A By the side of him.

Q He took the boy's underwear off and lit them up. Now, how did the underwear get around the boy's neck?

A That's when -- he lifted him up in the air like this with them. He had him up in the air like this.

Q Didn't he tie them around his neck with a knot?

A He had him just like this with them. At first, he had him just like this.

Q Okay. How many times did he fuck him in the ass?

A Until he nutted, I guess.

Q Did you one see him put it in one time? Did he set the boy on fire? How did he do that, Danny?

A He had a -- like -- there was this -- some kind of stuff he poured on him. He had got it in the back of the store.

Q Now is this true?

A He had got it from in the back of the store.

Q You mean he left the boy and walked up and got some stuff? What did you do when he left?

A That's when I ran. I thought he was coming around where I was at, because it looked like he was coming up out of the hill and coming where I was at. And, then I had just dived down in the bushes. And, then after that, I just seen some smoke. And, then I just ran.

Q Now, wait a minute. He already knew you were watching him, right? And, he plunked that boy in the butt and ripped his stuff off of him, and then he lit his underwear on fire, and then he left the boy and went up to the Valu King?

A Went right back around there.

Q And, he grabbed some stuff. What did it look like?

A It was something, and he just started emptying it.

Q What did he carry it in?

A It was in a plastic container like a -- it looked like some stuff that you pour on like grills and stuff.

Q And then he came back and set the boy on fire? Where at?

A The same place. He didn't move.

Q Where on the boy's body did he light him up?

A Right here.

Q How do you know?

A Because I seen it. I was sitting right -- it was right there, I was looking dead at him when everything he was doing.

Q Were you as close as me? You're three feet away?

A About five.

Q Were you holding him for him? Did he tell you to hold him for him?

A Yeah. I had him.

Q Did he say any words to you at all? What was the words "Shmoo" said to you?

A He just said he was going to leave. He just said -- when we was up there by the store, he said he was getting ready to leave, and he circled around and went down in the field.

Q When he was beating on him, did he say anything to you about, "Come help me hold him."

A He didn't say nothing. He was just looking at me, and he was smiling.

Q So, he grabbed something at that store, and he came back and lit the boy on fire? Did you say he picked up the bike and threw it?

A And threw it.

Q How far did he throw it?

A Like the boy was laying over there. He just threw it.

Q Did you touch the bike at all? You didn't touch the bike? Now, you think hard.

A I didn't touch nothing.

Q You tell us the truth now, because we want you to continue to to tell the truth about what's happened, okay.

MR. STEINBECK: Let the record show that Detective Morris Hill is now present in the room.

Q What if Timmy tells us that you handled the bike; you threw the bike? Had you been drinking a lot before that?

A No, because I had just came out the house. I didn't have nothing to drink.

Q Was the boy covered with puke? Was he? Don't shake your head. Answer yes or no.

A Yes.

Q How did the puke come out? When did that happen? When did the boy start puking?

A When he hit his head on that thing.

Q On the handlebars?

A On the pedal. Hit his head on the pedal.

Q Anybody get puke on them besides the little boy?

A Tim Combs.

Q On what?

A On his pants, right here.

Q What did he have on?

A Some baggies.

Q Blue jeans?

A Baggie blue jeans.

Q What color shirt?

A I couldn't see his shirt.

Q Did he get any blood on him? Wasn't the boy bleeding? Was the little boy bleeding bad?

A It looked like his head was busted.

Q How about some blood on Tim Combs? Didn't Tim get some blood on him?

A He was whiping off something off of his shirt.

Q Did any blood splatter on you?

A No.

Q No blood got onto your clothes nowhere? Did anything get on your clothes?

A No.

Q Are you sure? Any vomit get on you? You were close enough that it could have splashed up on you, right? I mean if the little boy is the door right there, and I am you; that's how close you was when this was happening, right? About three or four feet? You were that close when he was plunking the little boy in the butt, right? Did you see the boy vomit? Did you try to pull Tim off of him? Did you ever say, "Stop. Don't do that"?

A He was just looking at me -- just looking at me like if I came over there he was going to hit me. And, see, I was scared to go over there and try to fight him, because he looked like he was going crazy.

Q Danny, did the boy vomit after he was fucked in the ass or before?

A It was after --

Q Okay. He fucked him in the ass --

A -- becuase when he hit his head, he just started throwing up like he had messed up something up in here. And, then that's when Tim Combs was kicking him in his head.

Q -- and then he **grabbed him by the balls?**

A That's probably what made him throw up.

Q Did he pull his dick off? Did he pull the boy's dick off? Answer yes or no, Danny?

A Yeah.

Q He grabbed the boy's dick and pulled it all the way off?

A He was yanking it. It might have came off, because the way he was pulling on it, he had his foot on his stomach, and he was just pulling.

Q What kind of shoes did Tim have on?

A Some -- like -- some high tops. They was high tops.

Q Tennis shoes?

A Yes.

Q What color?

A White.

Q What make were they?

A Leather.

Q Were they Converse, Puma, Nikes?

A Nikes; I think.

Q Are you sure?

A Yeah.

Q Did he have a hat on that day? Tim Combs had a hat on?

A Yeah.

Q What color?

A Black, I think.

Q Okay. When he got done with the boy -- the boy is laying how; on his stomach, or on his back?

A On his stomach.

Q Okay. When the boy was found, he was laying on his back. Did somebody turn him over? Did you turn the boy over on his back? Did you touch the boy at all? Tell the truth. Tell the truth. Don't lie about anything. You are telling the truth as it is, already. Tell the truth. Just what you seen and what you know. Don't hold nothing back, Danny.

A I flipped him over.

Q You touched the boy?

A I flipped him over and looked at him.

Q Where was Tim when you did that?

A He was running.

Q He was gone. Did you check to see if the boy was hurt real bad? What did he look like to you when you turned him over?

A He was messed up.

Q How?

A His face, and his -- it didn't look like he had nothing down there.

Q When you say he didn't have nothing down there; what are you talking about?

A His privates. It looked like he didn't have nothing.

Q His penis was gone? Did you see any blood and stuff?

A It was all over the ground.

Q How about -- was his balls still there? You could see the balls, but you couldn't find his penis? Danny, I have got to ask you this. This is very important; all right? I have got a feeling you moved the bike; okay? Am I right? Did you hide the bike? Are you sure you didn't cover up the bike and hide it?

A He threw it.

Q He threw the bike.

A While the boy was laying on the ground, he just picked up the bike and threw it.

Q You didn't touch the bike? The boy had on grey shorts. Did he leave with the grey shorts? Did Tim Combs walk with the grey shorts?

A Yeah. He had them up under his shirt. He had them up under his shirt. And, I had seen him the next day. He was heading right back there, and that's when I was looking, and he had hid the bike up under some weeds, like, and threw the shorts up under there.

Q So, you saw Tim Combs come back to this field the very next day carrying the boy's shorts, and he hid the shorts and he hid the bike; yes?

A Yeah.

Q Have you talked to Tim Combs about this after this happened? None at all?

A I didn't even see him.

Q Danny, you said the next day you saw him bring the shorts back. How did it happen that you and he would be at the same place at the same time the very next day?

A Because he came through the Hampshire Houses. And, like, where my house is at, you can, you know, look right down there by the field when the door is open. And, I saw him walk past the door.

Q You saw him walking?

A Past my door.

Q So, you walked with him?

A No. I waited until he went down the hill, and I circled -- I took this other path when he came down, and walked down towards there. He was going across the street. Around about the time he went down across the street towards that pathway where that little boy was laying, I was coming straight down, and I turned up in Valu King field, and that's when I see him sticking the bike up in some bushes, and he threw them shorts on top of the bike.

Q That ain't true, now. We have got to find exactly what he did with them shorts. That ain't true, Danny. That part is not true.

A He threw them shorts on top of that bike.

Q The shorts were not found by that bike. Tell us the truth about this. You have told the truth so far. What we want you to do is put the other part together and tell the truth about the shorts. Did you have the shorts? Tell the truth. Did you carry them off? Tell us what you know, Danny. Tell us what happened that day. Did you put something in the boy's butt, too? Danny, you have gone this far. Tell us the truth. I know it is hard to live with this thing. It has got to be for all of us, but we have got to know the truth, Danny. As we told you before, don't leave nothing out; not a thing. If you had sex with the boy, if you raped the boy, we want to know. If you touched the boy in any other area than the Sergeant asked you about, we want to know. We want to know everything. If you took the shorts out of the field, if you whiped your hand on the shorts -- you didn't get no vomit on you or nothing?

A No.

Q Nothing at all. If you did any other thing than turn that young man over, we want to know about it.

A I just turned him over.

Q What did you do when you turned him over?

A I was looking to see if he was breathing or not.

Q How did you go about looking to see if he was breathing or not? Come on.

A His neck, right here.

Q You put your hand on his neck to see if he was breathing, am I right?

A You're right.

Q Now, Danny, getting back to these shorts; when you first seen the boy, he was on the bike; right?

A Right.

Q He gets knocked off the bike. Did you knock him off?

A Tim Combs knocked him off.

Q Are you sure?

A Yeah; he knocked him off the bike.

Q Now the boy is laying on the ground?

A Yep.

Q Is he hurt?

A Yeah.

Q But, he gets up; right?

A And he runs, and then he grabbed him with a head lock and lifted him up in the air.

Q Who grabbed him with the head lock?

A Tim Combs.

Q How close were you then?

A Right by the hill -- right by the hill where you can look down over in the field.

Q Not real close to him then, huh? You walked over close to him when he was fucking him in the butt? Why did you do that?

A Huh?

Q Why did you walk close to him?

A I was going to hit him.

Q Hit who?

A Hit Tim Combs, behind his back. And, then he had turned around and looked at me, because I was sneaking up on him -- I can show you the board out in the woods. I had a board, and I was sneaking up on him.

Q Now, wait a minute. Is that the truth now? You never said nothing about no board before. Don't start making things up, because you like to do that. You seen a board? Did you pick the board up?

A Yeah.

Q Where did you pick the board up at?

A Right up there at the store. They've got some crates back there, and some of them boards are loose. And, I just grabbed one, and I was going to hit him.

Q You were going to hit Timmy? You weren't going to hit the Fife boy?

A No.

Q Go ahead. So, you walk up on him, and then what happened?

A He just turned around and looked at me.

Q He didn't say anything when he turned around and looked at you, when he seen you with the board in your hand; he didn't say anything? He didn't say, "Get the fuck out the way" or anything?

A No.

Q If he said something to you, try to remember exactly what he said to you.

A He said, "Take your ass back up the hill." Because he said, "If you tell on me, I am going to come down here and put it on you because you seen it."

Q This is what we told you in the beginning. All three of us

told you in the beginning. All three of us tried to tell you. What did I tell you in the beginning? He is going to come down here and say that you raped that boy. So, if you raped that boy, we want to know now. Do you understand? Because if he comes down here, we ain't going to know who to believe. Do you understand?

A I didn't touch him.

Q How did he get the shirt off the boy?

A He just ripped it off.

Q This is after he knocked him off the bike.

A He just ripped it off, just like that.

Q You said the boy got up and run?

A Yeah; he just got up and ran, and he just grabbed him with a head lock.

Q How far did he run before he grabbed him with a head lock; 5 feet, 10 feet, 20 feet?

A He was halfway by these two trees like; these bushes that cuts over to the other path.

Q There's two pathways there?

A Yeah.

Q The boy is almost free away from you all?

A Away from Tim.

Q How far was he away from the bike when he caught him?

A The bike was left way -- about -- the bike was threw like over there by the hill.

Q So, the bike was a considerable ways away. Was it more than two feet?

A Yeah.

Q Was it more than three feet?

A It had to be. Because if he would have --

Q Do you know how long a football field is?

A Yeah.

Q How long is a football field?

A 90 yards.

Q 90 yards. A football field is only 90 yards?

A I think.

Q Think hard. How long is a football field? You don't know? Okay. How far would you say the bike was away from the boy, then, when you caught him? Did you ever run with a football? Did you ever see it on television? You have seen guys on television. Was he 5, 10, 15, 25 yards away from the bike when he caught up to him?

A Yeah. He was far away from the bike, because he had burnt him, and running he couldn't catch him, until he just dived at him and hooked him right here. The boy fell back.

Q The boy was faster than him. Now he's got him by the head.

A Just picked him up and slammed him.

Q Slammed him down on what?

A On the ground. He just picked him up and slammed him head first, right up here.

Q Body slam; like they do in wrestling. How many times did he body slam this young boy?

A A lot.

Q What's a lot?

A Five or six times.

Q Okay. Does the boy have any pants on then?

A No, when he was running, he didn't have nothing on.

Q How did he get the pants off of him?

A He just grabbed him. When he grabbed him around by his neck, he just took them off.

Q Did he rip his shorts down.

A And, then he just threw him down, and started to --

Q Say it -- started to what? Say the word. That don't work on me.

A Fucking him in his butt.

Q Now, when he pulled his shorts off, they were blue shorts -- yellow -- what color? They were yellow?

A Yeah. They was something -- they was yellow.

Q The shorts were yellow? Are you sure?

A Yeah. Because they looked like some Reserve colors, like -- like they was gym shorts.

Q Now, Danny, that's not right. You told us earlier that they were grey.

A He had on some drawers that looked like they was grey. Like the back of them -- like they was like fruit of the loom or something.

Q I am not talking about his underwear. I am talking about the gym shorts that he had on. Not his underwear; the gym shorts he is supposed to have had on. Did he have gym shorts on?

A Not when I had seen him. He just had on his drawers.

Q His underwear? That's all you seen?

A Yep.

(WHEREUPON, there was a discussion off the record.)

(Sgt. Steinbeck no longer present)

Q Do you realize -- you know your rights. You don't have to talk to us if you don't want to. You have the right to remain silent. You know that, Danny?

A Yes.

Q Danny, I will tell you what I am going to do. I am going to read you your Constitutional Rights. I gave you your rights once. Do you understand that I gave you your rights once. Since I gave you your rights; I gave them to you verbally; okay? Now, what I want you to do; I want you to sign your rights. Tell us exactly what took place out there. I want to make sure we get this on paper, and get your signature on here that you know your rights and you understand your rights all the way, just the way I told them to you earlier, okay? Warren Police Department, Constitutional Rights, Place, the Warren Police Department. Date: 9-16-85. Time: 11:55. Further, I have been advised of my -- I have been advised I am not under arrest. I am free to leave at any time. I have given this voluntary statement to the police officers of the Warren Police Department. Before we ask you any questions, you must understand your rights. You have the right to remain silent. Anything you say can be used against you in Court. You have the right to talk to a lawyer for advise before we ask you any questions and to have him with you during questioning. If you cannot afford a lawyer, one will be appointed before any questions, if you wish. If you decide to answer any questions now, without a lawyer present, you still have the right to stop answering at any time, until you talk to an attorney. Do you understand that?

A Yeah.

Q Now, this part down here is the waiver of rights. I have read the statement of the Constitutional Rights. I understand what my rights are. I am willing to make a statement and answer questions. I do not want a lawyer present at this time. I understand and I know what I am doing. No promises or threats have been made to me, and no pressures or coersion of any kind have been used against me. I therefore waive my rights and give this statement freely. Okay. I want you to sign your signature right there. Okay?

INTERVIEWER: Let the record indicate that Danny Hill has signed his rights sheet. It was witnessed by Sergeant Stewart, Sergeant Steinbeck and Detective Hill.

Q That's the second time we have read your rights to you; right?

A Right.

Q We read your rights to you when you first came in the room and just now, right?

A Right.

Q Now, when you came down to the Warren Police Department, we asked you to come down, you were not arrested. You came down here, and you talked to Detective Hill and Sergeant Steinbeck.

A Right. Yes, Sir.

Q When you got to the Valu King that day, did you walk across the road with Tim Combs like these people told me you did?

A Yes.

Q Tell the truth. Do you remember walking across the road?

A Yes.

Q What was the first time you saw Tim Combs that day?

A Coming out of Colt Court. He was going out of Colt Court. He said he was going over his aunt's house and stay out there behind -- (inaudible).

Q So, you walked from Colt Court across Valu King or Palmyra Road straight up to Valu King?

A Yes.

Q Did you go in Valu King?

A No.

Q Was Jimmy Dukes out there? Is that true, or is that a lie?

A No.

Q What?

A He wasn't there.

Q That was a lie?

A Yes.

Q So you walked up to the front of Valu King. Did you go in Rite Aid?

A No.

Q Did you go in any store, at all?

A No.

Q So you just walked up to the front of the Valu King, and then you walked behind it. Did you walk behind it together?

A No. He went around the other side.

Q So he went around the side by the RGB Music Store; right?

A Yes.

Q And, you went by the side that would take you over by the man's house that has the boat on Jackson Street?

A Yes.

Q What made you stop to see what Tim Combs was going to do?

A Because I had already seen the little boy when he was coming from around there.

Q Where was the first time you saw the little white boy that got killed?

A He was riding through the field, because you could see them when they come over there by that street. You can see them when they be riding through there. And, I seen him when he was riding through there, and then I had turned around and looked, and it looked like he had just stopped riding.

Q Well, didn't Combs make a suggestion, let's get this boy about something? Didn't Tim say something to you about let's get that boy's

bike or let's fuck that boy up? Did he say something to you like that?

A Yeah.

Q Sure he did. What did you say? Be truthful now, Danny.

A I said no. I said, "I don't get in trouble no more."

Q Where were you and Tim standing when Tim said that to you?

A Around the back, because he said, "There is a bike right there." He said, "I need a bike, Hill."

Q Now wait a minute. You guys had to be together behind the store then; right?

A Yeah.

Q Then, did you walk behind the store together?

A Yeah.

Q Okay. So, that's a lie. You told me a lie; right?

A Yeah.

Q Don't lie anymore, Danny. If you walked around the back of that store together, tell the truth. Think before you answer, son. If you can't think of the question right away, give yourself some time. I know it is confusing. It was a hectic day. There is a lot on your mind; right?

A Right.

Q You think about this, now. You walked around the store together, right?

A Right.

Q You were standing right behind Valu King?

A Right.

Q Are you in the weeds yet, or are you still in the gravel?

A Still right there on the gravel.

Q And you see the little white boy come up on the bike?

A Right.

Q How close did he get to you?

A About halfway up the hill, and, then, that's when Tim Combs had grabbed him.

Q Now, wait a minute. You have got to walk back into the field a little further, don't you?

A You've got to walk down --

Q Okay.

A You've got to walk down the hill.

Q Where were you standing when Tim said, 'Let's grab that white boy'?

A About halfway to the pathway.

Q In the weeds?

A Yeah.

Q Okay. And, what did you say?

A I said, "No. I don't get in trouble no more." Because, I had just got out of Columbus.

Q Well, all you was going to do was steal that boy's bike, right?

A Yeah.

Q That ain't very much trouble.

A But, I didn't feel like stealing nobody's bike, because I ride my brother's bike all the time. He has a ten-speed.

Q What words did Combs say when he said, 'Let's get this white boy' or 'Let's get this bike'? I want to hear it in your own words. What did he say?

A He said that he needed a bike. And, we was walking around at the same time that he said he was going to look for a bike, because he got tired of walking from behind Austin Village Plaza all the way over here to the homes. Then, around about that time, he seen the little boy riding this bike up through the pathway. And, he said, "Hill, let's go over here and get this bike." I said, "No, because I don't go around here

stealing nobody's bike." And, he said, "Well, I'm going ahead and take it." Then, I had watched when he went down the hill. And, then, I didn't see the little boy riding his bike no more. He just got knocked off his bike. And, around about that time, I had walked down the hill and looked and he had him on the ground.

Q Continue to tell.

A And, then, I had walked down there and I had looked, and he told me to get my ass back up that hill.

Q True?

A Right. And, he had told me to get my ass right back up that hill. So, then, I said, "Why are you doing that to that little boy?" He said, "It ain't none of your business." So, then, I said all right.

Q Was the boy's eyes open?

A Yeah.

Q Did you ever hear any words at all out of that little boy; any words any screams, at all. Did he yell for help? Did he yell for help?

A Yeah. He had looked at me, and the way he was looking at me like he wanted me to come down there and, you know, knock Tim off of him.

Q Did the boy say 'help me'?

A No, he was just looking, because he had his mouth way he couldn't say nothing.

Q Which hand did he have over his mouth? His right hand or his left hand?

A His right. And, I had went up there and grabbed a board. Around about that time, he was knocked out cold. And, I had turned him over, and Tim Combs was running through the field.

Q Wait a minute. You left out a whole lot now. You say that he got his shorts off. Now, first of all, his bike was about 25 yards -- the boy got away about 25 or 30 yards away from his bike, and he caught up

to him, right? And he got him by the neck; right?

A Right.

Q Threw him down?

A Right.

Q Now, was his shirt off at this time?

A Yeah, his shirt was off of him. He didn't have nothing on except his drawers, and he was running. And, Tim Combs couldn't catch him unless he just jumped at him and dived, because the boy was like from here to there, running, and he couldn't catch him, so he dived at him.

Q Did he put his dick in his mouth?

A Yeah. A couple of times.

Q When the boy was dead or when the boy was alive?

A I think he was knocked out.

Q Did you put your dick in his mouth?

A No.

Q Are you sure?

A Yeah. I didn't have nothing to do with raping him or nothing like that. I was just there.

Q How many times did you touch the boy?

A I just turned him over to see if he was still breathing, and he wasn't breathing.

Q Where was the boy's black shirt, when you turned him over? Now, this is very important. Think hard.

A I didn't see it.

Q Danny, when the boy was found, his shirt was right underneath him. Now, you would have to see that shirt.

A I didn't see it, unless Tim Combs had it up under his clothes or something, because I didn't see his shirt.

Q You said Timmy was pulling at his dick. Was he pulling hard?

A Yeah.

Q How was he pulling?

A He had hit foot on him, and he had it like this, and he was --

Q Stand up and show us how he was doing it.

A He had his foot down like this, and he had to bend over because the boy was short. And, he had it like this, and he was pulling up, and, like, if he couldn't pull it no farther, he was doing like this -- like his shoulder was moving like he was ripping.

Q Did the boy have puke all over him at that time?

A Yeah.

Q How close were you standing, a couple of feet?

A Yeah, because I had the stick, and I was standing up there, and, then around about the time I had came down there with the stick he got up and ran.

Q Well, what did he do with the dick when he had it in his hand. Did he have the dick in his hand? Part of it, all of it?

A It looked like he had it in his hand.

Q What did he do then?

A He just started running.

Q What did he do with the dick?

A He just started running, and I couldn't chase him, because I am kind of slow, and he's faster than me. I couldn't have chased him down.

Q Okay. So, the first thing he did is he got the boy and he slammed him down?

A Yep.

Q And, he pulled his underwear off of him and he fucked him in the butt?

A Yep.

Q How many times did he fuck him in the butt?

A It was a lot of times.

Q What I mean is he fucked him in the butt, and then he would pull it out and do it again?

A Yeah. Off and on.

Q Okay. What was the next thing he did to him that had sex to do with it.

Q He just had his thing in his mouth.

Q How did he do that?

A He had his hand in his teeth like this, and he had -- he was doing like that.

Q Are you sure?

A He had his hand in his mouth.

Q Timmy had his hand in his --

A In his mouth.

Q And, then he put his dick in the boy's mouth?

A Yep. Because the boy wasn't breathing.

Q Is this after he wiped his --

A Yeah.

Q -- or before?

A It was after.

Q How long was he back there with this boy?

A About three hours. About three.

Q He was in that field for three fucking hours with that boy?

A Yes.

Q And, nobody came through there?

A Nobody. Wasn't nobody looking out there in the back. Wasn't nobody looking out there.

Q You didn't do anything to the boy at all?

A No.

Q And all this period of time that you two boy spent back there with the boy, you didn't do anything?

A No.

Q Except just turn the boy over, and feel alongside of his neck to see if he was living? Did you touch his dick at all?

A No.

Q Maybe touch yours?

A No.

Q Did you make him touch yours?

A No.

Q Did you have your zipper down?

A No.

Q Not once?

A No.

Q Now, if we go to your apartment, at your mother's house, and get those clothes, there will be nothing on them?

A No.

Q Nothing?

A No.

Q Did you wash them?

A I washed them pants last night.

Q Why?

A So they still be dry. Because I was going to wear them, because I had worn these yesterday.

Q The pants you had on here Friday when I talked to you; were they the same pants you had on that day?

A Yep.

Q What shirt did you have on?

A That red shirt. When I came down here?

Q What shirt did you have on the day that Tim did that to the boy?

A A white jersey. I had on that white jersey with the 77.

Q After Timmy stuck his dick in the boy's mouth, okay -- do you remember that? You told us.

A Yes.

Q What next did Timmy do?

A Started to get him back in his butt, when he did.

Q Did he get him in the butt again, then?

A Yes.

Q So, he fucked him in the butt, and then he put his dick in his mouth, and then he fucked him in the but again?

A Yes.

Q Did he ever once say, "Come on, Danny, do this with me"?

A No.

Q He never said none of that?

A No.

Q And, he fucked him in the butt again, right?

A Right.

Q Then, what did he do to him.

A Started pulling on his thing.

Q That's the next thing he did, was pull on the boy's dick?

A Yes.

Q Did it look to you like what? What was he trying to do?

A Just looked at me, because he was scared. He thought I was gone through the pathway. He just looked at me like I was the Police or something. He just looked at me like he was scared; like it stunned him.

Q How did he have time to burn him, if he lost all this time -- are you sure you didn't have the cigarette lighter?

A No.

Q Does he smoke?

A Yes.

Q Do you smoke?

A Yes.

Q Do you have a cigarette lighter?

A No.

Q How do you light your cigarettes?

A I have matches.

Q You use matches?

A Yes.

Q Where do you set him on fire; at his feet?

A No. It started right up in here, because he had burnt them, and then he just threw them on him.

Q Burnt what?

A A piece of cloth. He lit it and threw it on him, and it just started to smoking, like the woods was on fire.

Q Three hours you were there?

A Yes.

Q It seemed like three hours maybe. But, maybe it wasn't three hours. After he got done with all this shit. After all this shit was over with, you say he ran down toward Jackson Street?

A Yes.

Q And, you ran out towards where?

A I ran out the same way.

Q Where did you guys go from there?

A He ran out toward --

Q Make sure you tell us the truth now. Where did you go after you left the boy?

A After, when I had left, I had ran out the same way he had ran out.

Q Where does that come out on?

A Right there in front of the house that we used to stay in; right out in front of the house.

Q On Jackson Street.

A Yeah; came right out --

Q Timmy ran out that way, too?

A Yeah.

Q Was there two other dudes came out of the field about the same time?

A I think so.

Q Who was it?

A I don't know.

Q Did they look like they might have been walking with you?

A No.

Q They were walking the other way?

A Yes.

Q So, you got out onto Jackson Street. Then where did you go?

A I went over this girl's house and started to sit down, that's the reason I got -- that's the reason my mother was cracking on me, because I was high.

Q What girl was it? What girl?

A She stay out there at Westlawn.

Q White girl?

A Yeah.

Q What's her name?

A I don't know.

Q Where did Timmy go?

A Up under the bridge over his aunt's house. He was running.

Q What bridge?

A Over there, by Reserve.

Q He was going to Austin Village on Commerce?

A Yep.

Q Over Barbara's house?

A Yep.

Q Did he run by you, or did you run with him, or did you guys just, "I'll see you later. Keep your fucking mouth shut." What was said?

A He told me -- He said, "I will be down there before you go down there." He said, "I'll be down there before you go down there."

Q What did he mean he would be down there before you go down there?

A Like, if I come down here -- like if I come down here to tell, he was going to beat me down here so he could tell you all that I did something to him.

Q What day was that you came down to see me? Was that Wednesday night?

A Yeah.

Q That was Thursday night.

A Thursday. Thursday.

Q Why didn't you tell Sergeant Stewart about that then?

A Because I was trying to -- I was telling a story.

Q You trying to tell us shit?

A Because he was looking -- people was telling me he was looking for me. They said he was looking for me out there in the Hampshire Houses.

Q Didn't you go with him the next day?

A He had walked out here from -- they said -- I mean, he was coming from over his mother's house, because his mother stay on Fourth Street. And, he came up to the Hampshire Houses, and went out the back way by the field.

Q Did he stop at your apartment and get you?

A No.

Q He didn't stop and say hello and get you?

A No.

Q Come on, now, I told you; if he stopped to get you, tell us he stopped there to get you. But, if he -- you know -- first you said you were looking out the window and you seen him come by. So, then, he went down the one side of the hill, and you went down another way. Now, did he stop at the house and get you to come and go with him? If he did, just let me know this. Okay?

A He had knocked on the door. He had knocked on the door.

Q And, then, what?

A I had looked out the peep hole, and then I acted like nobody was there, because my mother and them was gone. So, then, when I seen him go down in the field, because I was looking out the upstairs window, and I was looking at him going down the hill. That's when I opened up the door and went down the hill. I gave him enough time to get down there -- you know, where that little boy was laying.

Q Okay. Nobody is going to believe -- listen to me. Ain't no persons going to believe that you didn't hold that boy and try to get them shorts off of him, and then he started running.

A I ain't had nothing to do with that part right there.

Q I am talking about his gym shorts or his jeans or whatever he had on. I am not talking about his underwear. That boy broke loose, right?

And, you didn't hold him or do nothing?

A No.

Q How big is Tim?

A He bigger than me.

Q Is he bigger than you?

A Yep.

Q Now, if we run you on the polygraph, will it show that you are telling the truth about the part that you didn't have nothing to do with it, except for the fact that you turned him over and felt him to see if he was still living?

A Right.

Q Have you ever taken a polygraph before?

A Yes.

Q For what?

A I don't remember.

Q How old were you?

A I was 15.

Q You followed him down the hill the next day, right?

A Yeah.

Q He didn't know you were with him?

A No.

Q Where did he go?

A He went out there in the field.

Q What field?

A Like he was looking for something.

Q Out in the field behind the Valu King?

A Yep; like he dropped something back there.

Q What did he do?

A He was just looking around.

Q How long did he look around?

A About 5 or 10 minutes.

Q Where were you? Where were you when he was looking around?

A At the back of the store.

Q Where was the cigarette lighter at?

A It was laying in the grass and he had picked it up. I guess that's what he was looking for, because he --

Q He found the cigarette lighter he was looking for?

A Yeah.

Q Is that what he was looking for?

A Yep.

Q How do you know?

A Because he had dropped it, because I didn't see him put it back in his pocket. And, I guess, it was still laying there, and he came back and he was looking for it, and he found it.

Q And, then what did he do with it?

A Put it back in his pocket and then he left like it wasn't nothing.

Q And, then where did he go?

A Back over there by the -- behind Austing Village where his aunt stay at. That's where he living at. He not staying with his mother.

Q He's staying with Barbara? He's not staying with his mother?

A No.

Q You know, Danny, it seems like everything we suggest to you, you agree with us; right? Isn't that the way it seems to you?

A What?

Q Now, if we suggest something, it seems that you agree with us. In other words, about the cigarette lighter; I suggested he was looking for it, and you agreed with it. Now, if I was to just suggest and say that

the boy sucked your pee-pee, would you agree to that?

A No.

Q You won't?

A Because I didn't have nothing to do with that.

Q Did you such the boy's pee-pee?

A No.

Q You didn't?

A No.

Q Did Timmy suck the boy's pee-pee?

A I don't know. I didn't see him.

Q You said Timmy was carrying something under his shirt when he went back.

A He had something up under his shirt when he was walking from Colt Court. He had something up under his shirt.

Q The day after they did that to the boy?

A Yeah.

Q When he came knocking on your door, he had something under his shirt?

A Yeah.

Q If he had something, he was going to tell you what he had.

A Huh?

Q What did he have?

A Huh?

Q Did he tell you what he had?

A No. He just knocked on the door.

Q And, what did he say?

A He ain't said nothing. He just knocked on the door, because nobody answered, because I was upstairs asleep. Like, you came over to the

house and you had to knock real loud. That's how he had to knock. And, I still didn't go downstairs. I just looked out the window, like I looked out the window at you.

Q How could you tell he had something under his shirt?

A Because when he came and knocked on the door, I was already downstairs. Because, I had just got out of the shower, I was already downstairs. I looked out the big picture window to see who was knocking, and I seen him walking -- you know, he had just turned around and looked toward the window, and he had a big bulge in his shirt. So, then, I just went back upstairs and looked at him when he went through the field. He went down in the field. The hill drops when you go down.

Q Did you see him take anything out of his shirt?

A No.

Q The whole time he was looking for his lighter, he didn't take nothing out of his shirt?

A No.

Q So, you don't know what was under his shirt?

A No.

Q Well, why did you say it was his grey shorts?

A Huh?

Q You said one time in here today that you thought he had his grey shorts underneath that shirt?

A He had on some grey shorts, Tim did. Because, I could see it when he was pulling off his pants, he had on some grey shorts.

Q Tim did?

A Tim did; yeah.

Q Timmy get any blood on his underwear?

A I don't know.

Q You were close enough to tell, weren't you?

A It didn't look like nothing was on there.

Q Did he have any blood on his hands when he pulled that boy's dick off?

A Yeah; he had some on his hands. Yeah.

Q Did he have that boy's dick in his hand?

A I think; yeah.

Q Where did the boy's dick end up at?

A I don't know.

Q Did he run out of the woods with it?

A Yeah; that's what I said. When he seen me come down, he ran.

Q You don't know if he had the dick in his hand or not, though?

A No.

Q You say he went over to Barbara's. How long has he been staying at Barbara's house?

A Since he been out.

Q How come he don't stay with his momma?

A I guess because he had raped that other boy behind Perkins Park, I think.

Q You were there that day, too; huh?

A No.

Q I thought you told me the other day you was at the park with -- you know -- watching the baseball game.

A Yeah. I didn't know he was up there.

Q And, he was fucking some boy then?

A Yeah; that's what they had told me.

Q Does he like to do that to boys?

A Yeah.

Q Does he brag about it?

A He used to when he was in the -- (inaudible -- sounds like D.H.) -- he used to be in there, because, when I was in Dorm No. 2, it was at night, they had a nail, they had some nails they had pulled off the board, and it was two black dudes that was in this same cell with this white dude, and everybody was quiet. They told everybody to be quiet -- the people that was working there, like Biz and them that was working there, they told everybody to be quiet. And, so, then we was sitting down low, and him and Anthony Cursey picked this nail, I guess up to his neck, and said if you didn't do it that they was going to stab him with that nail. And, so he did it, and then all the staff and stuff came back in. That boy was crying and stuff. And, they had took him out, and then he told on Tim. He told on Tim and that dude, and I guess they ain't never done nothing about it. They just wrote up a report, an incident report.

Q You didn't touch the boy at all?

A Nope.

Q Not at all?

A No.

Q Just except to turn him over?

A Yeah.

Q And, feel alongside of his neck and see if he was still living?

A Yep.

Q Sergeant Steinbeck said they boy had -- he vomited on himself. I can't understand why he vomited on himself. I am lost with that one. Are you sure he vomited on himself?

A It looked like something was on him like throw up. It looked like something was on him.

Q It did?

Q You didn't get sick, did you?

A No.

Q All that blood and all that -- you didn't throw up on him?

A No.

Q You didn't get sick about seeing all that stuff? About that board; you said you had a board, right? You went back to the store and you got a board?

A Yeah.

Q You walked up behind Tim, and you thought about hitting him. What did you do with the board when Tim told you to get he fuck out of the way?

A Huh?

Q What did you do with the board? Did you throw it back out there?

A Because I was at the top of the hill, and he had looked up and he said, "Get the fuck back up there".

Q Wait a minute. Wait a minute. You are way up at the top of the hill? I thought you were sneaking up on him?

A Yeah. That's what I was doing, I was sneaking up on him, and he told me, "Get the fuck back up there", and I just threw it back.

Q Threw it back where?

A Up on the road, like.

Q By the building or on the road?

A Right back there by the building; yeah. I just threw it back up there.

Q And, the boy's bike was about 25 yards away from where you chased him; right?

A Yep.

Q Danny, the very next thing I am going to do is I am going to go to Tim Combs, and I am going to bring him in the same room. You ain't going

to be here now; right. And, I know that he is going to tell me that you did more than you are telling us three. Wait a minute. I ain't done yet. He is going to tell us that you did more than what you are telling us you did. Okay? You got to tell us what you did.

A I ain't done nothing. I took the lie detector test.

Q Listen. You got to remember one thing: when this case goes to Court -- okay. Understand? When this case goes to Court, Timmy Combs is going to get up there, if he gets up there at all, he is going to give a statement to one thing. He is going to try and implicate you in a manner that you might have done this.

A I know.

Q So, this is the thing we want to make sure that you understand this; that you are telling us each and every detail and the truth about the whole thing.

A I know. I know. I ain't had nothing to do with raping him or nothing.

Q Danny, did you have your dick out?

A No.

Q Did you jack off?

A No. I ain't pull out nothing. I ain't like that. No.

Q You can't tell me that you were that close and you were watching Timmy fuck him in the ass, and you didn't think about doing it.

A No; because I ain't like that. If I even see somebody -- just like when I was in the G.A. school, they try to do something like that to me, and I was fighting in the cell.

Q You was close enough -- did you kick the boy once?

A No.

Q Did you touch him anywhere?

A Just on his neck when I was seeing if he was breathing or not.

Q Didn't Timmy tell you to get away from him when you turned him over? Timmy say, "Get off of him"?

A Yeah. He said, "Leave him alone." Just like that. "Leave him alone. Let him lay there."

Q And, you and Tim walked out of the woods together?

A No. He had -- when I came off the hill I had went down and looked, and he was running. And, he said, "Leave him alone". Just like that. That's the way he talk. He said, "Leave him alone". And, then, I just started chasing him, and he was flying. I couldn't even catch him. So, I just slowed up and started walking up out of there. And, he was still running. Some people should have seen him when he came out of the field, the way he was running.

Q When you knew that this boy wasn't moving or anything, and you felt in your mind that this boy might have been dead, why didn't you go to your mother, or come to your uncle or go to someone that -- so they would know that that kid was behind that building back there, in that field?

A Because, if I would have did that, he would have came down here -- If I would have been looking for you -- about the same time he would have thought I'd been looking for you, he would have came down here and said that I had something to do with it.

Q Was you there when the police came up there?

A No.

Q You was afraid if you told us where the boy was we might think you did it?

A Yeah.

Q Why would you think that we would think you were guilty?

A Because I have a record. I have that record for that rape

charge. That would have started -- you know -- you all would have started to ask me all kinds of questions.

Q So, that's why you came down and talked to me Thursday, to try and get your alibi and blame it on Lowery. Lowery didn't have nothing to do with this?

A He had the bike. He was riding the bike. I got witnesses to that. He was riding the bike, because he tried to sell it to my cousin.

Q The bike with the reflectors on it?

A No, the bike that was laying back there in the field. He tried to sell it to my cousin.

Q How did Maurice Lowery get that bike?

A It was laying back there in the field. When you all had went back there to get that body, they went looking for the bike. So, the bike was still back there. He went back there and found the bike and tried to sell it to my cousin out in the Homes. And, he can come in here and tell you the same thing like I said.

Q The same bike?

A Same bike.

Q Well, how did the bike get back out in the field?

A He put it back out there when the police came to the school to pick him up, they asked him where the bike was at, and he had it hid over his cousin's house. And, no sooner at the school, I guess he threw it right back there, in the field. He threw it right back there, in the field.

Q Did Reesey Lowery have anything to do with the boy's death?

A No. He wasn't back there. It was just Tim Combs.

Q Straight up?

A Yep. Tim Combs.

Q There was nobody else back there?

A No.

Q You are not protecting anybody, right?

A No. It was just him. But, he did have the boy's bike.

Q Who had the boy's bike?

A Reesey Lowery.

Q Did you see Maurice Lowery on the boy's bike?

A Out there at Westlawn he was riding it. I seen him. I seen him on a bike similar to that.

Q When?

(WHEREUPON, this tape ended, and reference was made to rewinding -- (I presume another tape to follow).)

END

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TO: Ms. Vicki Werneke
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FROM: Deborah Davis, Ph.D.
Professor of Psychology
University of Nevada, Reno

RE: Affidavit Ohio v. Danny Lee Hill: #85-CR-317

DATE: 9 2 2014

I, Deborah Davis declare as follows:

1. You have asked me to provide an analysis of the case of Danny Lee Hill to assess the potential that he falsely confessed.

2. This affidavit contains my qualifications as an expert on false confessions, the records I have reviewed regarding this case, and a general description of my opinions.

3. The attached report provides the specific basis of the opinions herein and details regarding what science has shown about the causes of false confession, sources of suspect vulnerability to influence/coercion, and difficulties of evaluating the validity of confessions.

4. **Education and Experience** (see Attached CV)

5. I am currently Professor of Psychology at the University of Nevada, Reno, where I have worked since 1978. I am also a member of the faculty of the National Judicial College.

6. I received a B. A. in Psychology from the University of Texas (Austin) in 1970, and a Ph. D. in Psychology from Ohio State University in 1973. After spending two years as a Post-Doctoral Fellow at Ohio State, I taught at Southern Illinois University for two years and Georgia State University for one year before moving to the University of Nevada, Reno.

7. I have published approximately 20 articles and chapters on the topic of police interrogation and confessions, and presented approximately 16 times on this topic at conferences of scientific organizations and 14 times at Continuing Legal Education events for legal organizations and the National Judicial College. In addition, I have published a number of other articles and chapters that include discussion of interrogations and confession, and many others that address the broader topic of social influence. Finally, I have published many other articles in other areas of psychology.

8. I was awarded a grant from the Department of Justice/Federal Bureau of Investigation to perform research on interrogation techniques in 2012.

9. I have completed the basic and advanced interrogation training seminars offered by John Reid, Assoc. and Wicklander-Zulawski (the primary interrogation training organizations in America), on criminal and corporate interrogation.

10. I have testified as an expert witness on interrogation and confessions in Alaska, Colorado, California, Illinois, Louisiana, Michigan, Missouri, Mississippi, New Mexico, New York, Oregon, South Carolina, Pennsylvania, Utah, and Washington State.

11. Records Reviewed

12. (SH1): Motion to Suppress Hearing Vol. 1 273 pp
13. (SH2): Motion to Suppress Hearing Vol. 2 259 pp
14. Adaptive functioning narrative (16 pp)
15. Trial Transcript Vol. 1 (321 pp)
16. Trial Transcript Vol. 2 (312 pp)
17. Trial Transcript Vol. 3 (346 pp)
18. Trial Transcript Vol. 4 (313 pp)
19. Tim Combs Statements to Police
20. Timeline for Danny Hill Case (7 pp)
21. Probation Report (22 pp)
22. Mitigation Report (408 pp)

23. Hill Video Interview Transcript (54 pp)
24. Hill Audio Interview Transcript (44 pp)
25. Coroner's Verdict (1 p)
26. Autopsy Report (11 pp)
27. Voluntary Statement of Timothy Combs Written (4 pp)
28. Interrogation Timothy Combs (78 pp)

29. **OVERVIEW OF OPINIONS**

30. Danny Lee Hill was a retarded teenage African American at the time of the murder in question. He became a suspect in the violent abuse and murder of a young 12 yr old boy because he went to police himself, saying he had relevant information about the crime. A reward of $5,000 had been posted for such information. Danny asserts that he went to police to try to tell them a false story that would get him the reward. Police quite correctly suspected him of lying (as he admits he did). But this led them to suspect he was involved in the crime himself. These suspicions led police to interrogate Danny on two subsequent occasions, during the second of which he eventually admitted involvement in the crime.

31. Danny Hill did not believe he could refuse to talk to police, though he was given Miranda warnings during each interrogation. Danny demonstrably did not understand many of the words entailed in the warnings, nor did he understand the implications of waiver. He could barely read, and could not read (or understand verbally) most of the content. Moreover, his interrogators essentially instructed him to talk to them and presented the warnings as a formality rather than a choice to be made. Thus, his waiver could not be considered voluntary, knowing or intelligent.

32. Danny Hill was an individual who was highly susceptible to influence, given his low IQ and difficult life history. He was interrogated by officers he had known most of his life, including his Uncle Morris Hill. He was explicitly told that nothing was going to happen to him, that he was not under arrest, and that he would be going home. At the same time, he was accused of involvement in the crime and interrogated in a very suggestive manner. That is, officers fed Danny Hill almost every fact that was incorporated into his final confession. The officers noted this pattern themselves:

> "You know, Danny, it seems like everything we suggest to you, you agree with us; right? Isn't that the way it seems to you? .. Now, if we suggest something, it seems that you agree with us. In other words, about the cigarette lighter; I suggested he was looking for it, and you agreed with it. Now, if I was to just suggest and say that the boy sucked your pee-pee, would you agree to that?" (Audio Interview Transcript, p. 37).

33. It is my opinion that this statement by the interrogator sums up very accurately where the content of Danny Lee Hill's confession came from. He was told he was involved and instructed to tell the officers exactly what happened. His denials were not believed, and they repeatedly told him he was lying and needed to admit his involvement. It was only after his own Uncle Morris Hill met with him alone and instructed him to start admitting that he was involved that Danny agreed, and the taped interrogations followed.

34. It is clear from the interrogation transcripts (which begin well after the questioning that day began) that Danny gets his answers from the interrogators' suggestions. They asked questions suggesting an answer (such as "Did he put anything in the victim's mouth."). Thus, Danny gave answers essentially agreeing with what he was asked. When he gave an answer inconsistent with what interrogators knew (or thought they knew), they corrected him and told him what they believe happened instead. He would then change his answers. When they asked him leading questions they knew to be false, Danny agreed with those too. This pattern is what led the interrogator to say that it seemed that everything they suggested Danny would agree with.

35. In addition to the interrogators suggestions, information about the case and details were widely available in the community. Countless members of the community were around the crime scene when police arrived. The victim had been found by his father. Thus, many details of how the victim was found and in what condition could have been conveyed through the community by the victim's family or directly observed by others at the crime scene.

36. I do not have access to all of the evidence in the case, and cannot offer an ultimate opinion of guilt or innocence. However, it is my opinion, based on the evidence surrounding the interrogations themselves and Danny's personal characteristics, that Danny Hill's confession was highly unreliable. It is very possible that he was simply a young teenager of low intelligence living in relative poverty who saw an opportunity to get what must have seemed a fortune to him ($5,000). He decided to concoct some lies that would seem like valuable evidence to police. But he didn't really know what he was talking about, in that he knew only publicly available facts about the crime.

37. His lies were not plausible, in part, because he didn't know the real facts. It is very difficult for liars to construct a plausible story that will fit facts others know but they don't. It is also difficult for them to keep straight in memory what they have told (keep track of their own stories and who they have told them to, etc.). Danny Hill started constructing a story he thought would be plausible, but he had to keep making up more stuff as police questioned him about details or challenged his first accounts—and then keep all that straight in memory. This is something that is essentially impossible for a retarded young man such as Danny.

38. Therefore, whether guilty or innocent, it is no surprise that he gave multiple inconsistent accounts in his initial two interrogations and stories to his interrogators: with the result that he became a serious suspect. Danny Hill had gotten himself in a situation where his initial efforts to claim a reward led him into a series of interrogations in which he first tried to maintain his original position as a witness with valuable information, but was so clearly caught in lies that his interrogators transitioned into trying to elicit admissions of guilt. By his third interrogation Danny was already stuck with his previous statements, could not see his way out of the interrogation itself or any way to successfully deny involvement (given the interrogators' insistence that he was involved and must tell them how) and was finally led to change his story in the direction his interrogators had become convinced was true.

39. Given Danny Hill's personal characteristics and vulnerability to influence, his personal history with his interrogators, the demands placed on him to confess, and the way in which the content of his confession was fed to him, little weight should be given to his confession as evidence of guilt. Moreover, whether he is actually innocent or guilty, the details of his confession were fed to him by his interrogators and should not be regarded as reliable.

Executed this 3rd day of September 2014 in Reno, Nevada.

Deborah Davis, Ph.D.

State of Nevada
County of Washoe

Signed and sworn before me on 3 Sept 2014
by Deborah Davis

Notary Public

NOTARY PUBLIC
STATE OF NEVADA
County of Washoe
AMBER MILLER
No: 04-91829-2
My Appointment Expires July 11, 2016

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INTERROGATION-RELATED REGULATORY DECLINE: Ego Depletion, Failures of Self-Regulation, and the Decision to Confess

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As reflected in rulings ranging from trial courts to the U.S. Supreme Court, our judiciary commonly views as "voluntary," and admits into evidence, interrogation-induced confessions obtained under conditions entailing stressors sufficient to severely compromise or eliminate the rational decision making capacities and self-regulation abilities necessary to justify such a view. Such decisions reflect, and sometimes explicitly state, assumptions soundly contradicted by science regarding the capacity of normal suspects lacking mental defect to withstand such stressors as severe fatigue, sleep deprivation, emotional distress—and aversive interrogation length, tactics and circumstances—and nevertheless resist the powerful pressures of the interrogation to self-incriminate. Notwithstanding excessive length and other severe interrogation-related stressors and tactics demonstrably associated with elicitation of false confessions, judges overwhelmingly admit confessions into evidence and juries overwhelmingly convict. In this review, we introduce the concept of "interrogation-related regulatory decline" (IRRD)—or decline in the self-regulation abilities necessary to resist the forces of influence inherent to interrogation. We review scientific evidence of the unexpected ease with which self-regulation abilities can be significantly compromised, with the hope that this evidence can (a) encourage more evidence-based objectivity, realism, clarity and specificity in the criteria for assessing voluntariness underlying admissibility decisions, (b) promote reforms aimed at prevention of interrogation practices entailing substantial risk of severe IRRD, and (c) encourage more scholarly research on acute sources of interrogative suggestibility.

Keywords: interrogation, false confession, acute suggestibility, self-regulation, voluntariness

Juan Rivera, a mentally handicapped 20-year-old, was arrested for the murder of 11-year-old Holly Staker in Waukegan, Illinois, 1992. Rivera underwent approximately 33 hours of unrecorded interrogation by at least 10 different officers over four days, and ultimately signed two confession statements written by police admitting that he had raped, stabbed, and murdered Staker. Prior to signing the two police-written confessions, during this extraordinarily long and intense set of interrogations, Rivera began to hyperventilate and bang his head against the cell wall so violently that he was medicated, and his arms and legs were shackled. He had suffered an acute (interrogation-induced) psychotic break-

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down, later stating that he had lost consciousness during the interrogation ordeal and didn't remember signing the police-written statements.

Despite the great amount of physical evidence left at the crime scene (including hair, semen, and fingerprints), none of more than 350 pieces of physical evidence linked Rivera to the crime. Moreover, Rivera was wearing an electronic leg monitor showing him at home the night of the crime, not at the crime scene. Nevertheless, he was convicted of the murder and rape of Staker three times! His 1992 conviction was reversed, as was his second conviction in 1998. After his second conviction was also reversed—and although Rivera was excluded in 2005 by DNA tested from sperm taken from the victim at autopsy—he was convicted for the third time in 2009. At each of his three trials, defense counsel tried—but ultimately failed—to suppress the police-written statements as the involuntary product of psychologically coercive interrogations (Leo & Ofshe, 1998; Marshall, 2010; Raley, 2011). Three trial judges did not believe the that totality of the circumstances surrounding Rivera's interrogation sufficiently overrode his will to render the confession involuntary—nor did three juries view them as sufficiently coercive as to render his confession false, despite the wealth of exculpatory evidence supporting his innocence.

Rivera's third conviction was also reversed in December of 2011 (*People v. Rivera*, 2011). The appellate court relied heavily on the exonerating DNA evidence, the unreliability of witnesses, and contamination of the confession (evidence that seemingly incriminating crime knowledge contained in Rivera's signed confessions had been communicated to him by his interrogators and other sources). The appellate court rejected the prosecution's argument that the specialized knowledge in the confession confirmed Rivera's guilt. However, the stated bases of the reversal addressed only implications of the content of the confession, and did not include the coerciveness of the interrogation or the involuntariness of the confession.

Cases like Rivera's are more commonplace than one would hope. Although most confessions obtained through police interrogation are arguably true, Rivera's false confession is only one among several hundred confessions that have been proven false to near or absolute certainty (Leo & Ofshe, 1998), and have been documented by scholars, independent researchers, and journalists over the last two decades (Drizin & Leo, 2004; Gudjonsson, 2003; Leo, 2008). Moreover, 20–25% of cases of postconviction exoneration, of which there are now close to 300 in the United States (*http://www.innocenceproject.*org), have implicated police-induced false confessions as a primary cause. Though elicited through interrogations entailing many coercive tactics that were also deployed upon Rivera, and though sometimes elicited from suspects already impaired by mental handicap or severe preexisting stressors, these confessions were admitted at trial by judges who viewed them as voluntary, and were later viewed as definitive evidence of guilt by juries who believed them valid. Such stories reflect a disturbing pattern in the American justice system. While the law prohibits the use of physical violence, or explicit threats and promises contingent on confession, police are largely free to interrogate using deceptive, exhausting, and aversive tactics, and to continue as long as the suspect fails to invoke his *Miranda* rights and demand that it stop—with virtually no risk that any confession obtained will be ruled involuntary and excluded from trial.

Admissibility rulings for contested confessions often reflect poor understanding of the power of the weapons of influence inherent in American interrogation. They further reflect assumptions soundly contradicted by science regarding the capacity of normal suspects lacking mental defect to withstand such stressors as severe fatigue, sleep deprivation, emotional distress—and aversive interrogation length, tactics, and circumstances—and nevertheless resist the powerful pressures to self-incriminate. Herein, we review evidence of factors that induce "acute situational suggestibility" in police interrogation, namely, acute situational forces preceding and during interrogation that compromise the ability to resist police pressures toward self-incrimination. Specifically, we focus on interrogation-related factors that impair self-regulation: that is, causes of "interrogation-related regulatory decline" (IRRD) underlying impairments of rational decision making and exertion of one's will. We argue that these abilities are more easily compromised than commonly assumed. Finally, we argue for reforms in judicial standards used to guide judgments of voluntariness, for reforms in police interrogation practices likely to severely compromise rational decision making and the exertion of one's free will, and for the conduct of additional research addressing such acute sources of vulnerability.

Interrogation, Confession and the Fundamental Attribution Error

Police interrogation is a powerful social situation in which detectives with apparent authority to affect the suspect's long-term legal outcomes subject him or her to an often lengthy and relentless process, employing a full armament of the most powerful weapons of social influence, to convince the suspect to provide a complete and incriminating account of his involvement in the crime at hand. The interrogation may begin when the suspect is already fatigued or distressed, may last many hours, or even days, and will typically entail a variety of tactics or procedures experienced as stressful or aversive. The latter may include forensic assessments such as polygraph tests, DNA, fingernails and other swabs, blood testing, and others; and interrogation tactics such as stringent and unrelenting accusations, refusal to attend to or believe suspect accounts of the events in question, extreme duration, multiple interrogators, invasion of personal space, physical deprivation or discomfort, and others.

Given the power of the forces of influence during interrogation, it is no surprise that interrogations are effective at eliciting confessions—both true and false. Because no registry or database exists from which to take a statistically meaningful random sample, we do not know the incidence of interrogation-induced confessions. But reviews of English and American field studies suggest a rate ranging from 42%–76% (Gudjonsson, 2003; Thomas, 1996). The incidence of false confessions likewise cannot be established absent reliable truth criteria, but is likely to be higher than commonly assumed. Police investigators estimate from their own experience that roughly 5% of the confessions they obtain are false (Kassin et al., 2007), suggesting that they elicit thousands of false confessions every year. But those who falsely confess in response to such tactics represent a small portion of those who offer true confessions against self-interest. This very power of interrogation gives rise to the three-pronged "confession problem" of voluntariness, validity, and prejudicial impact (Davis & Leo, 2011).

Once given, a confession may be retracted and disputed at trial as invalid, involuntary, or both. If the trial judge agrees that the interrogation overrode the defendant's will and coerced the confession, it will not be admitted. If the judge disagrees, and admits the confession, the defendant may claim it was false; given as the result of an extremely stressful, deceptive, and coercive interrogation. He or she may also claim enhanced vulnerability due to factors such as mental illness or defect, or others (Follette, Davis, & Leo, 2007). But a confession carries enormous prejudicial impact at all levels of the justice system. Except in the most egregious circumstances of suspect vulnerability and physical coercion (often even then), it will likely be presumed true and voluntary by police, (even defense) attorneys, judges, juries and appellate courts (see Leo & Davis, 2010 for review). When claims of invalidity or involuntariness arise, judgments tend to focus on issues of extreme physical coercion, or what could be wrong with the confessor. If no mental defect is identified, in the absence of clear physical coercion, the tendency is to believe the confession to be voluntary and true (Leo, 2008; Wrightsman, 2010).

In part, this tendency to default to considering issues of physical coercion and mental defect is due to the complexity of the issue. To adequately assess voluntariness or validity, the judge or jurors must understand the nature and impact of the influences to which the suspect is subjected during the interrogation, as well as what factors would enhance the vulnerability of the suspect to these influences—and *how much* they are likely to do so. And finally, they must apply this knowledge to determine the likelihood that the suspect's will was sufficiently overborne to cross the legal threshold of involuntariness (the vague and ill-defined "totality-of-the-circumstances" standard lacking specific guidelines), or the threshold of influence necessary to induce a false confession—thresholds that are not clearly defined in the law and not readily estimable. When the issue is validity, evidence of guilt must also be weighed. In many cases, the confession is the only evidence against the suspect, rendering the ability to accurately judge the coerciveness of the interrogation the only pathway to accurate charging, plea, admissibility decisions, and verdicts. But these judgments are extremely difficult, and in practice, tend to reflect incomplete and inaccurate knowledge of the nature and impact of both interrogation forces and individual vulnerability (see Davis & Leo, 2010).

The power of the situational forces acting upon police suspects is routinely underestimated by those at all levels of the legal system and by clinical interrogation scholars. We have reviewed the powerful, but often subtle and unrecognized, interrogation forces elsewhere (Davis, 2008; Davis & Leo, 2010; Davis & O'Donohue, 2004; Leo, 2008). Here, we focus on the issue of individual vulnerability to interrogation-related influences. Further, we do not review sources of *chronic* individual vulnerability such as personality, mental abilities or illness, or life-event histories that have been extensively reviewed by ourselves (Follette et al., 2007) and others (Gudjonsson, 2010; Kassin et al., 2010). We focus instead on what we refer to as acute situational suggestibility, namely, acute situational forces preceding and during interrogation that compromise the target's ability to resist police pressures toward self-incrimination, up to and including full confession.

Substantial evidence has demonstrated that the power of acute situational forces to undermine suspects' willpower and cognitive capacities is much greater

than commonly reflected in judicial rulings and jury verdicts (Davis & O'Donohue, 2004), and that these forces are sufficient to undermine the will and abilities of "normal" suspects possessing no defects of personality, mental health or abilities, or character. Here, we present a model of acute situational suggestibility. We first review the personal resources needed to resist interrogative influence. Then, drawing largely from literature on ego-depletion and self-regulation, (Vohs & Baumeister, 2011), we review evidence that these resources are more easily depleted and impaired by interrogation-related influences than commonly assumed—a process we refer to as "Interrogation-related regulatory decline" (henceforth IRRD). Finally, we offer policy recommendations designed to minimize IRRD and the resulting acute situational suggestibility, as well as to aid observers who must render judgments of coercion, voluntariness, and validity.

A Model of Interrogation-Related Acute Situational Suggestibility

Generally, theories of resistance to persuasion suggest that resistance requires at least two intact resources, the *ability* and the *motivation* to resist influence (Petty, Cacioppo, Strathman, & Priester, 2005). If one or both are compromised, susceptibility to influence will increase.

Ability to Resist

The ability to resist influence consists of two components: (a) the ability to effectively assess relevant information to arrive at the best judgment or choice of behavior to achieve one's goals under the circumstances, and (b) the ability to exert one's will and act on what one considers to be the best course of action. While chronic cognitive resources and willpower are clearly central to these abilities, situational forces crucially affect the capacity to marshal and use them effectively.

The ability to arrive at the best choice of behavior entails the intact functioning of a number of cognitive resources. First and foremost, one must be able to maintain focus on the goal at hand—in interrogation, to achieve the best legal outcomes, in part by avoiding incrimination—and avoid diversion toward goals such as pleasing the interrogator, escaping the interrogation immediately through compliance, and so forth. One must continually recognize, remember, and give priority to long-term best interests over immediate, and often overwhelming, impulses, and control what is said and done in the service of these long-term interests. Second, one must control attention, such that goal-relevant incoming information is attended to and irrelevant distracting information is unattended or quickly dismissed. Third, one must be able to access relevant information from long-term memory and evaluate and integrate incoming information in that context. Fourth, one must have the working memory resources to hold all relevant information in mind and use it appropriately as options are evaluated. Fifth, one must be able to control one's emotions sufficiently to make use of these abilities. Finally, one must possess the willpower to engage and persist in resisting influence, notwithstanding fatigue, the persistence of the interrogators' influence attempts, or the ineffectiveness of one's own initial attempts to resist.

Motivation to Resist

Motivation to resist influence can also arise from a number of sources. Incompatibility with other important goals or beliefs may promote resistance to the targeted belief or course of action. Resistance can also arise from perceptions that confession will lead to aversive legal, social, or other personal consequences—or by awareness of innocence and the conviction that one can successfully defend it. Goal-based motivation to resist will also depend heavily upon the ability to maintain focus on such goals and protect their priority, rather than to be diverted toward those promoted by the interrogator (such as pleasing the interrogator, or minimizing consequences of guilt rather than avoiding incrimination entirely) or prompted by the situation (such as escaping the interrogation through compliance rather than enduring it to protect long-term legal interests). One may also be resistant to the source of the influence attempt, due to dislike, distrust, low-perceived credibility, reactance, or other reasons: such as when the interrogator is perceived as hostile, coercive or deceptive. Moreover, motivation to resist can derive from the perceived availability and feasibility of other alternatives, for example, from knowledge of one's legal rights to stop the interrogation, demand an attorney, and avoid self-incrimination; or from the very fact of one's innocence, or perceptions that one can successfully establish innocence or avoid incrimination. Finally, it can derive from a sense of self-efficacy, or perceptions that one possesses and can successfully marshal the necessary abilities to resist.

Such sources of resistance can be undermined by personal or situationally induced impairments in self-confidence, general motivational deficits, awareness of relevant negative consequences of resistance, priority given to short rather than long-term goals, or inappropriate liking, and belief in the helpful motives of the interrogators. Further, interrogation tactics themselves are designed to impair motivation to resist, largely by convincing the suspect that resistance is futile and that it will only hurt the suspect's long-term legal interests, and by impairing general motivation through distress or fatigue. The skills and motivations necessary to avoid interrogation-induced self-incrimination are clearly many and vital, as are the many interrogation-related forces against which they must be deployed. Yet, the many interrogation-related assaults on these abilities and motivations are likewise surprisingly powerful. But what are these assaults? How powerful are they? And, by what mechanisms do they work?

What Must Be Resisted? The Nature of Influence in Interrogation

At all stages of police interrogation, several primary sets of strategies are operative, though specific manifestations differ. The first of these may be broadly termed "choice architecture" (Thaler & Sunstein, 2008), in which the interrogator attempts to promote confession by defining and limiting suspects' perceptions of the set of available choices. Toward this end, he or she attempts to establish the purpose and agenda of the interrogation, and to define and restrict the choices available to the suspect, primarily to exclude the possibility of establishing innocence. The interrogator attempts to undermine resistance to him- or herself by establishing "beneficence" and "authority" (Davis, 2010; Davis, Leo, & Follette, 2010), and casting him- or herself as a trustworthy ally whose goals are to help

the suspect and as someone with the authority to affect whether and what charges will be filed, based on the results of the interrogation.

The second choice architecture strategy is to redefine the nature of the interrogation. Rather than acknowledging the real purpose, which is to facilitate the suspect's ultimate conviction—or even the apparent purpose, which is to investigate guilt—the interrogator redefines the interrogation as a situation in which guilt is already clearly established. Instead, the goal is represented as allowing the suspect to "explain" him- or herself and therefore "help" him- or herself, with the implication that this explanation will affect (in a positive way) whether and what charges will be filed, with what consequences, and so forth. Thereby, what would naturally be the suspect's primary goal of exoneration is removed from the suspect's apparent choices, such that his or her attention and efforts will shift to the goal of minimizing consequences of guilt.

Choice architecture is also important during administration of *Miranda* warnings. Resistance is most effective if the suspect refuses interrogation without an attorney. Recognizing this, interrogators have adopted strategies designed to promote the illusion that the person actually doesn't have, the "right to invoke his rights." Interrogator may say something like: "Listen, we need to get this thing straightened out, but before we can do that we need to get this *formality* out of the way." This and similar statements clearly convey that the detective *will* be talking to the suspect, and that he or she is clearly not expected to refuse.

The interrogator next turns to the second general set of strategies, which is to alter the perceived costs of denial versus confession. During this phase, referred to as "theme development," the interrogator will suggest that the crime was probably committed under circumstances and for reasons that appear to minimize its seriousness and apparent legal consequences, such as for self-defense, to help others rather than out of greed, toward a "victim" who probably provoked or deserved it, and so on. These minimizing suggestions or scenarios can be complemented by arguments concerning how the judge or jury will react to a person who won't take responsibility for what she or he has done, or who lies about any involvement (see Davis, 2008, 2010; Davis & Leo, in press-a for examples).

The final set of strategies is overarching, in that it is enacted from the beginning to the end of the interrogation. Some strategies are designed to control the interaction completely. In part, this occurs through the earlier efforts to define the purpose and agenda of the interrogation. In addition, the interrogator attempts to control the focus of the suspect's attention, such that the suspect has difficulty diverting attention from the interrogator's push toward confession. This diversion renders the suspect less likely to remember his rights and why he or she should exert them, or failing this, less likely to focus instead on the possibility of innocence, any arguments or evidence favoring innocence or highlighting the negative long-term legal or social consequences of confession, or even simply away from the interrogator or toward ties with others who might discourage confession. The focus of attention tends to narrow under stress (Christianson, 1992; Easterbrook, 1959). Thus, the stressful circumstances of the interrogation are likely to enhance the effectiveness of the strong pull of the interrogators' efforts to control attention, and undermine the influence of other considerations that might otherwise effectively deter confession. Multiple strategies are enacted in service of this general purpose, including speaking quickly (so that the suspect

can't think of anything else), interrupting the suspect if he or she tries to offer denials, invading his or her personal space to prevent withdrawal, and others.

The second overarching set of strategies is those of emotion manipulation. The prominent Inbau and colleagues interrogation manual (Inbau, Reid, Jayne & Buckley, 2011), for example, argues for the effectiveness of emotions such as anxiety, pride, and guilt in promoting confession. Anxiety about one's fate, for example, can render one susceptible to solutions presented as a mechanism to minimize legal consequences. Raising guilt regarding the morality of the crime might render confession attractive as a means of atonement. Raising pride in the cleverness of the crime can raise the motivation to take credit for it. All promote confession, and most effective of all is to maintain a state of strong anxiety or fear that will have the additional effects of impairing cognition and promoting the need to escape. Vulnerability will increase among those experiencing powerful negative emotions, intolerance of distress, and difficulty controlling the emotions or associated distress (Follette et al., 2007).

To recap, a suspect may enter the interrogation deeply impaired by the physical and emotional stresses of the crime and its aftermath, only to face a potentially lengthy and aversive interrogation in which the suspect may be subject to aversive physical tests, and in which he or she is likely to be deceived throughout (Davis, 2010). If the suspect tries to defend her- or himself, he or she might be interrupted, called a liar, argued with and presented with apparently incriminating evidence to contradict arguments for innocence, and any efforts to defend innocence will be generally discounted. If the suspect fails to exert his or her rights to avoid or terminate the interrogation, this may go on for many hours, or days. Even if the suspect is offered food or rest, he or she may be too anxious to take advantage of those opportunities. There may be physical discomforts due to temperature, unsatisfied needs, or uncomfortable seating, and fatigue and stress are likely to increase as time goes on. The accused might feel greater and greater need to terminate the interrogation and get away. Without enormous strength of will and self-control, the suspect may do or say whatever is necessary to make it stop.

In this context, to avoid confessing against self-interest, the suspect would be best served by avoiding interrogation. Police interrogation may take place in two broad phases. During the first, the preinterrogation interview, the suspect may be interviewed in a nonaccusatory fashion designed to inquire about background issues, and establish rapport between suspect and interrogator. A significant purpose of this stage is to evaluate the person for deception, but interrogators are trained to interpret, inappropriately, reflections of suspect anxiety as indicating deception and guilt (Inbau et al., 2011; Vrij, 2008). Accordingly, the suspect's ability to control emotions is crucial, in that apparent anxiety can lead the interrogator to presume guilt, and proceed to interrogation.

If this happens, suspects can exert their *Miranda* rights and refuse questioning without legal counsel. But to do so, they must remember everything they know about their rights, and understand what those rights are, why they are important, and the damaging things that can happen if questioning continues without an attorney present. They must resist interrogators' efforts to imply that their rights aren't real, and understand that detectives' insinuations of their guilt if they refuse to talk are less important than the long-term damage that can occur if they do. If

they do agree to the interrogation, they must control powerful emotions deriving from the events in question and the interrogation itself, control distress, and suppress impulses to do anything to get away. They must control attention and focus on the goal of exoneration, despite powerful forces pulling attention toward the lesser goal of minimizing consequences. They must be able to remember relevant knowledge and use it to critically evaluate the information and arguments presented by interrogators, and recognize when they are being deceived.

Moreover, suspects must resist intense pressures to confess from one or more authorities, who presumably have much greater relevant knowledge of evidence against suspects, and other issues, and significant apparent control over their fates. Suspects must resist tactics designed to distract attention away from what they know about their rights, recognize the foibles of evidence presented against them and the prospects for eventual acquittal, and focus on what is important. They must remember what really happened, and not become confused by what they are now being told. And most of all, suspects must have the willpower to continue resistance despite the unremitting interrogation, and the possible frustration of failure to convince their interrogators of their innocence. Suspects must not let motivation to resist fail by falling prey to the apparent beneficence of the interrogator or to feelings of hopelessness and ineffectiveness. A tall order indeed! But how effectively can individuals mount such defenses, in the face of the many influences they may face in interrogation, with so much potential to compromise needed resources of resistance?

The Depletion and Impairment of Resistance: What Is Self-Regulation? Why Does it Matter? And How Easily Is it Impaired?

Self-regulation refers to processes by which individuals control their thoughts, emotions, and behaviors in service of the pursuit of one or more goals. One of the most rapidly burgeoning and vibrant areas of research in psychology, the study of self-regulation has implicated chronic or acute self-regulation capacities and strategies as playing crucial roles in most areas of human life or endeavor: from clinical psychopathology, to thinking, memory and creativity; school and work performance; successful interpersonal relationships; problem behaviors such as risk taking, criminality, or drug abuse; efforts toward self-improvement such as dieting, and others (see Vohs & Baumeister, 2011 for reviews).

Baumeister and his colleagues proposed a "limited-resource" view of self-regulation resources (Baumeister, Bratslavsky, Muraven, & Tice, 1998), suggesting that prior exertion of self-control depletes these resources (termed ego depletion), leading to greater likelihood of self-regulation failure on subsequent self-regulation efforts. Studies in the limited resource paradigm use dual-task procedures in which participants are first subjected to an ego-depleting task presumed to consume self-regulatory resources, and subsequently perform a second unrelated task, one presumed to also demand such resources. The general finding of such studies is that prior use of self-regulatory resources impairs performance on subsequent resource demanding tasks, but does so less or not at all for less demanding tasks (see Hagger, Wood, Stiff, & Chatzisarantis, 2010 for a review of moderators of these effects).

Studies in this tradition have used a variety of tasks to serve as both manipulations of ego-depletion and measures of its effects, including tasks requiring control of cognitive resources such as attention, working memory, and others; effort and persistence in the face of difficulty or failure; emotion regulation, physical effort, control of impulses, tolerance of distress, active choice or exertion of will, and others. Qualifying tasks must entail overriding acute impulses, or inhibition of automatic, habitual or dominant responses, and include tasks of difficulty or tedium sufficient to require effort to override impulses to quit. Depletion through any such task can impact subsequent self-regulatory control in any others. Poor regulatory resources may also result from fatigue, illness, or chronic regulatory weakness.

Of particular relevance to interrogation are the self-regulatory functions of control of short-term impulses in favor of long-term best interests, control of cognition to facilitate optimal decision-making and control of behavior, and control of emotion to facilitate each of these. In the following sections, we review evidence of (a) the importance of intact self-regulatory resources for each area of control, (b) the surprising ease with which self-regulatory function can be impaired, and (c) the impact of ego-depletion on suggestibility and the ultimate decision to confess. We then consider common, yet unrecognized or underappreciated, sources of interrogation-related ego-depletion and self-regulatory failure.

Impulse Control: Maintaining Priority of Long-Term Goal Pursuit Over Short-Term Impulse

A prerequisite for successful self-regulation is having a clearly defined behavioral goal. At the beginning of interrogation, a suspect may have the goal of establishing his or her innocence. As the interrogation persists, the suspect may become increasingly fatigued or distressed. If the suspect gives priority to his or her immediate needs to escape the aversive situation over long-term best legal interests, he or she may confess simply to terminate the interrogation. This can happen through two mechanisms involving (a) simple lack of interest in long-term goals and/or (b) an inability to override the impact of immediate needs and demands, sometimes despite strong concern with long-term goals (e.g., due to distress intolerance).

As it proceeds, interrogation is likely to substantially shift the balance between the strength of impulses to escape the interrogation versus cognitive and emotion control functions that might otherwise override them. As this balance shifts, attention will likewise shift to cues relevant to escape over those relevant to the initial goal of exoneration. As the increasingly impaired suspect becomes more stimulus-driven and less responsive to internal goals and beliefs, the interrogator's push toward confession will become more persuasive. The interrogator will thwart efforts to establish innocence but strongly encourage other goals, such as being seen as cooperative, explaining how one might have been caught up in the moment, avoiding a bad legal outcome if one cooperates, or, where alleged coperpetrators are also being interrogated, "telling your side of the story" and assigning blame to them before they assign it to you. Interrogation is designed to increase anxiety, guilt, and other negative emotions to increase the impulse to escape; and to misrepresent what are the most desirable and attainable goals. If

either occurs, self-regulation toward preventing incrimination is inevitably weakened.

Metcalfe and Mischel (1999) proposed a dual-process system for regulation of impulsive responses to situational stimuli. They summarized the two systems as follows:

> A cool, cognitive "know" system and a hot, emotional "go" system. . . .The cool system is cognitive, emotionally neutral, contemplative, flexible, integrated, coherent, spatiotemporal, slow, episodic, and strategic. It is the seat of self-regulation and self-control. The hot system is the basis of emotionality, fears as well as passions—impulsive and reflexive—initially controlled by innate releasing stimuli (and, thus, literally under "stimulus control"); it is fundamental for emotional (classical) conditioning and undermines efforts at self-control. The balance between the hot and cool systems is determined by stress, developmental level, and the individual's self-regulatory dynamics (p. 3).

Self-regulation studies often apply the conflict between these "hot" and "cold"" systems to the issue of rational restraint of emotional impulses. However, restraint may also derive solely from the hot system, as when anxiety prevents response to either cool cognitive evaluations and plans, or to situational stimuli provoking contrary emotional responses (such as when desire says "go" and anxiety says "stop;" Carver, 2005). A wealth of evidence has accumulated to support the role of self-regulatory strength in suppression of impulse-driven behavior in favor of functional, carefully considered behavior, and to illustrate the roles of both major and minor forms of ego-depletion on impulse-driven behavior (see reviews in Vohs & Baumeister, 2011). Much such literature concerns resistance to dysfunctional behaviors, such as overeating, substance abuse, risk-taking, inappropriate sexual actions, and so on. However, other literature has concerned the issue of choices maximizing long- versus short-term gain.

Metcalfe and Mischel (1999) reviewed a host of studies concerning delay of gratification (i.e., resisting the impulse to accept an immediate smaller award in favor of a delayed, but larger one), showing that interference with the "cool, cognitive, 'know' system" resulted in greater reaction to the "hot 'go' system;" that is, choosing the immediate smaller reward (for more recent review, see Tobin & Graziano, 2010). This situation is particularly pertinent to the interrogation-related choice of whether to comply and confess to achieve the short-term goal of escape from the stresses of the interrogation, but with the price of facing the long-term consequences of incrimination, prosecution, and probable incarceration. A second, particularly relevant issue of impulse control—that of controlling the impulse to quit a prolonged, demanding or frustrating task (such as interrogation)—has likewise been shown to depend upon intact self-regulatory resources (Hagger et al., 2010; Vohs & Baumeister, 2011).

Current views suggest that impulse control depends upon at least three self-regulatory functions (e.g., Hofmann, Friese, & Roefs, 2009). The first, "inhibitory control," refers to the capacity to choose how to react to the impulse, and potentially willfully override it. The second and third affect the strength of the impulse, thereby modulating the difficulty of inhibitory control. One relies on the cognitive functions of executive control of attention; that is, the ability to divert attention from triggers of the impulse, and redirect it to stimuli and thoughts that

would inhibit the impulse. This can include Metcalf and Mischel's rational cool, cognitive "stop" analysis of consequences and reasons the impulse should be inhibited. The other entails down-regulation of the hedonic affect (emotion) triggering the impulse—in effect, to weaken the impulse itself. Thus, we turn in the next two sections to the general self-regulatory functions of control of cognition and regulation of emotion. In the process, we illustrate the ease with which self-regulatory resources, and thus performance in each of these areas, can be compromised.

Control of Cognition

The cognitive system is responsible for deliberative judgments, strategic planning for goal pursuit, and inhibition, or overriding of prepotent impulses or habits. Central to these functions are memory and control of attention. Rational analysis requires one to selectively attend to, comprehend, and remember relevant incoming information; access other relevant information from memory; hold all relevant information in working memory; and use it to assess the desirability and feasibility of goals and strategies to achieve them; and then select plans for their execution. Then, the person must have the strength of will to execute those plans, notwithstanding strong stimulus draws toward other goals and behaviors.

A number of studies have specifically examined the effects of depletion of cognitive resources on tasks demanding self-regulatory resources, many using the dual-task depletion paradigm described earlier. Others have used manipulations of cognitive load, placing heavy demands on working memory in order to decrease capacity for the target task—often by requiring the person to engage simultaneously in a distracting secondary task while completing the primary task. Impairment of cognitive resources through either experimental strategy has been shown to result in poorer self-regulation—with respect to impulse control and rational analysis (see Hofmann, Friese, Schmeichel, & Baddeley, 2011 for review).

Impulse control and the pursuit of conscious or long-term goals are weakened by impairment of important cognitive functions. Effective goal pursuit entails the ability to maintain current goals and relevant supportive information and plans in mind over time, and to engage in the executive attentional control to screen out distraction and maintain their priority over other situationally prompted goals (i.e., goal shielding). These functions entail intact working memory and attentional control—for inhibition of interfering thoughts and emotions. Attention must also be controlled to update relevant information and the status of goal pursuit, and flexibly adjust—potentially to switch goals when one goal becomes infeasible or inadvisable, or to switch strategies in pursuit of the same goal. Finally, one must exert the will to override conflicting impulses in favor of the preferred goal. Effective decision-making is likewise undermined by cognitive deficits. Again, incoming information must be screened for relevance, understood, and evaluated in light of relevant information accessed from long-term memory. Distracting thoughts' content and emotions must be suppressed in order to process and integrate relevant information to form a decision—which may require updating as more information is added. And, again, the person must exert the will to act on the decision (now a goal), and pursue it despite countervailing influences.

Hoffman and colleagues (2011) presented evidence that both chronic and acute working memory capacities (WMC) are crucial to all of these cognitive

functions. Further, both chronic and acute WMC impairment has been empirically linked to the end results of impairments in impulse control, long-term goal pursuit, decision-making, and emotion regulation. In other words, cognitive control is necessary for all additional areas of self-regulation, just as it also depends upon them. Strong impulses and emotions deplete cognitive resources through attempts to either control or pursue them.

Unfortunately, depletion of cognitive resources and other self-regulation failures have been proven to occur in response to tasks that are much less resource-consuming than those facing suspects in police interrogation. Thus, it is important to note specific examples of apparently minor manipulations of depletion, and their surprising power to affect crucial underlying cognitive processes and the resulting self-regulatory failures (for a vast array of additional examples, see Vohs & Baumeister, 2011).

Schmeichel (2007) illustrated the ease with which prior exertion of cognitive executive control can impair subsequent executive control functions, obtaining impairment on subsequent tasks due to prior attentional control (e.g., watching a video while ignoring distracting information at the bottom of the screen), response inhibition (e.g., writing a story while instructed not to use an "a" or an "n"), memory updating, including the operation span (e.g., performing mathematical calculations while performing a recall task), sentence span (e.g., combining a recall task with verbal or spatial distractors), reverse digit span (e.g., attempting to recall a series of numbers backward rather than forward), and response exaggeration (e.g., exaggerating facial expression of emotion during an emotion-provoking film).

In another set of studies, Schmeichel and colleagues (Schmeichel, Vohs, & Baumeister, 2003) used the dual-task method to examine the effects of executive depletion on verbal comprehension and reasoning. Participants who first performed the depleting attention-control task whereby they watched a video while suppressing attention to distractor stimuli, compared to those who had no distractor stimuli, subsequently persisted less in attempting to answer GRE analytical questions and answered fewer correctly, and also performed more poorly on a reading comprehension section of the GRE. In a second study, participants who watched a distressing film while instructed to suppress their emotional reactions subsequently performed more poorly on demanding cognitive tasks than those not given suppression instructions.

The ego-depleting impact of the simple act of making a choice among alternatives was investigated by Vohs and colleagues (Vohs et al., 2008), who showed that making choices among college courses or consumer goods (compared to just thinking about the options) led to less tolerance of physical distress (persistence in the cold-pressor task of holding one's arm submerged in ice water), reduced persistence in the face of failure, and poorer performance and persistence in completing math calculations. The depleting effects of choice are greater, however, when under circumstances characteristic of police interrogation, where the decision is more difficult, or the person feels pressured, coerced, or seduced into action, compared with circumstances in which the person more easily or freely chooses among naturally interesting or desirable alternatives (Baumeister, Sparks, Stillman, & Vohs, 2008; Moller, Deci, & Ryan, 2006). Those asked to

make more controlled, versus autonomous, choices persisted less in attempts to solve unsolvable puzzles, as well as solvable, but tedious puzzles.

A number of studies examined the end-product of such processes, showing that the choices of ego-depleted participants were guided more by simple heuristics and irrelevant context effects rather than by deliberate, effortful trade-off comparisons (see Baumeister et al., 2008 for review). In addition, choices appear to become more passive, in that the already powerful tendency to choose the "default" option—one engaged automatically unless one actively chooses otherwise—is greater when individuals are depleted. Choices are also more likely to be guided by the affective feelings generated by the various alternatives rather than their objective rational advisability. And, when all is said and done, memory for what was chosen is poorer among depleted choosers (Baumeister et al., 1998).

While these and many other studies have implicated ego-depletion in subsequent failures of cognitive performance, substantial research has also implicated impairment of cognitive executive functions, and specifically working memory (WMC), in failures of impulse control, such as restraint of eating or substance use, risk taking, aggression, inappropriate sexual behavior, and others; and in failures of emotion-regulation, including both enactment of specific emotional control strategies such as reappraisal or diversion of attention, and the end product of dampening undesired emotions (see Gross, 2007; Hofmann et al., 2011; Vohs & Baumeister, 2011). In sum, ego-depletion renders a person more stimulus-driven and responsive to immediate impulses, less rational and reflective in decision-making, and more vulnerable to suggestion and persuasion, as we discuss below.

Affect Regulation and the Management of Distress

A central problem of self-regulation for a suspect under interrogation is the need to control his emotions, or at least his reaction to them. The suspect may need to suppress affective states such as distress, anxiety, and fear that might otherwise disable cognition, interfere with rational decision-making, increase susceptibility to interrogation tactics playing on emotion, and lead to greater impulsivity or confession to terminate the interrogation. Emotions selectively drive attention toward emotion-related, goal-relevant stimuli and information (see Levine & Edelstein, 2009). This can exert powerfully distracting effects, diverting attention from the goal of exoneration, and rendering the suspect more responsive to suggested mechanisms to minimize legal consequences, or to mechanisms of escape from the aversive interrogation. In contrast, successful emotion regulation facilitates pursuit of preferred goals, and yet increases needed flexibility in thinking and behavior in pursuit of those goals.

Self-regulation of emotion is dependent upon several processes potentially impaired by ego-depletion. Among them is regulation of attention to divert thinking from emotion-provoking information or stimuli. One may also self-regulate emotion through cognitive reappraisals of the source of emotion, rendering it less threatening (see Koole, 2009 for review). Each mechanism can be dysfunctional in the interrogation room, where effective decision-making requires the suspect to attend to relevant information and to realistically appraise and evaluate the situation. The suspect may also self-regulate emotions by avoiding physical expressions of emotion such as facial expressions, physiological re-

sponses, or gestures; or may engage in relaxing exercises such as yoga-like controlled breathing or progressive muscle relaxation techniques, and so on (see Gross, 2007; Koole, 2009 for reviews).

Unfortunately, all such mechanisms require self-regulation to override automatic responses with more controlled, effortful responses—the very processes compromised by ego-depletion. Moreover, such efforts to control emotion are themselves depleting—and lead to self-regulation failures such as aggression, overeating, inappropriately simplified or poor decision making, unfocused attention, impaired memory and other decrements in cognitive performance (DeWall, Baumeister, Stillman, & Gailliot, 2007; Dillon, Ritchey, Johnson, & LaBar, 2007; Johns, Inzlicht, & Schmader, 2008; McRae et al., 2011; Richards & Gross, 2000; Tice, Baumeister, & Zhang, 2004). Efforts to cope with stress, specifically, lead to self-regulatory failures directly relevant to the ability to resist pressures toward confession, such as impaired attentional control or persistence in the face of frustration. Intense emotions are more difficult to regulate, and efforts to control them more depleting. Moreover, emotional control itself becomes more difficult as the person suffers greater depletion, thereby exacerbating such effects (Schmeichel & Demaree, 2010).

Efforts to control the overt expression of emotion can boost arousal while failing to reduce negative emotions, and paradoxically reducing positive emotions (Butler et al., 2003; Gross, 1998; Gross & Levenson, 1997), creating a cycle of greater and greater difficulty in self-regulation of emotion. Expressive suppression can also impair social functioning (Srivastava, Tamir, McGonigal, John, & Gross, 2009), disrupt communication, and magnify negative emotions. Emotion suppression has additional negative effects, including impairing memory for ongoing interactions or events (Dillon et al., 2007; Egloff, Schmukle, Burns, & Schwerdtfeger, 2006; Richards & Gross, 2000), and can be particularly detrimental when a suspect or interrogator must later recount the events of an interrogation.

The Role of Fear

Among the many emotions likely to arise in the interrogation room, perhaps the most common is fear. Among the most powerful sources of such fears is the specter of prison or death. The former entails a number of specific fears such as isolation, separation from friends and family, boredom, physical threats of violence, deprivations of liberty and material resources, and many others. Some such fears have been specifically shown to impair self-regulation. Effects of thoughts of death, for example, were investigated in nine studies by Gailliot and colleagues (Gailliot, Schmeichel, & Baumeister, 2006). Participants lower in either chronic or acute measures of self-control, or those experimentally depleted through prior resource-consuming tasks, were less able to keep thoughts of death at bay. In turn, when participants were led to confront and cope with thoughts of death, this led to self-regulation failures of attentional control, logical reasoning, and persistence. Lesser fears of social isolation, exclusion, separation from loved ones, or rejection—highly relevant for those facing possible incarceration—have also been shown to impair self-regulation, including impairments of impulse control, such as aggression, unhealthy behaviors, or foolish risk taking; distorted time perception and emphasis on the present over the future; and an assortment of impair-

ments in cognitive functions (Baumeister, Brewer, Tice, & Twenge, 2007; Baumeister & DeWall, 2005; Blackhart, Baumeister, & Twenge, 2006).

The Costly Pursuit and Maintenance of Self-Esteem

Among the pervasively present self-regulation goals are those directed toward maintenance of self-esteem and specific desired self-images (see Crocker, Moeller, & Burson, 2010; Morf & Horvath, 2010). Both unconscious and conscious processes operate, whereby the person becomes especially attentive and responsive to opportunities for threats to the pursuit of preferred self-images (Morf & Horvath, 2010). Such selective attention can render the suspect more responsive to theme development, for example, where the interrogator flatters the suspect and offers seemingly more acceptable scenarios for how and why the crime was committed (e.g., self-defense). Interrogation manuals instruct that such scenarios will facilitate confession by offering mechanisms through which the suspect can confess and nevertheless save face (e.g., Inbau et al., 2011).

Whereas goals of ego maintenance can facilitate receptiveness to the interrogator's tactics directly, it may also do so through ego-depletion. The pursuit and defense of self-esteem has been shown to be effortful (Crocker et al., 2010; Morf & Horvath, 2010), and to lead to self-regulatory failures manifest in a variety of behavioral and cognitive arenas. This represents one of a number of interrogation-related sources of distress—and ultimately suggestibility—that tend to go unrecognized or underestimated. As with many classes of threats, those to the ego engage the "hot" emotional system (Crocker et al., 2010), that is, provoking negative emotions such as shame, fear, embarrassment, feelings of failure, and others; increasing stress and arousal; and provoking voluntary coping strategies designed to deflect the threat and restore the ego. Efforts to manage emotions and address the threat trigger thoughts that divert attention, consume cognitive capacity, and undermine pursuit of other long-term goals. Perceived threats to one's self-image can function like threats to physical well-being or survival, thereby activating the fight-or-flight system and provoking the release of stress hormones such as cortisol (Crocker et al., 2010), which themselves undermine cognitive performance (see later sections on stress).

The Role of Stereotype Threat

Many of these processes have been reflected in the literature on "stereotype threat." When negative stereotypes applying to one's social group are salient, thereby also threatening one's own ego, performance in stereotype-relevant areas is impaired. Such decrements result in part from the increased cognitive load caused by worry about potentially confirming the undesirable stereotypes. This work has recently been extended to show a broader range of self-regulation failures under stereotype threat, such as increased aggression, unhealthy eating, more risky decision making, reduced physical stamina, failures of attentional control and working memory, and increased loss-aversion in decision making (the tendency to overweight the potential for loss). Stereotype threat impairs performance, in part due to depletion of executive resources resulting from (a) physiological stress responses directly impairing prefrontal processing, (b) active monitoring of threat-related performance, and (c) the person's attempts to regulate

the negative emotions raised by the threat (Beilock, Rydell, & McConnell, 2007; Carr & Steele, 2010; Inzlicht & Kang, 2010; Inzlicht, McKay, & Aronson, 2006; Johns et al., 2008; Schmader, 2010; Schmader & Johns, 2003; Schmader, Johns, & Forbes, 2008).

It is noteworthy that substantial potential for the operation of stereotype threat exists in the interrogation room. Minorities such as Hispanics and African Americans, for example, may be aware of stereotypes associating their groups with criminal behavior. Similar processes may affect other defendants—for example, step-fathers accused of sexual assault of step-children, and others accused of crimes viewed as likely committed by a person of their category (husbands accused of spouse murder). Awareness that others may assume they are personally criminal as the result of such stereotypes can promote the sense of hopelessness regarding establishing innocence that interrogators encourage and rely on, and through the processes mentioned above, directly impair thinking and self-regulation. Further, the anxiety associated with awareness of and attempts to manage stereotype threat may give rise to the appearance of deception and guilt, as cues of anxiety tend to be interpreted by interrogators and others as indicators of deception (Vrij, 2008; Najdowski, 2011). Finally, as with other classes of ego threat, stereotype threat may render the person more susceptible to interrogation tactics of flattery or face-saving themes.

The Related Issue Of Impression Management

An overriding task of the suspect in police interrogation is to attempt to manage the impressions he or she conveys to his interrogators—all the while keeping in mind the ultimate audiences of prosecutors, judges, and juries. Vohs and colleagues (Vohs, Baumeister, & Ciarocco, 2005) provided evidence that such impression-management goals and activities are depleting and lead to self-regulatory failures on subsequent tasks, particularly when one must override natural behavioral tendencies in order to convey desired impressions. Depletion effects have included failures of persistence on difficult math tasks or acts of physical endurance, and failures of emotional control. Likewise, Vrij and colleagues (Vrij, 2008) have provided evidence that lying is cognitively demanding compared with truth telling, along with the related activities of keeping track of the lies one has told and the lie-relevant information that might betray them as such, and the need to monitor carefully other information one might disclose in light of the lies. Vohs and colleagues (Vohs et al., 2005) also documented the reverse: that resource-demanding activities impair successful impression management. Ego-depletion through emotion regulation or attention control has led to more uncontrolled talking, inappropriate self-disclosure and negative self presentations.

Of particular interest for the context of interrogation, Crocker and colleagues (Crocker et al., 2010) pointed out that self-regulation in the "'hot' system" can lead to failures to discriminate when one should persist versus quit. That is, hot emotions triggered in response to ego threat may provoke such strong needs to restore one's self-esteem or to manage others' impressions of oneself that one may persist in such efforts even when they are dysfunctional or failing, such as continuing to talk to police hoping to convince them of one's innocence rather

than more wisely invoking *Miranda* rights. The degree to which the ego is at stake can vary between situations and people (Crocker et al., 2010; Morf & Horvath, 2010). This offers an avenue of attack for the interrogator to use such ego-related threats to increase the suspect's level of distress (and need to escape), and his or her susceptibility to tactics such as flattery or theme development. It also indicates an unrecognized source of individual vulnerability, both to interrogation-related regulatory decline (IRRD) and to specific interrogation tactics; see, e.g., Morf and Horvath's (2010) discussion of reactions of narcissists to self-threats.

The Bottom Line: Ego Depletion, Decision Making, and Persuasion

Together, the stresses of the interrogation and emotional responses to them can be extreme and debilitating. Substantial evidence has implicated stress in poor decision making, and therefore much research has addressed mechanisms to override such negative effects and protect decision-making faculties in extremely stressful and demanding environments (Hammond, 2000; Kennedy & Moore, 2010; McNeil & Morgan, 2010; Orasanu & Lieberman, 2011). Impairments result in more impulse-driven emotional decisions, in part reflecting less reflective processes such as active analysis of incoming information—a crucial liability when faced with unrelenting attempts to persuade.

Interrogation tactics may persuade suspects (whether guilty or not) that confession will serve their long-term best interests. Effects of ego-depletion on the effectiveness of persuasive attempts can be understood in the context of the "elaboration-likelihood" (Petty, Barden, & Wheeler, 2009; Petty et al., 2005) and related dual-process models of persuasion. According to such models, persuasion may take place via a more effortful form of "central-route" processing, whereby the person carefully attends to and thinks actively about incoming messages, and critically analyzes them in light of existing knowledge. Persuasion via this route depends upon the quality of the arguments presented, and the recipient's ability and motivation to critically appraise them. If the person does not possess the ability or motivation to process a message on the central route, he or she will be shunted to the "peripheral route," where processing is much less reflective and effortful, and the content of the message is not as carefully scrutinized for quality. Instead, persuasion depends on peripheral or heuristic cues serving as proxies for quality—such as source credibility or trustworthiness, the number (vs. quality) of arguments presented, and so on. Message quality impacts persuasion more when processing resources and message importance are high; whereas, if one or both are low, persuasion is affected less by message quality and more by peripheral cues such, as source characteristics (e.g., expertise, likability, trustworthiness, or authority) or the simple number of arguments (see Petty et al., 2005 for review).

Illustrating the effects of ego depletion on reaction to argument quality, for example, Wheeler and colleagues (Wheeler, Briñol, & Hermann, 2007) found that nondepleted participants were more persuaded by the high- than the low-quality arguments, whereas depleted participants were equally persuaded by both. Further, depleted participants generated significantly less counterarguments against the couterattitudinal message—that is, they responded less thoughtfully and critically to the message. Even as resource depletion reduces responsiveness to argument quality and enhances persuasion based on source credibility, it ironi-

cally renders targets of persuasion less likely to respond to cues of manipulative intent on the part of the communicator that would otherwise lead them to discount the message (Wentzel, Tomczak, & Herrmann, 2010). Such a process can increase susceptibility to tactics designed to increase trust of an actually malevolent interrogator and shunt the suspect to peripheral-route processing, where he or she would likely fail to critically evaluate the content of the interrogator's persuasive efforts and simply rely on his or her apparent trustworthiness as an heuristic cue to truth and accuracy.

Findings from the dual-process tradition of persuasion research fit well with a second line of research conducted by Daniel Gilbert and his colleagues (Gilbert, Tafarodi, & Malone, 1993), indicating that people tend, as a default, to first believe information they encounter as part and parcel of the process of understanding it. In a second, less automatic process, they may or may not carefully think about that information and deliberately decide to believe it or not. But the second stage may not occur, and if not, the person may yet believe what "should not" be believed (e.g., Gilbert et al., 1993). Typical resource depleting circumstances can enhance cognitive load and reduce the likelihood of, or prevent, this second stage.

In a particularly relevant set of three studies, Gilbert et al. (1993) found that, under enhanced cognitive load or increased time pressure, participants exposed to false information about either a criminal defendant or a college were more likely to use the false information in making consequential decisions about the target. In effect, they were less likely to "unbelieve" the false information. Likewise, distraction decreases the effects of argument quality on persuasion and increases effects of peripheral heuristic cues (see Petty et al., 2005 for review).

Common but Underappreciated Sources of Self-Regulation Failure in Interrogation

A central point of our review of the importance and impact of self-regulation has been the ease with which the underpinnings of successful decision making and resistance to influence can be undermined. This stands in stark contrast to the (in our view) amazing insensitivity among those in the legal system to the effects of far more exhausting and depleting circumstances faced by criminal defendants. Interrogations that clearly pass reasonable limits of suspects' abilities to actively exert their wills, to "knowingly and intelligently" waive their rights, or to decide to confess (allegedly voluntarily and rationally), are routinely ruled voluntary and admitted into evidence (Wrightsman, 2010). Among the circumstances posing what should be the most obvious of interrogation-related factors undermining these capabilities are extreme preexisting stress, fatigue or sleep-deprivation, or extremely lengthy and/or stressful interrogations. Self-regulatory resources can be depleted through use, and through efforts to cope with distress, as described in preceding sections, but may also be compromised through simple physical deprivations associated with long and aversive interrogations, including glucose depletion, fatigue, and sleep deprivation. In the following sections, we consider the effects of these physical deprivations. We also cover in more detail the effects of severe stress, and evidence from studies of military personnel in extreme circumstances of the combined effects of these factors.

Glucose Depletion

Gailliot and Baumeister (2007) reviewed substantial evidence that self-regulatory resources rely on glucose, which itself is depleted by the many self-control activities studied in the self-regulation literature. They presented evidence of reciprocal influence between the two, such that acts of self-control reduce blood glucose levels and depleted glucose levels impair the many acts of self-control reviewed earlier. Further, replacement of glucose between acts of self-control reduces or eliminates depletion effects. Other evidence indicates that eating, per se, may be important for emotion regulation, and that, via its impact on emotion regulation, eating may aid in other acts of self-control. Eating has neuroendocrine effects such as the release of opioids that can relieve stress (Koole, 2009).

Severe glucose depletion is not uncommon in police interrogation. Suspects may be deprived of replenishing resources for hours, and, if offered food or sugary drinks, may decline due to dampening effects of psychological or physiological distress on appetite. Even if glucose is consumed sporadically, it may be insufficiently frequent relative to the demands imposed by the situation for replenishment, thereby exacerbating the already depleting effects of fatigue and other forces of the interrogation.

Fatigue/Sleep Deprivation

Fatigue and sleep deprivation may be extreme when an interrogation begins, and increase as the interrogation lasts as long as one or more days. Decrements in performance due to sleep deprivation of as little as 24–36 hrs have been reported for cognitive tasks entailing attention, working memory, long-term memory, visuomotor performance, decision making, verbal fluency, logical reasoning, creative thinking, response inhibition, error detection and correction, updating decisions in light of new information, planning, prioritization, and emotion regulation, though effects can vary among the specific tasks assessed (see Alhola & Polo-Kantola, 2007; Harrison & Horne, 2000; Walker & van der Helm, 2009; Wesensten & Balkin, 2010 for reviews). Illustrating extreme impairments of judgment under sleep deprivation, Banderet and colleagues (Banderet, Stokes, Francesconi, Kowal, & Naitoh, 1981) examined the effects of sleep deprivation on artillery training teams in sustained simulated combat. Decisions to fire on simulated enemy versus noncombatant targets revealed that after 24 hrs of sleep deprivation, teams inadequately kept track of the difference—firing without hesitation regardless of the nature of the target. In contrast, without sleep deprivation, the teams refused inappropriate requests.

Particularly relevant effects of sleep-deprivation on suspects concern resistance to influence, rational decision making, emotion regulation, impulse control, and memory for the interrogation and events in question. Several studies found enhanced suggestibility under sleep deprivation. Many others have focused on sleep-deprivation effects on the quality of decision making, indicating that sleep deprivation generates greater deficits in decision making when tasks involve novel judgments, requirements for greater integration, creativity, and flexibility in thinking, the presence of competing distractions, or the need for effective communication—all characteristic factors affecting the suspect's decision making in interrogation. Decisions also tend to become less sensitive to potential loss and

more risky and reward driven (Venkatraman, Huettel, Chuah, Payne, & Chee, 2011; Venkatraman, Chuah, Huettel, & Chee, 2007), and confidence in one's decisions and actual accuracy become more dissociated with increased sleep deprivation (see Alhola & Polo-Kantola, 2007 for reviews). Substantial research also indicates that fundamental processes of perception, encoding, consolidation, and maintenance of memory over time, and memory's susceptibility to alteration through various processes are strongly affected.

At extreme levels, sleep deprivation can sufficiently impair encoding, such that the unreal is perceived as real and vice versa (Larsen, 2001). If the event is encoded successfully, memory-consolidation processes are subject to disruption through sleep deprivation (see Diekelmann & Born, 2010 for review). A further level of consolidation occurs predominantly during REM sleep (Walker & Stickgold, 2010; Walker & van der Helm, 2009), supporting integration of new with old memories within associative networks, and facilitating schematic understanding and planning. The very process of integration of new memories with existing information, as well as with additional new, incoming information, can produce memory distortion, as illustrated by a significant body of research on distortion of memory toward supportive beliefs (Davis & Loftus, 2009). Suggestion occurring during informal or formal discussions of the events in question can alter memory upon retrieval, and, as noted earlier, has more impact upon the sleep deprived (Walker & van der Helm, 2009). Such findings suggest that sleep deprivation may render a suspect more vulnerable to distorted descriptions of the events in question (including the possibilities of false confession and false memories of committing the crime; Kassin, 2007), and yet less able to remember the interrogation that prompted the false memories.

Emotion regulation. The sleep-deprived brain is significantly less able to self-regulate emotions and produce controlled appropriate responses (Van der Helm & Walker, 2010; Walker & van der Helm, 2009). A large variety of dysfunctional behaviors become more disinhibited when an individual is sleep deprived, ranging from overeating and other forms of indulgence, to various forms of risk taking and aggression (Walker & van der Helm, 2009; Wesensten & Balkin, 2010).

Sleep deprivation and recovery. Although most studies of sleep deprivation have examined total sleep deprivation of varying degrees, studies of inadequate sleep across one or more nights have also shown similar deficits in self-regulatory functions resulting from one or more deficit hours per night. Moreover, whereas recovery from an acute, total sleep loss can occur in 1–2 nights of 8-hr sleep, recovery from chronic sleep restriction occurs less rapidly, and deficits may persist for days after normal sleep hours are resumed. Acute efforts to restore function in the sleep deprived are not effective substitutes for sleep. Activities such as bouts of physical activity, for example, are not effective in improving performance for more than several minutes, though agents such as caffeine in sufficient dose can help (Wesensten & Balkin, 2010). Thus, it is unrealistic to presume that a suspect will resume normal functioning if given a few hours of sleep, or even a full night's sleep, or if given opportunities to walk around or drink a caffeinated soda between repeated interrogation sessions, particularly if sleep loss has occurred for several days prior. Further, it is better to

rely on objective indices of deprivation rather than subjective reports of fatigue, as the two are inconsistently related (Wesensten & Balkin, 2010).

The Perfect Storm: A Cocktail of Glucose-Depleting Stress, Fatigue, and Sleep Deprivation

While glucose depletion, stress, fatigue, and sleep deprivation separately impair executive functions of cognition and control, together they pose the specter of much more profound impairment. Such a cocktail of forces is difficult to investigate in the typical research lab, but has been the subject of routine study in the military. Sometimes referred to as the "fog of war," military researchers have examined deficits of performance under stress commonly experienced in extreme combat-related circumstances. Lieberman and colleagues (Lieberman et al., 2005) described "combat stress-induced cognitive decline" as pervasive decrements in simple and complex cognition under combat conditions. McNeil and Morgan (2010) coined the term "operational demand-related cognitive decline" (ODRCD) to refer to "decrements in cognitive performance or decision-making resulting from the manifold pressures or acute stressors characteristic of dangerous or extreme environments."

Military training activities offer the opportunity to study such a constellation of stressors. For example, SERE (survive, evade, resist, escape) training subjects cadets to intense physical activity and discomfort, sleep deprivation over several days, and intense acute stress via mock POW capture and interrogation.

Charles Morgan and colleagues have conducted a series of studies to identify the degree and manifestations of the cadets' stress responses to SERE and other stressful military training exercises, as well as potential moderators of these responses. These and related studies have revealed an important role of stress in impairment of indices of executive control and cognitive performance, and various specific aspects of military performance, including performance in interrogation and memory for the interrogator (see McNeil & Morgan, 2010; Lupien, Maheu, Tu, Fiocco, & Schramek, 2007 for reviews). Dissociative symptoms such as a sense of unreality, feeling as if watching things from outside one's body, feeling disconnected from one's body, distorted sense of time or motion, "spacing out," and so on were common during training— and experienced among more than 90% of the general population of cadets.

Stress prompts the release of stress hormones in the brain related to impairment in executive functions, including, cortisol and norepinephrine . This is countered by the release of other agents that moderate the negative effects of C and NE, such as neuropeptide-Y (NPY) and sulfated and unsulfated forms of dehydroepiandrosterone (DHEA and DHEA-S). The relative balance of these substances is linked to the amount of impairment of executive functions under stress. Trainees develop higher levels of these substances during training—and cortisol is greatest after exposure to the interrogation segment of training. However, those with higher relative levels of the protective NPY and/or DHEA/DHEA-S suffered lesser impairments in cognitive functions, such as alertness during stress, memory, experiences of dissociative symptoms, and others; less psychological distress; and better performance in the interrogation segment of training (see McNeil & Morgan, 2010).

Suspects in police interrogation are subject to multiple stressors, whose effects we earlier dubbed IRRD to include all aspects of impaired self-regulation. We suggest that neuroendocrine assessments such as those employed by Morgan and his colleagues and other indices of physiological stress-responsivity might be valuable additions to evaluations routinely performed by psychologists/psychiatrists as evidence of enhanced vulnerability to coerced confession.

It's Not Just the Suspects: Ego Depletion and Police Cognition

Police can also suffer depletion due to preexisting stressors and fatigue, and the length and stresses of the interrogation to which they are uniquely subjected. Among the many implications of ego depletion in interrogators are the following: More simplistic analysis of evidence and suspect behavior, enhanced tunnel vision and confirmatory biases; and reduced abilities to objectively assess the suspect and evidence, to correct initial judgments of the suspect or evidence, to recall evidence and construct arguments favoring confession, to manage emotions and impressions of himself, to lie effectively, and to manage other necessary tasks (see Davis & Leo, in press b).

Conclusions and Policy Recommendations

Our review and analysis of the import of literature on self-regulation and the process of interrogation-related regulatory decline (IRRD) suggest three policy implications regarding: (a) standards for admissibility of police-induced confessions, (b) limits on interrogation practices, and (c) future directions for interrogation research.

Standards for Admissibility Rulings

Police interrogation can be a perfect storm of forces undermining the capacity to exert one's will, restrain dysfunctional impulses, and engage in optimal decision making—for suspect and interrogator alike. With impaired self-regulatory resources, both become susceptible to stimulus control, more reactive to situationally induced emotions and impulses, less reflective, more likely to think reflexively and heuristically, and more likely to be influenced by the pressures and arguments of others.

Though many of these forces act on the interrogator, given the difference in power and roles, they are primarily brought to bear on the suspect. Indeed, research has demonstrated that lower relative social status or power—as is characteristic of a suspect being interrogated by the relatively powerful detective—is associated with poorer control of basic cognitive processes such as attention, and poorer decision-making (e.g., Fast, Gruenfeld, Sivanathan, & Galinsky, 2009; Guinote, 2007, 2010; Smith, Dijksterhuis & Wigboldus, 2008; Willis, Rodriguez-Ballon, & Lupianez, 2011). And it is the suspect's vulnerability that is eventually litigated. In this context, understanding bases of enhanced vulnerability to influence is complex, requiring appreciation of the diverse forces of influence inherent to interrogation, the personal resources necessary for resistance, as well as both chronic and acute underpinnings of these sources of resistance. Further, understanding bases of enhanced vulnerability to influence entails understanding of the magnitude of the persuasive power of the interroga-

tion forces, as well as the degree to which various chronic and acute factors compromise a person's capacity to resist.

Added to these problems is the difficulty of anticipating or judging the power of hot emotional or visceral impulses when not currently in such a state oneself. Even if one did understand how interrogation-related forces *can* affect a suspect, this gap makes it more difficult to appreciate the magnitude of such forces *actually* facing any given suspect. Given the necessity and difficulty of this multilevel analysis, in the context of widespread misunderstanding of the magnitude of acute effects on self-regulation and ability to resist, it is not surprising that the courts have yet to recognize the majority of relevant vulnerabilities as sufficient grounds for suppression (Wrightsman, 2010; see Davis & Leo, in press-c for more extensive review of sources of difficulty in judging the voluntariness or validity of interrogation-induced confessions).

These problems are made greater by the ambiguity and lack of specificity in standards for assessing voluntariness when confessions are challenged in suppression motions. The current "totality-of-circumstances" test allows for consideration of many factors, but almost none are absolute (Leo, 2008), allowing judges substantial leeway to weigh factors they consider important, and to subjectively interpret their severity and import. There is no guidance regarding what degree of acute impairment, or aversiveness of interrogation tactics might be sufficient to render the confession involuntary, or how such factors might interact with chronic personal vulnerabilities. This allows significant variability in judgments across cases, and permits findings of voluntariness (soundly contradicted by science) for confessions obtained from severely compromised suspects. Moreover, absent adequate understanding of the importance of situational forces, judges tend to suppress confessions almost exclusively based on chronic suspect vulnerabilities (Watson, Weiss, & Pouncey, 2010). We suggest that justice would be better served by the adoption of more specific guidelines regarding thresholds for these judgments, grounded in available science.

It is our hope that expanding interrogation science will inspire the courts to provide more evidence-based standards in the future. For the foreseeable future, this is most likely to occur via the presentations of defense attorneys arguing for suppression or for innocence, and through the expert testimony they offer in support of these arguments. Currently, the courts are most receptive to expert testimony on chronic mental disabilities that increase suggestibility, and tend to exclude or disregard testimony on acute suggestibility or the forces of the interrogation. Interrogation experts must argue more extensively and persistently for the relevance of broader psychological science to interrogation, as we have exemplified here, rather than defer to the tendencies of the courts to regard research not explicitly conducted with interrogation as irrelevant.

Interrogation Reform

Our review further suggests that interrogation practices should be reformed to avoid those likely to induce severe IRRD in interrogators and suspects, as they compromise the quality of information obtained from suspects as well as the quality of the detective's performance. Notwithstanding excessive interrogation length or other questionable tactics and circumstances, judges rarely suppress

confessions if a valid waiver is obtained and prohibitions against physical coercion or explicit use of threats and promises are observed. Thus, police can successfully conduct interrogations that severely compromise the self-regulatory resources of suspects largely without restraint.

Although impairments of self-regulation resulting from interrogation cannot be fully prevented without a complete overhaul of interrogation techniques, practices such as excessive length and deprivation of basic comforts and nourishment are unnecessary and can produce a level of self-regulation failure in which the risk of false confession is significantly raised. We hope that our review can provide empirical support for widely suggested (e.g., Kassin et al., 2010) interrogation reforms, such as limits on length and specific per se rules against any physical or psychological deprivations during interrogation that would be easy to implement.

Perhaps the easiest reform is limitation on length. More than a decade ago, Welsh White (1997) suggested a maximum of six hours for any interrogation; and prominent interrogation manuals suggest even fewer (e.g., 4 hrs; Inbau et al., 2011). A legislature or the Supreme Court could adopt limits of 3–4 hrs, and then create a rebuttable presumption that if the time limit is exceeded, any resulting confession, absent a compelling explanation by the prosecution, will be regarded involuntary. Length restrictions could be followed by evidence-based guidelines regarding acceptable limits on the acute physical and mental condition of the suspect. To support such an effort, however, additional evidence of the direct impact of IRRD on interrogation performance would be helpful to the courts.

A Call to Arms

Accordingly, we hope to encourage interrogation scholars to address the acute impairments in volition provoked by interrogation-related stressors. Although scientific literature currently exists to document the impact of such influences, we as scientists and experts will more successfully influence public policy through the accumulation of additional evidence specifically addressing their influence in interrogation. Two recent studies have shown a decrement in comprehension of *Miranda* rights under stress due to either participation in a mock crime or false accusations of cheating (Rogers, Gillard, Wooley & Fiduccia, 2011; Scherr & Madon, in press). We are currently extending this work to examine effects of stereotype threat on *Miranda* comprehension, and are further conducting laboratory studies to examine the impact of several sources of ego depletion on reactions to interrogation tactics. However, much remains to be done, particularly with respect to the addition of field studies of actual police interrogations, documenting forces with potential to impair self-regulation, and examining their abilities to predict confessions.

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MENTAL HEALTH STATUS AND VULNERABILITY TO POLICE INTERROGATION TACTICS

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ILLUSTRATION: TIM LEE

When Francis Connelly walked up to a police officer and said he murdered a woman, the officer advised Connelly of his rights to remain silent and have a lawyer representing him. Connelly said he understood, but still wanted to talk about the murder. The officer ascertained Connelly was neither drunk nor on drugs, but had been in several mental institutions. The officer again told Connelly he did not have to speak, but Connelly insisted he wanted to get it off his conscience. After being formally read his *Miranda* rights, Connelly confessed and led officers to the murder site.

During an interview with the public defender while in custody, Connelly became disoriented and said he confessed in response to hearing voices. At the state hospital, a psychiatrist determined Connelly was a chronic schizophrenic, suffering a psychotic episode. Connelly described his confession as reluctant and the psychiatrist concluded the confession was made in response to a "command" hallucination in which Connelly said he heard the "voice of God" instructing him to admit to the crime or commit suicide. The psychiatrist later testified that Connelly's volitional abilities, though not his cognitive abilities, were compromised and concluded his psychosis was his motivation to confess. The state supreme court ruled the confession be suppressed because it was "involuntary," though the police had done nothing wrong or coercive. The U.S. Supreme Court reversed, focusing on the lack of police misconduct. The American Psychological Association filed an amicus brief arguing, in part, that the confession was not necessarily involuntary just because it might have been the result of a command hallucination. (*Colorado v. Connelly*, 479 U.S. 157 (1986); *see* http://www.apa.org/psyclaw/colorado.html). Did Connelly have the ability to understand his rights or the implications of confession?

Now consider the case of Henry Lee Lucas, arrested on a firearms charge in Texas and suspected of murdering a girlfriend and an elderly acquaintance. Lee had been convicted of murdering his mother 23 years earlier, but was paroled. After the latest arrest, Lucas was held incommunicado for four days. At some point he confessed to the two murders; then he confessed to 60 additional murders. A special task force was established and police from around the country converged to ask Lucas to shed light on unsolved homicides. Henry Lee Lucas was not psychotic. He had an IQ of 89, which is in the normal range. He eventually confessed to the murder of Jimmy Hoffa and plotting to kill President Carter. Ultimately, he confessed to murdering 600 to 3,000 individuals. One of these resulted in a death sentence later commuted to life in prison. (Gisli H. Gudjonsson, *The Making of a Serial False Confessor: The Confessions of Henry Lee Lucas*, 10 (No. 2) J. FORENSIC PSYCHIATRY, 416-26 (1999).) Although

Lucas was well acquainted with the legal process, he confessed to an incredible number of murders as a result of interrogation tactics that were as simple as an officer saying, "I'm not too bright and could use your help solving this murder."

While the *Connelly* case raises the issue of whether someone has the ability to resist an interrogation, the *Lucas* case raises the issue of the degree to which one is motivated to resist or cooperate with interrogations. In this article, we first describe a model of individual susceptibility to interrogative influence. Then we suggest which features of individuals diagnosed with particular mental disorders might render them prone to succumbing to either false or coerced confessions.

A model of susceptibility to interrogative influence

To understand how an individual characteristic will affect behavior in the interrogation room, we have to consider the chronic and acute states and abilities necessary for suspects to recognize and act on the wisest choices available. What helps individuals understand their rights, recognize when to talk and when not to talk, and know what questions to answer and how to answer them? What helps individuals recognize when they are being told the truth and when they are being misled and manipulated? What makes them able to resist intense pressure to confess and focus on what is legally in their best interests? What makes them *want* to resist? How are these abilities and motivations affected by mental status?

The skills needed to accomplish these goals boil down to two broad categories: (1) those affecting the person's *ability* to resist influence and (2) those affecting the person's *motivation* to resist influence. Each is determined by several other characteristics of the suspect, as well as aspects of the interrogation itself. For example, *ability* to resist interrogative influence is derived from three broad sources: relevant knowledge, intact cognitive resources, and self-regulatory capacity—or the ability to control emotions, thinking, and behavior. In turn, *motivation* to resist interrogative influence can be enhanced or undermined by a variety of chronic or acute individual characteristics.

Resisting interrogative influence

Resistance to interrogative influence is most effective when suspects invoke their *Miranda* rights and refuse to be interrogated without a lawyer. However, a great deal of relevant knowledge is needed to realize the importance of invoking *Miranda*. Suspects must understand what those rights are, as well as why they are important, and the damaging things that can happen if they agree to be questioned without a lawyer. Suspects must understand that insinuations made by police that the suspects must be guilty if they refuse to talk are less important than the long-term damage that can occur if they do talk. If they do agree to talk, then the relevant knowledge needed to understand and evaluate claims and arguments made by interrogators is almost endless.

Interrogation tactics are designed to mislead. Detectives present themselves as sympathetic individuals who imply that suspects are good people in bad situations. They imply that they want to help the suspects achieve the best outcome. Interrogators often deceive suspects about the nature and extent of evidence against them, the nature of the suspects' rights, the short- and long-term consequences of confession versus denial, and much more. All the while, interrogators will dominate the conversation, interrupt attempts by suspects to deny involvement, distract them from thinking of facts and information inconsistent with the interrogators' claims, accuse suspects of lying, and explicitly and implicitly threaten suspects with dire consequences for denying wrongdoing and promise leniency for a confession.

Suspects—even those who are innocent—must ask themselves: What evidence exists? Might it be inaccurate—as with polygraphs, eyewitnesses, and many forms of forensic evidence? Are police allowed to lie? Is the evidence really overwhelming? Is conviction guaranteed? Is it true that admitting guilt to the detective will more likely result in a better deal—or even release—than continuing to deny involvement? Is it wise to wait for the help of a lawyer or is it true that the detective can provide more help now? Although these are difficult questions for any suspect who lacks knowledge of the legal system to answer, the difficulties are enhanced for those with impaired relevant knowledge, with poor cognitive abilities, and with poor chronic or acute self-regulation abilities, including control of cognitive processes.

Generally, a person must be able to exert considerable self-control—or self-regulation—in order to resist the pressures of interrogation. This includes the control of attention and cognitive processes necessary to evaluate incoming information, and to think of relevant information available from one's own knowledge and experience. It also entails the ability to control behavior. One must be able to withstand the relentless pressures to confess posed by one or more interrogators, possibly over a period of many hours, or even days. Moreover, they must control the need to confess simply as a way to end the interrogation, or satisfy the need for sleep, or to get the interrogators "out of my face." The suspect must recognize and

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give priority to long-term best interests over immediate, and often overwhelming, impulses. This entails being able to recognize what will or will not serve those interests and act accordingly.

Even for those individuals able to control their thoughts and behavior, the *motivation* to resist interrogative pressures may be undermined by their own learning history. Resistance is fueled by (1) a history of accurately predicting successful outcomes under adverse circumstances and possessing an effective repertoire under duress, (2) an awareness of the interrogators' true motives and the devastating consequences of confession, (3) the priority given these consequences over immediate impulses, and, (4) innocence. All of these can be undermined by personal impairments in self-confidence, general motivational deficits, impaired awareness of relevant consequences, priority given to short- rather than long-term goals, an inappropriate liking, trust, and belief in the helpful motives of the interrogators, and by the sense of futility brought about by interrogation tactics.

Although both the ability and motivation to resist interrogative influences can be impaired by preinterrogation stressors, as well as by interrogation practices themselves, mental health issues may directly affect many of the relevant abilities and motivations. In the sections below, we summarize some of the ways in which specific mental health disabilities might affect susceptibility to interrogative influence at the sequential stages of the process.

The primary risk: targeting for interrogation

The risk of coercion begins when police first select suspects. It is at this stage that persons with mental disabilities first suffer enhanced risk. In fact, one researcher found that the probability of arrest was 67 times greater for persons demonstrating symptoms of mental illness than those without such symptoms. (Linda A. Teplin, *Keeping the Peace: Police Discretion and Mentally Ill Persons*, 244 NAT'L INST. JUST. J. 8-15 (2000).) Because common stereotypes associate mental retardation and mental illness (particularly the latter) with criminality and violence, any mentally ill individual with the reasonable opportunity to commit the crime—let alone an identifiable motive—may be unfairly targeted as a suspect. Moreover, many of the seriously mentally ill live in circumstances where they have no access to more knowledgeable adults who could advise them and explain the importance of refusing interrogation without an attorney or to ensure that an attorney is present during all interactions with authorities. The most seriously dysfunctional live disproportionately on the street where reasonable advice or personal or financial help is not available. Moreover, the mentally ill may engage in behaviors that appear consistent with deception during the preinterrogation interview, showing signs of anxiety, lack of eye contact, and other apparent indicators of evasiveness that can be mistakenly interpreted as reflecting guilt, encouraging detectives to proceed to interrogation.

Understanding and exerting *Miranda* rights

Although police often do not arrest and Mirandize suspects until *after* they've confessed, suspects have the right to refuse to be interrogated. The choice to avoid interrogation when not under arrest and to invoke *Miranda* when arrested is facilitated by understanding the potential dangers of the situation—an understanding that is compromised in those with impaired functioning in one or more psychological domains.

In *Moran v. Burbine*, 475 U.S. 412 (1986), the U.S. Supreme Court outlined the criteria to be used in determining the voluntariness of a *Miranda* waiver:

> First, the relinquishment of the right must have been voluntary in the sense that it was the product of a free and deliberate choice rather than intimidation, coercion, or deception. Second, the waiver must have been made with a full awareness of both the nature of the right being abandoned and the consequences of the decision to abandon it. Once it is determined that a suspect's decision not to rely on his rights was uncoerced, that he at all times knew he could stand mute and request a lawyer, and that he was aware of the State's intention to use his statements to secure a conviction, the analysis is complete and the waiver is valid as a matter of law.

(*Moran*, 475 U.S. 412, at 421.)

Individuals with psychological difficulties can suffer enhanced risk with regard to both susceptibility to coercion and failures of understanding. These problems have been most extensively investigated with respect to their impact on comprehension and invoking of *Miranda* rights as they apply to mental retardation. The definition of mental retardation is "a disability characterized by significant limitations both in intellectual functioning and in adaptive behavior as expressed in conceptual, social, and practical adaptive skills" (American Association of Mental Retardation). The *Diagnostic and Statistical Manual* (DSM-IV-TR, 1999, American Psychiatric Association) uses a similar definition. Mental retardation is present at birth or occurs during a development period and must have an onset before age 18. A diagnosis of mental retardation describes long-standing, generally maladaptive behaviors that have an onset in early life or adolescence. Individual IQ and adaptive functioning may be affected in other ways (e.g., traumatic head injury, medical condition, severe substance abuse) after a particular development

period has been successfully passed, but it is not called mental retardation and is described as the consequence of a medical, social, or behavioral event. The courts and many social agencies that determine benefits tend to rely on an IQ score of 70 or less. This cutoff does not adequately reflect the impairment in functional abilities of individuals with low IQ when moved into a more demanding situation such as a police interrogation.

The limited cognitive abilities, vocabularies, and general knowledge of those with mental retardation result in poorer understanding of the linguistic meaning of the rights as commonly administered, as well as of the risks of self-incrimination and other consequences of waiving these rights. For example, in two studies, 90 percent and 68 percent of adults with mental retardation received scores of zero on one or more tests of relevant vocabulary, understanding of the *Miranda* warnings, and understanding of the function of rights in interrogation (which was most poorly understood of all). Another study involving mentally retarded adult offenders found similar results, indicating that even experience with the criminal justice system did not enhance comprehension. (Saul M. Fulero and Caroline Everington, *Mental Retardation, Competency to Waive* Miranda *Rights, and False Confessions* in INTERROGATIONS, CONFESSIONS, AND ENTRAPMENT at 163-79 (Daniel Lassiter ed., 2004).)

Miranda wording ranges from 50 to 500 words.

The impact of mental retardation on understanding *Miranda* rights is likely to vary by jurisdiction, as the exact wording of *Miranda* warnings and waivers has not been specified in the courts. As a result, warnings range from fewer than 50 to more than 500 words, and the required reading comprehension levels range from that of a third grader to a postcollege education. (Richard Rogers, Kimberly S. Harrison, Lisa L. Hazelwood & Kenneth W. Sewell, *An Analysis of* Miranda *Warning and Waivers: Comprehension and Coverage*, L. & HUM. BEHAV. (forthcoming 2007).)

Mental retardation is also likely to have enhanced negative impact on comprehension of *Miranda* warnings given in the context of real-life encounters with police. The poor comprehension scores above were obtained in the absence of any police behavior that might affect how the actual statements are interpreted. Imagine the detective who begins, for example, by saying something like "Well, John, we need to talk to you and get what happened tonight straightened out. We need you to explain some things we need cleared up. But before we can do this we need to read you some rights. . . ." The mentally retarded individual is often overly compliant and more likely to respond to detectives expressing a *need* rather than to *Miranda* rights read in a very formal manner. Mentally retarded individuals can be particularly attuned to the desires of those around them, and particularly motivated to please them, and therefore more susceptible to influence and coercion. They are generally more likely to rely on others for indications of what is appropriate or correct, more motivated to please others, more susceptible to influence, and more highly suggestible to leading questions, false information, and selective reinforcement of compliant responses. The desire to please and dependence on others can be sufficiently strong such that many mentally retarded persons will tell interviewers whatever they appear to want to hear, regardless of the actual facts. They also have a bias toward acquiescence that leads them to say "yes" regardless of the blatant untruth or the absurdity of the question, for example, "Are you an alien?" "Yes." These tendencies can be enhanced by problems with "social intelligence" and the ability to understand the true motives and intentions of those to whom they are responding, rendering them more susceptible to deception. These problems, combined with those of comprehension, are sufficiently profound as to lead some scholars to argue that, of the personal factors relevant to the "totality of circumstances test"—such as IQ, age, education, experience with the justice system or with entering a waiver of rights or a confession—the disability of mental retardation can be so great as to trump all other factors. (*See* GISLI H. GUDJONSSON, THE PSYCHOLOGY OF INTERROGATIONS AND CONFESSIONS: A HANDBOOK (Wiley, 2003); Michael J. O'Connell, William Garmoe & Naomi E. Goldstein, Miranda *Comprehension in Adults with Mental Retardation and the Effects of Feedback Style on Suggestibility*, 29 (No. 3) L. & HUM. BEHAV., 359-69 (2005).)

Although research on the relationship of mental status to comprehension has focused primarily on the young and the retarded, other mental disorders place the person at enhanced risk for failures of comprehension and/or coercion. Research has just begun to study mentally disordered defendants. Ethical concerns make it inappropriate to create the high-stress environment of an interrogation, but in interview-like situations with mentally ill defendants, the ability to understand *Miranda* rights was highly compromised, as were the quality of their reasons for

waiving or invoking those rights. The DSM-IV-TR's Global Assessment of Functioning Scale (utilized to consider psychological, social, and occupational functioning) was another predictor of mentally ill defendants' reasons for waiving or invoking their rights, with lower functioning levels correlating with fewer numbers of reasons behind their *Miranda* decisions. (Richard Rogers, Kimberly S. Harrison, Lisa L. Hazelwood & Kenneth W. Sewell, *Knowing and Intelligent: A Study of* Miranda *Warnings in Mentally Disordered Defendants*, L. & HUM. BEHAV. (forthcoming 2007).)

In the *Connelly* case, discussed earlier, the suspect confessed his crime before and after being Mirandized. On the day of primary investigation, he did not appear psychotic to the police. There are other cases in which the person being interrogated is clearly not functioning normally but can be cooperative if approached in a comforting way. As an example, author Follette once had a patient with a history of paranoid schizophrenia who was delusional and in need of hospitalization. His delusions were fairly circumscribed around being hunted by "the mafia." The significance of his cognitive impairment became evident when asked to sign a consent form to be admitted to the hospital. He believed the form contained invisible text that was his death warrant. After nearly an hour of conversation, the patient finally relented and signed the consent form saying he did so because "you [Follette] seem like a nice young man, so I'll sign my 'death warrant.'" The point is that persons with severe mental illness can be extremely compliant even if they believe the consequences for doing so can be life threatening, calling into question the meaning of voluntary waiver in such circumstances.

The above case represents an obvious deficit associated with a mental disorder that can affect the outcome of an interrogation. In schizophrenia in general, there are a significant number of cognitive deficits that are not part of the hallucinations or delusions seen in the florid cases of schizophrenia. These cognitive deficits are common and affect broad domains of cognitive functioning. Recently the National Institute of Mental Health began an initiative to develop measures of cognitive functioning in schizophrenia (Stephen R. Marder & Wayne Fenton, *Measurement and Treatment Research to Improve Cognition in Schizophrenia: NIMH MATRICS initiative to support development of agents for improving cognition in schizophrenia*, 72 (No. 1) SCHIZOPHRENIA RESEARCH 5-9 (2004).) The purpose of the initiative was to develop a core battery of cognitive tests so that drug therapies could be assessed for how they might improve these deficits. Although a wide variety of deficits have been described in the literature, the test battery established by the MATRICS initiative assesses seven domains: speed of processing, attention/vigilance, working memory, verbal learning, visual learning, reasoning and problem solving, and social cognition. Even in the absence of active psychosis, individuals with schizophrenia still may not necessarily exhibit adequate cognitive skills to understand the implications of questions and answers, to understand the motives of the interrogator, or to weigh alternatives and evaluate how they serve their best interests.

> Interrogation tactics are intended to mislead.

It cannot be assumed that mental impairment seen in the mentally ill is the same as similarly appearing deficits in the mentally retarded. Much study remains to be done in order to understand how these processes affect each population when subjected to interrogation.

Susceptibility to interrogation tactics

Once arrested and subject to interrogation, issues of comprehension and susceptibility to coercion are magnified many times over. Although police may do or say things while reading suspects their rights in order to impair comprehension of *Miranda*, interrogation tactics are far more misleading. They are intended to mislead, impair thought processes, and relentlessly push a suspect, against his or her best interests, in the direction of confession. Though *Miranda* is limited to a few statements, interrogations can last for hours, with detectives presenting multiple classes of "evidence" and arguments. Topics are extraordinarily wide-ranging. They may include forms of evidence ranging from DNA to the mechanisms of polygraph or other "lie detection" devices. Reasons to confess range from the religious or familial to the ultimate reactions of judge and jury and how those reactions depend on whether and how suspects "explain" their role in the crime during the interrogation. Interrogators will provide various scenarios for how the crime was committed, designed to convince suspects it was not so serious. They will make counterarguments against claims of innocence, and provide alleged reports of coperpetrators, statements of the detective's feelings and motives toward the suspects, and many other tactics. Faced with this overwhelming amount of information to process and relentless demands from powerful authorities, the ability to understand and accurately judge the information and read the motives and credibility of the

police become ever more crucial. Thus, anything that compromises their mental faculties makes suspects more susceptible to being led into unintended confessions. Certainly mental retardation and/or mental illness place interviewees at increased risk.

Although these cognitive limitations and tendencies toward compliance are crucial in determining an individual's reaction to interrogation, additional vulnerabilities become relevant as well. There are many, but we focus on three that are likely to be affected by mental health status: (1) the tendency to respond to immediate impulses and demands rather than long-term goals; (2) self-regulation abilities, or the ability to control thinking, emotions and behavior, and (3) suggestibility (the tendency to actually change one's mind about what happened as opposed to simply comply with demands to recount it in a particular way).

Immediate versus long-term goals

Police interrogation is a very powerful social situation, with demands pushing suspects toward confession. Coincident with these external demands are internal states, some pushing suspects toward obtaining immediate relief from the aversive qualities of the situation, others toward the goal of protecting long-term interests and freedom. If, as is true of many suspects, the interviewees fail to understand that they can stop the interrogation at any time, they may believe that the only way to terminate questioning is to comply with the interrogator's demands to "explain" what happened, making or agreeing to incriminating statements or a full confession in the process. If suspects give priority to immediate needs over long-term best legal interests, they may confess simply to terminate the interrogation. This can happen through two mechanisms, one involving simple lack of interest in long-term goals, the other involving an inability to override the impact of immediate needs and demands despite extreme concern with long-term goals.

Several mental disorders entail dysfunctional levels of responsiveness to immediate stimuli and motivations at the expense of long-term well-being. Substance abusing patients are the clearest clinical example of impulsivity. Impulsivity is valuing a short-term, smaller reward over a delayed, larger reward. Considerable research exists studying this phenomenon, termed delayed discounting, in substance abusing participants. (*See* Gregory J. Madden, Warren K. Bickel & Eric A. Jacobs, *Discounting of Delayed Rewards in Opioid-Dependent Outpatients: Exponential or Hyperbolic Discounting Functions?* 7 (No. 3) EXPERIMENTAL & CLINICAL PSYCHOPHARMACOLOGY 284-93 (1999).)

Although it is not clear whether the preference for immediate, smaller rewards versus delayed, larger rewards is the cause of or an effect from substance abuse, it is clearly present, and it is clearly relevant for substance abusing individuals who face interrogation. In experimental settings, the tendency in heroin addicts to discount delayed rewards is almost identical to that exhibited by 12-year-olds. The point is that the interrogation situation presents to a drug abusing interviewee many opportunities to take the short-term way out of the interrogation—that is, to confess, over the delayed reward of possibly being released. This tendency to be under the control of immediate consequences may be greatly exacerbated by a substance abuser going into withdrawal during the course of being detained and interrogated.

Self-regulation

Self-regulation refers to the ability to control one's thoughts, emotions, and behavior. As noted earlier, control of mental processes is crucial for the ability to understand and evaluate information and arguments, as well as to evaluate the motives and truthfulness of others. Although individuals may have the required knowledge and abilities, they may be unable to use them in the situation at hand, as, for example, when test-taking anxiety interferes with focusing attention on the test, remembering known information, or being able to think clearly during the test.

Control of emotions is also crucial. Uncontrolled, powerful emotions can both interfere with rational thought and provide a strong impetus to emit dysfunctional behaviors. In fact, interrogation manuals such as the popular *Criminal Interrogation and Confessions* by Fred E. Inbau, John E. Reid and Joseph P. Buckley, (3d ed., Williams & Wilkins (1986)), instruct interrogators that emotions such as fear, guilt, and anxiety render the target much more susceptible to interrogation tactics and confession. Indeed, studies of social influence have long demonstrated that one need only arouse a negative emotion, such as fear or anxiety, and then present the desired behavior as the way to reduce it in order to facilitate persuasion. The more intense the negative emotion, the more powerfully attractive the apparent solution will seem. Thus, those prone to experience powerful negative emotions, to be intolerant of the distress, and unable to control it will be more susceptible to confession as an escape mechanism—a vulnerability characteristic of several mental disorders.

Self-regulation is also important, entailing the ability to override impulses toward dysfunctional or undesirable behavior. The person must avoid temptations to act in favor of immediate needs by eschewing such dysfunctional behaviors as procrastination, overeating, overspending, or making incriminating statements against long-term self-interest in order to achieve immediate relief from the interrogation.

A prerequisite for successful self-regulation is having a behavioral goal clearly defined. If a person engages in a particular strategy to reach a goal, the behavioral strategy

can change if the goal is not attained. The strategy is reinforced if the goal is attained. At the beginning of an interrogation, an interviewee may have the goal of establishing his or her innocence. As the interrogation progresses, many alternative goals are presented and made attractive by the interrogator. Interrogators thwart self-regulation strategies directed at establishing innocence, but strongly encourage other goals such as being seen as cooperative, explaining how one might have been caught up in the moment, avoiding a bad legal outcome through cooperation, or, in the case of the prisoner's dilemma, assigning blame before it is assigned to you. Assuming one consents to being interrogated, already a self-regulation failure, the interrogation is designed to confuse one with respect to what is the most salient goal. If that occurs, behavioral strategies at self-regulation are inevitably weakened. As is the case for emotion regulation, impaired self-regulation of behavior is characteristic of some mental disorders.

Cluster B of the personality disorders listed in DSM-IV-TR are characterized by some degree of dramatic, emotional, or erratic behavior. Cluster B includes antisocial personality disorder, borderline personality disorder, histrionic personality disorder, and narcissistic personality disorder. The clinical reliability of the specific labels for these and other personality disorders is generally poor. Thus, these labels have often been subsumed as being one of a cluster of similar symptom presentations. In part, the common definition of a mental disorder requires meeting some specified criteria and experiencing significant psychological distress that impairs desired role functioning. In the case of personality disorders, these patterns of behavior begin in adolescence or early adulthood and are persistent and maladaptive. Patients rarely present for treatment of a personality disorder but rather for the treatment of the short-term consequences of these behavior patterns. Common presentations are depression, anxiety, or job or relationship failures. There is reason to believe that stressful situations, such as a police interrogation, will increase the likelihood that regulation of thought, emotion, and behavior will fail in persons characterized by some Cluster B disorders.

One would expect that persons with anxiety disorders would find the additional stress of an interrogation extremely aversive and seek a quick end to the proceedings, even if it meant a poor distal consequence. Generalized anxiety disorder, social phobia, panic disorder or specific phobias related to confinement or health-related concerns could hasten a false confession. One feature of anxious individuals is a tendency to overestimate how aversive an event is and to make risk averse decisions. Interrogators implicitly and often explicitly threaten that if individuals do not explain how they were caught up in a bad situation, the district attorney, the judge, and a jury will surely infer that there is no "good" story and, unless the suspects explain what happened (i.e., confess), the worst story will have to be believed and acted upon—risks anxious persons, in particular, will be more motivated to avoid. The interrogator offers an apparent way out through suggestions of how and why the crime was committed that give suspects the impression it would not be a legally serious offense to confess to (commonly referred to as "minimization"). (Saul M. Kassin & Karlyn McNall, *Police Interrogations and Confessions: Communicating Promises and Threats by Pragmatic Implication*, 15 L. & HUM. BEHAV. 233-51 (1991).) We have seen many interrogations where the interrogator induces a signed confession that is inferred or construed by the suspect as a simple formality before being allowed to go home. Of course, the suspect is then arrested, much to his or her chagrin.

Clinical depression also presents increased risks of self-regulation failures. Clinical depression is associated with a host of deficits in cognitive processing. (*See* Susan Mineka, Eshkol Rafaeli & Iftah Yovel. *Cognitive Biases in Emotional Disorders: Information Processing and Social-Cognitive Perspectives*, HANDBOOK OF AFFECTIVE SCIENCES, 976–1009 (R.J. Davidson, K.R. Scherer & H. H. Goldsmith eds., Oxford University Press (2003).) In particular, dysphoric mood and depression tend to be associated with distortions of self-worth as well as inaccurate estimates of performance in a variety of social situations. Several experimental studies could lead one to predict that depressed persons would be less inclined to assert their rights, be less resistant to challenge by an interrogator, and less able to accurately judge how well they were meeting their goals in an interrogation.

Suggestibility

Among the most disturbing effects of interrogation is its ability to alter a suspect's beliefs about the reality of what occurred. Rather than simply inducing suspects to comply with demands to admit involvement, whether or not they believe what they are saying, interrogators may be so persuasive as to change the suspects' internal beliefs—in some cases causing them to believe they committed a crime of which they are innocent and to report false beliefs or "memories" of having committed it.

This is most likely to occur when suspects (a) are uncertain what happened or what is true—for example, due to lack of knowledge, intoxication, or poor comprehension; (b) lack confidence in their own memories or ability to understand—for example, due to long-standing subjectively known cognitive impairments; or (c) suffer impaired "reality monitoring" or the ability to discriminate between what is real and what is not, such as the difference between imagination and reality, or something one was told and something that happened. Impairments in

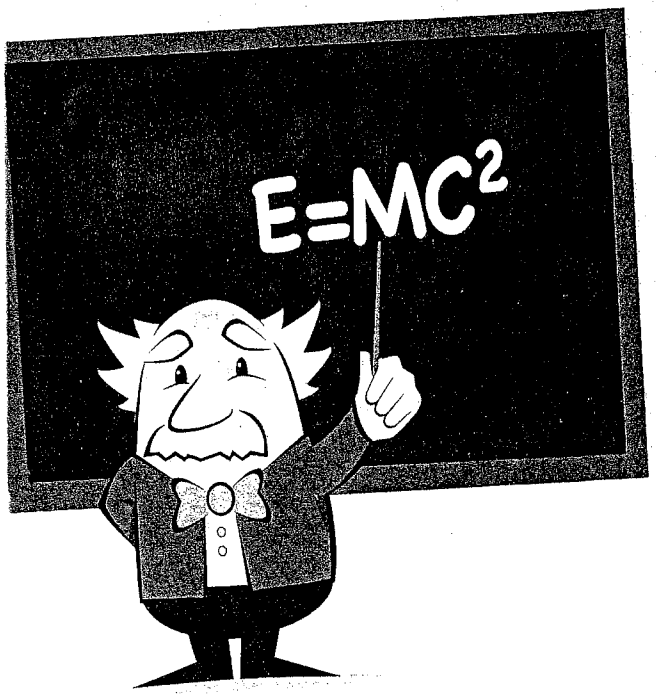
reality monitoring may result from the side effects of medication, drug or alcohol use, or tendencies toward hallucinations or delusions. A number of disorders render individuals more susceptible to suggestion through one or more of these mechanisms.

Gisli Gudjonsson and his colleagues have extensively tested the enhanced susceptibility of mentally retarded persons to interrogative suggestion; that is, their tendency to change accounts in response to suggestive questioning, showing that the mentally retarded are substantially more likely to change their accounts when told they are wrong or when subject to disapproving responses. (*See* Gudjonsson, HANDBOOK, *supra.*) Due to poor comprehension and reduced general knowledge, such persons are less likely to know what is actually true; and due to a history of failures and awareness of personal deficits in understanding, they possess less confidence in their own memories and beliefs.

Persons with schizotypal personality disorders, schizophrenia, delusional disorder or the manic phase of bipolar disorder, can be prone to suggestibility through all three mechanisms of failure of knowledge, confidence, and reality monitoring. Moreover, they are prone to simply produce imagined memories or confabulation. If the interrogator asks particularly leading questions or continually reinforces the interviewee for adding details or helping the interrogator make sense out of the situation, a tendency to confabulate can lead both parties to believe in the reality of a false confession.

Conclusions

The model for understanding the sources of individual vulnerability to coercive interrogation we have outlined offers a framework for understanding how both chronic and acute individual characteristics can enhance susceptibility to coercion. Here we have focused on chronic mental disabilities. However, many mentally healthy individuals are susceptible to enhanced risk of coercion under certain circumstances. Acute states such as sleep deprivation, intense distress, drug use, and other factors can enhance susceptibility directly through their effects on such factors as cognitive processing or self-regulation, or indirectly, such as when impaired self-regulation can decrease tolerance for distress and enhance the need to terminate the interrogation. Understanding the basis of enhanced susceptibility to coercion is complex, requiring appreciation of the diverse coercive processes inherent in interrogation, as well as the way in which they act on the basic underpinnings of resistance to coercion and the processes through which susceptibility to these effects are affected by both chronic and acute vulnerabilities. Given the necessity for this multilevel analysis and understanding, it is not surprising that the courts have yet to recognize the majority of relevant vulnerabilities as sufficient grounds for suppression. ■



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ORIGINAL ARTICLE

Police-Induced Confessions: Risk Factors and Recommendations

Saul M. Kassin · Steven A. Drizin · Thomas Grisso · Gisli H. Gudjonsson · Richard A. Leo · Allison D. Redlich

Abstract Recent DNA exonerations have shed light on the problem that people sometimes confess to crimes they did not commit. Drawing on police practices, laws concerning the admissibility of confession evidence, core principles of psychology, and forensic studies involving multiple methodologies, this White Paper summarizes what is known about police-induced confessions. In this review, we identify suspect characteristics (e.g., adolescence; intellectual disability; mental illness; and certain personality traits), interrogation tactics (e.g., excessive interrogation time; presentations of false evidence; and minimization), and the phenomenology of innocence (e.g., the tendency to waive *Miranda* rights) that influence confessions as well as their effects on judges and juries. This article concludes with a strong recommendation for the mandatory electronic recording of interrogations and considers other possibilities for the reform of interrogation practices and the protection of vulnerable suspect populations.

Keywords Police interviews · Interrogations · Confessions

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In recent years, a disturbing number of high-profile cases, such as the Central Park jogger case, have surfaced involving innocent people who had confessed and were convicted at trial, only later to be exonerated (Drizin & Leo, 2004; Gudjonsson, 1992, 2003; Kassin, 1997; Kassin & Gudjonsson, 2004; Lassiter, 2004; Leo & Ofshe, 1998). Although the precise incidence rate is not known, research suggests that false confessions and admissions are present in 15–20% of all DNA exonerations (Garrett, 2008; Scheck, Neufeld, & Dwyer, 2000; http://www.innocenceproject.org/). Moreover, because this sample does not include those false confessions that are disproved before trial, many that result in guilty pleas, those in which DNA evidence is not available, those given to minor crimes that receive no post-conviction scrutiny, and those in juvenile proceedings that contain confidentiality provisions, the cases that are discovered most surely represent the tip of an iceberg.

In this new era of DNA exonerations, researchers and policy makers have come to realize the enormous role that psychological science can play in the study and prevention of wrongful convictions. In cases involving wrongfully convicted defendants, the most common reason (found in three-quarters of the cases) has been eyewitness misidentification. Eyewitness researchers have thus succeeded at identifying the problems and proposing concrete reforms. Indeed, following upon an AP-LS White Paper on the subject (Wells et al., 1998), the U.S. Department of Justice assembled a working group of research

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psychologists, prosecutors, police officers, and lawyers, ultimately publishing guidelines for law enforcement on how to minimize eyewitness identification error (Technical Working Group for Eyewitness Evidence, 1999; see Doyle, 2005; Wells et al., 2000). While other problems have been revealed—for example, involving flaws in various forensic sciences (see Faigman, Kaye, Saks, & Sanders, 2002), the number of cases involving confessions—long considered the "gold standard" in evidence—has proved surprising (http://www.innocenceproject.org/).

Wrongful convictions based on false confessions raise serious questions concerning a chain of events by which innocent citizens are judged deceptive in interviews and misidentified for interrogation; waive their rights to silence and to counsel; and are induced into making false narrative confessions that form a sufficient basis for subsequent conviction. This White Paper summarizes much of what we know about this phenomenon. It draws on core psychological principles of influence as well as relevant forensic psychology studies involving an array of methodologies. It identifies various risk factors for false confessions, especially in police interviewing, interrogation, and the elicitation of confessions. It also offers recommendations for reform.

Citing the impact on policy and practice of the eyewitness White Paper, Wiggins and Wheaton (2004) called for a similar consensus-based statement on confessions. Fulfilling this call, the objectives of this White Paper are threefold. The first is to review the state of the science on interviewing and interrogation by bringing together a multidisciplinary group of scholars from three perspectives: (1) clinical psychology (focused on individual differences in personality and psychopathology); (2) experimental psychology (focused on the influence of social, cognitive, and developmental processes); and (3) criminology (focused on the empirical study of criminal justice as well as criminal law, procedure, and legal practice). Our second objective is to identify the dispositional characteristics (e.g., traits associated with *Miranda* waivers, compliance, and suggestibility; adolescence; mental retardation; and psychopathology) and situational-interrogation factors (e.g., prolonged detention and isolation; confrontation; presentations of false evidence; and minimization) that influence the voluntariness and reliability of confessions. Our third objective is to make policy recommendations designed to reduce both the likelihood of police-induced false confessions and the number of wrongful convictions based on these confessions.

BACKGROUND

The pages of American legal history are rich in stories about false confessions. These stories date back to the Salem witch trials of 1692, during which about 50 women confessed to witchcraft, some, in the words of one observer, after being "tyed... Neck and Heels till the Blood was ready to come out of their Noses" (Karlsen, 1989, p. 101). Psychologists' interest as well can be traced to its early days as a science. One hundred years ago, in *On the Witness Stand*, Hugo Munsterberg (1908) devoted an entire chapter to the topic of "Untrue Confessions." In this chapter, he discussed the Salem witch trials, reported on a contemporary Chicago confession that he believed to be false, and sought to explain the causes of this phenomenon (e.g., he used such words as "hope," "fear," "promises," "threats," "suggestion," "calculations," "passive yielding," "shock," "fatigue," "emotional excitement," "melancholia," "auto-hypnosis," "dissociation," and "self-destructive despair").

DNA Exonerations and Discoveries in the U.S.

In 1989, Gary Dotson was the first wrongfully convicted individual to be proven innocent through the then-new science of DNA testing. Almost two decades later, more than 200 individuals have been exonerated by post-conviction DNA testing and released from prison, some from death row. In 15–20% of these cases, police-induced false confessions were involved (Garrett, 2008; www.innocence project.org). A disturbing number of these have occurred in high-profile cases, such as New York City's Central Park Jogger case, where five false confessions were taken within a single investigation. In that case, five teenagers confessed during lengthy interrogations to the 1989 brutal assault and rape of a young woman in Central Park. Each boy retracted his statement immediately upon arrest, saying he had confessed because he expected to go home afterward. All the boys were convicted and sent to prison, only to be exonerated in 2002 when the real rapist gave a confession, accurately detailed, that was confirmed by DNA evidence (*People of the State of New York v. Kharey Wise et al.*, 2002).

Post-conviction DNA tests and exonerations have offered a window into the causes of wrongful conviction. Researchers and legal scholars have long documented the problem and its sources of error (Borchard, 1932; Frank & Frank, 1957; see Leo, 2005 for a review). Yet criminal justice officials, commentators, and the public have tended until recently to be highly skeptical of its occurrence, especially in death penalty cases (Bedau & Radelet, 1987). The steady stream of post-conviction DNA exonerations in the last two decades has begun to transform this perception. Indeed, these cases have established the leading causes of error in the criminal justice system to be eyewitness misidentification, faulty forensic science, false informant testimony, and false confessions (Garrett, 2008).

The Problem of False Confessions

A false confession is an admission to a criminal act—usually accompanied by a narrative of how and why the crime occurred—that the confessor did not commit. False confessions are difficult to discover because neither the state nor any organization keeps records of them, and they are not usually publicized. Even if they are discovered, false confessions are hard to establish because of the difficulty of proving the confessor's innocence. The literature on wrongful convictions, however, shows that there are several ways to determine whether a confession is false. Confessions may be deemed false when: (1) it is later discovered that no crime was committed (e.g., the presumed murder victim is found alive, the autopsy on a "shaken baby" reveals a natural cause of death); (2) additional evidence shows it was physically impossible for the confessor to have committed the crime (e.g., he or she was demonstrably elsewhere at the time or too young to have produced the semen found on the victim); (3) the real perpetrator, having no connection to the defendant, is apprehended and linked to the crime (e.g., by intimate knowledge of nonpublic crime details, ballistics, or physical evidence); or (4) scientific evidence affirmatively establishes the confessor's innocence (e.g., he or she is excluded by DNA test results on semen, blood, hair, or saliva).

Drizin and Leo (2004) analyzed 125 cases of proven false confession in the U.S. between 1971 and 2002, the largest sample ever studied. Ninety-three percent of the false confessors were men. Overall, 81% of the confessions occurred in murder cases, followed by rape (8%) and arson (3%). The most common bases for exoneration were the real perpetrator was identified (74%) or that new scientific evidence was discovered (46%). With respect to personal vulnerabilities, the sample was younger than the total population of murderers and rapists: A total of 63% of false confessors were under the age of 25, and 32% were under 18; yet of all persons arrested for murder and rape, only 8 and 16%, respectively, are juveniles (Snyder, 2006). In addition, 22% were mentally retarded, and 10% had a diagnosed mental illness. Surprisingly, multiple false confessions to the same crime were obtained in 30% of the cases, wherein one false confession was used to prompt others. In total, 81% of false confessors in this sample whose cases went to trial were wrongfully convicted.

Although other researchers have also documented false confessions in recent years, there is no known incidence rate, and to our knowledge empirically based estimates have never been published. There are several reasons why an incidence rate cannot be determined. First, researchers cannot identify the universe of false confessions because no governmental or private organization keeps track of this information. As noted earlier, the sample of discovered cases is thus incomplete. Second, even if one could identify a nonrandom set of hotly contested and possibly false confessions, it is often difficult if not impossible as a practical matter to obtain the primary case materials (e.g., police reports; pretrial and trial transcripts; and electronic recordings of the interrogations) needed to determine "ground truth" with sufficient certainty to prove that the confessor is innocent. Also, it is important to note that although most case studies are based in the U.S. and England, proven false confessions have been documented in countries all over the world—including Canada (CBC News, August 10, 2005), Norway (Gudjonsson, 2003), Finland (Santtila, Alkiora, Ekholm, & Niemi, 1999), Germany (Otto, 2006), Iceland (Sigurdsson & Gudjonsson, 2004), Ireland (Inglis, 2004), The Netherlands (Wagenaar, 2002), Australia (Egan, 2006), New Zealand (Sherrer, 2005), China (Kahn, 2005), and Japan (Onishi, 2007).

For estimating the extent of the problem, self-report methods have also been used. Sigurdsson and Gudjonsson (2001) conducted two self-report studies of prison inmates in Iceland and found that 12% claimed to have made a false confession to police at some time in their lives, a pattern that the authors saw as part of the criminal lifestyle. In a more recent study of Icelandic inmates, the rate of self-reported false confessions had increased (Gudjonsson, Sigurdsson, Einarsson, Bragason, & Newton, 2008). Similar studies have been conducted in student samples within Iceland and Denmark. Among those interrogated by police, the self-reported false confession rates ranged from 3.7 to 7% among college and older university students (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, 2006; Gudjonsson, Sigurdsson, & Einarsson, 2004; Steingrimsdottir, Hreinsdottir, Gudjonsson, Sigurdsson, & Nielsen, 2007; Gudjonsson, Sigurdsson, Bragason, Einarsson, & Valdimarsdottir, 2004). In a North American survey of 631 police investigators, respondents estimated from their own experience that 4.78% of innocent suspects confess during interrogation (Kassin et al., 2007). Retrospective self-reports and observer estimates are subject to various cognitive and motivational biases and should be treated with caution as measures of a false confession rate. In general, however, they reinforce the wrongful conviction data indicating that a small but significant minority of innocent people confess under interrogation.

POLICE INTERROGATIONS IN CONTEXT

The practices of interrogation and the elicitation of confessions are subject to historical, cultural, political, legal, and other contextual influences. Indeed, although this article is focused on confessions to police within in a

criminal justice framework, it is important to note that similar processes occur, involving varying degrees of pressure, within the disparate frameworks of military intelligence gathering and corporate loss-prevention investigations. Focused on criminal justice, we examine American interrogation practices of the past and present; the role played by *Miranda* rights; the admissibility and use of confession evidence in the courts; and current practices not only in the U.S. but in other countries as well.

"Third-Degree" Practices of the Past

From the late nineteenth century through the 1930s, American police occasionally employed "third-degree" methods of interrogation—inflicting physical or mental pain and suffering to extract confessions and other types of information from crime suspects. These techniques ranged from the direct and explicit use of physical assaults to tactics that were both physically and psychologically coercive to lesser forms of duress. Among the most commonly used "third-degree" techniques were physical violence (e.g., beating, kicking, or mauling suspects); torture (e.g., simulating suffocation by holding a suspect's head in water, putting lighted cigars or pokers against a suspect's body); hitting suspects with a rubber hose (which seldom left marks); prolonged incommunicado confinement; deprivations of sleep, food, and other needs; extreme sensory discomfort (e.g., forcing a suspect to stand for hours on end, shining a bright, blinding light on the suspect); and explicit threats of physical harm (for a review, see Leo, 2004). These methods were varied and commonplace (Hopkins, 1931), resulting in large numbers of coerced false confessions (Wickersham Commission Report, 1931).

The use of third-degree methods declined precipitously from the 1930s through the 1960s. They have long since become the exception rather than the rule in American police work, having been replaced by interrogation techniques that are more professional and psychologically oriented. The twin pillars of modern interrogation are behavioral lie-detection methods and psychological interrogation techniques, both of which have been developed and memorialized in interrogation training manuals. By the middle of the 1960s, police interrogation practices had become entirely psychological in nature (Wald, Ayres, Hess, Schantz, & Whitebread, 1967). The President's Commission on Criminal Justice and the Administration of Justice declared in 1967: "Today the third degree is virtually non-existent" (Zimring & Hawkins, 1986, p. 132). Still, as the United States Supreme Court recognized in *Miranda v. Arizona* (1966), psychological interrogation is inherently compelling, if not coercive, to the extent that it relies on sustained pressure, manipulation, trickery, and deceit.

Current Law Enforcement Objectives and Practices in the U.S.

American police typically receive brief instruction on interrogation in the academy and then more sustained and specialized training when promoted from patrol to detective. Interrogation is an evidence-gathering activity that is supposed to occur after detectives have conducted an initial investigation and determined, to a reasonable degree of certainty, that the suspect to be questioned committed the crime.

Sometimes this determination is reasonably based on witnesses, informants, or tangible evidence. Often, however, it is based on a clinical hunch formed during a pre-interrogation interview in which special "behavior-provoking" questions are asked (e.g., "What do you think should happen to the person who committed this crime?") and changes are observed in aspects of the suspect's behavior that allegedly betray lying (e.g., gaze aversion, frozen posture, and fidgety movements). Yet in laboratories all over the world, research has consistently shown that most commonsense behavioral cues are not diagnostic of truth and deception (DePaulo et al., 2003). Hence, it is not surprising as an empirical matter that laypeople on average are only 54% accurate at distinguishing truth and deception; that training does not produce reliable improvement; and that police investigators, judges, customs inspectors, and other professionals perform only slightly better, if at all—albeit with high levels of confidence (for reviews, see Bond & DePaulo, 2006; Meissner & Kassin, 2002; Vrij, 2008).

The purpose of interrogation is therefore not to discern the truth, determine if the suspect committed the crime, or evaluate his or her denials. Rather, police are trained to interrogate only those suspects whose culpability they "establish" on the basis of their initial investigation (Gordon & Fleisher, 2006; Inbau, Reid, Buckley, & Jayne, 2001). For a person under suspicion, this initial impression is critical because it determines whether police proceed to interrogation with a strong presumption of guilt which, in turn, predisposes an inclination to ask confirmatory questions, use persuasive tactics, and seek confessions (Hill, Memon, & McGeorge, 2008; Kassin, Goldstein, & Savitsky, 2003). In short, the single-minded purpose of interrogation is to elicit incriminating statements, admissions, and perhaps a full confession in an effort to secure the conviction of offenders (Leo, 2008).

Designed to overcome the anticipated resistance of individual suspects who are presumed guilty, police interrogation is said to be stress-inducing by design—structured to promote a sense of isolation and increase the anxiety and despair associated with denial relative to confession. To achieve these goals, police employ a number of tactics. As

described in Inbau et al.'s (2001) *Criminal Interrogation and Confessions*, the most influential approach is the so-called Reid technique (named after John E. Reid who, along with Fred Inbau, developed this approach in the 1940s and published the first edition of their manual in 1962). First, investigators are advised to isolate the suspect in a small private room, which increases his or her anxiety and incentive to escape. A nine-step process then ensues in which an interrogator employs both negative and positive incentives. On one hand, the interrogator confronts the suspect with accusations of guilt, assertions that may be bolstered by evidence, real or manufactured, and refuses to accept alibis and denials. On the other hand, the interrogator offers sympathy and moral justification, introducing "themes" that minimize the crime and lead suspects to see confession as an expedient means of escape. The use of this technique has been documented in naturalistic observational studies (Feld, 2006b; Leo, 1996b; Simon, 1991; Wald et al., 1967) and in recent surveys of North American investigators (Kassin et al., 2007; Meyer & Reppucci, 2007).

Miranda Warnings, Rights, and Waivers

One of the U.S. legal system's greatest efforts to protect suspects from conditions that might produce involuntary and unreliable confessions is found in the U.S. Supreme Court decision in *Miranda v. Arizona* (1966). The Court was chiefly concerned with cases in which the powers of the state, represented by law enforcement, threatened to overbear the will of citizen suspects, thus threatening their Constitutional right to avoid self-incrimination.

In *Miranda*, the Court offered a remedy, requiring that police officers had to inform suspects of their rights to remain silent and to the availability of legal counsel prior to confessions. This requirement aimed to strike a balance against the inherently threatening power of the police in relation to the disadvantaged position of the suspect, thus reducing coercion of confessions. In cases involving challenges to the validity of the waiver of rights, courts were to apply a test regarding the admissibility of the confession at trial. Statements made by defendants would be inadmissible if a waiver of the rights to silence and counsel was not made "voluntarily, knowingly, and intelligently." One year after the *Miranda* decision, *In re Gault* (1967) extended these rights and procedures to youth when they faced delinquency allegations in juvenile court.

Forty years later, there is no research evidence that *Miranda* and *Gault* achieved their ultimate objective. Police officers routinely offer the familiar warnings to suspects prior to taking their statements. But research has not unequivocally determined whether confessions became more or less likely, are any more or less reliable, or are occurring in ways that are more or less "voluntary, knowing, and intelligent" than in the years prior to *Miranda*. Several years ago, Paul Cassell, an outspoken critic of *Miranda*, had maintained (based on pre–post studies as well as international comparisons) that the confession and conviction rates have dropped significantly as a direct result of the warning and waiver requirements, thus triggering the release of dangerous criminals (Cassell, 1996a, 1996b; Cassell & Hayman, 1996). Yet others countered that his analysis was based on selective data gathering methods and unwarranted inferences (Donahue, 1998; Feeney, 2000; Thomas & Leo, 2002); that these declines, if real, were insubstantial (Schulhofer, 1996); that four out of five suspects waive their rights and submit to questioning (Leo, 1996a, 1996b); and that the costs to law enforcement were outweighed by social benefits—for example, that *Miranda* has had a civilizing effect on police practices and has increased public awareness of constitutional rights (Leo, 1996c; Thomas, 1996).

In recent years, the U.S. Supreme Court has upheld the basic warning-and-waiver requirement (*Dickerson v. United States*, 2000)—for example, refusing to accept confessions given after a warning that was tactically delayed to produce an earlier inadmissible statement (*Missouri v. Seibert*, 2004). Practically speaking, however, research has suggested that the Court's presumption concerning the protections afforded by *Miranda* warnings is questionable. At minimum, a valid waiver of rights requires that police officers provide suspects an understandable description of their rights and that suspects must understand these warnings to waive them validly. What empirical evidence do we have that *Miranda's* procedural safeguards produce these conditions?

First, the *rights* of which suspects must be informed were clearly defined in Miranda, but the *warnings* were not. The *Miranda* decision included an appendix wherein the Court offered an example of the warnings that were suggested, but police departments were free to devise their own warnings. A recent study examined 560 *Miranda* warning forms used by police throughout the U.S. (Rogers, Harrison, Shuman, Sewell, & Hazelwood, 2007). A host of variations in content and format were identified, and metric analysis of their wording revealed reading-level requirements ranging from third-grade level to the verbal complexity of postgraduate textbooks (see Kahn, Zapf, & Cooper, 2006, for similar results; also see Rogers, Hazelwood, Sewell, Harrison, & Shuman, 2008). Moreover, *Miranda* warning forms varied considerably in what they conveyed. For example, only 32% of the forms told suspects that legal counsel could be obtained without charge. Thus, many warning forms raise serious doubts about the knowing and intelligent waiver of rights by almost any suspect who is "informed" by them.

Second, studies have repeatedly shown that a substantial proportion of adults with mental disabilities, and "average" adolescents below age 16 have impaired understanding of *Miranda* warnings when they are exposed to them. Even adults and youth who understand them sometimes do not grasp their basic implications. Many of these studies have examined actual adult or juvenile defendants, using reliable procedures that allow the quality of an individual's understanding to be scored according to specified criteria. For example, do people after warnings factually understand that "I don't have to talk" and that "I can get an attorney to be here now and during any questioning by police?" To answer this question, respondents have been examined in the relatively benign circumstance of a testing session with a researcher rather than in the context of an accusatory, highly stressful interrogation using standardized *Miranda* warnings that have about an average sixth- to seventh-grade reading level. Thus, the results obtained in these studies represent people's grasp of the *Miranda* warnings under relatively favorable circumstances. Under these conditions, average adults exhibit a reasonably good understanding of their rights (Grisso, 1980, 1981). But studies of adults with serious psychological disorders (Cooper & Zapf, 2008; Rogers, Harrison, Hazelwood, & Sewell, 2007) or with mental retardation (Clare & Gudjonsson, 1991; Everington & Fulero, 1999; Fulero & Everington, 1995; O'Connell, Garmoe, & Goldstein, 2005) have found substantial impairments in understanding of *Miranda* warnings compared to nonimpaired adult defendants.

Many studies have examined adolescents' understanding of *Miranda* warnings, and the results have been very consistent (Abramovitch, Higgins-Biss, & Biss, 1993; Abramovitch, Peterson-Badali, & Rohan, 1995: Colwell et al., 2005; Goldstein, Condie, Kalbeitzer, Osman, & Geier, 2003; Grisso, 1980, 1981; Redlich, Silverman, & Steiner, 2003; Viljoen, Klaver, & Roesch, 2005; Viljoen & Roesch, 2005; Wall & Furlong, 1985). In one comprehensive study, 55% of 430 youth of ages 10–16 misunderstood one or more of the *Miranda* warnings (for example, "That means I can't talk until they tell me to"). Across these studies, the understanding of adolescents ages 15–17 with near-average levels of verbal intelligence tends not to have been inferior to that of adults. But youth of that age with IQ scores below 85, and average youth below age 14, performed much poorer, often misunderstanding two or more of the warnings.

Some studies have shown that many defendants, especially adolescents, who seem to have an adequate factual understanding of *Miranda* warnings, do not grasp their relevance to the situation they are in (e.g., Grisso, 1980, 1981; Viljoen, Zapf, & Roesch, 2007). For example, one may factually understand that "I can have an attorney before and during questioning" yet not know what an attorney is or what role an attorney would play. Others may understand the attorney's role but disbelieve that it would apply in their own situation—as when youth cannot imagine that an adult would take their side against other adults, or when a person with paranoid tendencies believes that any attorney, even his own, would oppose him.

The ability to grasp the relevance of the warnings beyond having a mere factual understanding of what they say is sometimes referred to as having a "rational understanding" or "appreciation" of the warnings. Many states, however, require only a factual understanding of *Miranda* rights for a "knowing and intelligent" waiver (e.g., *People v. Daoud*, 2000). In those states that apply a strict factual understanding standard, youth who technically understand the warnings (e.g., "I can have an attorney to talk to" or "I can stay silent") but harbor faulty beliefs that may distort the significance of these warnings ("An attorney will tell the court whatever I say" or "You have to tell the truth in court, so eventually I'll have to talk if they want me to") are considered capable of having made a valid waiver, even if they have no recognition of the meanings of the words or a distorted view of their implications.

Even among those with adequate understanding, suspects will vary in their capacities to "think" and "decide" about waiving their rights. Whether decision-making capacities are deemed relevant for a "voluntary, knowing, and intelligent" waiver will depend on courts' interpretations of "intelligent" or "voluntary." Several studies have thus examined the decision-making process of persons faced with hypothetical *Miranda* waiver decisions.

Studies of adolescents indicate that youth under age 15 on average perform differently from older adolescents and adults. They are more likely to believe that they should waive their rights and tell what they have done, partly because they are still young enough to believe that they should never disobey authority. Studies have also shown that they are more likely to decide about waiver on the basis of the potential for immediate negative consequences—for example, whether they will be permitted to go home if they waive their rights—rather than considering the longer-range consequences associated with penalties for a delinquency adjudication (Grisso, 1981; Grisso et al., 2003). Young adolescents presented with hypothetical waiver decisions are less likely than older adolescents to engage in reasoning that involves adjustment of their decisions based on the amount of evidence against them or the seriousness of the allegations (Abramovitch, Peterson-Badali, & Rohan, 1995). These results regarding the likelihood of immature decision-making processes are consistent with research on the development of psychosocial abilities of young adolescents in everyday circumstances (Steinberg & Cauffman, 1996) and other

legal contexts (Grisso & Schwartz, 2000; Owen-Kostelnik, Reppucci, & Meyer, 2006).

Other *Miranda* decision-making studies have examined the suggestibility of persons with disabilities (Clare & Gudjonsson, 1995: Everington & Fulero, 1999; O'Connell, Garmoe, & Goldstein, 2005) and adolescents (Goldstein et al., 2003; Redlich et al., 2003; Singh & Gudjonsson, 1992). Suggestibility refers to a predisposition to accept information communicated by others and to incorporate that information into one's beliefs and memories. In general, these studies indicate that persons with mental retardation and adolescents in general are more susceptible to suggestion in the context of making hypothetical waiver decisions, and that greater suggestibility is related to poorer comprehension of the warnings. These results take on special significance in light of observational studies of police behavior when obtaining *Miranda* waiver decisions from adolescents (Feld, 2006a, 2006b) and adults (Leo, 1996b). As described elsewhere in this article, police officers often approach suspects with "friendly" suggestions regarding both the significance of the *Miranda* waiver procedure and their decision. In either case, results indicate that adults with disabilities and adolescents in general are prone to adjust their behaviors and decisions accordingly.

In a formal sense, whether one waives his or her rights voluntarily, knowingly, and intelligently does not have a direct bearing on the likelihood of false confessions (Kassin, 2005; White, 2001). The decision to waive one's rights in a police interrogation does not necessarily lead to a confession, much less a false confession. Nevertheless, research cited earlier regarding the lack of attentiveness of persons with disabilities and adolescents to long-range consequences suggests an increased risk that they would also comply with requests for a confession—whether true of false—to obtain the presumed short-term reward (e.g., release to go home). In addition, some studies have found that poor comprehension of *Miranda* warnings is itself predictive of a propensity to give false confessions (Clare & Gudjonsson, 1995; Goldstein et al., 2003). Sometimes this stems from low intelligence or a desire to comply; at other times it appears to be related to a naïve belief that one's actual innocence will eventually prevail—a belief that is not confined to adolescents or persons with disabilities (Kassin & Norwick, 2004).

Finally, many states require the presence of a parent or other interested adult when youth make decisions about their *Miranda* rights (Oberlander, Goldstein, & Goldstein, 2003). These rules are intended to offer youth assistance in thinking through the decision while recognizing that caretakers cannot themselves waive their children's rights in delinquency or criminal investigations. Studies have shown, however, that the presence of parents at *Miranda* waiver events typically does not result in any advice at all or, when it does, provides added pressure for the youth to waive rights and make a statement (Grisso & Ring, 1979). The presence of parents may be advisable, but it does not offer a remedy for the difficulties youth face in comprehending or responding to requests for a waiver of their rights.

In summary, research suggests that adults with mental disabilities, as well as adolescents, are particularly at risk when it comes to understanding the meaning of *Miranda* warnings. In addition, they often lack the capacity to weigh the consequences of rights waiver, and are more susceptible to waiving their rights as a matter of mere compliance with authority.

Overview of Confession Evidence in the Courts

American courts have long treated confession evidence with both respect and skepticism. Judicial respect for confessions emanates from the power of confession evidence and the critical role that confessions play in solving crimes. The U.S. Supreme Court has recognized that confession evidence is perhaps the most powerful evidence of guilt admissible in court (*Miranda v. Arizona*, 1966)—so powerful, in fact, that "the introduction of a confession makes the other aspects of a trial in court superfluous, and the real trial, for all practical purposes, occurs when the confession is obtained" (*Colorado v. Connelly*, 1986, p. 182 citing McCormick, 1972, p. 316).

Judicial skepticism of confession evidence stems from the historical fact that some law enforcement officers, aware that confession evidence can assure conviction, have abused their power in the interrogation room. As the U.S. Supreme Court stated in *Escobedo v. Illinois* (1964): "We have learned the lesson of history, ancient and modern, that a system of criminal law enforcement which comes to depend on the 'confession' will, in the long run, be less reliable and more subject to abuses than a system which depends on extrinsic evidence independently secured through skillful investigation" (pp. 488–489).

Judicial concern with juror over-reliance on confession evidence gave rise to a series of evolving rules designed to curb possible abuses in the interrogation room, exclude unreliable confessions from trial, and prevent wrongful convictions. These doctrines, which developed both in the common law of evidence and under the Constitution as interpreted by the U.S. Supreme Court, fell into two distinct sets of legal rules: corroboration rules and the voluntariness rules (Ayling, 1984; Leo, Drizin, Neufeld, Hal, & Vatner, 2006).

Corroboration Rules

The corroboration rule, which requires that confessions be corroborated by independent evidence, was the

American take on the English rule known as the *corpus delicti* rule. *Corpus delicti* literally means "body of the crime"—that is, the material substance upon which a crime has been committed" (Garner, 2004, p. 310). The rule was founded at common law in England in the wake of *Perry's Case*, a seventeenth-century case in which a mother and two brothers were convicted and executed based upon a confession to a murder that was later discovered to be false when the supposed murder victim turned up alive (Leo et al., 2006). America's version of *Perry's Case* is the infamous 1819 case of Stephen and Jesse Boorn, two brothers who were convicted and sentenced to death in Manchester, Vermont for the murder of their brother-in-law Russell Colvin. Fortunately for the two men, both of whom had confessed to the killing under intense pressure from authorities, their lawyers located Colvin alive before their hangings took place (Warden, 2005).

In American homicide cases, in response to *Boorn*, the rule came to mean that no individual can be convicted of a murder without proof that a death occurred, namely the existence of a "dead body." As the rule evolved in the courts over time, it was applied to all crimes and required that before a confession could be admitted to a jury, prosecutors had to prove: (1) that a death, injury, or loss had occurred and (2) that criminal agency was responsible for that death, injury, or loss (Leo et al., 2006). The rule was designed to serve three purposes: to prevent false confessions, to provide incentives to police to continue to investigate after obtaining a confession, and to safeguard against the tendency of juries to view confessions as dispositive of guilt regardless of the circumstances under which they were obtained (Ayling, 1984).

The *corpus delicti* rule does not require corroboration that the defendant committed the crime, nor does it demand any proof of the requisite mental state or any other elements of the crime. Moreover, the rule only requires corroboration of the fact that a crime occurred; it does not require that the facts contained in the confession be corroborated. Given the relative ease of establishing the *corpus delicti* in most criminal cases (e.g., producing a dead body in a homicide case and showing that death was not self-inflicted or the result of an accident), and the weight that most jurors attach to confession evidence, prosecutors can still obtain many convictions from unreliable confessions. The rule thus makes it easier in some cases for prosecutors to convict both the guilty and the innocent (Leo et al., 2006).

At the same time, in a certain class of cases, the *corpus delicti* rule may bar the admission of reliable confessions. Because the rule requires that prosecutors prove that there be death or injury resulting from a criminal act, prosecutors may have a hard time getting confessions admitted when the evidence is unclear as to whether any injury had occurred (e.g., child molestation without physical evidence) or whether it resulted from an accident or natural causes as opposed to a criminal act (e.g., child death by smothering or Sudden Infant Death Syndrome; see Taylor, 2005).

For these reasons and others, the rule has been severely criticized. In *Smith v. United States* (1954), the U.S. Supreme Court criticized the *corpus delicti* rule for "serv[ing] an extremely limited function" (p. 153). The Court noted that the rule was originally designed to protect individuals who had confessed to crimes that never occurred but that it does little to protect against the far more frequent problem wherein a suspect confesses to a crime committed by someone else. In short, the rule did "nothing to ensure that a particular defendant was the perpetrator of a crime" (*State v. Mauchley*, 2003, p. 483).

In place of the *corpus delicti* rule, the Supreme Court, in two decisions released on the same day—*Smith* and *Opper v. United States* (1954)—announced a new rule, dubbed the trustworthiness rule, which requires corroboration of the confession itself rather than the fact that a crime occurred. Under the trustworthiness rule, which was adopted by several states, the government may not introduce a confession unless it provides "substantial independent evidence which would tend to establish the trustworthiness of the confession" (*State v. Mauchley*, 2003, p. 48; citing Opper).

In theory, the trustworthiness standard is a marked improvement on the *corpus delicti* rule in its ability to prevent false confessions from entering the stream of evidence at trial. In practice, however, the rule has not worked to screen out false confessions. Because investigators sometimes suggest and incorporate crime details into a suspect's confession, whether deliberately or inadvertently, many false confessions appear highly credible to the secondhand observer. Without an electronic recording of the entire interrogation process, courts are thus left to decide a swearing contest between the suspect and the detective over the source of the details contained within the confession. Moreover, the quantum of corroboration in most jurisdictions that apply the trustworthiness doctrine is very low, allowing many unreliable confessions to go before the jury (Leo et al., 2006).

Rules Prohibiting Involuntary Confession

Until the late eighteenth century, out-of-court confessions were admissible as evidence even if they were the involuntary product of police coercion. In 1783, however, in *The King v. Warrickshall*, an English Court recognized the inherent lack of reliability of involuntary confessions and established the first exclusionary rule:

> Confessions are received in evidence, or rejected as inadmissible, under a consideration whether they are or are not intitled [sic] to credit. A free and voluntary confession is deserving of the highest credit, because it is presumed to flow from the strongest sense of guilt ...but a confession forced from the mind by the flattery of hope, or by the torture of fear, comes in so questionable a shape...that no credit ought to be given it; and therefore it should be rejected (*King v. Warrickshall*, 1783, pp. 234–235).

The basis for excluding involuntary confessions in *Warrickshall* was a concern that confessions procured by torture or other forms of coercion must be prohibited because of the risk that such tactics could cause an innocent person to confess. In other words, involuntary confessions were to be prohibited because they were unreliable. Following *Warrickshall*, in the late 1800s, the U.S. Supreme Court adopted this reliability rationale for excluding involuntary confessions in a series of decisions (*Hopt v. Utah*, 1884; *Pierce v. United States*, 1896; *Sparf v. United States*, 1895; *Wilson v. United States*, 1896).

The Supreme Court adopted a second rationale for excluding involuntary confessions in 1897, in *Bram v. United States*. In *Bram*, the Court for the first time linked the voluntariness doctrine to the Fifth Amendment's provision that "no person shall be compelled in any criminal case to be a witness against himself." This privilege against self-incrimination was not rooted in a concern about the reliability of confessions. Rather, its origins were grounded in the rule of *nemo teneturseipsum prodere* ("no one is bound to inform on himself"), a rule dating back to the English ecclesiastical courts which sought to protect individual free will from state intrusion (Leo et al., 2006). The rule of *nemo tenetur*, which was adopted in the colonies and incorporated into the Fifth Amendment, applied only to self-incriminating statements in court, and had never been applied to extrajudicial confessions. By mixing two unrelated voluntariness doctrines, *Bram* rewrote history and provoked considerable confusion by courts and academics alike (Wigmore, 1970). Still, it gave birth to a new basis for excluding involuntary confession evidence—the protection of individual free will.

A third basis for excluding involuntary confessions began to emerge in 1936, in the case of *Brown v. Mississippi*, to deter unfair and oppressive police practices. In *Brown*, three black tenant farmers who had been accused of murdering a white farmer were whipped, pummeled, and tortured until they provided detailed confessions. The Court unanimously reversed the convictions of all three defendants, holding that confessions procured by physical abuse and torture were involuntary. The Court established the Fourteenth Amendment's due process clause as the constitutional test for assessing the admissibility of confessions in state cases. In addition to common law standards, trial judges would now have to apply a federal due process standard when evaluating the admissibility of confession evidence, looking to the "totality of the circumstances" to determine if the confession was 'made freely, voluntarily and without compulsion or inducement of any sort'"(*Haynes v. Washington*, 1963, quoting *Wilson v. United States*, 1896). As such, the Court proposed to consider personal characteristics of the individual suspect (e.g., age, intelligence, mental stability, and prior contact with law enforcement) as well as the conditions of detention and interrogation tactics that were used (e.g., threats, promises, and lies).

This deterrence rationale, implied in *Brown*, was made even more explicit in *Haley v. Ohio*, a case involving a 15-year-old black boy who was questioned throughout the night by teams of detectives, isolated for 3 days, and repeatedly denied access to his lawyer (*Haley v. Ohio*, 1948). While the majority held that the confession was obtained "by means which the law should not sanction" (pp. 600–601), Justice Frankfurter, in his concurrence, went a step further, stating that the confession must be held inadmissible "[t]o remove the inducement to resort to such methods this Court has repeatedly denied use of the fruits of illicit methods" (p. 607).

As these cases suggest, the Supreme Court relied on different and sometimes conflicting rationales for excluding involuntary confessions throughout the twentieth century (Kamisar, 1963; White, 1998). It was not always clear which of the three justifications the Court would rely on when evaluating the voluntariness of a confession. Nevertheless, the Court did appear to designate certain interrogation methods—including physical force, threats of harm or punishment, lengthy or incommunicado questioning, solitary confinement, denial of food or sleep, and promises of leniency—as presumptively coercive and therefore unconstitutional (White, 2001). The Court also considered the individual suspect's personal characteristics, such as age, intelligence, education, mental stability, and prior contact with law enforcement, in determining whether a confession was voluntary. The template of the due process voluntariness test thus involved a balancing of whether police interrogation pressures, interacting with a suspect's personal dispositions, were sufficient to render a confession involuntary (Schulhofer, 1981).

The "totality of the circumstances" test, while affording judges flexibility in practice, has offered little protection to suspects. Without bright lines for courts to follow, and without a complete and accurate record of what transpired during the interrogation process, the end result has been largely unfettered and unreviewable discretion by judges. In practice, when judges apply the test, "they exclude only the most egregiously obtained confessions and then only

haphazardly" (Feld, 1999, p. 118). The absence of a litmus test has also encouraged law enforcement officers to push the envelope with respect to the use of arguably coercive psychological interrogation techniques (Penney, 1998). Unlike its sweeping condemnation of *physical* abuse in *Brown v. Mississippi*, the Court's overall attitude toward *psychological* interrogation techniques has been far less condemnatory. In particular, the Court's attitudes toward the use of maximization and minimization (Kassin & McNall, 1991) and the false evidence ploy and other forms of deception (Kassin & Kiechel, 1996)—techniques that have frequently been linked to false confessions (Kassin & Gudjonsson, 2004)—has been largely permissive. A discussion of some of these cases follows.

Cases Addressing Interrogation Tactics: Maximization and Minimization

Today's interrogators seek to manipulate a suspect into thinking that it is in his or her best interest to confess. To achieve this change in perceptions of subjective utilities, they use a variety of techniques, referred to broadly as "maximization" and "minimization" (Kassin & McNall, 1991). Maximization involves a cluster of tactics designed to convey the interrogator's rock-solid belief that the suspect is guilty and that all denials will fail. Such tactics include making an accusation, overriding objections, and citing evidence, real or manufactured, to shift the suspect's mental state from confident to hopeless. Toward this end, it is particularly common for interrogators to communicate as a means of inducement, implicitly or explicitly, a threat of harsher consequences in response to the suspect's denials (Leo & Ofshe, 2001).

In contrast, minimization tactics are designed to provide the suspect with moral justification and face-saving excuses for having committed the crime in question. Using this approach, the interrogator offers sympathy and understanding; normalizes and minimizes the crime, often suggesting that he or she would have behaved similarly; and offers the suspect a choice of alternative explanations—for example, suggesting to the suspect that the murder was spontaneous, provoked, peer-pressured, or accidental rather than the work of a cold-blooded premeditated killer. As we will see later, research has shown that this tactic communicates by implication that leniency in punishment is forthcoming upon confession.

As the 1897 case of *Bram v. United States* demonstrates, minimization has been part of the arsenal of police interrogation tactics for over a century. In *Bram*, the authorities induced the defendant to confess based on the kind of unspoken promise that anchors the modern psychological interrogation: "Bram, I am satisfied that you killed the captain. But some of us here think you could not have done the crime alone. If you had an accomplice, you should say so, and not have the blame of this horrible crime on your own shoulders" (*Bram v. United States*, 1897, p. 539). This statement contained no direct threats or promises; rather, it combined elements of maximization (the interrogator's stated certainty in the suspect's guilt) and minimization (the suggestion that he will be punished less severely if he confesses and names an accomplice). Using language that condemns the latter, the Supreme Court reversed Bram's conviction, holding that a confession "must not be extracted by any sort of threats or violence, nor obtained by any direct or implied promises, however slight" (pp. 542–543).

Although a strict interpretation of *Bram* seemed to suggest a ban on minimization, courts throughout the twentieth century followed a practice of evading, contradicting, disregarding, and ultimately discarding *Bram* (Hirsch, 2005a). Briefly in the 1960s, it appeared that the Supreme Court was ready to revitalize *Bram* and to apply it broadly to the psychological interrogation techniques taught by such legendary police reformers as Chicago's Fred Inbau and John Reid. Indeed, the landmark case of *Miranda v. Arizona* (1966), described earlier, cited *Bram* and condemned the Reid technique and other tactics that "are designed to put the subject in a psychological state where his story is but an elaboration of what the police purport to know already—that he is guilty" (p. 450). This newfound concern with the impact of psychological interrogation tactics, however, was short lived. In the immediate aftermath of *Miranda*, the Supreme Court adopted a more deferential attitude toward law enforcement in its confession jurisprudence. In particular, *Arizona v. Fulminante* (1991) in dicta may have sounded the death knell for *Bram*. Responding to a party's invocation of *Bram*, the Court casually remarked that "under current precedent [Bram] does not state the standard for determining the voluntariness of a confession" (p. 286). However, White (1997) noted that "as Fulminante's holding indicates, some promises may be sufficient in and of themselves to render a confession involuntary; other promises may or may not be permissible depending upon the circumstances" (p. 150).

Cases Addressing Interrogation Tactics: Trickery and Deception

The false evidence ploy is a controversial tactic occasionally used by police. Not all interrogation trainers approve of this practice (Gohara, 2006), the use of which has been implicated in the vast majority of documented police-induced false confessions (Kassin, 2005). In several pre-*Miranda* voluntariness cases, the U.S. Supreme Court recognized that deception can induce involuntary confessions, although the Court never held that such tactics would automatically invalidate a confession. In *Leyra v. Denno* (1954), for

example, Leyra asked to see a physician because he was suffering from sinus problems and police brought in a psychiatrist who posed as a general physician. The Supreme Court held that the "subtle and suggestive" questioning by the psychiatrist amounted to a continued interrogation of the suspect without his knowledge. This deception and other circumstances of the interrogation rendered Leyra's confession involuntary. Similarly, in *Spano v. New York* (1959), the suspect considered one of the interrogating officers to be a friend. The Court held that the officer's false statements, in which he suggested that the suspect's actions might cost the officer his job, were a key factor in rendering the resulting confession involuntary. In *Miranda v. Arizona* (1966), the Supreme Court discussed the use of trickery and deception and noted that the deceptive tactics recommended in standard interrogation manuals fostered a coercive environment. Again, the Court did not specifically prohibit such tactics, choosing instead to offer suspects some relief from the coercive effect by empowering them with rights which could be used to bring interrogation to a halt. The criticism of deception may have fanned hopes that the Court would deal a more direct blow to this controversial tactic in future cases. But such hopes were quickly quashed.

Three years later, in *Frazier v. Cupp* (1969), the Supreme Court addressed interrogation trickery and issued a decision that to this day has been interpreted by police and the courts as a green light to deception. In *Frazier*, police used a standard false evidence ploy—telling Frazier that another man whom he and the victim had been seen with on the night of the crime had confessed to their involvement. The investigating detective also used minimization, suggesting to Frazier that he had started a fight with the victim because the victim made homosexual advances toward him. Despite the use of these deceptive tactics, the Court held that Frazier's confession was voluntary. This ruling established that police deception by itself is not sufficient to render a confession involuntary. Rather, according to *Frazier*, deception is but one factor among many that a court should consider. Some state courts have distinguished between mere false assertions, which are permissible, and the fabrication of reports, tapes, and other evidence—which is not. In the Florida case of *State v. Cayward* (1989), the defendant's confession was suppressed because police had typed up a phony crime laboratory report that placed Cayward's DNA on the victim. However, the court's concern was not that the manufactured evidence might prompt an innocent person to confess but that it might find its way into court as evidence. Similarly, New Jersey confessions were suppressed when produced by a fake, staged audiotape of an alleged eyewitness account (*State v. Patton*, 1993) and a fake crime lab report identifying the suspect's DNA at the crime scene (*State v. Chirokovskcic*, 2004). This is where the law remains today despite numerous cautionary notes from academics and researchers on the use of deception (Gohara, 2006; Gudjonsson, 2003; Kassin, 2005; Kassin & Gudjonsson, 2004; Skolnick & Leo, 1992; but see Grano, 1994; Slobogin, 2007).

Practices in England

Interrogations and confession evidence are regulated in England and Wales by the Police and Criminal Evidence Act of 1984 (PACE; Home Office, 1985), which became effective in January 1986. The Act is supplemented by five Codes of Practice, referred to as Codes A (on stop and search), B (entry and searches of premises), C (detention and questioning of suspects), D (on identification parades), and E (tape recording of interviews). The Codes provide guidance to police officers concerning procedures and the appropriate treatment of suspects. Code C is particularly relevant to issues surrounding "fitness to be interviewed," as it provides guidance "on practice for the detention, treatment and questioning of persons by police officers" (Home Office, 2003, p. 47).

The most important interview procedures set out in PACE and its Codes of Practice are that: Suspects who are detained at a police station must be informed of their legal rights; in any 24-h period the detainee must be allowed a continuous period of rest of at least 8 hours; detainees who are vulnerable in terms of their age or mental functioning should have access to a responsible adult (known as an 'appropriate adult'), whose function is to give advice, further communication, and ensure that the interview is conducted properly and fairly; and all interviews shall be electronically recorded.

Compared to the approach typically taken in the U.S. (e.g., using the Reid technique), investigative interview practices in England are less confrontational. Williamson (2007) discussed in detail how psychological science has influenced the training of police officers and their interviewing practice, making it fairer and more transparent. Prior to 1992, investigators in Britain received no formal training and the chief purpose of interviewing suspects was to obtain confessions. Following some high-profile miscarriages of justice, such as the "Guildford Four" and "Birmingham Six," the Association of Chief Police Officers for England and Wales (ACPO) published the first national training program for police officers interviewing both suspects and witnesses. This new approach was developed through a collaboration of police officers, psychologists, and lawyers. The mnemonic PEACE was used to describe the five distinct parts of the new interview approach ("Preparation and Planning," "Engage and Explain," "Account," "Closure," and "Evaluate"). The theory underlying this approach, particularly in cases of witnesses, victims, and cooperative suspects, can be traced

to Fisher and Geiselman's (1992) work on the "Cognitive Interview" (Milne & Bull, 1999; for research evidence, see Clarke & Milne, 2001; Williamson, 2006). Recent analyses of police–suspect interviews in England have revealed that the confrontation-based tactics of maximization and minimization are in fact seldom used (Soukara, Bull, Vrij, Turner, & Cherryman, in press; Bull & Soukara, 2009).

POLICE-INDUCED FALSE CONFESSIONS

As described earlier, the process of interrogation is designed to overcome the anticipated resistance of individual suspects who are presumed guilty and to obtain legally admissible confessions. The single-minded objective, therefore, is to increase the anxiety and despair associated with denial and reduce the anxiety associated with confession. To achieve these goals, police employ a number of tactics that involve isolating the suspect and then employing both negative and positive incentives. On the negative side, interrogators confront the suspect with accusations of guilt, assertions that are made with certainty and often bolstered by evidence, real or manufactured, and a refusal to accept alibis and denials. On the positive side, interrogators offer sympathy and moral justification, introducing "themes" that normalize and minimize the crime and lead suspects to see confession as an expedient means of escape. In this section, we describe some core principles of psychology relevant to understanding the suspect's decision making in this situation; then we describe the problem of false confessions and the situational and dispositional factors that put innocent people at risk.

Types of False Confessions

Although it is not possible to calculate a precise incidence rate, it is clear that false confessions occur in different ways and for different reasons. Drawing on the pages of legal history, and borrowing from social-psychological theories of influence, Kassin and Wrightsman (1985) proposed a taxonomy that distinguished among three types of false confession: voluntary, coerced-compliant, and coerced-internalized (see also Kassin, 1997; Wrightsman & Kassin, 1993). This classification scheme has provided a useful framework for the study of false confessions and has since been used, critiqued, extended, and refined by others (Gudjonsson, 2003; Inbau et al., 2001; McCann, 1998; Ofshe & Leo, 1997a, 1997b).

Voluntary False Confessions

Sometimes innocent people have claimed responsibility for crimes they did not commit without prompting or pressure from police. This has occurred in several high-profile cases. After Charles Lindbergh's infant son was kidnapped in 1932, 200 people volunteered confessions. When "Black Dahlia" actress Elizabeth Short was murdered and her body mutilated in 1947, more than 50 men and women confessed. In the 1980s, Henry Lee Lucas in Texas falsely confessed to hundreds of unsolved murders, making him the most prolific serial confessor in history. In 2006, John Mark Karr volunteered a confession, replete with details, to the unsolved murder of young JonBenet Ramsey. There are a host of reasons why people have volunteered false confessions—such as a pathological desire for notoriety, especially in high-profile cases reported in the news media; a conscious or unconscious need for self-punishment to expiate feelings of guilt over prior transgressions; an inability to distinguish fact from fantasy due to a breakdown in reality monitoring, a common feature of major mental illness; and a desire to protect the actual perpetrator—the most prevalent reason for false admissions (Gudjonsson et al., 2004; Sigurdsson & Gudjonsson, 1996, 1997, 2001). Radelet, Bedau, and Putnam (1992) described one case in which an innocent man confessed to a murder to impress his girlfriend. Gudjonsson (2003) described another case in which a man confessed to murder because he was angry at police for a prior arrest and wanted to mislead them in an act of revenge.

Compliant False Confessions

In contrast to voluntary false confessions, compliant false confessions are those in which suspects are induced through interrogation to confess to a crime they did not commit. In these cases, the suspect acquiesces to the demand for a confession to escape a stressful situation, avoid punishment, or gain a promised or implied reward. Demonstrating the form of influence observed in classic studies of social influence (e.g., Asch, 1956; Milgram, 1974), this type of confession is an act of mere public compliance by a suspect who knows that he or she is innocent but bows to social pressure, often coming to believe that the short-term benefits of confession relative to denial outweigh the long-term costs. Based on a review of a number of cases, Gudjonsson (2003) identified some very specific incentives for this type of compliance—such as being allowed to sleep, eat, make a phone call, go home, or, in the case of drug addicts, feed a drug habit. The desire to bring the interview to an end and avoid additional confinement may be particularly pressing for people who are young, desperate, socially dependent, or phobic of being locked up in a police station. The pages of legal history are filled with stories of compliant false confessions. In the 1989 Central Park jogger case described earlier, five

teenagers confessed after lengthy interrogations. All immediately retracted their confessions but were convicted at trial and sent to prison—only to be exonerated 13 years later (*People of the State of New York v. Kharey Wise et al.*, 2002).

Internalized False Confessions

In the third type of false confession, innocent but malleable suspects, told that there is incontrovertible evidence of their involvement, come not only to capitulate in their behavior but also to believe that they may have committed the crime in question, sometimes confabulating false memories in the process. Gudjonsson and MacKeith (1982) argued that this kind of false confession occurs when people develop such a profound distrust of their own memory that they become vulnerable to influence from external sources. Noting that the innocent confessor's belief is seldom fully internalized, Ofshe and Leo (1997a) have suggested that the term "persuaded false confession" is a more accurate description of the phenomenon. The case of 14-year-old Michael Crowe, whose sister Stephanie was stabbed to death in her bedroom, illustrates this type of persuasion. After a series of interrogation sessions, during which time police presented Crowe with compelling false physical evidence of his guilt, he concluded that he was a killer, saying: "I'm not sure how I did it. All I know is I did it." Eventually, he was convinced that he had a split personality—that "bad Michael" acted out of a jealous rage while "good Michael" blocked the incident from memory. The charges against Crowe were later dropped when a drifter in the neighborhood that night was found with Stephanie's blood on his clothing (Drizin & Colgan, 2004).

Relevant Core Principles of Psychology

Earlier we reviewed the tactics of a modern American interrogation and the ways in which the U.S. Supreme Court has treated these tactics with respect to the voluntariness and admissibility of the confessions they elicit. As noted, the goal of interrogation is to alter a suspect's decision making by increasing the anxiety associated with denial and reducing the anxiety associated with confession (for an excellent description of a suspect's decision-making process in this situation, see Ofshe & Leo, 1997b).

Long before the first empirical studies of confessions were conducted, the core processes of relevance to this situation were familiar to generations of behavioral scientists. Dating back to Thorndike's (1911) law of effect, psychologists have known that people are highly responsive to reinforcement and subject to the laws of conditioning, and that behavior is influenced more by perceptions of short-term than long-term consequences. Of distal relevance to a psychological analysis of interrogation are the thousands of operant animal studies of reinforcement schedules, punishment, appetitive, avoidance, and escape learning, as well as behavioral modification applications in clinics, schools, and workplaces. Looking through this behaviorist lens, it seems that interrogators have sometimes shaped suspects to confess to particular narrative accounts of crimes like they were rats in a Skinner box (see Herrnstein, 1970; Skinner, 1938).

More proximally relevant to an analysis of choice behavior in the interrogation room are studies of human decision making in a behavioral economics paradigm. A voluminous body of research has shown that people make choices that they think will maximize their well-being given the constraints they face, making the best of the situation they are in—what Herrnstein has called the "matching law" (Herrnstein, Rachlin, & Laibson, 1997). With respect to a suspect's response to interrogation, studies on the discounting of rewards and costs show that people tend to be impulsive in their orientation, preferring outcomes that are immediate rather than delayed, with delayed outcomes depreciating over time in their subjective value (Rachlin, 2000). In particular, animals and humans clearly prefer delayed punishment to immediate aversive stimulation (Deluty, 1978; Navarick, 1982). These impulsive tendencies are especially evident in juvenile populations and among cigarette smokers, alcoholics, and other substance users (e.g., Baker, Johnson, & Bickel, 2003; Bickel & Marsch, 2001; Bickel, Odum, & Madden, 1999; Kollins, 2003; Reynolds, Richards, Horn, & Karraker, 2004).

Rooted in the observation that people are inherently social beings, a second set of core principles is that individuals are highly vulnerable to influence from change agents who seek their compliance. Of direct relevance to an analysis of interrogation are the extensive literatures on attitudes and persuasion (Petty & Cacioppo, 1986), informational and normative influences (e.g., Asch, 1956; Sherif, 1936), the use of sequential request strategies, as in the foot-in-the-door effect (Cialdini, 2001), and the gradual escalation of commands, issued by figures of authority, to effectively obtain self- and other-defeating acts of obedience (Milgram, 1974). Conceptually, Latane's (1981) social impact theory provides a predictive mathematical model that can account for the influence of police interrogators—who bring *power*, *proximity*, and *number* to bear on their exchange with suspects (for a range of social psychological perspectives on interrogation, see Bem, 1966; Davis & O'Donahue, 2004; Zimbardo, 1967).

A third set of core principles consists of the "seven sins of memory" that Schacter (2001) identified from cognitive and neuroscience research—a list that includes memory transience, misattribution effects, suggestibility, and bias.

When Kassin and Wrightsman (1985) first identified coerced-internalized or coerced-persuaded false confessions, they were puzzled. At the time, existing models of memory could not account for the phenomenon whereby innocent suspects would come to internalize responsibility for crimes they did not commit and confabulate memories about these nonevents. These cases occur when a suspect is dispositionally or situationally rendered vulnerable to manipulation and the interrogator then misrepresents the evidence, a common ploy. In light of a now extensive research literature on misinformation effects and the creation of illusory beliefs and memories (e.g., Loftus, 1997, 2005), experts can now better grasp the process by which people come to accept guilt for a crime they did not commit as well as the conditions under which this may occur (see Kassin, 2008).

Situational Risk Factors

Among the situational risk factors associated with false confessions, three will be singled out: interrogation time, the presentation of false evidence, and minimization. These factors are highlighted because of the consistency in which they appear in cases involving proven false confessions.

Physical Custody and Isolation

To ensure privacy and control, and to increase the stress associated with denial in an incommunicado setting, interrogators are trained to remove suspects from their familiar surroundings and question them in the police station—often in a special interrogation room. Consistent with guidelines articulated by Inbau et al. (2001), most interrogations are brief. Observational studies in the U.S. and Britain have consistently shown that the vast majority of interrogations last approximately from 30 minutes up to 2 hours (Baldwin, 1993; Irving, 1980; Leo, 1996b; Wald et al., 1967). In a recent self-report survey, 631 North American police investigators estimated from their experience that the mean length of a typical interrogation is 1.60 hours. Consistent with cautionary advice from Inbau et al. (2001) against exceeding 4 hours in a single session, these same respondents estimated on average that their longest interrogations lasted 4.21 hours (Kassin et al., 2007). Suggesting that time is a concern among practitioners, one former Reid technique investigator has defined interrogations that exceed 6 hours as "coercive" (Blair, 2005). In their study of 125 proven false confessions, Drizin and Leo (2004) thus found, in cases in which interrogation time was recorded, that 34% lasted 6–12 hours, that 39% lasted 12–24 hours, and that the mean was 16.3 hours.

It is not particularly surprising that false confessions tend to occur after long periods of time—which indicates a dogged persistence in the face of denial. The human needs for belonging, affiliation, and social support, especially in times of stress, are a fundamental human motive (Baumeister & Leary, 1996). People under stress seek desperately to affiliate with others for the psychological, physiological, and health benefits that social support provides (Rofe, 1984; Schachter, 1959; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). Hence, prolonged isolation from significant others in this situation constitutes a form of deprivation that can heighten a suspect's distress and incentive to remove himself or herself from the situation. Depending on the number of hours and conditions of interrogation, sleep deprivation may also become a source of concern. Controlled laboratory experiments have shown that sleep deprivation, which may accompany prolonged periods of isolation, can heighten susceptibility to influence and impair decision-making abilities in complex tasks. The range of effects is varied, with studies showing that sleep deprivation markedly impairs the ability to sustain attention, flexibility of thinking, and suggestibility in response to leading questions (Blagrove, 1996; for a review, see Harrison & Horne, 2000). This research literature is not all based in the laboratory. For example, performance decrements have been observed in medical interns (e.g., Veasey, Rosen, Barzansky, Rosen, & Owens, 2002; Weinger & Ancoli-Israel, 2002)—as when sleep deprivation increased the number of errors that resident surgeons made in a virtual reality surgery simulation (Taffinder, McManus, Gul, Russell, & Darzi, 1998). Also demonstrably affected are motorists (Lyznicki, Doege, Davis, & Williams, 1998) and F-117 fighter pilots (Caldwell, Caldwell, Brown, & Smith, 2004). Combining the results in a meta-analysis, Pilcher and Huffcut (1996) thus concluded that: "overall sleep deprivation strongly impairs human functioning." The use of sleep deprivation in interrogation is hardly a novel idea. In *Psychology and Torture*, Suedfeld (1990) noted that sleep deprivation is historically one of the most potent methods used to soften up prisoners of war and extract confessions from them. Indeed, Amnesty International reports that most torture victims interviewed report having been deprived of sleep for 24 hours or more.

Presentations of False Evidence

Once suspects are isolated, interrogators, armed with a strong presumption of guilt, seek to communicate that resistance is futile. This begins the confrontation process, during which interrogators exploit the psychology of inevitability to drive suspects into a state of despair. Basic research shows that once people see an outcome as inevitable, cognitive and motivational forces conspire to

promote their acceptance, compliance with, and even approval of the outcome (Aronson, 1999). In the case of interrogation, this process also involves interrupting the suspect's denials, overcoming objections, and refuting alibis. At times, American police will overcome a suspect's denials by presenting supposedly incontrovertible evidence of his or her guilt (e.g., a fingerprint, blood or hair sample, eyewitness identification, or failed polygraph)—even if that evidence does not exist. In the U.S., it is permissible for police to outright lie to suspects about the evidence (*Frazier v. Cupp*, 1969)—a tactic that is recommended in training (Inbau et al., 2001), and occasionally used (Kassin et al., 2007; Leo, 1996b).

Yet basic psychological research warns of the risk of this manipulation. Over the years, across a range of subdisciplines, basic research has revealed that misinformation renders people vulnerable to manipulation. To cite but a few highly recognized classics in the field, experiments have shown that presentations of false information—via confederates, witnesses, counterfeit test results, bogus norms, false physiological feedback, and the like—can substantially alter subjects' visual judgments (Asch, 1956; Sherif, 1936), beliefs (Anderson, Lepper, & Ross, 1980), perceptions of other people (Tajfel, Billig, Bundy, & Flament, 1971), behaviors toward other people (Rosenthal & Jacobson, 1968), emotional states (Schachter & Singer, 1962), physical attraction (Valins, 1966), self-assessments (Crocker, Voelkl, Testa, & Major, 1991), memories for observed and experienced events (Loftus, 2005), and even certain medical outcomes, as seen in studies of the placebo effect (Brown, 1998; Price, Finniss, & Benedetti, 2008). Scientific evidence for human malleability in the face of misinformation is broad and pervasive.

The forensic literature on confessions reinforces and extends this classic point, indicating that presentations of false evidence can lead people to confess to crimes they did not commit. This literature is derived from two sources of information. First, studies of actual cases reveal that the false evidence ploy, which is not permitted in Great Britain and most other European nations, is found in numerous wrongful convictions in the U.S., including DNA exonerations, in which there were confessions in evidence (Drizin & Leo, 2004; Leo & Ofshe, 1998). That this tactic appears in proven false confession cases makes sense. In self-report studies, actual suspects state that the reason they confessed is that they perceived themselves to be trapped by the weight of evidence (Gudjonsson & Sigurdsson, 1999; Moston, Stephenson, & Williamson, 1992).

Concerns about the polygraph are illustrative in this regard. Although it is best known for its use as a lie-detector test, and has value as an investigative tool, posttest "failure" feedback is often used to pressure suspects and can prompt false confessions. This problem is so common that Lykken (1998) coined the term "fourth degree" to describe the tactic (p. 235), and the National Research Council Committee to Review the Scientific Evidence on the Polygraph (2003) warned of the risk of polygraph-induced false confessions. In a laboratory demonstration that illustrates the point, Meyer and Youngjohn (1991) elicited false confessions to the theft of an experimenter's pencil from 17% of subjects told that they had failed a polygraph test on that question.

The second source of evidence is found in laboratory experiments that have tested the causal hypothesis that false evidence leads innocent people to confess to prohibited acts they did not commit. In one study, Kassin and Kiechel (1996) accused college students typing on a keyboard of causing the computer to crash by pressing a key they were instructed to avoid. Despite their innocence and initial denials, subjects were asked to sign a confession. In some sessions but not others, a confederate said she witnessed the subject hit the forbidden key. This false evidence nearly doubled the number of students who signed a written confession, from 48 to 94%.

Follow-up studies have replicated this effect to the extent that the charge was plausible (Horselenberg et al., 2006; Klaver, Lee, & Rose, 2008), even when the confession was said to bear a financial or other consequence (Horselenberg, Merckelbach, & Josephs, 2003; Redlich & Goodman, 2003), and even among informants who are pressured to report on a confession allegedly made by another person (Swanner, Beike, & Cole, in press). The effect has been particularly evident among stress-induced males (Forrest, Wadkins, & Miller, 2002) and children and juveniles who tend to be both more compliant and suggestible than adults (Candel, Merckelbach, Loyen, & Reyskens, 2005; Redlich & Goodman, 2003). Using a completely different paradigm, Nash and Wade (2009) used digital editing software to fabricate video evidence of participants in a computerized gambling experiment "stealing" money from the "bank" during a losing round. Presented with this false evidence, all participants confessed—and most internalized the belief in their own guilt.

One needs to be cautious in generalizing from laboratory experiments. Yet numerous false confession cases have featured the use and apparent influence of the false evidence ploy. In one illustrative case, in 1989, 17-year-old Marty Tankleff was accused of murdering his parents despite the complete absence of evidence against him. Tankleff vehemently denied the charges for several hours—until his interrogator told him that his hair was found within his mother's grasp, that a "humidity test" indicated he had showered (hence, the presence of only one spot of blood on his shoulder), and that his hospitalized father had emerged from his coma to say that Marty was his assailant—all of which were untrue (the father never

regained consciousness and died shortly thereafter). Following these lies, Tankleff became disoriented and confessed. Solely on the basis of that confession, Tankleff was convicted, only to have his conviction vacated and the charges dismissed 19 years later (Firstman & Salpeter, 2008; Lambert, 2008).

Minimization: Promises Implied But Not Spoken

In addition to thrusting the suspect into a state of despair by the processes of confrontation, interrogators are trained to minimize the crime through "theme development," a process of providing moral justification or face-saving excuses, making confession seem like an expedient means of escape. Interrogators are thus trained to suggest to suspects that their actions were spontaneous, accidental, provoked, peer-pressured, drug-induced, or otherwise justifiable by external factors. In the Central Park jogger case, every boy gave a false confession that placed his cohorts at center stage and minimized his own involvement (e.g., 16-year-old Kharey Wise said he felt pressured by peers)—and each said afterward that he thought he would go home after confessing based on statements made by police.

Minimization tactics that imply leniency may well lead innocent people who feel trapped to confess. Two core areas of psychology compel this conclusion. The first concerns the principle of reinforcement. As noted earlier, generations of basic behavioral scientists, dating back to Thorndike (1911), and formalized by Skinner (1938), have found that people are highly responsive to reinforcement and the perceived consequences of their behavior. More recent studies of human decision making have added that people are particularly influenced by outcomes that are immediate rather than delayed, the latter depreciating over time in their subjective value (Rachlin, 2000). The second core principle concerns the cognitive psychology of pragmatic implication. Over the years, researchers have found that when people read text or hear speech, they tend to process information "between the lines" and recall not what was stated per se, but what was *pragmatically implied.* Hence, people who read that "The burglar goes to the house" often mistakenly recall later that the burglar actually broke into the house; those who hear that "The flimsy shelf weakened under the weight of the books" often mistakenly recall that the shelf actually broke (Chan & McDermott, 2006; Harris & Monaco, 1978; Hilton, 1995). These findings indicate that pragmatic inferences can change the meaning of a communication, leading listeners to infer something that is "neither explicitly stated nor necessarily implied" (Brewer, 1977).

Taken together, basic research showing that people are highly influenced by perceived reinforcements and that people process the pragmatic implications of a communication suggests the possibility that suspects infer leniency in treatment from minimizing remarks that depict the crime as spontaneous, accidental, pressured by others, or otherwise excusable—even in the absence of an explicit promise. To test this hypothesis, Kassin and McNall (1991) had subjects read a transcript of an interrogation of a murder suspect (the text was taken from an actual New York City interrogation). The transcripts were edited to produce three versions in which the detective made a contingent explicit promise of leniency, used the technique of minimization by blaming the victim, or did not use either technique. Subjects read one version and then estimated the sentence that they thought would be imposed on the suspect. The result: As if explicit promises had been made, minimization lowered sentencing expectations compared to conditions in which no technique was used.

More recently, researchers have found that minimization can also lead innocent people to confess. Using the computer crash paradigm described earlier, Klaver, Lee, and Rose (2008) found that minimization remarks significantly increased the false confession rate when the accusation concerning the forbidden key press was plausible. Russano, Meissner, Kassin, and Narchet (2005) devised a newer laboratory paradigm to not only assess the behavioral effects of minimization but to assess the diagnosticity of the resulting confession (a technique has "diagnosticity" to the extent that it increases the ratio of true to false confessions). In their study, subjects were paired with a confederate for a problem-solving study and instructed to work alone on some problems and jointly on others. In the *guilty* condition, the confederate sought help on a problem that was supposed to be solved alone, inducing a violation of the experimental prohibition. In the *innocent* condition, the confederate did not make this request to induce the crime. The experimenter soon "discovered" a similarity in their solutions, separated the subject and confederate, and accused the subject of cheating. The experimenter tried to get the subject to sign an admission by overtly promising leniency (a deal in which research credit would be given in exchange for a return session without penalty), making minimizing remarks ("I'm sure you didn't realize what a big deal it was"), using both tactics, or using no tactics. Overall, the confession rate was higher among guilty subjects than innocent, when leniency was promised than when it was not, and when minimization was used than when it was not. Importantly, diagnosticity—defined as the rate of true confessions to false confessions—was highest at 7.67 when no tactics were used (46% of guilty suspects confessed vs. only 6% of innocents) and minimization—just like an explicit offer of leniency—reduced diagnosticity to 4.50 by increasing not only the rate of true confessions (from 46 to 81%) but even more so the rate of false confessions (which tripled from 6 to 18%). In short,

minimization provides police with a loophole in the rules of evidence by serving as the implicit but functional equivalent to a promise of leniency (which itself renders a confession inadmissible). The net result is to put innocents at risk to make false confessions.

It is important to note that minimization and the risk it engenders is not a mere laboratory phenomenon. Analyzing more than 125 electronically recorded interrogations and transcripts, Ofshe and Leo (1997a, 1997b) found that police often use techniques that serve to communicate promises and threats through pragmatic implication. These investigators focused specifically on what they called *high-end inducements*—appeals that communicate to a suspect that he or she will receive less punishment, a lower prison sentence, or some form of prosecutorial or judicial leniency upon confession and/or a higher charge or longer prison sentence in the absence of confession. In some homicide cases, for example, interrogators suggested that if the suspect admits to the killing it would be framed as unintentional, as an accident, or as an act of justifiable self-defense—not as premeditated cold-blooded murder, the portrayal that would follow from continued denial. This is a variant of the "maximization"/"minimization" technique described by Kassin and McNall (1991), which communicates through pragmatic implication that the suspect will receive more lenient treatment if he or she confesses but harsher punishment if he or she does not.

Dispositional Risk Factors

In any discussion of dispositional risk factors for false confession, the two most commonly cited concerns are a suspect's age (i.e., juvenile status) and mental impairment (i.e., mental illness, mental retardation). These common citations are because of the staggering overrepresentation of these groups in the population of proven false confessions. For example, of the first 200 DNA exonerations in the U.S., 35% of the false confessors were 18 years or younger and/or had a developmental disability. In their sample of wrongful convictions, Gross, Jacoby, Matheson, Montgomery, and Patel (2005) found that 44% of the exonerated juveniles and 69% of exonerated persons with mental disabilities were wrongly convicted because of false confessions.

Adolescence and Immaturity

There is strong evidence that juveniles are at risk for involuntary and false confessions in the interrogation room (for reviews see Drizin & Colgan, 2004; Owens-Kostelnik, Reppucci, & Meyer, 2006; Redlich, 2007; Redlich & Drizin, 2007; Redlich, Silverman, Chen, & Steiner, 2004). Juveniles are over represented in the pool of identified false confession cases: 35% of the proven false confessors in the Drizin and Leo (2004) sample were younger than age 18, and within this sample of juveniles, 55% were aged 15 or younger. Comparatively, of all persons arrested for murder and rape, only 8 and 16%, respectively, are juveniles (Snyder, 2006). Numerous high-profile cases, such as the Central Park Jogger case (Kassin, 2002), have demonstrated the risks of combining young age, and the attributes that are associated with it (e.g., suggestibility, heightened obedience to authority, and immature decision-making abilities), and the psychologically oriented interrogation tactics described earlier. Hence, Inbau et al. (2001) concede that minors are at special risk for false confession and advise caution when interrogating a juvenile. Referring to the presentation of fictitious evidence, for example, they note: "This technique should be avoided when interrogating a youthful suspect with low social maturity" (p. 429).

The field of developmental psychology was born over a century ago in the influential writings of James Baldwin, Charles Darwin, G. Stanley Hall, and William Stern (see Parke, Ornstein, Rieser, & Zahn-Waxler, 1994). Since that time, basic research has shown that children and adolescents are cognitively and psychosocially less mature than adults—and that this immaturity manifests in impulsive decision making, decreased ability to consider long-term consequences, engagement in risky behaviors, and increased susceptibility to negative influences. Specifically, this body of research indicates that early adolescence marks the onset of puberty, heightening emotional arousability, sensation seeking, and reward orientation; that mid-adolescence is a period of increased vulnerability to risk-taking and problems in affect and behavior; and that late adolescence is a period in which the frontal lobes continue to mature, facilitating regulatory competence and executive functioning (for reviews, see Steinberg, 2005; Steinberg & Morris, 2001). Recent neurological research on brain development dovetails with findings from behavioral studies. Specifically, these studies have shown continued maturation during adolescence in the limbic system (emotion regulation) and in the prefrontal cortex (planning and self-control), with gray matter thinning and white matter increasing (Steinberg, 2007).

The developmental capabilities and limitations of adolescents are highly relevant to behavior in the interrogation room. In *Roper v. Simmons* (2005), Justice Kennedy cited three general differences between juveniles and adults in support of the Court's reasoning for abolishing the death penalty for juveniles. First, he addressed the lessened maturity and responsibility of juveniles compared to adults with specific mention to the 18-year bright-line requirements for marriage without parental consent, jury duty, and voting. Second, Justice Kennedy noted that "juveniles are

more vulnerable or susceptible to negative influences and outside pressures, including peer pressure" (p. 15). Consistent with this portrait, Drizin and Leo (2004) found in their sample of false confessions that several involved two or more juveniles (out of 38 multiple false confession cases, half involved juveniles). In recommending that police "play one [suspect] against the other," Inbau et al. (2001) note that this tactic may be especially effective on young, first-time offenders (pp. 292–293). Third, Justice Kennedy recognized that juveniles' personality or "character" is not as well developed as adults. In light of the volatility of adolescence, it is interesting that Inbau et al. (2001) also suggest "themes" for confession that exploit a juvenile's restless energy, boredom, low resistance to temptation, and lack of supervision.

Drawing on basic principles of developmental psychology, there is now a wealth of forensically oriented research indicating that juveniles—suspects, defendants, and witnesses—have age-related limitations of relevance to the legal system in comparison to adults. For example, individuals younger than 16 years generally have impairments in adjudicative competence (e.g., the ability to help in one's own defense) and comprehension of legal terms (Grisso et al., 2003; Saywitz, Nathanson, & Snyder, 1993). In a subset of studies particularly germane to interrogations, several researchers employing a range of methodologies have shown that the risk of false confession is heightened during childhood and adolescence relative to adulthood. Of particular note, as described earlier, juveniles are more likely than adults to exhibit deficits in their understanding and appreciation of the *Miranda* rights that were explicitly put into place to protect people subject to "inherently coercive" interrogations (see Grisso, 1981; Redlich et al., 2003).

In the first set of studies, laboratory-based experiments have examined juveniles' responses in mock crimes and interrogations. Using the Kassin and Kiechel (1996) computer crash paradigm, Redlich and Goodman (2003) found that juveniles aged 12- and 13-years-old, and 15- and 16-years-old, were more likely to confess than young adults (aged 18–26 years), especially when confronted with false evidence of their culpability. In fact, a majority of the younger participants, in contrast to adults, complied with the request to sign a false confession without uttering a word. In another laboratory experiment, researchers examined the effect of positive and negative reinforcement on children aged 5 through 8 years (Billings et al., 2007). Reinforcement strongly affected children's likelihood of making false statements: Of those in the reinforcement condition, 52% made false admissions of guilty knowledge and 30% made false admissions of having witnessed the crime (within a span of 3.5 minutes!). In contrast, of children in the control condition, only 36 and 10% made false guilty knowledge and admissions, respectively. These findings mirror the vast majority of studies on the interview-relevant abilities of child-victim/witnesses (e.g., Garven, Wood, & Malpass, 2000).

In a second set of studies, youths have made decisions in response to hypothetical scenarios. Goldstein et al. (2003) investigated male juvenile offenders' self-reported likelihood of providing false confessions across different interrogation situations and found that younger age significantly predicted false confessions (25% surmised that they would definitely confess despite innocence to at least one of the situations). Similarly, Grisso et al. (2003) examined juveniles' and young adults' responses to a hypothetical mock-interrogation situation—specifically, whether they would confess to police, remain silent, or deny the offense. Compared to individuals aged 16 and older, those between 11 and 15 were significantly more likely to report that they would confess.

In a third set of studies, juveniles have been asked to self-report on actual interrogation experiences. In a sample of 114 justice-involved juveniles, Viljoen, Klaver, and Roesch (2005) found that suspects who were 15-years old and younger, compared to those who were 16- and 17-years old, were significantly more likely to waive their right to counsel and to confess. Overall, only 11 (less than 10%) said they had asked for an attorney during police questioning (see also Redlich et al., 2004) and 9 (6%) said they had at some point falsely confessed. A survey of over 10,000 Icelandic students aged 16–24 years similarly revealed that of those with interrogation experiences, 7% claimed to have falsely confessed, with the rates being higher among those with more than one interrogation experience (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, 2006). In a massive and more recent effort, more than 23,000 juveniles from grades 8, 9, and 10 (average age of 15.5 years) were surveyed from seven countries—Iceland, Norway, Finland, Latvia, Lithuania, Russia, and Bulgaria. Overall, 11.5% (2,726) reported having been interrogated by police. Within this group, 14% reported having given a false confession (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, in press).

Cognitive and Intellectual Disabilities

Much of what is true of juveniles is similarly true for persons with intellectual disabilities—another group that is over-represented in false confession cases (see Gudjonsson, 2003; Gudjonsson & MacKeith, 1994). Hence, in *Atkins v. Virginia* (2002), the U.S. Supreme Court explicitly cited the possibility of false confession as a rationale underlying their decision to exclude this group categorically from capital punishment. The case of Earl Washington is illustrative of the problem. Reported to have an IQ ranging

from 57 to 69 and interrogated over the course of 2 days, Washington "confessed" to five crimes, one being the rape and murder of a woman (charges resulting from the other four confessions were dismissed because of inconsistencies). Although he could not provide even basic details (e.g., that the victim was raped or her race) and although much of his statement was inconsistent with the evidence, Washington—who was easily led by suggestive questions and deferred to authority figures—was convicted, sentenced to death, and incarcerated for 18 years before being exonerated (Hourihan, 1995).

Mental retardation represents a constellation of symptoms, disorders, and adaptive functioning. The condition is defined by an IQ score of 70 or below and a range of impairments, such as adapting to societal norms, communication, social and interpersonal skills, and self-direction (American Psychiatric Association, 1994). In training police recruits, Perske (2004) identifies from research a number of tendencies exhibited by people who are mentally retarded. Collectively suggesting a heightened susceptibility to influence, the list includes the tendencies to rely on authority figures for solutions to everyday problems; please persons in authority; seek out friends; feign competence; exhibit a short attention span; experience memory gaps; lack impulse control; and accept blame for negative outcomes.

Some researchers have provided evidence for the diminished capacity of persons with cognitive disabilities in studies pertaining to interrogation (Fulero & Everington, 2004). Across four studies of *Miranda* comprehension, findings are quite consistent in showing that persons with mental retardation have significant deficits in their understanding and appreciation of *Miranda* warnings (Cloud, Shepard, Barkoff, & Shur, 2002; Everington & Fulero, 1999; Fulero & Everington, 1995; O'Connell, Garmoe, & Goldstein, 2005). For example, O'Connell et al. (2005) found that 50% of people with mild mental retardation in their sample could not correctly paraphrase *any* of the five *Miranda* components (see also Everington & Fulero, 1999). In comparison, less than 1% of adults in the general population score similarly low (Grisso, 1996). Moreover, research on the capacity of persons with mental retardation to learn and retain the knowledge and skills necessary to be competent suspects and defendants demonstrates that a significant number cannot meet this threshold, even with education (Anderson & Hewitt, 2002).

Everington and Fulero (1999) also examined the suggestibility of persons with mental retardation. Using the Gudjonsson Suggestibility Scale (GSS; a measure of interrogative suggestibility), they found that people with mental retardation were more likely to yield to leading questions and change their answers in response to mild negative feedback (see also O'Connell et al., 2005). Gudjonsson (1991) examined GSS scores among three groups: alleged false confessors, alleged true confessors, and suspects who resisted confession during questioning. He found the alleged false confessors to have the lowest IQ scores as well as the highest suggestibility scores compared to the other two groups (Gudjonsson & Clare, 1995). Finally, Clare and Gudjonsson (1995) examined perceptions of a videotaped suspect who provides a true and false confession during an interrogation and found that 38% of perceivers with intellectual disabilities, compared to only 5% of those without intellectual disabilities, believed the suspect would be allowed to go home while awaiting trial. Additionally, only 52% believed that the suspect should obtain legal advice if innocent, compared to 90% of others.

Personality and Psychopathology

In terms of susceptibility to false confession, it is important to consider other individual factors of relevance to a person's decision to confess. Gudjonsson (2003) discusses a number of personal risk factors, including enduring personality traits (e.g., suggestibility, compliance) as well as psychopathology and personality disorders—categories within the DSM-IV Axis I and II diagnostic framework that are relevant to false confessions.

A number of large-scale studies of false confessions, carried out in Iceland, show the importance of antisocial personality traits and history of offending both among prison inmates (Sigurdsson & Gudjonsson, 2001) and community samples (Gudjonsson, Sigurdsson, Asgeirsdottir, & Sigfusdottir, 2006, 2007; Gudjonsson, Sigurdsson, Bragason, et al., 2004; Gudjonsson et al., 2004). There have also been cases in which the personality disorder was considered crucial to understanding the false confession (Gudjonsson, 2006; Gudjonsson & Grisso, 2008). One interpretation of this finding is that persons with antisocial personality disorder, or antisocial traits, are more likely to be involved in offending, more often interviewed by police, and prone to lie for short-term instrumental gain, and are less concerned about the consequences of their behavior. This increases their tendency to make false denials as well as false confessions depending on their need at the time.

Psychopathology seems to be linked to false confessions in that persons with mental illness are over-represented in these cases. Psychological disorder is often accompanied by faulty reality monitoring, distorted perception, impaired judgment, anxiety, mood disturbance, poor self-control, and feelings of guilt. Gudjonsson (2003) provided a number of examples of cases where false confessions were directly related to specific disorders. Following the release of the Birmingham Six in 1991, research conducted for the British Royal Commission on Criminal Justice found that about 7% of suspects detained at police stations had a

history of mental illness and that many more were in an abnormal mental state due to anxiety and mood disturbance (Gudjonsson, Clare, Rutter, & Pearse, 1993). Similar findings were found in a recent study among suspects at Icelandic police stations (Sigurdsson, Gudjonsson, Einarsson, & Gudjonsson, 2006). In the U.S., research has consistently shown that rates of serious mental illness in the criminal justice system are at least two to five times higher than rates in the general population (e.g., James & Glaze, 2006; Lamb & Weinberger, 1998). To further compound the problem, the majority (75–80%) of offenders with mental illness have co-occurring substance abuse or dependence disorders (Abram, Teplin, & McClelland, 2003), which is an additional risk factor for false confessions (see Sigurdsson & Gudjonsson, 2001).

There is currently little research available to show how different disorders (e.g., anxiety, depression, and schizophrenia) potentially impair the suspect's capacity to waive legal rights and navigate his or her way through a police interview (Redlich, 2004). However, there is recent evidence from two separate studies to suggest that depressed mood is linked to a susceptibility to provide false confession to police (Gudjonsson et al., 2006; Sigurdsson et al., 2006). Gudjonsson et al. (2007) also recently found that multiple exposures to unpleasant or traumatic life events were significantly associated with self-reported false confessions during interrogation. Rogers et al. (2007a) found that most mentally disordered offenders exhibited insufficient understanding of *Miranda*, particularly when the warnings required increased levels of reading comprehension. Finally, Redlich (2007) found that offenders with mental illness self-reported a 22% lifetime false confession rate—notably higher than the 12% found in samples of prison inmates without mental illness (Sigurdsson & Gudjonsson, 1996).

An important type of psychopathology in relation to false confessions is attention deficit hyperactivity disorder (ADHD), which consists of three primary symptoms: inattention, hyperactivity, and impulsivity (American Psychiatric Association, 1994). This condition is commonly found among offenders (Young, 2007). Moreover, research shows that people with ADHD cope during questioning by answering a disproportionate number of questions with "don't know" replies—which may lead police to be suspicious of their answers (Gudjonsson, Young, & Bramham, 2007). They may also exhibit high levels of compliance. Gudjonsson et al. (2008) found that the rate of self-reported false confessions was significantly higher among prisoners who were currently symptomatic for attention deficit hyperactivity disorder (ADHD) than among the other prisoners (41 and 18%, respectively). These findings highlight the potential vulnerability during questioning of people who are currently symptomatic for ADHD.

Protections for Vulnerable Suspects in England

When the police interview mentally disordered persons and juveniles in England and Wales, there are special legal provisions available to ensure that their statements to police are reliable and properly obtained—for example, in the presence of "appropriate adults." The current legal provisions are detailed in the Codes of Practice (Home Office, 2003). Even when the police adhere to all the legal provisions, a judge may consider it unsafe and unfair to allow the statement to go before the jury. Here the crucial issue may be whether or not the defendant was "mentally fit" when interviewed. The term "fitness for interview" was first introduced formally in the current Codes of Practice, which became effective in 2003.

Fitness for interview is closely linked to the concept of "legal competencies," which refers to an individual's physical, mental, and social vulnerabilities that may adversely affect his or her capacity to cope with the investigative and judicial process (Grisso, 1986). Historically, legal competence constructs relating to confession evidence have focused primarily on the functional deficits of juveniles (Drizin & Colgan, 2004), and adult defendants with mental retardation (Fulero & Everington, 2004) and mental illnesses (Melton, Petrila, Poythress, & Slobogin, 1997). Increasingly, the construct of legal competence in criminal cases is also being applied to defendants with "personality disorder" (Gudjonsson & Grisso, 2008). The introduction of "fitness to be interviewed" within the current Codes of Practice in England and Wales is a significant step toward protecting vulnerable suspect populations (Gudjonsson, 2005). Indeed, a similar framework has been introduced in New Zealand and Australia (Gall & Freckelton, 1999).

Innocence as a Risk Factor

On September 20, 2006, Jeffrey Mark Deskovic was released from a maximum-security prison in New York, where he spent 15 years for a murder he said he committed but did not. Why did he confess? "Believing in the criminal justice system and being fearful for myself, I told them what they wanted to hear," Deskovic said. Certain that DNA testing on the semen would establish his innocence, he added: "I thought it was all going to be okay in the end" (Santos, 2006, p. A1).

On the basis of anecdotal and research evidence, Kassin (2005) suggested the ironic hypothesis that *innocence* itself may put *innocents* at risk. Specifically, it appears that people who stand falsely accused tend to believe that truth and justice will prevail and that their innocence will become transparent to investigators, juries, and others. As a result, they cooperate fully with police, often failing to

realize that they are suspects not witnesses, by waiving their rights to silence and a lawyer and speaking freely to defend themselves. Thus, although mock criminals vary their disclosures according to whether the interrogator seems informed about the evidence, innocents are uniformly forthcoming—regardless of how informed the interrogator seems (Hartwig, Granhag, Strömwall, & Kronkvist, 2006; Hartwig, Granhag, Strömwall, & Vrij, 2005).

Based on observations of live and videotaped interrogations, Leo (1996b) found that four out of five suspects waive their rights and submit to questioning—and that people who have no prior record of crime are the most likely to do so. In light of known recidivism rates, this result suggested that innocent people in particular are at risk to waive their rights. Kassin and Norwick (2004) tested this hypothesis in a controlled laboratory setting in which some subjects but not others committed a mock theft of $100. Upon questioning, subjects who were innocent were more likely to sign a waiver than those who were guilty, 81 to 36%. Afterward, most innocent subjects said that they waived their rights precisely because they were innocent: "I did nothing wrong," "I had nothing to hide." The feeling of reassurance that accompanies innocence may be rooted in a generalized and perhaps motivated belief in a just world in which human beings get what they deserve and deserve what they get (Lerner, 1980). It may also stem from the "illusion of transparency," a tendency for people to overestimate the extent to which their true thoughts, emotions, and other inner states can be seen by others (Gilovich, Savitsky, & Medvec, 1998; Miller & McFarland, 1987). Whatever the mechanism, it is clear that *Miranda* warnings may not adequately protect the citizens who need it most—those accused of crimes they did not commit (Kassin, 2005).

These findings suggest that people have a naïve faith in the power of innocence to set them free. This phenomenology was evident in the classic case of Peter Reilly, an 18-year-old who falsely confessed to the murder of his mother. When asked years later why he did not invoke his *Miranda* rights, Reilly said, "My state of mind was that I hadn't done anything wrong and I felt that only a criminal really needed an attorney, and this was all going to come out in the wash" (Connery, 1996, p. 93). Innocence may lead innocents to forego other important safeguards as well. Consider the case of Kirk Bloodsworth, the first death row inmate to be exonerated by DNA. In 1985, based solely on eyewitness identifications, Bloodsworth was convicted for the rape and murder of a 9-year-old girl. He was exonerated by DNA 8 years later and ultimately vindicated when the true perpetrator was identified. The day of his arrest, Bloodsworth was warned that there would be cameras present and asked if he wanted to cover his head with a blanket. He refused, saying he did nothing wrong and was not going to hide—even though potential witnesses might see him on TV (Junkin, 2004).

THE CONSEQUENCES OF CONFESSION

It is inevitable that some number of innocent people will be targeted for suspicion and subjected to excessively persuasive interrogation tactics, and many of them will naively and in opposition to their own self-interest waive their rights and confess. One might argue that this unfortunate chain of events is tolerable, not tragic, to the extent that the resulting false confessions are detected by authorities at some point and corrected. Essential to this presumed safety net is the belief that police, prosecutors, judges, and juries are capable of distinguishing true and false confessions.

The process begins with the police. Numerous false confession cases reveal that once a suspect confesses, police often close their investigation, deem the case solved, and overlook exculpatory evidence or other possible leads–even if the confession is internally inconsistent, contradicted by external evidence, or the product of coercive interrogation (Drizin & Leo, 2004; Leo & Ofshe, 1998). This trust in confessions may extend to prosecutors as well, many of whom express skepticism about police-induced false confessions, stubbornly refusing to admit to such an occurrence even after DNA evidence has unequivocally established the defendant's innocence (Findley & Scott, 2006; Hirsch, 2005b; Kassin & Gudjonsson, 2004). Upon confession, prosecutors tend to charge suspects with the highest number and types of offenses, set bail higher, and are far less likely to initiate or accept a plea bargain to a reduced charge (Drizin & Leo, 2004; Leo & Ofshe, 1998; but see Redlich, in press).

Part of the problem is that confessions can taint other evidence. In one case, for example, Pennsylvania defendant Barry Laughman confessed to rape and murder, which was later contradicted by blood typing evidence. Clearly influenced by the confession, the state forensic chemist went on to concoct four "theories," none grounded in science, to explain away the mismatch. Sixteen years later, Laughman was set free (http://www.innocenceproject.org). Recent empirical studies have demonstrated the problem as well. In one study, Dror and Charlton (2006) presented five latent fingerprint experts with pairs of prints from a crime scene and suspect in an actual case in which they had previously made a match or exclusion judgment. The prints were accompanied either by no extraneous information, an instruction that the suspect had confessed (suggesting a match), or an instruction that the suspect was in custody at the time (suggesting an exclusion). The misinformation

produced a change in 17% of the original, previously correct judgments. In a second study, Hasel and Kassin (2009) staged a theft and took photographic identification decisions from a large number of eyewitnesses who were present. One week later, individual witnesses were told that the person they had identified denied guilt, or that he confessed, or that a specific other lineup member confessed. Influenced by this information, many witnesses went on to change their identification decisions, selecting the confessor with confidence, when given the opportunity to do so.

Not surprisingly, confessions are particularly potent in the courtroom. When a suspect in the U.S. retracts his or her confession, pleads not guilty, and goes to trial, a sequence of two decisions is set into motion. First, a judge determines whether the confession was voluntary and hence admissible as evidence. Then a jury, hearing the admissible confession, determines whether the defendant is guilty beyond a reasonable doubt. But can people distinguish between true and false confessions? And what effect does this evidence have within the context of a trial?

Research on the impact of confessions throughout the criminal justice system is unequivocal. Mock jury studies have shown that confessions have more impact than other potent forms of evidence (Kassin & Neumann, 1997) and that people do not fully discount confessions—even when they are judged to be coerced (Kassin & Wrightsman, 1980) and even when the confessions are presented secondhand by an informant who is motivated to lie (Neuschatz, Lawson, Swanner, Meissner, & Neuschatz, 2008). For example, Kassin and Sukel (1997) presented mock jurors with one of three versions of a murder trial transcript. In a low-pressure version, the defendant was said to have confessed to police immediately upon questioning. In a high-pressure version, participants read that the suspect was in pain and interrogated aggressively by a detective who waved his gun in a menacing manner. A control version contained no confession in evidence. Presented with the high-pressure confession, participants appeared to respond in the legally prescribed manner. They judged the statement to be involuntary and said it did not influence their decisions. Yet when it came to the all-important verdict measure, this confession significantly increased the conviction rate. This increase occurred even in a condition in which subjects were specifically admonished to disregard confessions they found to be coerced. Similar results have recently been reported in mock jury studies involving defendants who are minors (Redlich, Ghetti, & Quas, 2008; Redlich, Quas, & Ghetti, 2008).

This point concerning the power of confession evidence is bolstered by recent survey evidence indicating that although laypeople understand that certain interrogation tactics are psychologically coercive, they do not believe that these tactics elicit false confessions (Leo & Liu, 2009). Archival analyses of actual cases also reinforce this point. When proven false confessors pleaded not guilty and proceeded to trial, the jury conviction rates ranged from 73% (Leo & Ofshe, 1998) to 81% (Drizin & Leo, 2004). These figures led Drizin and Leo to describe confessions as "inherently prejudicial and highly damaging to a defendant, even if it is the product of coercive interrogation, even if it is supported by no other evidence, and even if it is ultimately proven false beyond any reasonable doubt" (p. 959).

There are at least three reasons why people cannot easily identify as false the confessions of innocent suspects. First, generalized common sense leads people to trust confessions the way they trust other behaviors that counter self-interest. Over the years, and across a wide range of contexts, social psychologists have found that social perceivers fall prey to the fundamental attribution error—that is, they tend to make dispositional attributions for a person's actions, taking behavior at face value, while neglecting the role of situational factors (Jones, 1990; Ross, 1977). Gilbert and Malone (1995) offered several explanations for this bias, the most compelling of which is that people draw quick and relatively automatic dispositional inferences from behavior and then fail to adjust or correct for the presence of situational constraints. Common sense further compels the belief that people present themselves in ways that are self-serving and that confessions must therefore be particularly diagnostic of guilt. Indeed, most people reasonably believe that they would never confess to a crime they did not commit and have only rudimentary understanding of the predispositional and situational factors that would lead someone to do so (Henkel, Coffman, & Dailey, 2008).

A second reason is that people are typically not adept at deception detection. We saw earlier that neither lay people nor professionals distinguish truths from lies at high levels of accuracy. This problem extends to judgments of true and false confessions. To demonstrate, Kassin, Meissner, and Norwick (2005) videotaped male prison inmates providing true confessions to the crimes for which they were incarcerated and concocting false confessions to crimes selected by the experimenter that they did not commit. When college students and police investigators later judged these statements from videotapes or audiotapes, the results showed that neither group was particularly adept, exhibiting accuracy rates that ranged from 42 to 64%—typically not much better than chance performance. These findings suggest people cannot readily distinguish true and false confessions and that law enforcement experience does not improve performance. This latter result is not surprising, as many of the behavioral cues that typically form part of the basis for training (e.g., gaze aversion, postural cues, and

grooming gestures) are not statistically correlated with truth-telling or deception (DePaulo et al., 2003).

On the assumption that "I'd know a false confession if I saw one," there is a third reason for concern: Police-induced false confessions often contain *content* cues presumed to be associated with truthfulness. In many documented false confessions, the statements ultimately presented in court contained not only an admission of guilt but vivid details about the crime, the scene, and the victim that became known to the innocent suspect through leading questions, photographs, visits to the crime scene, and other secondhand sources invisible to the naïve observer. To further complicate matters, many false confessors state not just what they allegedly did, and how they did it, but *why*—as they self-report on revenge, jealousy, provocation, financial desperation, peer pressure, and other prototypical motives for crime. Some of these statements even contain apologies and expressions of remorse. To the naïve spectator, such statements appear to be voluntary, textured with detail, and the product of personal experience. Uninformed, however, this spectator mistakes illusion for reality, not realizing that the taped confession is scripted by the police theory of the case, rehearsed during hours of unrecorded questioning, directed by the questioner, and ultimately enacted on paper, tape, or camera by the suspect (see Kassin, 2006).

RECOMMENDATIONS FOR REFORM

Confession is a potent form of evidence that triggers a chain of events from arrest, prosecution, and conviction, through post-conviction resistance to change in the face of exculpatory information. Recent DNA exonerations have shed light on the problem that innocent people, confident in the power of their innocence to prevail, sometimes confess to crimes they did not commit. Research has identified two sets of risks factors. The first pertains to the circumstances of interrogation, situational factors such as a lengthy custody and isolation, possibly accompanied by a deprivation of sleep and other need states; presentations of false evidence, a form of trickery that is designed to link the suspect to the crime and lead him or her to feel trapped by the evidence; and minimization tactics that lead the suspect and others to infer leniency even in the absence of an explicit promise. The second set of risk factors pertains to dispositional characteristics that render certain suspects highly vulnerable to influence and false confessions—namely, adolescence and immaturity; cognitive and intellectual impairments; and personality characteristics and mental illness.

In light of the wrongful convictions involving false confessions that have recently surfaced, as well as advances in psychological research on interviewing, interrogations, and confessions, there are renewed calls for caution regarding confessions and the reform of interrogation practices not seen since the Wickersham Commission Report (1931) and U.S. Supreme Court opinion in *Miranda* (1966). Professionals from varying perspectives may differ in their perceptions of both the problems and the proposed solutions. Hence, it is our hope that the recommendations to follow will inspire a true collaborative effort among law enforcement professionals, district attorneys, defense lawyers, judges, social scientists, and policy makers to scrutinize the systemic factors that put innocent people at risk and devise effective safeguards.

Electronic Recording of Interrogations

Without equivocation, our most essential recommendation is to lift the veil of secrecy from the interrogation process in favor of the principle of transparency. Specifically, *all custodial interviews and interrogations of felony suspects should be videotaped in their entirety and with a camera angle that focuses equally on the suspect and interrogator.* Stated as a matter of requirement, such a policy evokes strong resistance in some pockets of the law enforcement community. Yet it has also drawn advocates from a wide and diverse range of professional, ideological, and political perspectives (e.g., American Bar Association, 2004; Boetig, Vinson, & Weidel, 2006; Cassell, 1996a; Drizin & Colgan, 2001; Geller, 1994; Gudjonsson, 2003; Leo, 1996c; Slobogin, 2003; Sullivan, 2004; The Justice Project, 2007).

In England, under the Police and Criminal Evidence Act of 1984, the mandatory requirement for tape-recording police interviews was introduced to safeguard the legal rights of suspects and the integrity of the process. At first resisted by police, this requirement has positively transformed the ways in which police interviews are conducted and evaluated. Over the years, the need for taping has pressed for action within the U.S. as well. In *Convicting the Innocent*, a classic study of wrongful convictions, Edwin Borchard (1932) expressed concern that police abuses during interrogations led to involuntary and unreliable confessions. His solution, utilizing the technology of the time, was to make "[phonographic records" [of interrogations] which shall alone be introducible in court" (pp. 370–371).

Throughout the twentieth century, other advocates for recording were less concerned with preventing false confessions and more concerned with increasing the accuracy of the justice system by eliminating the swearing contests between police officers and suspects over what occurred during the interrogation (Kamisar, 1977; Weisberg, 1961). Still others saw that recording interrogations held

tremendous benefits for law enforcement by discouraging note-taking and other practices that could inhibit suspects, helping police officers obtain voluntary confessions, nabbing accomplices, and protecting officers from false allegations of abuse (Geller, 1993; O'Hara, 1956). Despite these calls for recording, by the turn of the twentieth century only two states, by virtue of state Supreme Court decisions—Alaska (*Stephan v. State*, 1985) and Minnesota (*State v. Scales*, 1994)—required law enforcement officers to electronically record suspect interrogations. The pace of reform in this area, however, is picking up and once again a concern about false confessions seems to be the impetus. In the post-DNA age, and particularly in the past 5 years, as the number of wrongful convictions based on false confessions has continued to climb, concerns about the reliability of confession evidence have led to a renewed push for recording requirements (Drizin & Reich, 2004). As a result of statutes and court rulings, seven additional jurisdictions—Illinois, Maine, New Mexico, New Jersey, Wisconsin, North Carolina, and the District of Columbia—have joined Minnesota and Alaska, in requiring recordings of custodial interrogations in some circumstances (Robertson, 2007; Sullivan, 2004). In several other states, supreme courts have stopped short of requiring recording but either have issued strongly worded opinions endorsing recording—e.g., New Hampshire (*State v. Barnett*, 2002) and Iowa (*State v. Hajtic*, 2007)—or, in the case of Massachusetts, held that where law enforcement officers have no excuse for the failure to record interrogation, defendants are entitled to a strongly worded instruction admonishing jurors to treat unrecorded confessions with caution (*Commonwealth v. DiGiambattista*, 2004).

In addition to recent developments in state courts and legislatures, there is a growing movement among law enforcement agencies around the country to record interrogations voluntarily. Over the past 70 years, the idea has been anathema to many in law enforcement—including the FBI, which prohibits electronic recording, and John Reid & Associates, which used to vigorously oppose the practice of recording interrogations (Inbau et al., 2001; but see Buckley & Jayne's [2005] recent publication, *Electronic Recording of Interrogations*; for an historical review, see Drizin & Reich, 2004). Yet there are now signs that police opposition is thawing (e.g., Boetig et al., 2006). Several years ago, a National Institute of Justice study found that one-third of large police and sheriff's departments throughout the U.S. were already videotaping at least some interrogations or confessions and that their experiences with the practice were positive (Geller, 1993). A more recent survey of more than 465 law enforcement agencies in states that do not require electronic recording of interrogations has revealed that the practice is widespread. Without any legislative or judicial compulsion, police departments in many states routinely record interviews and interrogations in major felony investigations. Without exception, they have declared strong support for the practice (Sullivan, 2004; Sullivan, Vail, & Anderson, 2008).

There are numerous advantages to a videotaping policy. To begin, the presence of a camera may deter interrogators from using the most egregious, psychologically coercive tactics—and deter frivolous defense claims of coercion where none existed. Second, a videotaped record provides trial judges (ruling on voluntariness) and juries (determining guilt) an *objective* and *accurate* record of the process by which a statement was taken—a common source of dispute that results from ordinary forgetting and self-serving distortions in memory. In a study that demonstrates the problem, Lamb, Orbach, Sternberg, Hershkowitz, and Horowitz (2000) compared interviewers' verbatim contemporaneous accounts of 20 forensic interviews with alleged child sex abuse victims with tape recordings of these same sessions. Results showed that more than half of the interviewers' utterances and one quarter of the details that the children provided did not appear in their verbatim notes. Even more troubling was that interviewers made frequent and serious source attribution errors—for example, often citing the children, not their own prompting questions, as the source of details. This latter danger was inadvertently realized by D.C. Detective James Trainum (2007) who—in an article entitled "I took a false confession – so don't tell me it doesn't happen!"—recounted a case in which a suspect who had confessed to him was later exonerated: "Years later, during a review of the videotapes, we discovered our mistake. We had fallen into a classic trap. We believed so much in our suspect's guilt that we ignored all evidence to the contrary. To demonstrate the strength of our case, we showed the suspect our evidence, and unintentionally fed her details that she was able to parrot back to us at a later time. It was a classic false confession case and without the video we would never have known" (see also Trainum, 2008). Similarly, Police Commander Neil Nelson, of St. Paul, Minnesota, said that he too once elicited a false confession, which he came to doubt by reviewing the interrogation tape: "You realize maybe you gave too much detail as you tried to encourage him and he just regurgitated it back" (Wills, 2005; quoted online by Neil Nelson & Associates; http://www.neilnelson.com/pressroom.html).

To further complicate matters of recollection, police interrogations are not prototypical social interactions but, rather, extraordinarily stressful events for those who stand accused. In a study that illustrates the risk to accurate retrieval, Morgan et al. (2004) randomly assigned trainees in a military survival school to undergo a realistic high-stress or low-stress mock interrogation. Twenty-four hours later, he found that those in the high-stress condition had

difficulty even identifying their interrogators in a lineup. In real criminal cases, questions constantly arise about whether rights were administered and waived, whether the suspect was cooperative or evasive, whether detectives physically intimidated the suspect, whether promises or threats were made or implied, and whether the details in a confession emanated from the police or suspect, are among the many issues that become resolvable (in Great Britain, as well, taping virtually eliminated the concern that police officers were attributing to suspects admissions that would later be disputed; see Roberts, 2007).

In recent years, Sullivan (2004, 2007) has tirelessly interviewed law enforcement officials from hundreds of police and sheriff's departments that have recorded custodial interrogations and found that they enthusiastically favored the practice. Among the collateral benefits they often cited were that recording permitted detectives to focus on the suspect rather than take copious notes, increased accountability, provided an instant replay of the suspect's statement that sometimes revealed incriminating comments that were initially overlooked, reduced the amount of time detectives spent in court defending their interrogation practices, and increased public trust in law enforcement. Countering the most common apprehensions, the respondents in these interview studies reported that videotaping interrogations did not prove costly or inhibit suspects from talking to police or incriminating themselves. Typical of this uniformly positive reaction, Detective Trainum (2007) notes: "When videotaping was first forced upon us by the D.C. City Council, we fought it tooth and nail. Now, in the words of a top commander, we would not do it any other way."

It is beyond the scope of this article to draft a model rule that would address such specific details as what conditions should activate a recording requirement, how the recordings should be preserved, whether exceptions to the rule should be made (e.g., if the equipment malfunctions, if the suspect refuses to make a recorded statement), and what consequences would follow from the failure to record (e.g., whether the suspect's statement would be excluded or admitted to the jury with a cautionary instruction). As a matter of policy, however, research does suggest that it is important not only that entire sessions be recorded, triggered by custodial detention, but that the camera adopt a neutral "equal focus" perspective that shows both the accused and his or her interrogators. In 20-plus years of research on illusory causation effects in attribution, Lassiter and his colleagues have taped mock interrogations from three different camera angles so that the suspect, the interrogator, or both were visible. Lay participants who saw only the suspect judged the situation as less coercive than those focused on the interrogator. By directing visual attention toward the accused, the camera can thus lead jurors to underestimate the amount of pressure actually exerted by the "hidden" detective (Lassiter & Irvine, 1986; Lassiter, Slaw, Briggs, & Scanlan, 1992). Additional studies have confirmed that people are more attuned to the situational factors that elicit confessions whenever the interrogator is on camera than when the focus is solely on the suspect (Lassiter & Geers, 2004; Lassiter, Geers, Munhall, Handley, & Beers, 2001). Under these more balanced circumstances, juries make more informed attributions of voluntariness and guilt when they see not only the final confession but the conditions under which it was elicited (Lassiter, Geers, Handley, Weiland, & Munhall, 2002). Indeed, even the perceptions of experienced trial judges are influenced by variations in camera perspective (Lassiter, Diamond, Schmidt, & Elek, 2007).

Reform of Interrogation Practices

In light of recent events, the time is ripe for police, district attorneys, defense lawyers, judges, researchers, and policymakers to evaluate current methods of interrogation. All parties would agree that the surgical objective of interrogation is to secure confessions from perpetrators but not from innocent suspects. Hence, the process of interrogation should be structured in theory and in practice to produce outcomes that are accurate, as measured by the observed ratio of true to false confessions. Yet except for physical brutality or deprivation, threats of harm or punishment, promises of leniency or immunity, and flagrant violations of a suspect's constitutional rights, there are no clear criteria by which to regulate the process. Instead, American courts historically have taken a "totality of the circumstances" approach to voluntariness and admissibility. Because *Miranda* does not adequately safeguard the innocent, we believe that the time is right to revisit the factors that comprise those circumstances.

As illustrated by the Reid technique and other similar approaches, the modern American police interrogation is, by definition, a guilt-presumptive and confrontational process—aspects of which put innocent people at risk. There are two ways to approach questions of reform. One is to completely reconceptualize this model at a macro level and propose that the process be converted from "confrontational" to "investigative." Several years ago, after a number of high-profile false confessions, the British moved in this direction, transitioning police from a classic interrogation to a process of "investigative interviewing." The Police and Criminal Evidence (PACE) Act of 1984 sought to reduce the use of psychologically manipulative tactics. In a post-PACE study, Irving and McKenzie (1989) found that the use of psychologically manipulative tactics had significantly declined—without a corresponding drop in the frequency of confessions. The post-PACE confession rate

is also somewhat higher in the UK than in the U.S. (Gudjonsson, 2003). In 1993, the Royal Commission on Criminal Justice further reformed the practice of interrogation by proposing the PEACE model described earlier ("Preparation and Planning," "Engage and Explain," "Account," "Closure," and "Evaluate"), the purpose of which is fact finding rather than confession. Observational research suggests that such investigative interviews enable police to inculpate offenders—and youthful suspects as well (Hershkowitz, Horowitz, Lamb, Orbach, & Sternberg, 2004; Lamb, Orbach, Hershkowitz, Horowitz, & Abbott, 2007)—by obtaining from them useful, evidence-generating information about the crime (for reviews, see Bull & Soukara, 2009; Williamson, 2006).

Similar techniques have been taught and employed in the U.S. as well, where Nelson (2007) reports from experience that it is highly effective. Recent laboratory research has also proved promising in this regard. In one series of experiments, interviewers more effectively exposed deceptive mock criminals when they strategically withheld incriminating evidence than when they confronted the suspects with that evidence (Hartwig et al., 2005, 2006). In an experiment using the Russano et al. (2005) cheating paradigm described earlier, Rigoni and Meissner (2008) independently varied and compared accusatorial and inquisitorial methods and found that the latter produced more diagnostic outcomes—lowering the rate of false confessions without producing a corresponding decrease in the rate of true confessions. Although more systematic research is needed, it is clear that investigative interviewing offers a potentially effective macro alternative to the classic American interrogation. Indeed, New Zealand and Norway have recently adopted the PEACE approach to investigative interviewing as a matter of national policy.

A second approach to the question of reform is to address specific risk factors inherent within a confrontational framework for interrogation. On the basis of converging evidence from actual false confession cases, basic principles of psychology, and forensic research, the existing literature suggests that certain interrogation practices alone and in combination with each other pose a risk to the innocent—whether they are dispositionally vulnerable or not. Focused in this way, but stopping short of making specific recommendations, we propose that the following considerations serve as a starting point for collaborative discussion.

Custody and Interrogation Time

As noted earlier, the human needs for belonging, affiliation, and social support, especially in times of stress, are a fundamental human motive. Prolonged isolation from significant others thus constitutes a form of deprivation that can heighten a suspect's distress and increase his or her incentive to escape the situation. Excessive time in custody may also be accompanied by fatigue and feelings of helplessness and despair as well as the deprivation of sleep, food, and other biological needs. The vast majority of interrogations last from 30 minutes up to 2 hours (Baldwin, 1993; Irving, 1980; Kassin et al., 2007; Leo, 1996b; Wald et al., 1967). Inbau et al. (2001) cautioned against surpassing 4 hours, and Blair (2005) argued that interrogations exceeding 6 hours are "legally coercive." Yet research shows that in proven false confession cases the interrogations had lasted for an average of 16.3 hours (Drizin & Leo, 2004). Following PACE in Great Britain, policy discussions should begin with a proposal for the imposition of time limits, or at least flexible guidelines, when it comes to detention and interrogation, as well as periodic breaks from questioning for rest and meals. At a minimum, police departments should consider placing internal time limits on the process that can be exceeded—initially and at regular intervals thereafter, if needed—only with authorization from a supervisor of detectives.

Presentations of False Evidence

A second problem concerns the tactic of presenting false evidence, which is often depicted as incontrovertible, and which takes the form of outright lying to suspects—for example, about an eyewitness identification that was not actually made; an alibi who did not actually implicate the suspect; fingerprints, hair, or blood that was not actually found; or polygraph tests that they did not actually fail. In *Frazier v. Cupp* (1969), the U.S. Supreme Court reviewed a case in which police falsely told the defendant that his cousin (whom he said he was with), had confessed, which immediately prompted the defendant to confess. The Court sanctioned this type of deception—seeing it as relevant to its inquiry on voluntariness but not a reason to disqualify the resulting confession. Although some state courts have distinguished between mere false assertions, which are permissible, and the fabrication of reports, tapes, and other evidence, which are not, the Supreme Court has not revisited the issue.

From a convergence of three sources, there is strong support for the proposition that outright lies can put innocents at risk to confess by leading them to feel trapped by the inevitability of evidence against them. These three sources are: (1) the aggregation of actual false confession cases, many of which involved use of the false evidence ploy; (2) one hundred-plus years of basic psychology research, which proves without equivocation that misinformation can substantially alter people's visual perceptions, beliefs, motivations, emotions, attitudes, memories, self-assessments, and even certain physiological outcomes, as seen in

studies of the placebo effect; and (3) numerous experiments, from different laboratories, demonstrating that presentations of false evidence increase the rate at which innocent research participants agree to confess to prohibited acts they did not commit. As noted earlier, scientific evidence for the malleability of people's perceptions, decisions, and behavior when confronted with misinformation is broad and pervasive. With regard to a specific variant of the problem, it is also worth noting that the National Research Council Committee to Review the Scientific Evidence on the Polygraph (2003) recently expressed concern over the risk of false confessions produced by telling suspects they had failed the polygraph (see also Lykken, 1998).

Over the years, legal scholars have debated the merits of trickery and deception in the interrogation room (e.g., Magid, 2001; Slobogin, 2007; Thomas, 2007) and some law enforcement professionals have argued that lying is sometimes a necessary evil, effective, and without risk to the innocent (Inbau et al., 2001). To this argument, two important points must be noted. First, direct observations and self-report surveys of American police suggest that the presentation of false evidence is a tactic that is occasionally used (e.g., Feld, 2006a, 2006b; Kassin et al., 2007; Leo, 1996b). Some interrogators no doubt rely on this ploy more than others do. Yet in a position paper on false confessions, the Wisconsin Criminal Justice Study Commission (2007) concluded that "Experienced interrogators appear to agree that false evidence ploys are relatively rare" (p. 6). Second, it is instructive that in Great Britain, where police have long been prohibited from deceiving suspects about the evidence, relying instead on the investigative interviewing tactics described earlier, there has been no evidence of a decline in confession rates (Clarke & Milne, 2001; Gudjonsson, 2003; Williamson, 2006).

In light of the demonstrated risks to the innocent, we believe that the false evidence ploy, which is designed to thrust suspects into a state of inevitability and despair, should be addressed. The strongest response would be an outright ban on the tactic, rendering all resulting confessions per se inadmissible—as they are if elicited by promises, threats, and physical violence (such a ban currently exists in England, Iceland, and Germany; suspects are differently protected in Spain and Italy, where defense counsel must be present for questioning). A second approach, representing a relatively weak response, would involve calling for no direct action, merely a change of attitude in light of scientific research that will lead the courts to weigh the false evidence ploy more heavily when judging voluntariness and reliability according to a "totality of the circumstances."

Representing a compromise between an outright ban and inaction, we urge police, prosecutors, and the courts, in light of past wrongful convictions and empirical research, to heighten their sensitivity to the risks that false evidence poses to the innocent suspect. One way to achieve this compromise would be to curtail some variants of the false evidence ploy but not others—or in the case of some suspects but not others. As noted earlier, some state courts have distinguished between mere false assertions and the fabrication of reports, tapes, photographs, and other evidence, the latter being impermissible. This particular distinction seems arbitrary. False evidence puts innocents at risk to the extent that a suspect is vulnerable (e.g., by virtue of his or her youth, naiveté, intellectual deficiency, or acute emotional state) and to the extent that the alleged evidence it is presented as incontrovertible, sufficient as a basis for prosecution, and impossible to overcome. By this criterion, which the courts would have to apply on a case-by-case basis, a confession produced by telling an adult suspect that his cousin had confessed, the ploy used in *Frazier v. Cupp* (1969), might well be admissible. Yet a confession produced by telling a traumatized 14-year-old boy that his hair was found in his murdered sister's grasp, that her blood was found in his bedroom, and that he failed an infallible lie detector test—the multiple lies presented to false confessor Michael Crowe—would be excluded (White, 2001).

Minimization Tactics

A third area of concern involves the use of minimization techniques (often called "themes," "scenarios," or "inducements") that can communicate promises of leniency indirectly through pragmatic implication. While American federal constitutional law has long prohibited the use of explicit promises of leniency (*Bram v. United States*, 1897; *Leyra v. Denno*, 1954; *Lynumn v. Illinois*, 1963), uses of minimization are less clear. There is some legal support for the proposition that implicit promises of leniency are also prohibited in federal constitutional law (White, 1997), although a majority of states hold that a promise of leniency is only one factor to be considered in determining whether a confession is involuntary (White, 2003).

Multiple sources support the proposition that implicit promises can put innocents at risk to confess by leading them to perceive that the only way to lessen or escape punishment is by complying with the interrogator's demand for confession, especially when minimization is used on suspects who are also led to believe that their continued denial is futile and that prosecution is inevitable. These sources are: (1) the aggregation of actual false confession cases, the vast majority of which involved the use of minimization or explicit promises of leniency (Drizin & Leo, 2004; Leo & Ofshe, 1998; Ofshe & Leo, 1997a, 1997b; White, 2001); (2) basic psychological

research indicating, first, that people are highly responsive to reinforcement and make choices designed to maximize their outcomes (Hastie & Dawes, 2001), and second that people can infer certain consequences in the absence of explicit promises and threats by pragmatic implication (Chan & McDermott, 2006; Harris & Monaco, 1978; Hilton, 1995); and (3) experiments specifically demonstrating that minimization increases the rate at which research participants infer leniency in punishment and confess, even if they are innocent (Kassin & McNall, 1991; Klaver, Lee, & Rose, 2008; Russano et al., 2005).

In light of the demonstrated risks to the innocent, we believe that techniques of minimization, as embodied in the "themes" that interrogators are trained to develop, which communicate promises of leniency via pragmatic implication, should be scrutinized. Some law enforcement professionals have argued that minimization is a necessary interrogation technique (Inbau et al., 2001). As with the false evidence ploy, there are several possible approaches to the regulation of minimization techniques—ranging from the recommendation that no action be taken to an outright ban on minimization. Between these extreme positions one might argue that some uses of minimization but not others should be limited or modified.

Minimization techniques come in essentially three forms: those that minimize the *moral* consequences of confessing, those that minimize the *psychological* consequences of confessing, and those that minimize the *legal* consequences of confessing (Inbau et al., 2001; Ofshe & Leo, 1997a, 1997b). One possible compromise between the two extreme positions noted above would be to permit moral and psychological forms of minimization, but ban legal minimization that communicates promises of leniency via pragmatic implication. With this distinction in mind, interrogators would be permitted, for example, to tell a suspect that he or she will feel better after confession (psychological minimization) or that he or she is still a good person (moral minimization), but not that the legal consequences of his actions will be minimized if he confesses (e.g., as may be implied by self-defense and other themes). More research is thus needed to distinguish among the different tactics that interrogators are trained to use (e.g., the provocation, peer pressure, and accident scenarios), and the pragmatic inferences that these tactics lead suspects to draw concerning the consequences of confession.

Protection of Vulnerable Suspect Populations

There is a strong consensus among psychologists, legal scholars, and practitioners that juveniles and individuals with cognitive impairments or psychological disorders are particularly susceptible to false confession under pressure. Yet little action has been taken to modulate the methods by which these vulnerable groups are questioned when placed into custody as crime suspects. More than 45 years ago, the 1962 President's Panel on Mental Retardation questioned whether confessions from defendants with mental retardation should ever be admissible at trial (see Appelbaum & Appelbaum, 1994). In 1991, Fred Inbau wrote that "special protections must be afforded to juveniles and to all other persons of below-average intelligence, to minimize the risk of untruthful admissions due to their vulnerability to suggestive questioning" (1991, pp. 9–10). More recently, Inbau et al. (2001) advised against use of the false evidence ploy with youthful suspects or those with diminished mental capacity: "These suspects may not have the fortitude or confidence to challenge such evidence and, depending on the nature of the crime, may become confused as to their own possible involvement" (p. 429; also see Buckley, 2006).

It is uniformly clear to all parties that vulnerable suspect populations—namely, juveniles and people who are cognitively impaired or psychologically disordered—need to be protected in the interrogation room. In operational terms, we believe that there are two possible ways to protect these vulnerable populations. The first concerns the mandatory presence of an attorney. A least with regard to juveniles, a parent, guardian, or other interested adult is required in some states to protect young suspects who face interrogation. Yet research suggests that the presence of an interested adult does not increase the rate at which juveniles assert their constitutional rights because these adults, often passive, frequently urge their youths to cooperate with police—a tendency observed both in the U.S. (Grisso & Ring, 1979; Oberlander & Goldstein, 2001) and in the UK, where the law provides for access to an "appropriate adult" (Pearse & Gudjonsson, 1996). For this reason, juveniles—at least those under the age of 16 (at present, the research evidence is less clear when it comes to older adolescents)—should be accompanied and advised by a professional advocate, preferably an attorney, trained to serve in this role (see Gudjonsson, 2003).

As a second possible means of protection, law enforcement personnel who conduct interviews and interrogations should receive special training—not only on the limits of human lie detection, false confessions, and the perils of confirmation biases—but on the added risks to individuals who are young, immature, mentally retarded, psychologically disordered, or in other ways vulnerable to manipulation. In a survey of 332 Baltimore police officers, Meyer and Reppucci (2007) found that while respondents understood in general terms that adolescents lack maturity of judgment and are more malleable than adults, they did not by implication believe that juvenile suspects were at greater risk in the interrogation room. Hence, they reported using roughly the same Reid-like techniques with juveniles

as they do with adults (e.g., confrontation, repetition, refusal to accept denials, false evidence, minimization, and use of alternative questions). Interestingly, one-third of these respondents stated that police could benefit from special training with regard to the interrogation of juvenile suspects. In light of research described earlier, as well as Inbau et al.'s (2001) cautionary notes on the interrogation of minors and their heightened risk for false confession, we agree.

Summary and Conclusion

In 1932, Edwin Borchard published *Convicting the innocent: Sixty-five actual errors of criminal justice*, in which several false confession cases were included. Addressing the question of how these errors were uncovered, he noted how "sheer good luck" played a prominent role and lamented on "how many unfortunate victims of error have no such luck, it is impossible to say, but there are probably many." Today's generation of post-conviction exonerations well illustrate the role that sheer good luck plays (e.g., as when DNA, long ago collected, was preserved; as when the true perpetrator finds a conscience and comes forward). With increased scientific attention to the problem of false confessions, and the reforms recommended in this article, we believe it possible to reduce the serendipitous nature of these discoveries and to increase both the diagnosticity of suspects' statements and the ability of police, prosecutors, judges, and juries to make accurate decisions on the basis of these statements.

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Selling Confession: The Interrogator, the Con Man, and their Weapons of Influence

By: Deborah Davis, Ph.D.*

Psychologically speaking, a successful interrogation is analogous to selling a resident of the Yukon air conditioning in January; for a suspect to acknowledge a criminal act involving negative consequences requires that the suspect believe a confession is in his best interest. Jayne, B. C., & Buckley, J. P. (1999). The investigator anthology (p. 207)

With just a few minor changes of terminology, the boys...got basic training in criminal interrogation. Indeed, the principles involved in selling a product door to door are similar to those described in this text for eliciting confessions from criminal suspects. The investigator's "product" is the truth, and a successful interrogator sells it in quite the same way as these boys were taught to sell newspaper subscriptions. Inbau, Reid, Buckley & Jayne (2001). Criminal interrogations and confessions. (p. 211)

...a salesman, a huckster as thieving and silver-tongued as any man who ever moved used cars or aluminum siding, more so, in fact, when you consider that he's selling long prison terms to customers who have no genuine need for the product. Simon, D. (1991) Homicide: A year on the killing streets. p. 213 (describing the police interrogator)

These colorful depictions of the interrogator, his goals, and his methods suggest that he shares much in common with the accomplished conman or salesman. Indeed, as popular interrogation manuals suggest, the interrogator, in order to induce a suspect to confess against his self-interests, must convince the suspect of the exact opposite of the truth, and of what common sense would suggest. Through, in effect, an extended "anti-Miranda warning," the interrogator works to convince the suspect that everything he says - preferably including a detailed confession to the crime at hand-can and will work to his benefit, whereas denial or failure to talk to his interrogator can and will be held against him. But how, exactly, does he do this? And how does the interrogator's technique resemble that of a car salesman or conman?

Setting the Stage

Influence professionals of all stripes--whether interrogators, salesmen, conmen, Madison Avenue advertisers, or even our own pesky children-- universally recognize that persuasion is easier if the target's

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natural resistance can be undermined. Attempts to persuade, when offered in the proper context, by the proper agent of influence, on the properly "softened-up" target will be far more persuasive. Known by social influence experts as "pre-persuasion," this stage-setting can entail multiple points of attack, including choosing the physical setting, establishing the "credentials" or trustworthiness of the agent of influence, manipulating the emotional or physical status of the target, "framing" the issues or "setting the agenda" of a meeting or interaction, and many other relatively subtle tactics. All such tactics essentially "soften-up" the target in one or more respects.

Interrogators recognize that to maximize the likelihood of confession, they can motivate the suspect via two pathways: increasing stress, discomfort or anxiety to motivate escape at any cost; and/or leading the suspect to the apparently rational conclusion that confession is in his best interest. Thus, a criminal suspect can be rendered more vulnerable to the interrogator's influence via one or both pathways.

If he lacks physical strength and stamina, he may be unable to tolerate a lengthy interrogation or an uncomfortable physical setting, and, failing to recognize his own ability to stop the interrogation by invoking Miranda rights, he may view confession as the only or most effective way to terminate an intolerable situation. If his mental abilities are compromised through physical or emotional distress, severe fatigue, intoxication or other impairments, he will be less able to critically evaluate what he's told, to remember reasons why he should not believe it, or to identify alternative ways to handle the situation--and therefore will be more susceptible to persuasion. If the interrogator appears to be friendly, sympathetic, and motivated to help the suspect, the suspect's motivation to resist him will be undermined. And finally, if the interrogator can successfully frame the issues and evidence the suspect will consider such that they exclude the possibility of establishing innocence (the clearly most desirable alternative), it is that much easier to sell confession as the best available alternative. These are the goals guiding the interrogator's attempt to set the stage to his advantage.

Maximizing Physical and Emotional Distress

"The entire thrust of police interrogation there, as in all the cases today, was to put the defendant in such an emotional state as to impair his capacity for rational judgment." (*Miranda v. Arizona*, p. 465)

A common cause of confession, whether true or false, is inability to tolerate short term distress in order to maximize long term outcomes. Suspects become willing to comply with interrogator demands in order to escape what they find to be an intolerable situation; and as the stresses of the interrogation mount, they become increasingly unable to think and reason rationally about what is actually in their best interest, or how much long term damage will result from confession. Recognizing these effects of distress, but faced in the post-Miranda era with the specter of exclusion if a confession is elicited via obvious physical or emotional abuse, modern interrogators must turn to less obvious subtle ways to increase discomfort or distress.

Though deprivation of basic physical needs such as nourishment, sleep or safety from physical abuse may be grounds for exclusion, subtle inducement of discomfort can go completely unnoticed. Popular interrogation manuals include such recommendations for accomplishing this goal as deliberately uncomfortable chairs, uncomfortable temperatures, and bare unattractive settings. Although unlikely to be recognized by courts as a cause for exclusion, such physical discomfort can significantly add to suspects' overall level of distress. As the interrogation proceeds, distress is typically further enhanced by such factors as continuing social isolation, the fact of being accused, fear of eventual consequences, and the aversive nature of the interrogation tactics themselves.

Interrogators may also benefit through their choice of when to interrogate the suspect. Many suspects are interrogated at the very time at which they are most compromised. Some are interrogated shortly after they have found their loved ones dead, and therefore are emotionally shocked and severely distressed. Others are interrogated when severely fatigued, sleep-deprived, or intoxicated. Each of these impairments undermines the ability to endure further distress or to think and reason adequately. And, although interrogators can choose to delay until the suspect is less compromised, they commonly proceed to interrogation knowing that the suspect will be more vulnerable to influence when physically or emotionally weak. Although a fatigue-inducing 20 hour interrogation may be regarded by courts as indicative of coercion, an interrogation that begins with a suspect already fatigued by 20 hours of hard work is unlikely to be considered coercive. Thus, the interrogator is better able to take advantage of existing impairments than to induce them himself.

Establishing the Power and Beneficence of the Interrogator

From the lowliest panhandler to the loftiest marketing professional, agents of influence are aware of the importance of the personal characteristics of the persuader. They will be most effective when appearing to possess characteristics consistent with the message they promote. When attempting to influence others to give him money, a panhandler will be most effective when appearing genuinely poor and unable to work - such as, for example, apparently being blind or missing a limb. The opposite will typically be true of an investment counselor, who would benefit from the appearance of competence and effectiveness when arguing that he can obtain impressive returns on the target's investments. Both would benefit from likeability and the appearance of trustworthiness. The panhandler should appear to genuinely need the money (not as an imposter posing as the disabled in order to con trusting marks); whereas the aspiring investment counselor should appear to be honest and trustworthy (not as someone who may intend to embezzle or cheat the investor). And both are likely to be more effective if they are likeable and pleasant, gaining the good will of their targets.

Taking such lessons to heart, the criminal interrogator presents himself in a manner that both undermines resistance to persuasion and directly facilitates it. First, contrary to widely held expectations that interrogators will be hostile and threatening, they are instead trained to make use of the "liking" principle of influence (likeable sources of influence are generally more effective). Since a suspect's natural inclination may be to distrust the intentions and motives of his interrogator, the interrogator must work to overcome the resistance such feelings would tend to create. Making himself likeable is part and parcel of this process. To accomplish this, the interrogator will typically engage in a pre-interrogation stage in which the suspect is questioned in a non-accusatory fashion about his own background, acquaintance with the parties or situation involved, and so on. One of the most effective ways to promote liking of oneself is to express liking, admiration and approval of others. With this in mind, the pre-interrogation interview is done in a very friendly and often chatty fashion, in which the interrogator may flatter the suspect and project a sense of similarity and common ground with the suspect in order to develop trust and rapport. To minimize resistance throughout the interrogation, this friendly, sympathetic demeanor is typically maintained even when the interview proceeds into the accusatory interrogation.

In some cases, the "sympathetic-detective" (good cop) may be presented in contrast to the bad cop (the Mutt-Jeff technique), which can direct resistance toward the bad cop, further lessening resistance to the "good" cop.

The interrogator further casts himself as sympathetic toward the suspect and as trying to help him get the most desirable long term outcomes-a strategy we have dubbed "The Sympathetic Detective with the Time-

Limited Offer." The time-limited offer refers to the detective's stated desire to help, along with his admonition that he cannot help the suspect unless the suspect "tells the truth" (i.e., confesses).

The detective also typically states or implies that once the interrogation is completed the case will be handled by others with less sympathetic views or motivations, and therefore failure to confess and explain during the interrogation will do far reaching damage to the suspect's case. The following is typical of the "Sympathetic Detective" strategy:

"Have you ever heard the saying opportunity knocks once? That means, you know, we all get one chance. Everybody gets one chance. Okay? And after that one chance comes it doesn't come back. And that---right now is your chance.

Look Areal, you seem like a nice stand up kind of guy, no murderer. This is probably a situation that you didn't realize you were getting into..didn't plan. You know, I think this thing bothers you a lot. And I think you probably got a pretty good heart, and I think you relive this thing and I think you think about it a lot...I don't think you're a cold blooded killer, or I know you're not a cold-blooded killer. I think you feel bad about this, you know. I see there's a lot of pain inside you. I can see that. I mean you feel bad..But you know, shit happens. I'd like to help you, man. I have my own conscience, okay? And I got to look at myself in the mirror. I got to know before I leave here I did everything that I could to see you get on the right track so you don't have to go down for something you didn't do. But if I'm wasting my time with you, tell me now. I don't have to sit here and talk to you. I'm-I'm concerned about you. But if you don't tell me the truth, there's no reason for me to be here. I got a wife and family at home and I can just go home to them.

All I know is this thing won't go away. If you want people to believe this was a plan...but this is your chance. This is your opportunity to put your side on the table... I've been doing this for a long time, and I've seen a lot of guys, young guys like you, make big mistakes. Okay? And I'm very concerned that you're going to make the biggest mistake of your life. ...I believe you will tell the truth. But I am worried when you're ready to tell the truth it just might be too late. Either way stuff's gonna happen, you know, the legal process, the wheels are turning right now and we want to give you the opportunity to come forward and tell us your side of the story before it's too late and we just take it for, you know, I mean, we're trying to give you the benefit here. We're trying to give you the opportunity to come forward and tell us what happened, your side of the story versus the other side. Right now we're just talking. I'm not upset with you. I know what you're saying to me. But when I stop talking to you, they're going to do what they have to do. Okay? And then decisions are going to be made. Okay? And we're not going to be talking to you anymore. There's nothing that you're going to have to say that the DA's going to be interested in hearing. They'll just go with the information they got."

Notice the many tactics contained in this monologue. The detective tries to make Areal believe he likes him, thinks he is not a criminal, and would like to help him in order to make Areal like and trust him. But he warns Areal that this is a time-limited offer, making use of the "scarcity" or "deadline" technique so pervasively used by retailers, and salesmen of all kinds (Buy this time share today at the discounted price of $250,000-tomorrow it will be back to the regular price at $300,000; Buy the TV, available only during the two-day sale at this price; Buy the condo and get the free cruise available only while you are at this presentation, etc.). He emphasizes that this is Areal's opportunity to tell his side, his "one chance"--an opportunity that he implies will be permanently lost once the case is handed off to the DA.

He invokes the reciprocity principle of influence. That is, people are more likely to comply with a request if the agent of influence has first done something for the target, which induces feelings of obligation to reciprocate that benevolence-for example, the vacuum salesperson who vacuums the carpet of the target before attempting to complete the sale; or the aluminum siding salesman who offers a free gift for the homeowner who agrees to listen to the salespitch. The interrogator invokes this reciprocity principle by saying that he is essentially doing the suspect a favor by forfeiting time with his family in order to try to help the suspect-that he does not need an explanation of what happens for his own purposes, since he already has all the necessary evidence to prove guilt. He is only there to give the suspect a much needed opportunity to explain himself. The resulting feelings of obligation can pressure the suspect to confess in order to fulfill the need to reciprocate the detective's kindness.

But among the most important messages conveyed by such a detective monologue is the invocation of the "authority" principle of persuasion (we are more likely to comply with requests and to believe information offered by a person with apparent authority or expertise). The Sympathetic Detective and Set-up Strategies (next paragraph) are crucial to establishing authority---that is, the idea that the detective is someone who knows what is helpful to the suspect, and someone who CAN personally help the suspect. The "Sympathetic Detective" strategy is crucial for the detective to establish a foundation against which the arguments he will later bring to bear will appear to make sense. In practice, this consists of two vital ideas- (1) that there are choices to be made about how to handle the situation that will be determined by what happens between the suspect and interrogator during the interrogation; and (2) that there may be a way to minimize the consequences of the alleged act, even if the suspect admits involvement. That is, the "Sympathetic Detective" strategy helps to establish the interrogator as a legitimate authority with control over the suspect's long term outcomes, one likely to be more beneficent than those the suspect would have to deal with after the interrogation, and therefore one whose help the suspect should take advantage of.

These conclusions are reinforced by a second strategy, one we've dubbed "The Set-up Question." The popular Reid 9-Step method of interrogation includes the admonition to ask the suspect a question such as the following:

"Tell me Jack, what do you think should happen to the person who did this thing? Should he just go straight to jail, or are there some circumstances in which he should maybe get counseling or help, not go to jail, get some help instead?"

Although interrogators view this as a test of guilt (alleging that a guilty person should recommend clemency, whereas an innocent should recommend jail), such a question clearly conveys the message that the possibility of clemency exists, that there are choices about how to deal with a guilty perpetrator. This reinforces the message of the "Sympathetic Detective" strategy that the interrogator has choices about how to handle the suspect, including choices of both whether to file charges at all, and if so what specific charges. Our own research has shown that observers exposed to an interrogation including either the "Sympathetic Detective" strategy or the "Set-up Question" are significantly more likely than those exposed to interrogations without these strategies to believe the detective has choices between specific charges and letting the suspect go without charges or sending him to counseling. Further, the "Sympathetic Detective" strategy renders them more likely to believe the detective likes the suspect, wants to help him, and will try to help him get the best outcomes. Together, such beliefs effectively set the stage for the detective's remaining tactics to persuade the suspect to confess.

Framing the Issues and Agenda

Those of us who lived through the 2004 presidential campaign can easily recognize the powerful effects of Republican George Bush's strategy to frame the primary issue of the campaign as one of national security. The infamous "circling wolves" ad of the 2004 campaign exemplified the Republican focus on raising fears of terrorist attack to increase support for Republican candidates. Republicans are generally perceived as more effective on issues of national defense, and to the extent the public can be led to focus on national defense as the primary issue, Republicans garner more votes.

Even in the present context of 2008, when public opinion has shifted against the Iraq war, Democratic candidate Hillary Clinton once again raised the specter of terror with her now infamous, but discouragingly effective, "3 am" ad inquiring who one would most trust to answer the phone when something scary and bad has happened in the world-with apparently devastating effects for Barack Obama. But Republicans remain those the public perceives as strongest on national defense, and Republican candidate John McCain may have been the ultimate beneficiary of her strategy. A March, 2008 poll indicated that voters' answers to the "3 am" question favored John McCain (45%) over either Clinton (27%) or Obama (18%) (Newsweek, March 17, 2008, p. 41: Always Their Own Worst Enemies, by Evan Thomas).

Proper framing of the issues is particularly effective when enacted under conditions in which one also controls the agenda. The importance of agenda setting has been illustrated in the context of jury research, for example, in that the foreman can dramatically affect verdicts through the organization or agenda of the deliberations. Depending upon the initial distribution of juror opinion, for example, an immediate vote may result in more or less likelihood of a defense verdict than a call to first discuss the evidence. A foreperson who agrees with a substantial majority favoring guilt will do better to call for an immediate show of hands, whereas one who disagrees with that majority would do better to call for a detailed review of the evidence before any vote.

Police interrogations are designed to both set the agenda and frame the issues in a manner to facilitate confession.

Taking Innocence off the Table: The "Borg" Maneuver

"Resistance is futile!" The Borg

Quite rightly, interrogators realize that a suspect's natural tendency will be to deny guilt, and that if a suspect believes there is a chance of establishing innocence he will push that agenda and argue vociferously with his accusers. To avoid this situation, interrogation tactics are designed to, from the outset, deny the suspect any hope of exoneration. Step 1 of the popular Reid 9-Step Method, "Positive Confrontation" - or what we call the "Borg Maneuver" - begins this process of dashing all hope of exoneration. The suspect is to be told firmly and confidently that the results of "our" investigation have clearly shown that you are the one who.... (committed the crime in question). The Inbau et al. (2001) manual recommends that the detective bring props supporting his apparent "evidence" of guilt-such as a full folder (apparently full of evidence), or bags of "evidence" such as hairs, bullets, slides of blood, or a lineup with the suspect's picture circled and so on. He may also confront the suspect with real or fabricated evidence of guilt, such as alleged failed polygraph results, statements of alleged co-perpetrators, eyewitness identifications, claims of trace evidence such as fingerprints, DNA or hair fibers. The goal of this confrontation is to sweep away resistance that would naturally arise and be fueled by hopes of exoneration, and turn the suspect's attention to the issue of how to minimize the consequences.

Recognizing that if guilt is established, another apparent reason, or "pretence," for the interrogation will be needed, the interrogator is advised to make one or more "transition statements" (from interview and confrontation to interrogation) that explain the remaining goals.

"..if there is no doubt as to the suspect's involvement in the crime, the investigator should not require any further statements from the suspect to prove his case. Therefore, not only does the transition statement have to offer a legally permissible reason for the suspect to confess, but it also must establish a pretense for the interrogation other than to elicit a confession." Inbau et al. (2001), p. 224

Therefore, having cited the evidence of the suspect's guilt and confidently asserted that the investigation clearly implicates the suspect, the detective sets the new agenda.

Reframing the Issues: Focus on Consequences

Essentially, the interrogator recasts the purpose of the interrogation from "investigating guilt" to "deciding what to do about it". He "argues against self-interest" (we are more persuaded by those who apparently have nothing to gain by persuading us), saying that he doesn't need a confession from the suspect since guilt is already proven. He then lays out the new agenda, claiming "we're not here to find out whether you did it. We're here to find out why you did it, and what kind of person you are" (thereby clearly implying that such things matter). The Inbau et al (2001) manual recommends such statements as the following:

"The reason I wanted to sit down and talk with you about this is to find out what the circumstances were surrounding this thing. The reason why someone did something is often much more important than what he did." 225

"Now Sam, there is absolutely no doubt that you did this. What I need to establish with you right now is what kind of person you are." 225

"Joe, The only reason I'm talking to you now is that we don't know how many other homes in that area you have entered. There's no question that you went into the home on Wilson Avenue last weekend. My concern is that we have over 20 unsolved burglaries within a two-mile radius of that home...Now if you're involved in all those other 20 burglaries, quite frankly, I wouldn't expect you to say anything. But, Joe, if you're not involved in all of those others, if it was a lot less than 20, we need to know that because it means that there is someone else out there responsible for those. The last thing I want to have happen is for you to be blamed for something you didn't do. That's why I'm talking to you now." 226

(Recommended statements to suspect regarding reasons for the interrogation: Inbau et al (2001), p. 225-226)

Notice, again, the many weapons of social influence included in such statements. The interrogator sets the agenda for what will be discussed, and frames the underlying issues to be addressed by the discussion. Making use of the "psychology of inevitability" (we are less likely to try when success seems impossible), he minimizes resistance by taking innocence off the table ("Now Sam, there is absolutely no doubt that you did this."). Referring to the results of "our" investigation rather than "my" investigation, he lends credibility to his claims of proof of guilt via the influence principle "social proof" (we are more likely to believe something endorsed by more people); and he sets an agenda to discuss issues he casts as relevant to what will be done about the suspect's actions ("We're going to talk about why you did this, and in doing so we're going to

learn about what kind of person you are).

Reinforcing the messages of the "Sympathetic Detective" and "Set-up Question" tactics, he implies there are choices about how to handle the suspect ("The reason why someone did something is often much more important than what he did." "What I need to establish with you right now is what kind of person you are."). Why, after all, would one want to know these things in this legal context if they didn't matter for legal outcomes? All the while, he again "argues against self-interest," and suggests he is there only to help the suspect (The last thing I want to have happen is for you to be blamed for something you didn't do. That's why I'm talking to you now.), further invoking the reciprocity principle to obligate the suspect to talk in return.

Making the Sale

"...a guilty suspect will not easily be persuaded to offer incriminating statements that could potentially lead to losing his job or a prison sentence. The investigator, therefore, must provide a perceived benefit to the suspect for telling the truth." Inbau et al. (2001), p. 221

"... for a suspect to acknowledge a criminal act involving negative consequences requires that the suspect believe a confession is in his best interest." Jayne, B. C., & Buckley, J. P. (1999). The investigator anthology (p. 207)

The preliminary stages of the interrogation are typically successful in convincing the suspect that, as with the traffic cop we can occasionally convince to let us go, the interrogation can be seen as a negotiation in which the suspect provides information or explanations that can result in leniency-even potentially release without charges, as the Set-Up question implies (Are there circumstances in which the person who did this should get a second chance, maybe not go to jail, etc.).

The suspect now "knows" that the detective has significant control over his fate. This renders him particularly motivated to please the detective and get his "help." It renders him very attentive to any cue that will tell him what he needs to say or do. He "knows" that what kind of person he is and what exactly happened and why he did it can matter. But how? What's the best story to tell? He looks to the "authority" in the room for advice.

The detective, of course, advocates for confession or "telling the truth" (assuming the person is guilty.) To sell this idea, he admittedly must convince the suspect that confession is in his best interests. Knowing that the suspect will be trying to assess the relative costs and benefits of confession versus denial, the interrogator must argue for the alleged "benefits" of confession (and costs of denial) and minimize the apparent "costs" of confession (and benefits of denial). But, since explicit promises of legal benefits or threats of legal costs can be grounds for exclusion of the confession, these arguments must be done through implication, and can be supplemented by reference to non-legal costs and benefits-such as "doing the right thing," "being a stand-up guy and making family proud," or other appeals to moral or social issues.

Minimizing the Costs of Confession

This process begins with the second step of the Reid 9-Step method, which entails suggested scenarios for how and why the event happened that appear less serious, often seemingly not even criminal (such as accidents, self-defense, or apparently justifiable aggression). This process, known as "theme-development," is carried out by the interrogator, sometimes in rather long monologues such as the following "self/family-defense" theme proposed in a gang murder case, where the detective attempts to convince the suspect to

implicate his own brother as the shooter:

"When somebody comes running at you and they pretend to have a gun, how long do you wait before you do something?..I keep hearing from different people, it's never, happened to me, but they say somebody knows what they're doing can stab you with a knife faster than you can pull the trigger, okay? And all of a sudden, if you're worried about this guy, and all of a sudden, somebody comes from the side or from the back, that would get my attention...."

"I worry about taking care of myself, taking care of my family, taking care of my friends. You do what you got to do right then. No difference, okay? Stuff happens sometimes without thinking. Things just happen by themselves sometimes. I know that, okay? You do the best you can to defend yourself. I understand that, okay? That's not a question here, okay? You didn't know it was going to happen. You think it was an accident...So this person was protecting you, correct? Well, I have a few friends but I've only got one family. And I would do anything for my family. If I had to work three jobs, if I had to work 12 hours a day, if I had to give one of my kidneys, I would."

" ....What you're telling me sounds kind of like-The Cartwrights? There was three brothers. Horse was the big guy, Adam was the next guy, and Little Joe was the small one. Three brothers all different sizes. All looked different. Believe you me, if there was a fight, they would take care of each other like that. They didn't even have to say a word. If someone hit their brother, they hit one brother, the other two brothers would jump in like that. Family comes first. Okay?"

"So you felt threatened. Someone was protecting you. This was not planned out. This was an accident. This is something that happened on its own, and those pendejos are dead, this is what they were doing. They were out screwing around, trying to make something happen, and they made something happen, alright? They made it happen. Who is the guy that was protecting you? You were afraid. He did something to protect you. We know that, okay? You're telling me a brother's not going to take care of a brother? That's no brother if he doesn't. That's bullshit, okay? My brother would do anything for me, okay, anything. And I would do anything for him, okay? Is all we're talking about is your brother protecting your life? Is that what we're talking about?"

"I understand that...You got to stand together. When someone says hey, take care of him. Take care of that for me. Take care of business. Okay. When stuff is happening like that, how long do you wait before you take care of business? You can't wait too long or you're the guy that's going to be in the gutter dead, okay? The guys who didn't belong there started their shit, and they got what-what happens all the time, okay?"

"The person who pulled the trigger that day, that's not what their plan was that morning when they woke up. I know that. To me, that makes a big difference, okay?..So when that person woke up that morning, they didn't decide hey, you know what? I'm going to go kill a couple people today...That's not what they said. Something happened that day and sometimes things just happen by themselves. I understand that, okay? I think this was self-defense. You know your brother. Your brother is not a cold -blooded person. He's not-you know-a cold blooded killer. He probably feels worse than you do. Even if you did shoot somebody, sometimes that happens for a reason. I mean sometimes there's such a thing as self-defense, you know.....Maybe those guys started it, and I believe they did because those guys are knuckleheads. Yeah, maybe they didn't deserve to die. But sometimes, you know, sometimes these guys bring it on themselves."

"I'll give you another little example what I had happen one time when I was investigating a homicide. Um, I had people telling me that this guy pulled a gun and he shot and killed another guy. That's a pretty simple thing, right? I mean, just, "Boom, boom." Pulls a strap, shoots a guy dead. So what do you think about that? What do you think about that guy, the guy who shot the other guy? Stone, cold killer, right? You - that's somebody you probably wouldn't want on the street. You wouldn't want to meet up with that fool, just going to pull a gun and kill somebody right in front of you for no reason. But then pretty soon we found out that the gun that the victim had had fallen in the - storm drain. The victim had a gun as well. And the victim was pulling this gun when the other guy shot and killed him. That's a little bit different scenario, isn't it? That guy got a voluntary manslaughter. People understood because they have the whole story about what happened out there. And the DA understood when he evaluated the case. And he filed the appropriate charges. That's what we're trying to tell you. We're trying to understand what happened out there so that we can tell the DA what really happened."

Notice the many messages contained in this monologue. First and foremost, the killing is cast as apparently non-criminal, seemingly taking away the potentially devastating costs that would otherwise accompany admission to involvement. That is, the interrogator states that he believes that the suspect's brother did the shooting (apparently negating personal guilt) as a necessary and potentially life-saving defense against a potentially lethal attack initiated by others (self-defense is widely considered non-criminal). The interrogator reinforces the justifiability of the shooting by talking about how any brother would do this for his brother, and if not he's "no brother." He says he would do it for his own brother. In other words, "anyone in your brother's shoes would have done the same thing, including me, and if he didn't he's a bad human being." He invokes images from Bonanza or other TVs shows in which the suspect may have seen many shootings in defense of self or family that resulted in no criminal charges, reinforcing the idea that such acts are not criminal. Further justifying the act, the interrogator says the victims were looking for trouble, started the altercation, and got what they deserved; that the suspect and his brother didn't intend any of this, and that they were the actual victims, who would now be dead if they hadn't defended themselves. He minimizes the seriousness of the shooting, ("Is that all this is?" "I can understand that." He would have done the same thing, etc.). And in the final paragraph, the detective explicitly mentions the connection between the self-defense scenario and potential legal charges, emphasizing the point that one can't get the benefit of such a defense if one doesn't "tell your side of the story."

Having proposed such scenarios minimizing the seriousness of the act in question, the detective will typically go on to state something like "If that's what happened, I can understand that. It's no big deal. But if, on the other hand, ... (stating a more serious action---e.g., "You shot these guys as a warning to their gang to stay off your territory."), then that's different. I don't want to talk to you anymore. But if (the minimized scenario) is how it happened that's no big deal, we can work with that (implying we can help you if this version is true).

Then, making use of the "contrast" principle (a particular alternative will seem more desirable when contrasted to another that is less desirable than when evaluated with no context), the detective is advised to ask "the alternative question" (Step 7 of the Reid method), which presents two versions of the event (one apparently more serious than the other) and asks the suspect which version is true. The Inbau et al. (2001) manual noted the similarity between this alternative question technique and Step 4 of a 5-Step approach given to one of their sons for selling newspapers: "Close the sale by forcing a decision. Offer the customer two choices of either signing up for a trial one-month offer or, for greater savings, a six-month offer. Never

ask, "Do you want to buy the paper?" The interrogator, like the newspaper boy, not only frames the issue (Why and how did you commit this crime?-excluding "Did you commit this crime."), but enumerates the possible positions on the issue (Was it this terrible, legally serious, version? Or, was it this other version, which is "no big deal" that I can completely understand?). For example, the alternative question in the murder case was posed as follows, immediately following the long monologue recounted earlier:

Detective: "Did he shoot these people to kill them? Did he shoot them to scare them? Did he shoot them to protect you? What do you think he would say?"
Defendant: The three one.
Detective: Which one?
Defendant: It was protection.

As in our murder case, themes that minimize the apparent seriousness of the crime are often very successful in eliciting initial admissions of involvement. Suspects often expect no criminal charges will result, and are often astonished when arrested and charged with a crime. Indeed, reported reasons for confession among true and false confessors alike prominently include the expectation that they will be let go. As many as 40% of confessors have reported in surveys that they confessed in order to be released. Such an apparently irrational belief is the direct reflection of the success of theme development and other tactics in conveying benefits and minimizing costs of confession. Indeed, minimizing themes such as the self/family defense theme in our murder case are understood by those who hear them as promises of leniency, even though courts typically fail to view them as such.

Sometimes the interrogation will stop with such apparently minimal admissions of guilt. Often, however, using the "commitment" principle of influence (Once we have committed ourselves to a course of action by taking any step consistent with it, we are more likely to take other steps toward the same goal.), the interrogators build on the initial admission to successively elicit more damaging versions of the act. These principles are commonly used by conmen and salesmen of all kinds.

For example, using the "foot-in-the-door" technique (Each incremental behavior increases the likelihood of compliance with a more major request), a car salesman might get the target to "just" take a ride" in the car, then come into the building, then sit at the negotiating table, and finally purchase the car. In the same way, the interrogator will induce the suspect to first make the apparently minimal admission and then attempt to move him toward more and more serious admissions or versions of the event.

Using the "bait and switch" technique, the store may lure customers to come in with an ad for a deeply discounted attractive item, only to inform them when they arrive that that alternative is "sold out"-but this more expensive item is available and more attractive for X, Y and Z reasons. Or, the car salesman might practice "low-balling" whereby he lures the customer to the table with the suggestion of an attractive price, only to find that his "supervisor" won't approve the deep discount promised, but can approve a more modest one. Such techniques are commonly practiced and very effective. Once having visited the store or having sat down at the negotiating table, the customer is more likely to make a purchase.

Theme development can be viewed as the "bait" or "low-ball" where the suspect is offered a great deal (extremely low cost) if he confesses by admitting to the minimized scenario. But, the "switch" soon follows, when the interrogator explains why the minimized version just doesn't work, and it must have been a more serious scenario. He may leave the room and come back after pretending to checking new evidence or reports to tell the suspect that the evidence unfortunately just doesn't support the initial version.

For example, in a child molestation case, the suspect first admitted to a minimized scenario in which he says he might have unknowingly touched his granddaughter's genitals while asleep dreaming of his wife. He didn't remember. The detective then directed the conversation to how he "stopped immediately" when he realized what he was doing, and got the suspect to confirm this version. But then, he pointed out that if the suspect didn't remember whether this happened or not, he wouldn't remember stopping when he realized what happened. Then the detective then asked whether the suspect's hand was inside or outside her pajamas.

"What, you don't know? Well, she says you put your hand inside her pants and inserted your fingers into her vagina. Okay, well if you can't, how far do you want to go, if you can't remember. I have to believe what they're telling me, is that what you want? Do you want me to believe what she's telling me and move on? You can't really deny it if you don't remember. I mean, if you inserted your finger into her vagina that's sexual assault...if you were sleeping and you had no idea what happened, then I can't say that's not true. Alright?"

This led to half-hearted admissions that he might remember. Pretty soon, this was followed by attempts to get the suspect to admit that he knew what he was doing, that he made a mistake that he would take responsibility for. The suspect's counterarguments were met with the detective's question:

"I can't move on until you tell me, look Detective Lampert, I'm not a child molester, you know if..if you're not..Detective Lampert I'm not a child molester, I made this mistake it won't happen, how do I know it's not going to happen again? If you don't know what you're doing, you're sleeping, how..how can you assure me it's not going to happen again?"

Essentially, through a brilliant foot-in-the door, lowballing, bait-and-switch strategy, Detective Lampert herded the suspect into making full admissions of intentional sexual assault, while still managing to convey to the suspect that he would be better off by making such admissions. Although the initial hope that he could claim total lack of awareness of the crime was dashed, he would still expect to achieve the benefit of showing remorse and assuring the detective that it would not happen again (with the associated possibility of being sent to counseling instead of jail - as suggested in the set-up question as well as later in the interrogation); and he would avoid the potential costs of not confessing (as we shortly discuss).

The interrogation so thoroughly overwhelmed the suspect's capacity to track what was happening to him as he was tricked into progressively more and more damaging admissions that he later consistently and vehemently insisted that the videotape and the transcript were "doctored," refusing to believe that he had admitted to what he clearly did say on the record.

Maximizing the Costs of Denial

Defendant: "If you fight a case, you might be free. If you fight your case."
Detective: "Maybe, Maybe not. But if you didn't do anything wrong, you were just at the wrong place at the wrong time, what is it you're going to fight? Fight something that's not there."
Defendant: "My innocence"
Detective: "Innocence from what, Arael? What innocence? Being at the wrong place at the wrong time is not a crime. Fighting with somebody who's fighting with you is not a crime. Attacking somebody-attacking somebody that doesn't mean no harm to you, yeah. That's a crime. What is it-what innocence are you going to be fighting? The only thing you're going to be doing is putting the spotlight on yourself. Saying okay. I got something to hide. That's only going to make people more suspicious of you."

Recall our earlier assertion that interrogation can be thought of as an extended "Anti-Miranda Warning" in which the message is that everything you say can and will be used for your benefit, whereas denial or refusal to talk can and will be held against you. The above exchange is illustrative of many messages interrogators convey concerning the costs of denial. The detective says what many are already inclined to believe-through denial or refusal to talk, you will only make yourself appear guilty. Here the detective even suggests this will cause the investigation to focus on the suspect.

Very often, implied costs of silence or denial are conveyed through the infamous "co-perpetrator" ploy, in which the detective claims that an alleged co-perpetrator has implicated the suspect, and has claimed the suspect engaged in the most legally serious role in the offense.

"And you know what's going to happen after, you know, everybody says exactly what happened and you're---you're back there and you're the one screwing around with this thing. Who do you think they're going to focus their attention on?"

"You got to stand up like..like a man. You just can't lay down there like a dead dog. You got to stand up. You got to defend yourself. You got to put your side on the table. Otherwise people are going to walk all over you. People are going to point fingers at you. People are going to lie about you. In fact, they're already pointing fingers at you, saying you were the one who started this, who planned it, and the one who made the first shot. But I don't think that's what happened. I think you were just in the wrong place at the wrong time....but if you don't stand up and tell me what really happened, your side of the story, the DA's gonna have to go with the story he's got...."

Here, the detective has essentially threatened the suspect with more serious charges -those appropriate for what the co-perpetrator is allegedly accusing him of-if he fails to offer his "side" of what happened. That is, he must admit he had a role, but can claim a more benign role than he would otherwise be held accountable for.

Another commonly used argument concerns the likely reactions of judge and jury. The idea that no one will believe the person is innocent is combined with arguments concerning how he will be perceived if he continues to deny guilt:

"But if you..if you come in and tell me right now, okay look this might have happened once, I made a mistake, I thought my wife was here, or whatever, I've been drinking..I can understand that, okay? But if..if you sit here and say hey, you know what, that never happened. I never touched that girl, she's lying this and that, the fact is that it's not, I think you're exaggerating the truth okay? Then that makes you look bad.."

"If you can come up and say yeah, this is what happened, you know it was one time, it was a mistake, I knew it was a mistake and I stopped, man I can understand that. But if you don't say anything..then what happens is ..and what happens is, you look like a..you like somebody who's looking..preying on these little girls okay? If you're lying about what happened. That's the perception people get...you understand that, that's..that's the way people look at ya'."

"Okay, ...if you had twelve people judging you, alright? And you have twelve people listening to your story. Okay? Would you feel better about somebody that..that..that eventually came out and

just admitted okay, yeah, I did it but I know it was a mistake afterwards and I didn't do it anymore, or do you think somebody telling me well I was asleep and I didn't know I was doing it and that's how this happened. Uh..who would out you feel better about? The guy that admitted it happened or would you believe the guy that was telling you that it happened when he was asleep? Would you believe somebody telling you, okay this happened when I was sleeping, two separate times, then I got up both times? And said oh, well it's not going to happen anymore. Or would it make you feel better if somebody said yeah, you know what, I wasn't sleeping, I did it, it was a mistake, I knew it was a mistake and I want to get on with my life. Which one would you feel better about? If you were sitting there looking at somebody else saying these things? Would you feel better about the guy that admitted it was a mistake and just wanted to move on? If I was the Judge if I was somebody looking at you..And I have all this proof, I can prove it happened. And then the guy's that's..that's you right, are telling me okay, well I..I was sleeping and when I woke up and saw I was doing it, I stopped right away. That's not believable okay?"

"I understand what you're saying but I would feel better, I would feel better about somebody saying, hey you know what I was afraid to tell the truth, here's what happened. I did to this girl, it was a mistake and I stopped. And actually you know what? I think I may need some help. I'm afraid to be around children right now because I want to get some help and move on with my life. Can you see how that would..uh..that would make me feel better, how that would make..make you look better?"

The detective has clearly both (1) implied that he will receive more lenient reactions from judge and jury if he admits deliberately molesting the girl and knows it was a mistake than if he lies by denying intent, (2) reinforced the notion that establishing innocence is off the table, and (3) reinforced the hope that if he admits it he may be even more likely to get the counseling or help or "second chance" referred to in the Set-up Question and throughout the interrogation.

Perhaps the most pervasive "threat" offered by the typical interrogator is the threat of withdrawal of his own support-something likely to be highly valued by the suspect, and something he is likely to try to protect and maintain. Typically, the detective threatens to withdraw his "help" if the suspect refuses to cooperate by "telling the truth."

DET: I'm willing to work with somebody who's willing to work with me. You know what I mean?
Suspect: Yeah.
DET: Where, where, where I can't help someone out is if it looks like they ain't being a hundred percent straight with stuff, all right? You need to try to help yourself here....You know, right now this thing's in my hand. Okay? To get this thing straightened out with you...But I can't stay here all night. I mean I got a family to go home to. I'm, you know...so I'm going to leave. I can call these other guys and tell them I'm done."

The detective in this exchange reinforces the notion of his own authority to "work with" and help the suspect (get "this thing" "straightened out"), as well as the contingent nature of his offer to help, and emphasizes that the suspect is about to lose his help if he fails to cooperate.

Generally, like promises of leniency, threats of more serious legal consequences are conveyed indirectly and by implication. Nevertheless, they are understood just as clearly as if explicitly stated. The suspect may not know what specific differences in charges there may be, but he clearly receives the message that the charges or outcomes will be more harsh if he doesn't fully admit his role in the alleged criminal behavior.

The Final Product: True and False Confessions

Once the suspect has admitted to some role in the crime, the detective will ask the suspect to put it in writing-stating exactly what happened, often including an apology to the victim(s) and expressions of remorse (which he is led to believe will help him with the DA, judge and/or jury). Unfortunately, much of the information elicited through interrogation is inaccurate. The interrogation techniques are heavily suggestive, and the detective does most of the talking, all the time suggesting to the suspect what he thinks happened. The suspect tells stories based on a mixture of true and false arguments and "evidence" he is confronted with during the interrogation. Essentially, the interrogators knowingly suggest and elicit a great deal of false or misleading information in order to get any kind of incriminating statement from the suspect. While they often believe that this false information will be a "stepping stone" approach to eventually getting the full truth, they underestimate the biasing influences the suspect is subject to, and overestimate the extent to which these biased stories will eventually be cast aside in favor of a fully accurate account.

Unfortunately, the truth may never emerge fully, during the interrogation or ever. False statements can range from full false confessions to horrific crimes, to false implication of others, to false details that can nevertheless affect charges filed against the suspect or others. The co-perpetrator ploy, for example, seems to be heavily implicated in known cases of false confession and false implication of others. Drizin and Leo (2004) identified 125 cases involving known false confessions. For more than 30% of their sample, more than one defendant confessed falsely to the same crime-ranging from 2 to 5 false confessors per case.

Although the steadily increasing tide of DNA and other exonerations of the wrongfully convicted has cast a spotlight on the role of false confessions elicited through the tactics described here, too little attention has yet been paid to the fact that false confessions represent only the tip of the iceberg of false information elicited through police interrogation. The issue of the "quality" of information elicited via coercive interrogations seems to arise more prominently when involving physical coercion or torture. It remains for law enforcement and the legal community to expand their awareness of the potentially devastating effects of false information to include not just whether a person falsely confessed to a crime, but to encompass the many additional falsehoods affecting the nature of legal charges against the suspect as well as potential charges against others the suspect may implicate. The devil is often in the details, and if the details cannot be counted on neither can we count on a just result.

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EDUCATION

H.S.	Spring Branch High School: Houston, Texas June, 1968
B.A.	University of Texas: Austin, Texas June, 1970
Ph.D.	Ohio State University; Columbus, Ohio August, 1973

EMPLOYMENT HISTORY

1971-73	National Institute of Mental Health Pre-doctoral trainee in social psychology Ohio State University; Columbus, Ohio
1973-75	Post-doctoral research associate Ohio State University; Columbus, Ohio
1975-77	Assistant Professor, Psychology Department Southern Illinois University; Carbondale, Illinois
1977-78	Assistant Professor, Psychology Department Georgia State University; Atlanta, Georgia
1978 -	Psychology Department University of Nevada; Reno, Nevada
1982-1988	Chair, Interdisciplinary Doctoral Program in Social Psychology, UNR
1986-2011	President, Sierra Trial & Opinion Consultants
1981-2012	Clarinetist, Reno Chamber Orchestra
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MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

Association for Psychological Science
American Psychology and Law Society
Society of Personality and Social Psychology
Society of Applied Social Psychology
Society of Experimental Social Psychology

TEACHING EXPERIENCE

UNDERGRADUATE

Introduction to Psychology
Introduction to Social Psychology
Theories of Social Psychology
Research Methods in Social Psychology
Adolescent Psychology
Mate Selection and Marital Satisfaction
Statistics
Psychology and Law
Prejudice and Discrimination
Personality
Experimental Psychology
Attitudes and Persuasion
Memory on Trial
Social Influence

GRADUATE

Social Psychology
Psychology and Law
Research Methods
Theories of Social Psychology
Intraindividual Processes
Analysis of Social Interaction
Language and Conversation
Memory on Trial
Social Influence
Attachment and Close Relationships
Social Skills
Prejudice and Discrimination
Attitudes and Persuasion
Memory and Social Cognition
Practical Experience with Research Design
Special Topics in Social Psychology
Forensic Psychology

RESEARCH, THESIS & DISSERTATION SUPERVISION

1975 to Present-- Supervised individual research projects, theses and dissertations for Graduate students in psychology.

1988 to Present-- Supervise theses and dissertations for Master's and Ph.D. in Judicial Studies candidates at the National Judicial College in Reno.

GUEST LECTURER

1988 to Present Periodic guest lecturer at the National Judicial College on issues and research in the area of Psychology and Law; Member, Thesis or Dissertation Committees for Judges in Master's or Ph.D. Programs in Judicial Studies

CONTINUING LEGAL EDUCATION

Northern Nevada Women's Attorneys (1988)
Carson City Bar Association (1988)
Nevada Association of Defense Counsel (1989)
Washington D. C. Women's Bar Association (1989)
Washington D. C. Association of Defense Counsel (1989)
American Trial Lawyer's Seminar, Lake Tahoe (1989)
Inns of Court, Reno (1989, 1990, 1994, 1995, 1996, 1997, 1998, 2000)
New York Bar Association (1996)
National College of Trial Advocacy (Association of Trial Lawyers of America) (1996)
Journal of Air Law and Commerce Symposium (2001)
Washoe County Public Defenders (2001, 2002, 2003)
Washoe County Bar (2009)
National Defender Investigator Association (2002; 2008; 2010)
Northern California Defender Investigator Association (2003)
California Attorneys for Criminal Justice (2004, 2005)
Indiana Public Defender Association (2004)
Missouri State Public Defender Winter Workshop (2005)
Texas Criminal Defense Lawyers Association (2004)
Edison Electric Institute Claims Committee (2004)
National Seminar for Federal Defenders (2005)
Association of American Law Schools (2006)
Nevada Bar Association, Las Vegas & Reno (2006)
Baton Rouge, LA; Shreveport, LA (2007) (Arranged by Judges and Private Attys)
National Judicial College, Reno (2007, 2009, 2010, 2013, 2014)
Tennessee Association of Criminal Defense Lawyers, Nashville (2007)
Osgood Hall Law School, Toronto, Canada (2007)
National Counsel of Juvenile and Family Court Judges (2008, 2011, 2012)
Law and All That Jazz CLE Seminar, New Orleans (2008)
(Louisiana Association of Criminal Defense Lawyers)
Expert Symposium, U.S. Army Jag Attorneys, New Orleans (2011)
Wisconsin Association of Criminal Defense Attorneys (2012)
National Judicial College Seminar on Children and the Law (2012)
Louisiana Investigator Association (2012)

EDITORIAL ACTIVITIES

EDITOR

1991- Editor and publisher of "**FROM THE MIND'S EYE**". From The Mind's Eye was a newsletter designed to report social science research on law and courtroom psychology.

EDITORIAL BOARDS

1970-1973 Representative Research in Social Psychology.
1980-1988 Journal of Experimental Social Psychology.
1985-1988 Journal of Personality and Social Psychology.
2008 - Personal Relationships
2007 - Journal of Behavior Analysis of Offender and Victim Treatment and Prevention

AD-HOC REVIEWING

JOURNALS

Journal of Personality and Social Psychology
Journal of Experimental Social Psychology
Personality and Social Psychology Bulletin
Journal of Applied Social Psychology
Journal of Research in Personality
Journal of Personality
Social Psychology Quarterly
Psychological Review
Psychological Bulletin
International Journal of Aging and Human Development
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Human Communication Research
Evolutionary Psychology
Personal Relationships
European Journal of Social Psychology
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Journal of Behavior Analysis of Offender and Victim Treatment and Prevention
Journal of Experimental Psychology: Applied
Applied Cognitive Psychology
Journal of Forensic Psychology Practice
Psychology, Public Policy and Law
Psychology, Crime and Law
Behavioral Sciences and the Law
Law and Human Behavior

GRANTING AGENCIES

National Science Foundation
National Institute of Mental Health
Canadian Research Council
Israel Science Foundation

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Davis, D., Knaack, D., Lopez, P., Koyama, M., White, B., Bailey, D. & Kusal, T. (2005). Memory for Threats in Conversation Enhanced by Later Knowledge of Violence Between Participants. *American Psychological Society*, Los Angeles, CA.

Davis, D., Vanous, S., & Cucciare, M. (2005) Unconscious Transference as an Instance of 'Change Blindness.' *American Psychological Society,* Los Angeles, CA.

Shaver, P. R., Schachner, D. A., Gillath, O., & Davis, D. (2005). Interrelations of the Attachment and Sexual Behavioral Systems. Symposium Title:Research on Sexual Motives: Implications for Sexual Behavior and Intimate Relationships. *American Psychological Association.*

Rumble M, Keefe F, Porter L, Miller J, Davis D, Scipio C, Garst J, Peterson B. Relationship of marital attachment style to symptoms,self-efficacy and psychological distress in patients with lung cancer and their spouses. Poster presented at the annual meeting of the American Pain Society, San Antonio, TX, May 2006.

Davis, D. (2006). Confession evidence. *Association of American Law Schools.* Washington, D. C. (January) (Invited Address).

Davis, D., Leo, R. A., Knaack, D., Bailey, D. A. (2006). Sympathetic detectives with time limited offers: Effects on perceived consequences of confession. Association for Psychological Science. New York, May.

Davis, D., Vernon, M. V., & Shaver, P. R. (2006). How do we cause our relationships to fail? The role of attachment style. *Association for Psychological Science,* New York, May.

Davis, D., Carlen, L. & Gallio, J. (2006). Attachment, rape supportive attitudes, and perceived validity of claims in three rape scenarios. *Association for Psychological Science.* New York, May.

Nelson, K. J., Laney, C., Le, A. J., Fowler, N. B., Knowles, E. D., Davis, D., & Loftus, E. F. (2007). Change blindness can cause mistaken eyewitness identifications. *Association for Psychological Science.* Washington, D.C., May.

Davis, D., Weaver, T., Leo, R. A. (2007). Effects of failed polygraph results on true and false confessions. *American Psychological Association,* San Francisco, CA., August.

Davis, D., Leo, R. A., Follette, W. C. (2007). Effects of interrogation tactics on recommendation of false confession for the innocent. *Interrogations and Confessions.* El

Paso, TX: September.

Davis, D. (2007). The problem of false confessions: Policy considerations and the issue of type I and type II outcome errors in interrogations.

Davis, D. & Follette, W. C. (2007). Blowing smoke and selling snake oil: Sources of invalidity and exaggeration in expert testimony; Osgoode Hall Law School, Toronto, CA, November. (Invited address).

Davis, D., Leo, R. A., & Follette, W. C. (2008). Recommending false confession for the innocent. *American Psychology-Law Society.* Ft. Lauderdale, Fl: March.

Davis, D., (2009) Society of Experimental Social Psychology, Academic, "Interrogation through pragmatic implication", Accepted, Society of Experimental Social Psychology, Portland, Maine, October.

Davis, D. (2009), Lowman, J., Sigilloa, A., Association for Psychological Science, Academic, "Age and perceived net benefits of romantic relationships", Accepted, Association for Psychological Science, San Francisco, May.

Davis, D. (2009), Sigilloa, A., Lowman, J., Association for Psychological Science, Academic, "Attachment and perceived advantages and disadvantages of romantic relationships", Accepted, Association for Psychological Science, San Francisco; May..

Davis, D., Hernandez, J., Follette, W. C., Leo, R. A. (2010). "Interrogation through pragmatic implication: Communicating beneficience and promises of leniency. Society for Personality and Social Psychology, Las Vegas, Nevada, January.

Hernandez, O., Draper, C., Davis, D., & Leo, R. (2010). Stage setting in police interrogation: Interactive effects of a "pretext" for interrogation and "minimization." American Psychology-Law Society, Vancouver, Canada; March.

Davis, D. (2010). Jury decisions and experience (Panel Moderator). *Western Social Science Association.* Reno, NV: April

Davis, D. (2010), Inconsistencies between law and the limits of human cognition., Society of Experimental Social Psychology, Minneapolis, MN. (October).

Davis, D., Sigilloa, A. Lowman, J. (2010). Adult attachment style and strategies of social influence., Western Psychological Association, Cancun. (April).

Davis, D., (2010). "Law is an Ass: Ignorance and stubbornness in applications of psychology to law", Invited, Memory and the Law: Na tional Science Foundation, Tuscon Arizona. (February 2010).

Williams, M. J., & Davis, D. (2012, April). Authoritarian personality moderates the deleterious effects of ostracism. Rocky Mountain Psychological Association, Reno, NV.

Villalobos, J. G., Williams, M. J., & Davis, D. (2013, January). Self-Regulation and the Perceived Wisdom of a False Confession to Murder. Society for Personality and Social Psychology. New Orleans, LA.

Davis, D., Williams, M. J., & Villalobos, J. G. (2013). Interrogation-related regulatory decline: The roles of prior effort and stereotype threat. American Psychology-Law Society. Portland, OR.

Leo, R. A., & Davis, D. (2013). To walk in their shoes: The problem of recognizing false confessions. American Psychology-Law Society. Portland, OR.

Davis, D. (2013). Where Lucifer Thrives: Situational forces impairing interrogator judgment and strategy. Western Psychological Association. Reno, NV.

Williams, M. J., Villalobos, J. G., & Davis, D. (2013). The other L (Lobotomy) effect: Determinants and consequences of impaired executive control in suspects. Western Psychological Association. Reno, NV.

Davis, D., Mikulincer, M., & Soref, A. (2014). Flying under the radar II: Using face and contextual primes to undermine resistance to out-group interviewers. American Psychology-Law Society, New Orleans, LA.

Davis, D., Mikulincer, M., & Soref, A. (2014). Flying under the radar I: Priming states of mind can increase or decrease disclosure of sensitive personal information. American Psychology-Law Society, New Orleans, LA.

INTERNATIONAL MEETINGS

Davis, D., & Brock, T. C. (1976). Determinants of interpersonal physical pleasuring. International Congress of Psychology, Paris, France.

Davis, D. (1980). A "rewards of interaction" interpretation of the similarity-attraction relationship: Theory and data. International Congress of Psychology, Leipzig, East Germany.

Davis, D. (1980). Antecedents and consequences of responsiveness in dyadic interaction. International Congress of Psychology, Leipzig, East Germany.

Davis, D., & Holtgraves, T. M. (1983). Responsiveness, understanding and memory in dyadic interaction. Interamerican Congress of Psychology, Quito, Ecuador.

Kelley, L., Davis, D., & Wood, J. (1984) Status, physical attractiveness and

popularity as elicitors of responsiveness from others. International Congress of Psychology, Acapulco, Mexico.

Davis, D., Kelley, L., Wood, J., & Steronko, R. (1984). Consequencias evolucionarias de responsividad materna y peterna: amour proprio y punto internal de control. International Congress of Psychology, Acapulco, Mexico.

Davis, D., Dewitt, J. S., & Carney, A. (1985). Las limitaciones en algunas reglas de conversacion: Cuando se espera y se condona el comportamiento no responsivo. Interamerican Congress of Psychology, Caracus, Venezuela.

Davis, D., & Lewis, E. W. (1988). The attribution of responsibility within the American legal system. XXIV International Congress of Psychology, Sydney Australia.

Davis, D., Wentzel, S., Robbins, R., Price, N., Pearlman, A., Kaplan, M., Greenstein, F., & Gastanaga, L. Verbal assertiveness in conversation. XXIV International Congress of Psychology, Sydney, Australia, 1988.

Davis, D., Rippens, P., & Foushee, R. (1989). Public beliefs about child sexual abuse. Interamerican Congress of Psychology, Buenos Aires, Argentina.

Davis, D., Ostler, T., & McBride, G. (1989). Verbal and nonverbal flirting techniques. Interamerican Congress of Psychology, Buenos Aires, Argentina.

Davis, D. & Leontauras, A. (1995). Dating preferences and practices across the lifespan. Interamerican Congress of Psychology, Puerto Rico. (Invited Address).

Davis, D., Lesbo, M., Adams, R., Shelton, N., Lindquist, M. (1998). The role of stereotypes regarding sexuality in judgements of rapes among women of four races. 24th Annual Congress of Applied Psychology, San Francisco, CA, August, 1998.

Sundahl, I., Davis, D., & Lesbo, M. (1998). Personality and preferences for casino games. 24th International Congress of Applied Psychology, San Francisco, CA, August, 1998.

Davis, D., & Lesbo, M. (1998). Female wardrobe choices and sexual intent: Female intent and male interpretation. 24th International Congress of Applied Psychology, San Francisco, CA., August, 1998.

Davis, D., & Lesbo, M. (1998). Use of the Internet for cross-cultural survey research: A study of life-span mate selection. 24th International Congress of Applied Psychology, San Francisco, CA, August, 1998.

Davis, D., Lesbo, M. & Thoroughgood, A. J. (1999). The role of stereotypes of female sexuality in rape. Northwest Conference on Memory and Cognition, Victoria, Canada, May 1999.

Davis, D. (2012). Identity threat in the interrogation room: How do suspects behave

when they don't expect to be believed? International Conference on Investigative Interviewing. Nicolet, Canada.

Davis, D., Mikulincer, M., Soref, A., Villalobos, G., Ogundimu, O., Perez, L., Ghiglieri, M., & Williams, M. J. (2013, October). *Effects of self-affirmation, mortality salience, attachment security, and ostracism on self-disclosure of negative personal information*. Paper session presented at the meeting of the High-Value Detainee Interrogation Group, Washington, D.C.

Davis, D., Williams, M. J., & Villalobos, J. G. (2013, March). *Interrogation-related regulatory decline: The roles of prior effort and stereotype threat.* Paper session presented at the meeting of the Western Psychological Association, Reno, NV.

Villalobos, J. G., Williams, M. J., & Davis, D. (2013, January). *Self-regulation and the perceived wisdom of false confession to murder.* Poster session presented at the meeting of the Society for Personality and Social Psychology, New Orleans, LA.

Williams, M. J., Villalobos, J. G., & Davis, D. (2013, April). The Other "L" (Lobotomoy) Effect: Determinants and Consequences of Impaired Executive Control in Suspects. Paper presented at the 93rd Annual Convention of the Western Psychological Association. Reno, NV.

Davis, D., Williams, M. J., & Villalobos, J. G. (2013, March). Interrogation-Related Regulatory Decline: The Roles of Prior Effort and Stereotype Threat. Paper presented at the 2013 American Psychology-Law Society conference. Portland, OR.

Davis, D., Mikulincer, M., & Soref, A. (2014). FLYING UNDER THE RADAR I: Priming States of Mind Can Increase or Decrease Disclosure of Sensitive Personal Information. Paper presented at the 2014 American Psychology-Law Society conference. New Orleans, LA.

Davis, D., Mikulincer, M., & Soref, A. (2014). FLYING UNDER THE RADAR II: Using Face and Contextual Primes to Decrease Resistance to Outgroup Members Paper presented at the 2014 American Psychology-Law Society conference. New Orleans, LA.