

The Problem with Eyewitness Testimony

Commentary on a talk by

George Fisher and Barbara Tversky*

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The bedrock of the American judicial process is the honesty of witnesses in trial. Eyewitness testimony can make a deep impression on a jury, which is often exclusively assigned the role of sorting out credibility issues and making judgments about the truth of witness statements.¹ Perjury is a crime, because lying under oath can subvert the integrity of a trial and the legitimacy of the judicial system. However, perjury is defined as *knowingly* making a false statement—merely misremembering is not a crime.² Moreover, the jury makes its determinations of witness credibility and veracity in secret, without revealing the reason for its final judgement.³ Recognizing the fallibility of witness memories, then, is especially important to participants in the judicial process, since many trials revolve around factual determinations of whom to believe. Rarely will a factual question result in a successful appeal—effectively giving many parties only one chance at justice. Arriving at a just result and a correct determination of truth is difficult

* This commentary was written in response to a talk given by George Fisher, Professor, Stanford Law School, and Barbara Tversky, Professor of Psychology, Stanford University. The presentation was given on April 5, 1999 and was sponsored by the *Stanford Journal of Legal Studies*. In this presentation, George Fisher placed Barbara Tversky's research on memory fallibility into the context of police investigations and jury verdicts, discussing the relevance of such research to our system of justice.

¹ See generally George Fisher, *The Jury's Rise as a Lie Detector*, 107 YALE L.J. 575 (1997).

² See 18 USC §1623(a) (1998):

Whoever under oath (or in any declaration, certificate, verification, or statement under penalty of perjury as permitted under section 1746 of title 28, United States Code) in any proceeding before or ancillary to any court or grand jury of the United States knowingly makes any false material declaration or makes or uses any other information, including any book, paper, document, record, recording, or other material, knowing the same to contain any false material declaration, shall be fined under this title or imprisoned not more than five years, or both.

The statute then goes on to list an affirmative defense: "It shall be a defense to an indictment or information made pursuant to the first sentence of this subsection that the defendant at the time he made each declaration believed the declaration was true." *Id.*, §1623(c).

³ See FED. R. EVID. 606(b) (preventing usage of juror testimony to impeach a jury's verdict); Act of Aug. 2, 1956, ch. 879, § 1, 70 Stat. 935 (18 U.S.C. §1508 (1984 & Supp. 1996)) (criminalizing the recording of jury deliberations in federal court).

enough without the added possibility that witnesses themselves may not be aware of inaccuracies in their testimony.

Several studies have been conducted on human memory and on subjects' propensity to remember erroneously events and details that did not occur. Elizabeth Loftus performed experiments in the mid-seventies demonstrating the effect of a third party's introducing false facts into memory.⁴ Subjects were shown a slide of a car at an intersection with either a yield sign or a stop sign. Experimenters asked participants questions, falsely introducing the term "stop sign" into the question instead of referring to the yield sign participants had actually seen. Similarly, experimenters falsely substituted the term "yield sign" in questions directed to participants who had actually seen the stop sign slide. The results indicated that subjects remembered seeing the false image. In the initial part of the experiment, subjects also viewed a slide showing a car accident. Some subjects were later asked how fast the cars were traveling when they "hit" each other, others were asked how fast the cars were traveling when they "smashed" into each other. Those subjects questioned using the word "smashed" were more likely to report having seen broken glass in the original slide. The introduction of false cues altered participants' memories.

Courts, lawyers and police officers are now aware of the ability of third parties to introduce false memories to witnesses.⁵ For this reason, lawyers closely question witnesses regarding the accuracy of their memories and about any possible "assistance" from others in the formation of their present memories. However, psychologists have long recognized that gap filling and reliance on assumptions are necessary to function in our society. For example, if we did not assume that mail will be delivered, or that the supermarkets will continue to stock bread, we would behave quite differently than we do. We are constantly filling in the gaps in our recollection and interpreting things we hear. For instance, while on the subway we might hear garbled words like "next," "transfer," and "train." Building on our assumptions and knowledge, we may put together the actual

⁴ See Elizabeth F. Loftus & J.C. Palmer, *Reconstruction of Automobile Destruction: An Example of the Interaction Between Language and Memory*, 13 J. OF VERBAL LEARNING & VERBAL BEHAVIOR 585 (1974); Elizabeth F. Loftus, D.G. Miller, & H.J. Burns, *Semantic Integration of Verbal Information into a Visual Memory*, 4 J. OF EXPERIMENTAL PSYCH, 19 (1978).

⁵ See *Krist v. Eli Lilly and Co.*, 897 F.2d 293, 297 (7th Cir. 1990), (listing the findings of various psychological studies):

Accuracy of recollection decreases at a geometric rather than arithmetic rate (so passage of time has a highly distorting effect on recollection); accuracy of recollection is not highly correlated with the recollector's confidence; and memory is highly suggestible – people are easily 'reminded' of events that never happened, and having been 'reminded' may thereafter hold the false recollection as tenaciously as they would a true one.

See also DAVID FRANK ROSS, J. DON READ & MICHAEL P. TOGLIA, EDS., *ADULT EYEWITNESS TESTIMONY* (1994); Elizabeth F. Loftus, *Eyewitness Testimony: Psychological Research and Legal Thought*, 3 CRIME AND JUSTICE 105 (1981). *C.f.* Lea Brilmayer & Lewis Kornhauser, *Quantitative Methods and Legal Decisions*, 46 U. CHI. L. REV. 116, 135–48 (1978).

statement: “Next stop 53rd Street, transfer available to the E train.” Indeed, we may even remember having heard the full statement.

So what is an “original memory?”⁶ The process of interpretation occurs at the very formation of memory—thus introducing distortion from the beginning. Furthermore, witnesses can distort their own memories without the help of examiners, police officers or lawyers. Rarely do we tell a story or recount events without a purpose. Every act of telling and retelling is tailored to a particular listener; we would not expect someone to listen to every detail of our morning commute, so we edit out extraneous material. The act of telling a story adds another layer of distortion, which in turn affects the underlying memory of the event. This is why a fish story, which grows with each retelling, can eventually lead the teller to believe it.

Once witnesses state facts in a particular way or identify a particular person as the perpetrator, they are unwilling or even unable—due to the reconstruction of their memory—to reconsider their initial understanding. When a witness identifies a person in a line-up, he is likely to identify that same person in later line-ups, even when the person identified is not the perpetrator. Although juries and decision-makers place great reliance on eyewitness identification, they are often unaware of the danger of false memories.

Experiments conducted by Barbara Tversky and Elizabeth Marsh corroborate the vulnerability of human memory to bias.⁷ In one group of studies, participants were given the “Roommate Story,” a description of incidents involving his or her two fictitious roommates. The incidents were categorized as annoying, neutral, or socially “cool.” Later, participants were asked to neutrally recount the incidents with one roommate, to write a letter of recommendation for one roommate’s application to a fraternity or sorority, or to write a letter to the office of student housing requesting the removal of one of the roommates. When later asked to recount the original story, participants who had written biased letters recalled more of the annoying or “cool” incidents associated with their letters. They also included more elaborations consistent with their bias. These participants made judgements based upon the annoying or social events they discussed in their letters. Neutral participants made few elaborations, and they also made fewer errors in their retelling, such as attributing events to the wrong roommate. The study also showed that participants writing biased letters recalled more biased information for the character they wrote about, whereas the other roommate was viewed neutrally.

Memory is affected by retelling, and we rarely tell a story in a neutral fashion. By tailoring our stories to our listeners, our bias distorts the very formation of memory—even without the introduction of misinformation by a third party. The protections of the judicial system against prosecutors and police “assisting” a witness’s memory may not

⁶ See, e.g., James Marshall, *Evidence, Psychology, and the Trial: Some Challenges to the Law*, 63 COLUM. L. REV. 197, 197 (1963) (“For the law, the basic problem of ascertaining truth does not arise so much from the villainy of perjurers and suborners of perjury as from the unreliability of personal observation.”).

⁷ See Barbara Tversky & Elizabeth J. Marsh, *Biased Retellings of Events Yield Biased Memories* (forthcoming). [Hereinafter Tversky-Marsh study].

sufficiently ensure the accuracy of those memories. Even though prosecutors refrain from “refreshing” witness A’s memory by showing her witness B’s testimony, the mere act of telling prosecutors what happened may bias and distort the witness’ memory. Eyewitness testimony, then, is innately suspect.

Lawyers place great import on testimony by the other side’s witness that favors their own side’s case. For example, defense attorneys make much of prosecution witnesses’ recollection of exonerating details. In light of psychological studies demonstrating the effect of bias on memory, the reliance and weight placed on such “admissions” may be appropriate, since witnesses are more apt to tailor their stories—and thus their memories—to the interests of the first listeners. An eyewitness to a crime is more inclined to recount, and thus remember incriminating details, when speaking to a police officer intent on solving the crime. If later the eyewitness still remembers details that throw doubt on the culpability of the suspect, such doubts should hold greater weight than the remembrance of incriminating details.

In another part of the Tversky-Marsh study, participants were asked to play prosecutors presenting a summation to the jury.⁸ Participants first read a murder story, where two men were suspects. Participants were then asked either to prepare a neutral recounting of all they remembered about one suspect, or to prepare a summation to the jury about one suspect. Later, participants were asked to recall the original story. Participants who wrote summations recalled more incriminating details and wrongly attributed details among suspects more often than participants who originally wrote a neutral recounting.

Bias creeps into memory without our knowledge, without our awareness. While confidence and accuracy are generally correlated, when misleading information is given, witness confidence is often *higher* for the incorrect information than for the correct information. This leads many to question the competence of the average person to determine credibility issues. Juries are the fact-finders, and credibility issues are to be determined by juries. The issue then arises whether juries are equipped to make these determinations. Expert testimony may not be helpful. Indeed, since the very act of forming a memory creates distortion, how can anyone uncover the “truth” behind a person’s statements? Perhaps it is the terrible truth that in many cases we are simply not capable of determining what happened, yet are duty-bound to so determine. Maybe this is why we cling to the sanctity of the jury and the secrecy of jury findings:

We can put such questions before the jury entirely without fear of embarrassment, because the way the jury resolves the questions and, in all likelihood, the soundness of its answers will remain forever hidden. Perhaps the allure of the black box as a means toward apparent certainty in

⁸ See Tversky, *supra* note 7 at 22–28.

an uncertain world has tempted us to entrust the jury with more and harder questions than it has the power to answer.⁹

The courts' reliance on witnesses is built into the common-law judicial system, a reliance that is placed in check by the opposing counsel's right to cross-examination—an important component of the adversarial legal process—and the law's trust of the jury's common sense. The fixation on witnesses reflects the weight given to personal testimony. As shown by recent studies, this weight must be balanced by an awareness that it is not necessary for a witness to lie or be coaxed by prosecutorial error to inaccurately state the facts—the mere fault of being human results in distorted memory and inaccurate testimony.

⁹ Fisher, *supra* note 1, at 708. See generally Symposium *Is the Jury Competent?*, 52 L. & CONTEMP. PROB., Autumn 1989; Symposium: *The Selection and Function of the Modern Jury*, 40 AM. U. L. REV. 547 (1991).

