Memory Restored or Confabulated by Hypnosis—Is it Competent?*

by James E. Beaver**

Courts have established that when an eyewitness to an event under litigation, who has suffered loss of memory as the result of a physical blow, thereafter recovers his memory following yet another physical blow, the witness is competent to testify to the event.¹ Moreover, courts generally hold that an eyewitness's memory can be refreshed—in or out of court—by use of any device which will get the job done.² As expressed by Judge Kalodner: "Anything may in fact revive a memory: a song, a scent, a photograph, an allusion, even a past statement known to be false." Yet now, within the past months, at least four state supreme courts have decided that when the refreshment is accomplished by hypnosis, the hypnotized subject is an incompetent witness as to the areas explored under hypnosis.4

Eyewitness testimony is not especially reliable in the best of

^{*} The American Heritage Dictionary gives two definitions of "confabulate." The first definition is "to chat; to talk informally." The second definition, and the definition used in this article, is, "to replace fact with fantasy in memory." The word has been adopted by psychiatrists and authorities with the second meaning in mind.

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See, e.g., Carr v. State, 44 Ala. App. 40, 202 So. 2d 59 (1967); Eldridge v. Melcher,
Pa. Super. 381, 313 A.2d 750 (1973); Valente v. H.P. Hood & Sons, Inc., 108 R.I. 558,
A.2d 505 (1971).

^{2. 3} J. WIGMORE, EVIDENCE ch. XXVIII (3d ed 1940); Morgan, The Relation Between Hearsay and Preserved Memory, 40 Harv. L. Rev. 712 (1927); Annot., 125 A.L.R. 19 (1940).

^{3.} United States v. Riccardi, 174 F.2d 883, 888 (3d Cir. 1949), cert. denied, 337 U.S. 941 (1949) (quoting United States v. Rappy, 157 F.2d 964, 967 (2d Cir.), cert. denied, 329 'U.S. 806 (1947)). See also Nicoli v. Briggs, 83 F.2d 375, 378 (10th Cir. 1936); Jewett v. United States, 15 F.2d 955, 956 (9th Cir. 1926); Gray v. United States, 14 F.2d 366, 367-68 (8th Cir. 1926).

^{4.} See, e.g., State v. Mena, 128 Ariz. 226, 624 P.2d 1274 (1981); People v. Shirley, 31 Cal. 3d 18, 641 P.2d 775, 181 Cal. Rptr. 243, cert. denied, 103 S. Ct. 133 (1982); State v. Mack, 292 S.W.2d 764 (Minn. 1980); Commonwealth v. Nazarovitch, 496 Pa. 97, 436 A.2d 170 (1981).

circumstances. More than fifty years ago, Hutchins and Slesinger pointed out that excited utterances—generally admitted under an exception to the hearsay rule—are specially fallible.⁵ As one example, in a classroom experiment it appeared that the testimony of the most excited student was almost worthless. while those who were only slightly stimulated emotionally scored better than those left cold by their observations.6 Indeed, there are few if any sources of evidence so unreliable as human testimony. Witnesses sometimes wilfully lie. Honest witnesses may frequently err in observing events, in remembering their observations, and in communicating those memories to the trier of fact. Trial judges and juries also are fallible in determining (guessing) which, if any, of the several disagreeing witnesses has reliably reported objective facts. These fallibilities are what prompted Learned Hand, our wisest judge, to remark: "I must say that, as a litigant I should dread a law suit beyond almost anything short of sickness and death." Authorities agree that there is nothing more uncertain than human testimony.8

This writer agrees with Edmund Burke:

In this enlightened age I am bold enough to confess, that we are generally men of untaught feeling; that instead of casting away all our old prejudices, we cherish them to a very considerable degree, . . . and the longer they have lasted, and the more generally they have prevailed, the more we cherish them. We are afraid to put men to live and trade each on his own private stock of reason; because we suspect that this stock in each man is small, and that the individuals would be better to avail themselves of the general bank and capital of nations, and of ages. Many of our men of speculation, instead of exploding

^{5.} Hutchins & Slesinger, Some Observations on the Law of Evidence, 28 Colum. L. Rev. 432 (1928).

^{6.} Id. at 437. Most lawyers are aware of the problems inherent in our great reliance on testimony of witnesses. See, e.g., D. Guttmacher & H. Weihofen, Psychiatry and the Law 31 (1952); J. Marshall, Law and Psychology in Conflict 43, 52, 54-55, 81 (1966); R. Wellman, The Art of Cross-Examination 141-54 (1936); J. Wigmore, The Science of Judicial Proof 386-87 (1937); Moore, Elements of Error in Testimony, 28 Or. L. Rev. 293 (1949); Stewart, Perception, Memory and Hearsay: A Criticism of Present Law and the Proposed Federal Rules of Evidence, 1970 Utah L. Rev. 1, 10-13.

^{7.} L. HAND, The Deficiencies of Trials to Reach the Heart of the Matter, in 3 LECTURES ON LEGAL TOPICS 89, 105 (1926), quoted in Frank, "Short of Sickness and Death": A Study of Moral Responsibility in Legal Criticism, 26 N.Y.U. L. Rev. 546 (1951).

^{8.} Carter says: "From my experience as a man, a lawyer, a prosecuting attorney and a judge, I am compelled to say that the most uncertain thing I know of is human testimony." A. Carter, The Old Court House: Reminiscences and Anecdotes of the Courts and Bar at Cincinatti 144 (1880).

general prejudices employ their sagacity to discover the latent wisdom which prevails in them. If they find what they seek, and they seldom fail, they think it more wise to continue the prejudice, with the reason involved, than to cast away the coat of prejudice, and to leave nothing but the naked reason; because prejudice, with its reason, has a motive to give action to that reason, and an affection which will give it permanence.

Thus, whether out of habit or prejudice, courts often admit testimony of previously hypnotized witnesses.

Yet something extraordinary is occurring. Appellate courts in five states in the last sixteen months have overturned or ignored earlier precedent in holding a witness whose memory has been refreshed by hypnosis to be incompetent. These courts are the California Supreme Court, the Minnesota Supreme Court, the Arizona Supreme Court, the Pennsylvania Supreme Court, and the Michigan Court of Appeals.

These courts uniformly consider that the deficiencies in previously hypnotized witnesses are hypersuggestibility and hypercompliance. They perceive enormous danger that the prospective witness may under hypnosis intercept and internalize any suggestions about the desired answer. Prehypnotic uncertainty, the thought continues, develops, in light of the hypnotic experience, into certitude, with the subject unaware of any interjected suggestions or resulting confabulations. The honestly held belief of the prospective witness cannot be undermined by

^{9.} E. Burke, Reflections on the Revolution in France 99-101 (1965).

^{10.} People v. Shirley, 31 Cal. 3d 18, 641 P.2d 775, 181 Cal. Rptr. 243, cert. denied, 103 S. Ct. 133 (1982).

^{11.} State v. Mack, 292 N.W.2d 764 (Minn. 1980).

^{12.} State v. Mena, 128 Ariz. 226, 624 P.2d 1274 (1981).

^{13.} Commonwealth v. Nazarovitch, 496 Pa. 97, 436 A.2d 170 (1981).

^{14.} People v. Gonzales, 118 Mich. App. 145, 310 N.W.2d 306, leave to appeal granted, 412 Mich. 870 (1981).

^{15.} E.g., State v. Mena, 128 Ariz. at 228-29, 624 P.2d at 1279; People v. Gonzales, 108 Mich. App. at 151, 310 N.W.2d at 315; State v. Mack, 292 N.W.2d at 768-69; Commonwealth v. Nazarovitch, 496 Pa. at 104, 436 A.2d at 174.

^{16.} Commonwealth v. Nazarovitch, 496 Pa. at 104, 436 A.2d at 174. In most cases involving forensic hypnosis, the subject is aware that the reason for the hypnotic session is an inability on his part to remember facts. "A subject's awareness of the purpose of the hypnotic session, coupled with the hypersuggestibility which the subject experiences, amounts to a situation fraught with unreliability." As Professor Diamond puts it: "[T]he hypnotically recalled memory is apt to be a mosaic of (1) appropriate actual events, (2) entirely irrelevant actual events, (3) pure fantasy and (4) pure fantasized details supplied to make a logical whole." Diamond, Inherent Problems in the Use of Pretrial Hypnosis on a Prospective Witness, 68 Calif. L. Rev. 313, 335 (1980).

the most effective cross-examination. Several courts also have noted that juries probably would attach undue weight to such testimony.¹⁷ Justice Stanley Mosk for the California Supreme Court concludes: "[T]he hypnotic process does more than permit the witness to retrieve real but repressed memories. . . . [I]t actively contributes to the formation of pseudomemories, to the witness' abiding belief in their veracity, and to the inability of the witness (or anyone else) to distinguish between the two." ¹⁸

On the other hand, in the last twenty years, at least seven states approved the admission of hypnotically induced testimony, ascribing to the trier of fact the duty of weighing the credit which should be attached to such testimony. The first task for a court or for a scholar is to find out the facts. The second, and far the more difficult task, is to face the facts and exclude hypnotically refreshed testimony.

This article, after examining the scientific basis of hypnosis. concludes that previously hypnotized witnesses are incompetent to testify concerning matters discussed under hypnosis. Unbiased examination of scientific literature discloses that persons under hypnosis are highly motivated to please the hypnotist and therefore are likely to fantasize rather than accurately recall lost memories. After hypnosis these false impressions are fixed as true and the witness is unshakable on cross-examination. Therefore, the McCormick relevancy test²⁰ is inadequate, and hypnosis tainted testimony, like other scientific evidence, must meet the stricter Frye standard before being presented to the finder of fact. Hypnosis presently does not pass the Frye test. However, even if it ever becomes reliable enough in the future to pass that test, serious confrontation clause problems remain. The logical appeal of the California Supreme Court in People v. Shirley²¹ is overwhelming. A new rule of incompetence should be

^{17.} E.g., Commonwealth v. Nazarovitch, 496 Pa. at 106, 436 A.2d at 175.

^{18.} People v. Shirley, 31 Cal. 3d at 53, 641 P.2d at 795, 181 Cal. Rptr. at 264.

^{19.} Clark v. State, 379 So. 2d 372 (Fla. Dist. Ct. App. 1979); Creamer v. State, 232 Ga. 136, 205 S.E.2d 240 (1974); People v. Smrekar, 68 Ill. App. 2d 379, 385 N.E.2d 848 (1979); State v. Temoney, 45 Md. App. 569, 414 A.2d 240 (1980), vacated on other grounds, 290 Md. 251, 429 A.2d 1018 (1981); Harding v. State, 5 Md. App. 230, 246 A.2d 302 (1968), cert. denied, 395 U.S. 949 (1969); State v. McQueen, 295 N.C. 96, 244 S.E.2d 414 (1978); State v. Jorgenson, 8 Or. App. 1, 492 P.2d 312 (1971).

^{20.} The McCormick relevancy test refers to that test of the competence of scientific evidence adopted in Harding v. State, 5 Md. App. 230, 246 A.2d 302 (1968), cert. denied, 395 U.S. 949 (1969).

^{21. 31} Cal. 3d 18, 641 P.2d 775, 181 Cal. Rptr. 243, cert. denied, 103 S. Ct. 133 (1982). But see, State v. Hurd, 86 N.J. 525, 432 A.2d 86 (1981).

recognized in the law of evidence.

I. THE SCIENTIFIC LITERATURE

Hypnotism has been the subject of much interest and speculation for well over two centuries,22 though only recently among trained scientists.23 In the past fifty years, scientists, psychiatrists, psychologists, and researchers have lifted hypnosis from the depths of superstition²⁴ to the fields of experimental psychology where they have applied "the manners of the laboratory"25 and "the language of the polite science."26 Hypnosis is now a recognized branch of psychology,27 and is utilized extensively by psychiatrists and others in the treatment of mental problems.28 Generally it has been used to uncover the suppressed emotions and mental disturbances surrounding facts brought forth from the subject during treatment.29 Traditionally, the hypnotist has not been concerned with historical accuracy of information unearthed during hypnosis.30 The value of hypnosis has been therapeutic and only recently has it been viewed as a forensic aid.

^{22.} See generally White, A Preface to a Theory of Hypnotism, 36 J. Abnormal & Soc. Psychology 477 (1941).

^{23.} Id.

^{24.} At one time, hypnosis was the "province of nomadic faith healers, spiritualists, and a wide variety of quacks." Diamond, Inherent Problems in the Use of Pretrial Hypnosis on a Prospective Witness, 68 Calif. L. Rev. 313, 318 (1980). Various special powers which have been attributed to witches and faith healers are probably related to the use of hypnosis. 9 Encyclopædia Britannica, Hypnosis, 134 (1975).

^{25.} White, supra note 22.

^{26.} Id.

^{27.} In 1956, the American and British medical associations formally approved the therapeutic use of hypnosis. The American Psychological Association followed suit in 1960 recognizing hypnosis as a branch of psychology. See E. HILGARD, HYPNOTIC SUSCEPTIBILITY 4 (1965), cited in Comment, The Admissibility of Testimony Influenced by Hypnosis, 67 Va. L. Rev. 1203, 1206 n.22 (1981) [hereinafter cited as Admissibility of Testimony].

^{28.} Orne, The Use and Misuse of Hypnosis in Courts, 27 Int'l J. Clinical & Experimental Hypnosis 311, 316 (1979).

^{29.} Id

^{30.} For example, Freud believed adult seduction in childhood was the "etiological factor" in hysteria among some of his patients. Through hypnotic age regression, these patients relived their seductions dramatically. It was not until years later that Freud realized the seductions relived under hypnosis accurately portrayed the various fantasies of his patients, but historically were quite inaccurate. Orne, supra note 28, at 316. "Consider, however, the catastrophe which would have resulted if Freud had acted upon his patient's recollections and had urged the authorities to imprison the fathers of incest." Id. at 316-17.

No one is sure exactly what hypnosis is.³¹ Some researchers define hypnosis in terms of the procedures the therapist uses to induce the subject into a trancelike state.³² Others have theorized in terms of behavioral characteristics and view hypnosis as effect oriented. A subject "behaves without the experience of will or intention, without self-consciousness, and without the subsequent memory which under the circumstances one would expect," and "these changes in his behavior occur merely because the hypnotist says so."³³ Professor Orne, a respected expert, defines hypnosis as a "state or condition in which subjects are able to respond to appropriate suggestions with distortions of perceptions or memory."³⁴ The diverse explanations for the phenomenon exact one point: there is not as yet one universally accepted definition or theory as to its nature.

Professor Hilgard observed³⁵ several characteristics of subjects within the hypnotic state: lack of initiative, selective attention, heightened fantasy production, distortions of reality, role behavior, and amnesia concerning events ocurring during the hypnotic trance.³⁶ Hypnotists can employ a variety of procedures to induce the hypnotic state. The hypnotist may relax the subject through a series of suggestions designed progressively to induce hypnosis.³⁷ The success or failure of the various inducing techniques³⁸ is usually dependent upon the subject's hypnotizability and the rapport between the hypnotist and the subject.³⁹

Whether hypnosis is a reliable method for accurately restoring memories initially depends on whether there is any recall to improve. The answer to this question depends upon the hypno-

^{31.} See Burrows, Forensic Aspects of Hypnosis, 13 Austl. J. of Forensic Sci. 120 (1981); Comment, Admissibility of Testimony, supra note 27, at 1206; Comment, The Probative Value of Testimony from the Hypnotically Refreshed Recollection, 14 Akron L. Rev. 609, 610 (1981).

^{32.} See, e.g., T. Barber, Hypnosis: A Scientific Approach (1969), cited in Comment, Admissibility of Testimony, supra note 27, at 1207.

^{33.} White, supra note 22, at 503.

^{34.} Orne, The Construct of Hypnosis: Implications of the Definition for Research and Practice, 296 Annals N.Y. Acad. Sci. 14, 19 (1977).

^{35.} E. HILGARD, HYPNOTIC SUSCEPTIBILITY (1965), cited in Comment, Admissibility of Testimony, supra note 27, at 1206.

^{36.} Id. at 6-10.

^{37.} Id. at 22.

^{38.} The wide variety of inducing techniques is detailed in L. CHERTOK, HYPNOSIS 101-10 (D. Graham trans. 1966), cited in Comment, Admissibility of Testimony, supra note 27, at 1208.

^{39. 9} ENCYCLOPÆDIA BRITANNICA, Hypnosis, 133, 135-36 (15th ed. 1975).

tist's theory of how memory works and how memories are stored and recalled.

Some experts believe the human brain operates as a "videorecorder," permanently recording and storing our perceptions.40 This "exact copy"41 theory is premised upon Wilder Penfield's surgical work on epileptics during the 1940's.42 Penfield removed damaged portions of his patient's brain while his patient was awake. To facilitate pinpointing the damaged areas, Penfield stimulated the brain surface with a light electric current. This weak simulation caused some of his patients to reexperience long forgotten events.43 These revived memories44 relived by his patients led Penfield to conclude that the human brain records past experiences and impressions as a tape recorder would record a voice.45 Penfield's research implies that if the impressions and sensations are all stored in the brain, then a complete. actual recording of a particular event may be brought out to the conscious state. Hypnosis, as perceived by many of its practitioners, is a means or tool used to extract an intact memory sub-

^{40.} Loftus & Loftus, On the Permanence of Stored Information in the Human Brain, 35 Am. Psychologist 409, 412 (1980) [hereinafter cited as Loftus]. Dr. Martin Reiser, director of the Law Enforcement Hypnosis Institute of Los Angeles, author of the Handbook of Investigative Hypnosis, and director of the Behavorial Science Services for the Los Angeles Police Department, is a proponent of this memory theory. According to Dr. Reiser: "The brain functions much like a high fidelity recorder, putting on tape, as it were, every experience from the time of birth, possibly even before birth, and that these experiences and associated feelings are available for replay today in as vivid form as when they first occurred." M. Reiser, Handbook of Investigative Hypnosis 8 (1980), cited in People v. Shirley, 31 Cal. 3d 18, 59 n.36, 641 P.2d 775, 799 n.36, 181 Cal. Rptr. 243, 267 n.36, cert. denied, 103 S. Ct. 133 (1982).

^{41.} Putnam, Hypnosis and Distortions of Eyewitness Memory, 27 INT'L J. OF CLINICAL & EXPERIMENTAL HYPNOSIS 437 (1979). "An 'exact copy' theory of memory... posits that once information is encoded, it is represented veridically and is unaffected by subsequent inputs." Id.

^{42.} Penfield & Perot, The Brain's Record of Auditory and Visual Experience, 86 Brain 595 (1963), cited in Loftus, supra note 40, at 420.

^{43.} Loftus, supra note 40, at 411.

^{44.} For example, Loftus describes a Penfield experiment:

One of Penfield's patients was a young woman. As the stimulating electrode touched a spot on her temporal lobe, she cried out: "I think I heard a mother calling her little boy somewhere. It seemed to be something that happened years ago . . . in the neighborhood where I live." Then the electrode was moved a little bit and she said, "I hear voices. It is late at night, around the carnival somewhere—some sort of traveling circus. I just saw lots of big wagons that they use to haul animals in."

Loftus, supra note 40, at 411.

^{45.} See id.

merged within the deep recesses of the brain.⁴⁶ Recent research, however, seriously erodes a "videorecorder" model of memory.⁴⁷

Studies now indicate that the brain does not permanently store information. Rather, current scientific thought favors the view that memory is "reconstructive," and therefore the memory tends to restructure an event based on all the information available coupled with the person's general experience. A "reconstructive" theory of memory posits that memory in any situation will reconstruct a given event which may not correspond with the actual happening. Thus, original stored information can be

^{46.} Penfield's own writings profess a belief that information is permanently stamped upon the brain. "The imprint, or record, is a trail of facilitation of neuronal connections that can be followed again by an electric current many years later with no loss of detail, as though a tape recorder had been receiving it all." Id. (quoting Penfield, Consciousness, Memory, and Man's Conditioned Reflexes, in On the Biology of Learning 165 (K. Pribram ed. 1969)).

^{47.} See, e.g., Putnam, supra note 41. For a typical example of expert testimony implicitly espousing the videorecorder theory see Sannito & Mueller, The Use of Hypnosis in a Double Manslaughter Defense, Trial Diplomacy, Fall 1980, at 30. Dr. Sannito testified for the defense at a double manslaughter trial in which the defendant had been hypnotized prior to trial: "In case [defendant] would have blocked out this event, if something happened, like if he hit the people and he knew about it ahead of time and it was blocked out of his consciousness, it would have come out if he were in a trance. He was in a trance and it did not come out." Id. at 34. On recross-examination, Dr. Sannito reiterated his earlier testimony. "But under hypnosis, that was the whole idea of hypnosis, that if it's repressed, it will come out if he's in a trance." Id. Dr. Sannito was asked whether a person having an interest in repressing a traumatic event might not release all of the perceptions, thus selectively forgetting. He responded, "No. In my opinion, no. Now, if you're talking about a very mild trance, that's very possible. If we're talking about a very, very deep trance, like the one [defendant] experienced, no way." Id. at 35.

^{48.} Penfield's findings showed very limited memory recovery by electrode stimulation. Out of 1,132 patients, only 40 cases, 3.5%, indicated possible memory recovery. Loftus, supra note 40, at 413. Penfield, however, reported "experimental responses" in 40 cases when the electrode was applied to the cortex of the temporal lobe. This region, however, was explored in but 520 patients. Loftus duly notes this constitutes responses from 7.7% of the group tested. Id. On the other hand, the results and the implications of Penfield's study are at best sketchy. Loftus, in an informal survey, found that 84% of the psychologists surveyed indicated a belief in the "videorecorder" model. Id. at 410. A smaller percentage, 69 %, of non-psychologists, indicated a belief in the same model. Id.

^{49.} See, e.g., E. Loftus, Eyewitness Testimony (1979); Loftus, supra note 40, at 413.

The first notion to get rid of is that memory is primarily or literally reduplicative, or reproductive. . . . In fact, if we consider evidence rather than presupposition, remembering appears to be far more decisively an affair of construction rather than one of mere reproduction. . . . Remembering is not the reexcitation of innumerable fixed, lifeless and fragmentary traces. It is an imaginative reconstruction, or construction, built out of the relation of our attitude towards a whole active mass of organized past reactions or experiences.

People v. Shirley, 31 Cal. 3d 18, 58, 641 P.2d 775, 798-99, 181 Cal. Rptr. 243, 267 (quoting F.C. Bartlett, Remembering: A Study in Experimental and Social Psychology

lost and replaced with totally inaccurate information.50

A recent study⁵¹ illustrates the problems this poses for hypnotically influenced testimony. The study made several findings as to the reliability of information recalled in the hypnotic state: individuals under hypnosis related more incorrect information in response to leading questions than individuals in the normal awake state;⁵² the hypnotized subjects were confident in their recollections even though the information recalled was totally wrong;⁵³ the memory of a subject under hypnosis was easier to influence than that of a normal unhypnotized subject.⁵⁴

In accord with this study, other studies have demonstrated that recall under hypnosis is no better than in the normal awake state.⁵⁵ One early study by Huse failed to demonstrate any mea-

^{213 (1932,} reprinted 1964)), cert. denied, 103 S.Ct. 133 (1982).

^{50.} The Loftus experiment indicated that substitution occurred. A substitutional hypothesis posits that postperceptual information does replace original information and that, in the process, "the original information is forever banished from the subject's memory." Loftus, supra note 40, at 416. Nevertheless, the possibility of a theory of coexistence still exists; Loftus concedes that it is virtually impossible to reject the "videorecorder" hypothesis because failing to "find one member of a coexisting pair" does not necessarily mean that the other member does not exist. Id. at 416-17. "Exact copy" theorists might argue that Loftus's experiments do not dig deep enough and that the original information has not vanished, the subjects were simply unable to retrieve it. Id. Circumstantially, however, Loftus argues that the experiments were rigorous enough so that "for all practical purposes, it [original information] has vanished." Id. at 417.

^{51.} Id. at 418-19. "The implication of the notion of nonpermanent memory is that it should give pause to all who rely on obtaining a 'truthful' version of an event from someone who experienced that event in the past." Id. at 419. "The net result of these studies is a strong suspicion that substitution has occurred—that the misleading information has irrevocably replaced the original information in the subject's brain." Id. at 418. Thus, hypnosis may, in some cases, accurately retrieve a memory which has already substituted false information for information which was lost.

^{52.} Putnam, supra note 41, at 446. In Putnam's study, after subjects viewed a collision between a bicycle and an auto, subjects were asked a series of sixteen questions, six of which were phrased to suggest a particular response (e.g., "Did you see the stop sign?" instead of "Did you see a stop sign?"). Id. at 441. Subjects made more errors answering the suggestive questions under hypnosis than they did when not hypnotized. Id. at 444. There was no measurable difference in accuracy between the hypnotized and unhypnotized concerning answers to the objective questions. Id. at 445.

^{53.} Id. at 444. Putnam found hypnotized subjects were just as confident as nonhypnotized subjects who made fewer errors.

^{54.} Id. Hypnotized subjects felt they were more accurate in their responses under hypnosis than they were in the normal waking state. Id. at 444.

^{55.} Id. at 446. One commentator suggests that these recent studies contain an implicit message that if hypnotic procedures could be improved upon, the problem of inaccurate recall would be substantially diminished. See Comment, Admissibility of Testimony, supra note 27, at 1213. Putnam's study, however, pinpoints the incredible result of simply replacing one seemingly innocuous word for another in questions asked hypnotized subjects: "It is impotant to note that five of the leading questions consisted of

surable increased recall for paired nonsense syllables.⁵⁶ More recent studies, however, demonstrate mixed results but the majority of studies indicate no increased recall.⁵⁷ Very early

merely changing the article 'a' to 'the', but this rather subtle change had substantial effects." Putnam, supra note 41, at 444. Additionally, hypnotists do not consciously distort a witness's memory; rather, the process of "cueing" the hypnotized subject to answer a question is generally unintentional. Affidavit of Martin T. Orne, M.D., Ph.D., at 15, Quaglino v. California, 439 U.S. 875 (1978)(leave to file affidavit in petition for cert. granted, but cert. denied) [hereinafter cited as Orne Affidavit]; Diamond, supra note 16, at 333. Apparently, the subjects in Putnam's study could not distinguish between what actually occurred in the accident scenes and what subsequently was suggested to have occurred. Putnam, supra note 41, at 445. The "exact copy" theory posits that the original memory is stored and supposedly cannot be altered by subsequent inputs. Id. at 437. Putnam's study conclusively shows that the memory can be tampered with simply by replacing the article "a" with "the." Id. at 444.

56. Huse, Does the Hypnotic Trance Favor the Recall of Faint Memories?, 13 BRIT-ISH J. EXPERIMENTAL PSYCHOLOGY 519 (1930). Additionally, Eyesenck reached the same conclusion with playing cards. Eyesenck, An Experimental Study of the Improvement of Mental and Physical Functions in the Hypnotic State, 18 J. MEDICAL PSYCHOLOGY 304 (1941).

57. These studies have dealt with certain types of information learned in the normal waking state than later recalled in the hypnotic state. Putnam, in his study, found no measurable difference in recall for objective questions between hypnotized and unhypnotized subjects. Putnam, supra note 41, at 445. He found this puzzling in view of other reports of increased recall from actual police investigations. But see Kroger & Douce, Hypnosis in Criminal Investigation, 27 INT'L J. CLINICAL & EXPERIMENTAL HYPNOSIS 358 (1979) (60% increase in new information recalled through hypnosis). The study, however, concedes that it is unknown how much of the 60% increase in information was accurate. Only a small amount of the information was corroborated, but these corroborations aided in criminal convictions. Id. at 358. Kroger and Douce contend that independent corroboration "is absolutely essential" to determine the accuracy and, ultimately, the utility of information retrieved by hypnosis. Id. at 370-71. See also Shaefer & Rubio, Hypnosis and the Recall of Witnesses, 29 Int'l. J. CLINICAL & GEN. PSYCHOLOGY 81 (1978) (10 out of 13 cases were substantially aided by information elicited under hypnosis). Like Kroger and Douce, Shaefer and Rubio contend that any evidence gathered from hypnosis must be backed up by other incontrovertible facts which logically lead to other known facts not elicited from hypnosis. Thus, the authors appear to utilize hypnosis as a supplementary device. Id. at 83.

A 1974 study, however, indicates enhanced recall of word lists. Krauss, Katzell & Krauss, Effect of Hypnotic Time Distortions Upon Free-Recall Learning, 83 J. Abnormal Psychology 140 (1974). Nevertheless, the authors admit that "the methodology of this study is not above reproach." Id. at 144. Contradicting the Krauss study, other recent experiments show no advanced recall in the hypnotic state. See Dahanens, The Effects of Several Hypnotic and Waking Suggestions on the Recall of Nonsense and Contextual Material, 33 Dissertation Abstracts Inc. 5546 (1972) (nonsense syllables and prose passage learned one week prior to hypnotic induction); Johnson, Hypnotic Time Distortion and the Enhancement of Learning: New Data Pertinent to the Krauss-Katzell-Krauss Experiment, 19 Am. J. Clinical Hypnosis 98 (1976) (word lists learned in hypnotic time distortion experiment); Putnam, supra note 41 (no apparent increase in recall in response to objective questions); Salzberg & DePiano, Hypnotizability and Task Motivating Suggestions: A Further Look at How They Affect Performance, 28 Int'l J. Clinical & Experimental Hypnosis 261 (1980) (word lists).

studies showed an increased recall for childhood memories⁵⁸ and poems⁵⁹ but these studies are considered ancient and therefore of little value because experimental methodologies have changed so drastically.⁶⁰ As these studies indicate, much dispute remains about hypnosis as a reliable method of accurately restoring one's memory. The authorities do, however, unanimously agree with Orne that information recalled in the hypnotic state may not be reliable.⁶¹ Some conclusions may be drawn, though they are not necessarily immutable.

Two characteristics of the hypnotic state are hypersuggestibility and hypercompliance. Thus, a subject is not only more susceptible and easily influenced, but more willing to please others, especially the hypnotist.⁶² Additionally, a subject can wilfully lie under hypnosis,⁶³ and the process of "cueing" a sub-

^{58.} Comment, Admissibility of Testimony, supra note 27, at 1210 (citing Young, An Experimental Study of Mental and Physical Functions in the Normal and Hypnotic States: Additional Results, 37 Am. J. PSYCHOLOGY 345, 349-51 (1926)).

^{59.} Rosenthal, Hypnotic Recall of Material Learned Under Anxiety and Non-anxiety Producing Conditions, 34 J. Experimental Psychology 369 (1944) (poems learned within 24 hours of hypnosis); Stalnaker & Riddle, The Effect of Hypnosis on Long Delayed Recall, 8 J. Gen. Psychology 429 (1932) (poems learned at least one year prior to hypnotic recall experiment).

^{60.} A recent study by Barber sheds serious doubt on Rosenthal's findings. Barber & Calverly, Effects on Recall of Hypnotic Induction, Motivational Suggestions and Suggested Regression: A Methodological and Experimental Analysis, 71 J. Abnormal Psychology 169 (1966). Similarly, Orne closely checked Stalnaker and Riddle's study and findings. "In hypnosis these subjects appeared to be able to recite the poem far more easily with far better recall than in the wake state. Careful analysis, however, showed that there was only little additional recall; rather a pronounced tendency to confabulate, i.e., make up, superficially appropriate sections for the words that could not be recalled." Orne Affidavit, supra note 55, at 8, 9. The study establishes (1) a modest increase in recall and (2) a tendency to confabulate. Id.

^{61.} Worthington, The Use in Court of Hypnotically Enhanced Testimony, 27 INT'L J. CLINICAL & EXPERIMENTAL HYPNOSIS 402, 413-14 (1979). In fact, Orne says a witness's testimony to a "memory" retrieved under hypnosis is "infinitely less reliable" than polygraph results which are nearly universally excluded. See State v. Mack, 292 N.W.2d 764, 768 n.7 (Minn. 1980).

^{62.} Levitt, The Use of Hypnosis to "Freshen" the Memory of Witnesses or Victims, Trial, April 1981, at 56. Dr. Levitt is Director of Psychology of the Department of Psychiatry, Professor of Clinical Psychology at Indiana University School of Medicine, and President of the Division of Psychological Hypnosis of the American Psychological Association. See Diamond, supra note 16, at 333.

^{63.} See generally Orne, supra note 28. Particularly appalling is State v. Douglas, No. 692-77 (Union County, N.J., vacated, May 23, 1978), reported by Dr. Orne. In this case, a woman was abducted by two black men who jumped into her car at a stop light. At gunpoint, the abductors forced the woman to drive to the outskirts of town where one abductor attempted to forcibly rape her. She averted this by telling her abductors she was pregnant. They took her purse, made her leave her car, and threatened her if she reported the events to the police. She nevertheless did report the events and was shown

ject (suggesting a particular answer) is generally outside the awareness of either hypnotist or subject.⁶⁴ The memory recalled under hypnosis is not necessarily an accurate "replay," but can be a combination of "(1) appropriate actual events, (2) entirely irrelevant actual events, (3) pure fantasy, and (4) fantasized details supplied to make a logical whole."⁶⁵

Although studies show a modest increase in recalled information, there also is an increased tendency to confabulate. A hypnotized subject also is convinced of the accuracy of his new memory, even though unclear and unsure about an event before hypnosis. Without independent corroboration, neither the subject nor the hypnotist can distinguish truth or falsehood, fact or fancy. For instance, the common hypnotic technique of age regression, utilized with witnesses to recall past events, can also be used to advance the subject to the year 2000. The subject, in a deep trance, will give a vivid and compelling description of new, but as yet unseen, marvels. Moreover, hypnosis, even without confabulation and suggestion, could extract an actual

various mug shots. She identified one of her abductors and picked out another as a lookalike. Subsequent to these events, she received threatening notes, presumably from her abductors. She underwent hypnosis for the purpose of furthering the investigation. While in the hypnotic trance, she identified the look-alike as her other abductor. Subsequently, the district attorney, though originally skeptical of her story, was convinced by the hypnosis session and proceeded in the filing of the charges. Still, the district attorney was struck by the peculiarity of the handwriting of the threatening notes the victim had received. The notes were submitted to a handwriting expert who identified the writing as that of the victim who filed the charges! When confronted with this evidence, she confessed that none of the events had occurred, nor had she ever met the two men she accused. The complaint was made with the hope of rekindling the interest of her husband who was actively seeking divorce. *Id.* at 333-34.

- 64. All of the scientific studies and experts seem to agree with this assertion. See Orne Affidavit, supra note 55, at 15; Diamond, supra note 16, at 333; Levitt, supra note 62, at 57; Loftus, supra note 40, at 414; Putnam, supra note 41, at 439.
- 65. Diamond, supra note 16, at 335. See generally Orne Affidavit, supra note 55; Orne, supra note 28.
- 66. See supra note 57; Orne Affidavit, supra note 55, at 9; Diamond, supra note 16, at 332; Orne, supra note 28, at 319.
- 67. Levitt, supra note 62, at 57, states: "The witness's testimony on the stand will be unshakeable, he or she has become literally immune to cross-examination." See Diamond, supra note 16, at 339-40; Orne, supra note 28, at 320; Worthington, supra note 61, at 413-14.
- 68. Orne Affidavit, supra note 55, at 10; Diamond, supra note 16, at 337. See the resolution passed by both the Society for Clinical & Experimental Hypnosis and the International Society of Hypnosis, 27 Int'l J. CLINICAL AND EXPERIMENTAL HYPNOSIS 452, 453 (1979).
- 69. Rubenstein & Neuman, The Living Out of "Future" Experiences Under Hypnosis, 119 Science 472-73 (1954). "All of our subjects live out 'future' events in their lives with equal verisimilitude to their accounts of the past." Id. at 473.

false memory.⁷⁰ Thus, the modern reconstructive theory of memory poses serious problems for the forensic use of hypnosis.

By no means is the research conclusive; in fact, it has only begun. As Putnam correctly notes, there are no rigorous scientific studies concerning the reliability of information recalled from emotionally traumatized victims.⁷¹ Hypnosis may eventually be effective in this narrow area. But hypnosis as a new forensic aid has not been sufficiently tested, and the question as to whether hypnosis is a reliable means for accurately restoring memories, on the scientific front is as yet unresolved. The evidence to date clearly indicates that many researchers and experts do not believe hypnosis has yet been shown to be reliable.

II. THE CASE LAW

Hypnotism traces its roots to primitive times.⁷² Its discovery, however, is credited to Franz Mesmer who, in the eighteenth century, cured patients through what he called "animal magnetism" and "artificial somnambulism."⁷³ Though generally ignored for 100 years,⁷⁴ in 1880 Sigmund Freud sparked renewed scientific interest by endorsing its clinical use.⁷⁶ The development of ether anesthesia and Freud's subsequent rejection of hypnosis in favor of psychoanalytic free association dampened further development of use of hypnosis.⁷⁶ World War II brought renewed interest,⁷⁷ and in 1958, the American Medical Association officially endorsed the clinical use of hypnosis.⁷⁸ Similarly, like the acceptance of the clinical use of hypnosis by the medical

^{70.} See Loftus, supra note 40; Putnam, supra note 41.

^{71.} Putnam, supra note 41.

^{72.} Hypnosis was used in many religious ceremonies. M. TITELBAUM, HYPNOSIS INDUCTION TECHNIQUES 3 (1963).

^{73.} Spector & Foster, Admissibility of Hypnotic Statements: Is the Law of Evidence Susceptible, 38 Ohio St. L.J. 567, 568 (1977).

^{74.} Eighteenth century interest in hypnosis ended abruptly when the French Royal Commission denounced Mesmer as a charlatan. Rapport Des Commissaires Chargés Par Le Roi, De L'Examen Du Magnetisme Animal 64 (Paris 1784), cited in Diamond, supra note 16, at 318 n.20.

^{75. 9} ENCYCLOPÆDIA BRITANNICA, Hypnosis, 133, 134 (15th ed. 1975).

^{76.} Diamond, supra note 16, at 318-19.

^{77.} Id. at 320. A 1972 bibliography contains over 1000 references to scientific publications of hypnosis research, most being post-World War II. HYPNOSIS RESEARCH DEVELOPMENTS AND PERSPECTIVES 587 (E. Fromm & R. Shor eds. 1982).

^{78.} Council on Mental Health, Medical Uses of Hypnosis, 168 J. Am. Med. Ass'n 186 (1958).

community, the forensic use of hypnosis and its acceptance by the judicial community is a fairly recent phenomenon.⁷⁹

Hypnotism is undoubtedly regarded in the scientific community as a therapeutic tool. As two highly respected authors put it: "Hypnosis is an altered state of consciousness. It is characterized by an increased ability to produce desirable changes in habit patterns, motivations, self-image, and life-style. Alterations may be produced in physiological functions, such as pain "80"

The judiciary has confronted the evidentiary use of hypnosis in two general areas:⁸¹ pretrial hypnosis of the criminal defendant⁸² and pretrial hypnosis of other witnesses.⁸³ Courts have held that defendants have a right to be hypnotized to assist counsel in the preparation of their defense,⁸⁴ but the overwhelming weight of authority excludes as competent evidence, extrajudicial exculpatory statements made by defendants⁸⁵ or third per-

^{79.} The first reported case to deal with the issue of hypnosis was People v. Ebanks, 117 Cal. 652, 49 P. 1049 (1897). The California Supreme Court upheld the trial court which held: "The law of the United States does not recognize hypnotism." *Id.* at 665, 49 P. at 1053. It was not until 1968, 71 years later, that a court held admissible testimony from a witness hypnotized before trial. *See* Harding v. State, 5 Md. App. 230, 246 A.2d 302 (1968), cert. denied, 395 U.S. 949 (1969).

^{80.} H. Crasilneck & J. Hall, Clinical Hypnosis: Principles and Applications 1, 323 (1975). These authors announce that hypnosis is now the initial treatment of choice to control smoking, excessive eating, "recovery of memory in traumatic neuroses," and in some psychosomatic and dermatological cases. *Id.* at 2. These authors also characterize hypnosis as a "clinical art." *Id.* at 323.

^{81.} Only two reported cases have been found permitting a person to testify in front of the jury while hypnotized. State v. Nebb, No. 39,540 (Ohio Com. Pl., Franklin County, May 28, 1962) (parties stipulated to admissibility), reported in, Dilloff, The Admissibility of Hypnotically Aided Testimony, 4 Ohio N.U.L. Rev. 1, 12 (1977); Regina v. Pitt, 68 D.L.R.2d 513 (1968), reported in, 15 McGill L.J. 189 (1969). Besides Nebb and Pitt, all cases found concern the pretrial hypnosis of a witness or a defendant.

^{82.} The issue of hypnosis normally arises in criminal trials. The earliest case is State v. Exum, 138 N.C. 599, 50 S.E. 283 (1905). The analysis of the cases in this article does not differentiate between non-victims and victims of crimes who are hypnotized and subsequently testify in their alleged assailants' trials because the cases analyze the admissibility question similarly in each instance. Compare, Harding v. State, 5 Md. App. 230, 246 A.2d 302 (1968), cert. denied, 395 U.S. 949 (1969) (victim/witness), with State v. Jorgenson, 8 Or. App. 1, 492 P.2d 312 (1971)(eyewitness).

^{83.} Only four civil cases have been found dealing directly with the issue of hypnosis to refresh and to afford witness testimony: Kline v. Ford Motor Co., 523 F.2d 1067 (9th Cir. 1975); Wyller v. Fairchild Hiller Corp., 503 F.2d 506 (9th Cir. 1974); Connolly v. Farmer, 484 F.2d 456 (5th Cir. 1973); Lemieux v. Superior Court, 132 Ariz. 214, 644 P.2d 1300 (1982). For an excellent synopsis of the more general case law in the area see Annot., 92 A.L.R.3d 442 (1979).

^{84.} Cornell v. Superior Court, 52 Cal. 2d 99, 338 P.2d 447 (1959).

^{85.} See Dilloff, supra note 81, at 11. See also Rodriguez v. State, 327 So. 2d 903, 904

sons⁸⁶ while hypnotized. Courts also rule inadmissible inculpatory statements and confessions gained through hypnosis.⁸⁷ Generally, the cases demonstrate great reluctance to countenance the admission of evidence elicited while the party subject is hypnotized.⁸⁸

On the other hand, courts have been much more willing to admit testimony from previously hypnotized witnesses who are not hypnotized at the moment of testimony. Since 1968, fourteen jurisdictions have admitted testimony from witnesses who had undergone hypnosis prior to trial, so generally recognizing that evidence of prior hypnosis can be used for impeachment purposes. Harding v. State established this trend.

⁽Fla. Dist. Ct. App. 1976); People v. Hangsleben, 86 Mich. App. 718, 728-29, 273 N.W.2d 539, 543-44 (1978); Jones v. State, 542 P.2d 1316, 1326-27 (Okla. 1975).

^{86.} E.g., People v. Blair, 25 Cal. 3d 640, 664-66, 602 P.2d 738, 753-54, 159 Cal. Rptr. 818, 833-34 (1979).

^{87.} People v. Leyra, 302 N.Y. 353, 98 N.E.2d 553 (1951).

^{88.} In many of the reported cases in point, the accused was endeavoring to present to the jury hypnotic evidence of innocence; however, in others it was the prosecution which sought to place on the witness stand an individual whose testimony would be incriminating, but whose memory of the crimes had partially lapsed because of the passage of time, the consumption of drugs, or the trauma of being the victim of the unlawful events leading to the trial itself. While in the former instances the accused generally argued to little or no avail for the admissibility of the evidence, in the latter the defendant was unsuccessful in attempting to block introduction of the testimony.

Annot., 92 A.L.R.3d 442, 446-47 (1979).

^{89.} See, e.g., State v. Mack, 292 N.W.2d 764, 770 (Minn. 1980).

^{90.} Ninth Circuit, United States v. Adams, 581 F.2d 193 (9th Cir. 1978); Eastern District of Michigan, United States v. Narciso, 446 F. Supp. 252 (E.D. Mich. 1977); Florida, Clark v. State, 379 So. 2d 372 (Fla. Dist. Ct. App. 1979); Georgia, Creamer v. State, 232 Ga. 136, 205 S.E.2d 240 (1974); Indiana, Pearson v. State, 441 N.E.2d 468 (Ind. 1982); Illinois, People v. Smrekar, 68 Ill. App. 3d 379, 385 N.E.2d 848 (1979); Maryland, Harding v. State, 5 Md. App. 230, 246 A.2d 302 (1968), cert. denied, 395 U.S. 949 (1969); Missouri, State v. Greer, 609 S.W.2d 423 (Mo. App. 1980), vacated on other grounds, 450 U.S. 1027 (1981); New Jersey, State v. Hurd, 86 N.J. 525, 432 A.2d 86 (1981); New York, People v. Hughes, 99 Misc. 2d 863, 417 N.Y.S.2d 643 (Onondaga County Ct. 1979), rev'd, 88 A.D.2d 17, 452 N.Y.S.2d 929 (1982); North Carolina, State v. McQueen, 295 N.C. 96, 244 S.E.2d 414 (1978); Oregon, State v. Jorgenson, 8 Or. App. 1, 492 P.2d 132 (1971); Washington, State v. Long, 32 Wash. App. 732, 649 P.2d 845 (1982); Wyoming, Chapman v. State, 638 P.2d 1280 (Wyo. 1982). At least one of these jurisdictions, Maryland, has since retreated from its position. See Collins v. State, 52 Md. App. 186, 447 A.2d 1272 (1982).

^{91.} In United States v. Miller, 411 F.2d 825 (2d Cir. 1969), the court held that the government had a duty to disclose to the defense that an identification witness had been hypnotized and examined by an expert and by the assistant United States attorney in charge of the case. The court thought that there was a significant possibility that knowledge of the hypnosis would induce reasonable doubt in the jurors' minds concerning credibility of this key witness. Defense expert witnesses, upon motion for new trial, gave

In Harding, the defendant was convicted of intent to rape. and of assault with intent to murder. The only evidence offered against him was the testimony of the victim, underpants with sperm stains, and evidence that the defendant had been seen in the vicinity of the crime the night of the incident.93 In her first nonhypnotic interview with police, the victim identified another person as her rapist and claimed she had been "abducted at knife point, taken into the country, raped and stabbed."94 After two more interviews with police, she realized she had been shot. not stabbed, and "her mind had cleared to the point where she knew who had shot her." She also knew "who was with her" and she knew "the complete description of the automobile" but could not remember certain other events.95 She then was taken to police headquarters and placed under hypnosis. While under hypnosis and "without prompting" she was able to recall some of these events and identified the defendant as her assailant.96 At trial she testified as to the memories. On appeal, regarding the victim's competency to testify, the court stated:

[T]he witness testified that at the time she was on the stand she remembered the incident she was describing, but in addition to that we have the testimony of the operator who gave a detailed description of what happened at the time hypnosis was induced which showed that there were no improper suggestions made. Further he gave his opinion as a trained and experienced psychologist that in this particular incident there was no reason to doubt the accuracy of the witness' recollections. In addition modern medical science has now recognized the possibility that memory of painful events can sometimes be restored by hypnosis, although some authorities warn that fancy can be mingled with fact in some cases.⁹⁷

their opinions under oath that repetition of the story by the identification witness under hypnosis could have imprinted the story on his mind in such a way as to make the witness impervious to cross-examination. There was suggestion in the case that this identification witness was in a trance when he testified. But the Second Circuit declined to express any suggestion that the hypnosis rendered the witness totally incompetent to testify.

^{92. 5} Md. App. 230, 246 A.2d 302 (1968), cert. denied, 395 U.S. 949 (1969). This was the first case to admit the testimony of previously hypnotized witnesses. See supra note 79.

^{93.} Harding, 5 Md. App. at 234, 246 A.2d at 306.

^{94.} Id. at 232, 246 A.2d at 304.

^{95.} Id. at 232-34, 246 A.2d at 304-06.

^{96.} Id. at 233, 246 A.2d at 305.

^{97.} Id. at 239-40, 246 A.2d at 311-12 (citations omitted).

Based on these conclusions, the court ruled that receipt in evidence of the testimony of this witness who had been subjected to pretrial hypnosis was not reversible error.

The Harding court made the basic assumption that such evidence was both reliable and accurate. 88 This assumption, however, rested on several crucial misconceptions. The evidence was probably neither reliable nor accurate. 99 The court based its finding of scientific reliability on the testimony of a single expert—hardly a basis from which to judge scientific reliability. One commentator states that the Harding expert's claim that hypnosis does not give rise to suggestion directly contradicts all scientific evidence. 100 In addition, the hypnosis process was by no means truly impartial. The expert was employed by the police¹⁰¹ and the victim knew she was being hypnotized in order to recall the identity of her assailant. 102 The hypnotism took place in police headquarters with investigators present. 103 Immediately following the session, the investigators questioned the witness and asked what had happened between Harding and her. 104 "It seems apparent that there was a strong desire on the part of everyone involved . . . to confirm their arrest and have the witness identify the subject."108 Furthermore, the victim changed her story after hypnosis. The hypnosis process not only elicited new details but changed others. 106 This strongly suggests confabulation or memory distortion.107 Lastly, the court found it significant that the victim believed she was testifying from her own recollection of the facts. Scientific studies of hypnosis almost uniformly support the conclusion that hypnotized subjects are unable accurately to sort actual recollections from sug-

^{98.} See id. at 235-36, 246 A.2d at 306; Dilloff, supra note 81, at 19.

^{99.} See Dilloff, supra note 81, at 19. See also People v. Gonzales, 108 Mich. App. 145, 156-57, 310 N.W.2d 306, 311 (1981).

^{100.} Diamond, supra note 16, at 322-23. See also People v. Gonzales, 108 Mich. App. at 156-57, 310 N.W.2d at 311-12.

^{101.} Dilloff, supra note 81, at 19.

^{102.} Id. See also supra notes 22-23.

^{103.} Harding v. State, 5 Md. App. at 241-42, 246 A.2d at 308-10. Dr. Martin Orne states that neutrality of the site of the hypnosis session and absence of police investigators is a minimum requisite to ensure the absence of suggestion. Affidavit of Martin T. Orne, M.D., Ph.D., at 26, Quaglino v. California, 439 U.S. 875 (1978)(leave to file affidavit in petition for cert. granted, but cert. denied) [hereinafter cited as Orne Affidavit].

^{104.} Harding v. State, 5 Md. App. at 233, 246 A.2d at 305.

^{105.} Dilloff, supra note 81, at 19.

^{106.} Id. at 19-20.

^{107.} Id. at 19. See also People v. Gonzales, 108 Mich. App. 145, 310 N.W.2d 306 (1981).

gested and implanted "facts."108

Despite these shortcomings, in the next ten years, court after court followed Harding. 109 Some simply cited Harding and its progeny as authority for the proposition that hypnosis is merely another form of refreshing recollection and presents an issue of credibility, not admissibility. 110 Others, especially in recent years, have gone beyond Harding's cursory analysis of hypnosis,111 taking notice of the potential unreliability of the hypno-induced testimony but nevertheless allowing its evidentiary use.112 Still others have combined both approaches and added a constitutional due process analysis¹¹³ before condoning the evidentiary use of hypnosis. 114 In the last two years, however, several courts have faced the problems associated with hypnosis and a number of courts have broken with Harding. 116 The leading case in this trend is State v. Mack. 116

State v. Mack concerned the admissibility of testimony of a

^{108.} See supra notes 61-71 and accompanying text, discussing the unreliability of hypnosis in eliciting accurate facts. See also Orne Affidavit, supra note 103, at 7-11; Diamond, supra note 16, at 335-36; Dilloff, supra note 81, at 10.

^{109.} Only one court during this period, Greenfield v. Commonwealth, 214 Va. 710, 716, 204 S.E.2d 414, 418 (1974), found hypno-induced evidence inadmissible. This case, however, can be distinguished because the defendant claimed that his own exculpatory statements made under hypnosis should be admissible. Defendant's exculpatory statements made under hypnosis are never admissible. The court never reached the issue of admissibility of direct testimony from a previously hypnotized witness so presumably the question remains open in Virginia.

^{110.} See, e.g., United States v. Awkward, 597 F.2d 667 (9th Cir. 1979); United States v. Adams, 581 F.2d 193 (9th Cir. 1978); Kline v. Ford Motor Co., 523 F.2d 1067 (9th Cir. 1975); Wyller v. Fairchild Hiller Corp., 503 F.2d 506 (9th Cir. 1974); Clark v. State, 379 So. 2d 372 (Fla. App. 1979); Creamer v. State, 232 Ga. 136, 205 S.E.2d 240 (1974); State v. McQueen, 295 N.C. 96, 244 S.E.2d 414 (1974); State v. Jorgenson, 8 Or. App. 1, 492 P.2d 312 (1971).

^{111.} See Dilloff, supra note 81, at 17-20. See also supra notes 92-108 and accompanying text.

^{112.} See, e.g., People v. Smrekar, 68 Ill. App. 3d 379, 385 N.E.2d 848 (1982); Chapman v. State, 638 P.2d 1280 (Wyo. 1982).

^{113.} See infra notes 220-43 and accompanying text for a discussion of the due process analysis, similar to that undertaken when considering the suggestibility of "lineups."

^{114.} See, e.g., United States v. Narciso, 446 F. Supp. 252 (E.D. Mich. 1977); State v. Hurd, 86 N.J. 525, 432 A.2d 86 (1981); People v. Hughes, 99 Misc. 2d 863, 417 N.Y.S.2d 643 (1979); State v. Greer, 609 S.W.2d 423 (Mo. App. 1970).

^{115.} State v. Mena, 128 Ariz. 226, 624 P.2d 1274 (1981); People v. Bicknell, 114 Cal. App. 3d 388 (1980)(available on LEXIS, States library, Cal. file), hearing granted, Crim. 21852, Cal. (Feb. 11, 1981); Polk v. State, 48 Md. App. 382, 427 A.2d 1041 (1981); People v. Gonzales, 108 Mich. App. 145, 310 N.W.2d 306 (1981); State v. Mack, 292 N.W.2d 764 (Minn. 1980); Commonwealth v. Nazarovitch, 496 Pa. 97, 436 A.2d 170 (1981).

^{116. 292} N.W.2d 764 (Minn. 1980).

victim who, before hypnosis, could not remember what had happened to her. After hypnosis the police developed a "typewritten statement recounting as her present memory the events of May 13, as she had reported them under hypnosis." The court noted at the outset of its opinion that it was "presented . . . with a unique opportunity to examine in full the merits of [the] controversy" surrounding the admissibility of testimony based on hypnotic refreshment. Five experts in the field of hypnosis provided testimony; the California Attorneys for Criminal Justice and the Minnesota State Public Defender filed briefs amici curiae. 119

After examining all of the material, the court concluded that while hypnosis may remove blocks to accurate recall, it is generally used in the medical profession as a therapeutic tool. The court also noted that therapeutic goals of hypnosis can be achieved without historically accurate recall and that the subjects' impressions are more important to psychiatrists and psychologists than discovery of truth. Hypnosis, therefore, may not be so useful where the truthfulness of the restored memory is important, as at trial.

Additionally, the court found that the hypnotized subject is highly susceptible to suggestion, even though subtle or unintended.¹²¹ The hypnotized subject will fill in gaps in memory, fantasizing in order to please either the hypnotist or those who asked the person to undergo hypnotism. Unfortunately, there is no way to determine which part of the "restored" memory is truthful, fanciful, or fallacious.

The restored memory also becomes hardened in the subject's mind after hypnosis. This conviction is so firm that persons have been able to pass lie detector tests after hypnosis while testifying to utter falsehoods. No meaningful cross-examination of such a witness could shake that witness's belief in the accuracy of the testimony. Two of the experts told the court that the posthypnotic suggestion, "you will remember very clearly everything that happened on the 13th and 14th," would assure that the witness would remember what she related under hypno-

^{117.} Id. at 767.

^{118.} Id. at 765.

^{119.} Id. at 765-66.

^{120.} Id. at 768.

^{121.} Id.

sis as a memory of the actual events themselves. 122

Based on this expert testimony the court found that in order for hypno-induced testimony to be admissible, hypnosis must meet the standards of scientific reliability, commonly called the Frye standard. Under the Frye rule, "the results of mechanical or scientific testing are not admissible unless the testing has developed or improved to the point where experts in the field widely share the view that the results are scientifically reliable as accurate." The court concluded that hypnosis did not pass this test and "regardless of whether such evidence is offered by the defense or by the prosecution a witness whose memory has been revived under hypnosis must not be permitted to testify in a criminal proceeding to matters he or she remembers under hypnosis." 125

The supreme courts of Arizona¹²⁶ and Pennsylvania¹²⁷ reach the identical conclusion: hypnosis does not pass the *Frye* stan-

^{122.} Id. at 769.

^{123.} Id. at 768-69. The standard was announced in United States v. Frye, 293 F. 1013 (D.C. Cir. 1923). In Frye, the court held lie detector results inadmissible because experts did not agree on their reliability. Accord, People v. Bicknell, 114 Cal. App. 3d 388 (1980) (available on LEXIS, States library, Cal. file); Polk v. State, 48 Md. App. 382, 427 A.2d 1041 (1981); People v. Gonzales, 108 Mich. App. 97, 310 N.W.2d 306 (1981); Commonwealth v. Nazarovitch, 496 Pa. 97, 436 A.2d 170 (1981).

^{124.} State v. Mack, 292 N.W.2d at 768. The Frye court held lie detector results inadmissible stating:

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidentiary force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.

United States v. Frye, 293 F. at 1014.

^{125.} State v. Mack, 292 N.W.2d at 771.

^{126.} State v. Mena, 128 Ariz. 226, 624 P.2d 1274 (1981).

The determination of guilt or innocence of an accused should not depend on the unknown consequences of a procedure concededly used for the purpose of changing in some way a witness's memory. Therefore, until hypnosis gains general acceptance in the fields of medicine and psychiatry as a method by which memories are accurately improved without undue danger of distortion, delusion or fantasy, we feel that testimony of witnesses which has been tainted by hypnosis should be excluded in criminal cases.

Id. at 231, 624 P.2d at 1279. The supreme court of Arizona has limited this position. See State ex rel. Collins v. Superior Court, 132 Ariz. 180, 644 P.2d 1266 (1982).

^{127.} Commonwealth v. Nazarovitch, 496 Pa. 97, 436 A.2d 170 (1981). "Similarly, we do not believe that the process of refreshing recollection by hypnosis has gained sufficient acceptance in its field as a means of accurately restoring forgotten or repressed memory." *Id.* at 110, 436 A.2d at 177.

dard and hypno-induced testimony is not admissible in a court of law. Similarly, appellate courts of California¹²⁸ and Michigan¹²⁹ have followed *Mack*, and two other states, Massachusetts¹³⁰ and Maryland,¹³¹ while not ruling explicitly on the admissibility of hypno-induced testimony, remanded the issue with explicit instructions to the trial court to make findings concerning the scientific reliability of hypnosis. The most recent jurisdiction to follow *Mack* is the California Supreme Court in *People v. Shirley*.¹³² There, the defendant, convicted of forcible rape, had challenged the admission of testimony from the sole complainant who had been hypnotized prior to trial. The facts in *Shirley* are worth noting because they provide a prototypical example of the misuse of hypnosis.¹³³

In Shirley, a previous boyfriend of the victim, 134 Marine

In Harding, we did not assess the Frye principle, the rule there enunciated not having been applied in this State until Reed [Reed v. State, 203 Md. 374, 391 A.2d 364 (1978)]; nor did we have occasion to probe the question—here directly raised on the authority of Reed—of the general acceptability of hypnotism as a reliable technique for memory retrieval within the relevant scientific community.

Polk v. State, 48 Md. App. at 392, 427 A.2d at 1047. The court remanded with explicit instructions to the trial court to make a "determination of the general acceptability vel non of hypnosis." Id. at 394, 427 A.2d at 1048. In Collins v. State, 52 Md. App. 186, 447 A.2d 1272 (1982), the court in fact overruled Harding.

132. 31 Cal. 3d 18, 641 P.2d 775, 181 Cal. Rptr. 243, cert. denied, 103 S. Ct. 133 (1982).

133. Justice Mosk, writing for the majority, described the record as a classic case of conflicting stories.

There were only two principal witnesses to the event: The complaining witness, Catherine C., told the jury the defendant compelled her by threat and force to submit to sexual intercourse and to orally copulate him; defendant testified, however, that Catherine willingly participated in the act of intercourse and there was no oral copulation.

Justice Mosk justly concluded that "[i]n circumstances it is particularly important that the testimony of the complaining witness be free of taint, lest a mistaken conviction result. Yet as we shall see, . . . the prosecution contaminated Catherine's testimony by subjecting her to a hypnotic experience on the eve of trial." People v. Shirley, 31 Cal. 3d at 23, 641 P.2d at 776-77, 181 Cal. Rptr. at 244-45.

134. They had lived together for about one month. Id. at 28 n.12, 641 P.2d at 779 n.12, 181 Cal. Rptr. at 247 n.12.

^{128.} People v. Bicknell, 114 Cal. App. 3d 388 (1980) (available on LEXIS, States library, Cal. file), hearing granted, Crim. 21582, Cal. (Feb. 11, 1981).

^{129.} State v. Gonzales, 108 Mich. App. 145, 310 N.W.2d 306 (1981).

^{130.} Commonwealth v. Juvenile, 412 N.E.2d 339 (Mass. 1980). See also Commonwealth v. Stetson, 427 N.E.2d 926, 931 n.10 (Mass. 1981).

^{131.} Polk v. State, 48 Md. App. 382, 427 A.2d 1041 (1981). This case is extremely significant because it effectively overrules Harding v. State, 5 Md. App. 230, 246 A.2d 302 (1968), cert. denied, 242 Md. 731, cert. denied, 395 U.S. 949 (1969). Explaining its decision, the Polk court stated:

Sergeant Lockskin, testified he met the victim on the night in question at Bud's Cove where she worked as a cocktail waitress. He stated she was drinking alone, looked like she was under the influence of alcohol, and staggered when she walked. He offered her a ride home, which she accepted, but upon their arrival at her apartment she vomited in the street and had to be helped into the house. While the victim was ill the individual, later identified as the defendant, came up to Lockskin, addressed him by name but left when asked to by Lockskin. Lockskin testified that once in the house the victim immediately passed out on the couch and he then left. 136

The victim's version of later events led to the defendant's arrest and the defendant's rape conviction. This version, however, changed considerably between her initial statement to police, and at the preliminary hearing, and her version after hypnosis which was ultimately presented to the jury. Her initial story to police was that she awoke in her bedroom and found herself bound and gagged. It was dark and she could not identify her assailant. She was forced to engage in sexual intercourse both before and after being forced to orally copulate. (The fact that she claimed he never took off the gag during the oral sex was pointed out in the briefs filed with the court.)137 She also stated that during both sex acts her hands were tied behind her back. She asserted he abruptly stopped sexual intercourse, removed her binds and gag, and turned on the lights whereupon she discovered the defendant. They both went into the front room where she also discovered defendant had a knife and ice pick. 138 For the next half hour the two sat naked on the victim's couch, she sitting on his lap while they chatted. The defendant told her his name, where he lived, the military unit to which he was assigned, and that he was married but his wife was away. She claimed the defendant offered to get some beer, got dressed, and went to his apartment, later returning with the beer. During his absence the victim did not contact police, leave the apart-

^{135.} The defendant explained that he was there only at the prior invitation of the victim. Id. at 27-28, 641 P.2d at 779, 181 Cal. Rptr. at 247.

^{136.} Id. at 24, 641 P.2d at 777, 181 Cal. Rptr. at 245.

^{137.} Supplemental Brief for Defendant at 4, People v. Shirley, 31 Cal. 3d 18, 641 P.2d 775, 181 Cal. Rptr. 243 (1982).

^{138.} She later described the ice pick as really being a large Phillips screwdriver. At trial, the prosecution produced neither knife, ice pick, screwdriver, nor any other weapon. People v. Shirley, 31 Cal. 3d at 24 n.2, 641 P.2d at 777 n.2, 181 Cal. Rptr. at 243 n.2.

ment to seek help, or even lock the front door.

Upon the defendant's return he again undressed. Both naked—the victim did not dress in his absence—the victim sat on his lap and they continued their conversation. At defendant's suggestion they agreed to take a shower but a telephone call from a friend informing the victim she was coming over prompted the defendant to leave. The victim invited the defendant to come over another time and offered to cook him dinner at that time. He left when the victim's friend, Mickie, arrived. The victim then informed Mickie that the defendant had raped her and Mickie gave her a 100 milligram dose of Mellaril from the victim's prescription for that drug. A half hour later Mickie left, and the victim called the police.

The police officer who responded to her complaint testified he found her under the influence of alcohol; her breath had the smell of someone who had been drinking quite heavily; her speech was slow and at times difficult to understand. The physician who examined her at the hospital testified that he found a bruise mark on her right hip and crease marks on her wrists. He described them as the kind of marks one received from sleeping on wrinkles on the bed. He also testified that Mellaril is a powerful tranquilizer and that in doses of 100 milligrams or more per day it is prescribed primarily for psychoses, schizophrenia, and manic depression episodes. 143

In response to the victim's complaint, police arrested the defendant the next morning at his apartment. Informed that the charges were burglary and rape, defendant vigorously disputed the victim's version. He took the stand at trial in his own defense and stated he had met the victim previously at Bud's Cove. On the night in question he again went to Bud's Cove and, although the victim was with Sergeant Lockskin, she invited him

^{139.} Mellaril had been prescribed for her to take four times a day and she had taken such dosage for six months. She denied using the drug in the last 18 months. Id. at 25 n.6, 641 P.2d at 778 n.6, 181 Cal. Rptr. at 246 n.6. At the hospital on the night of the rape, however, she told the treating physician that she used "occasional Mellaril and alcohol frequently." Id. at 27, 641 P.2d at 779, 181 Cal. Rptr. at 247.

^{140.} The victim stated at trial she did not know Mickie's last name, address, or telephone number or where she was at the time of trial and included she had never seen her since the night in question. Not surprisingly, Mickie never testified at trial. *Id.* at 26, 641 P.2d at 778, 181 Cal. Rptr. at 246.

^{141.} Id. at 26, 641 P.2d at 779, 181 Cal. Rptr. at 247.

^{142.} Id. at 27, 641 P.2d at 779, 181 Cal. Rptr. at 247.

^{143.} *Id*.

^{144.} Id. at 27, 29, 641 P.2d at 779, 780, 181 Cal. Rptr. at 247, 248.

to drop by the apartment anytime. He left Bud's, was unsuccessful in locating a friend, and decided to take the victim up on her offer. He arrived at her apartment the second time, ¹⁴⁵ and after repeated knocking, she eventually opened the door, wherepon the defendant asked her if she was okay. She let him in, laid down on the couch and he sat next to her. At her invitation they proceeded to kiss and subsequently moved into the bedroom and engaged in sexual intercourse. He substantially corroborated the victim's story about what occurred after engaging in sex. He denied breaking into her apartment, threatening her with a knife, tying her up, having intercourse without her consent, or engaging in any act of oral copulation. ¹⁴⁶

Prior to trial (approximately three months after the alleged rape) the prosecuting attorney had the victim hypnotized by another deputy district attorney. According to the victim "before being hypnotized she remembered the events of the evening in question only 'vaguely.' "147 She agreed to be hypnotized "for the purpose of going back over what had occurred." Although never previously hypnotized "she just knew that it enables a person to remember more than normal." After hypnosis, her memory of the events had changed considerably and became the basis of her trial testimony.

The victim testified at trial that she awoke on the couch to find the defendant standing naked by the coffee table with a knife and screwdriver in his hand. He then forced her into the bedroom where he tied her up; whereas in her previous version she had awakened in the bedroom, already bound, and with the lights off. She first was forced to orally copulate the defendant but, unlike her prior testimony, her hands now were not tied. Sexual intercourse now took place only after oral copulation, not before. Significantly her altered memory only related to the consensual elements of the crime; the testimony concerning the events after sex remained virtually unchanged. Confronted at trial with these inconsistencies, she credited hypnosis with caus-

^{145.} The first time, he had left after talking to Sergeant Lockskin. See supra note 135.

^{146.} The defendant's company commander, platoon commander, and company first sergeant all testified at trial that the defendant had a good reputation for truth and honesty and that defendant had no history of engaging in violent or aggressive behavior. People v. Shirley, 31 Cal. 3d at 29, 641 P.2d at 780, 181 Cal. Rptr. at 248.

^{147.} Id. at 30, 641 P.2d at 781, 181 Cal. Rptr. at 248.

^{148.} Id.

ing her to fill in gaps in her memory and to help her recall that certain events took place in a different sequence.¹⁴⁹

Unrefuted expert testimony presented at trial stated that there is no guarantee that memory recalled under hypnosis is correct. A witness can be mistaken, confabulate, or wilfully lie while hypnotized. In addition, no one is able to determine if a subject is lying while hypnotized; a subconscious motive to distort the truth may distort the memory. More important, and particularly relevant in this case, discrepancies under hypnosis imply either that the previous memory was a lie, or the memory under hypnosis was confabulated. Faced with the contradictory testimony of the victim and the inherent unreliability of hypnosis the court held: "In accord with recent and persuasive case law and the overwhelming consensus of expert opinion, we conclude that the testimony of [a previously hypnotized] witness should not be admitted in the courts of California." 150

Justice Mosk, writing for the majority, began his analysis with a thorough review of the relevant case law. He determined, based on this review, that the proper approach to the issue of hypnosis is that "testimony of witnesses who have undergone hypnosis for the purposes of restoring their memory of the events in issue cannot be received in evidence unless it satisfies the Frye standard of admissibility." Justice Mosk rejected the Attorney General's claim that the record was inadequate to support a decision of general inadmissibility of hypnotically aided testimony. Although only one expert testified at the trial, "he gave an unequivocal opinion that hypnosis was unreliable as a truth seeking device" and that "that testimony was supported by a substantial body of scholarly treatises and articles on the subject." The court, relying principally on the works of Elizabeth F. Loftus, 155 Dr. Bernard Diamond, 156 and Dr. Martin

^{149.} This is an excellent example of a witness being subjectively convinced of the accuracy of two probably false stories while under hypnosis. Other excellent examples are found in Orne Affidavit, supra note 103, at 19-23; Dilloff, supra note 81; Orne, supra note 28, at 329-331.

^{150.} People v. Shirley, 31 Cal. 3d at 23, 641 P.2d at 776, 181 Cal. Rptr. at 244.

^{151.} Id. at 54, 641 P.2d at 796, 181 Cal. Rptr. at 265. Accord State v. Mena, 128 Ariz. 226, 624 P.2d 1274 (1981); State v. Mack, 292 N.W.2d 764 (Minn. 1980); Commonwealth v. Nazarovitch, 496 Pa. 97, 436 A.2d 170 (1981).

^{152.} The expert was Dr. Donald W. Shafer. For Dr. Shafer's credentials, see People v. Shirley, 31 Cal. 3d at 31 n.13, 641 P.2d at 781 n.13, 181 Cal. Rptr. at 249 n.13.

^{153.} Id. at 55, 641 P.2d at 797, 181 Cal. Rptr. at 265.

^{154.} Id.

^{155.} See supra note 40 and accompanying text.

Orne¹⁵⁷ concluded:

The professional literature fully supports the testimony of Dr. Schafer and the similar findings of the courts in Mack, Mena, and Nazarovitch. It also demonstrates beyond any doubt that at the present time the use of hypnosis to restore the memory of a potential witness is not generally accepted as reliable by the relevant scientific community. Indeed, representative groups within that community are on record as expressly opposing this technique for many of the foregoing reasons, particularly when it is employed by law enforcement hypnotists. In these circumstances it is obvious that the Frye test of admissibility has not been satisfied. We therefore hold . . . that the testimony of a witness who has undergone hypnosis for the purpose of restoring his memory of the events in issue is inadmissible as to all matters relating to those events, from the time of the hypnotic session forward. 168

As limitations on the ruling of per se inadmissibility, the court added that a witness still could testify to topics wholly unrelated to the events covered by hypnosis. Police still may use hypnosis as a purely investigative tool¹⁵⁹ and admission of testimony from a previously hypnotized witness is not reversible error per se but must be judged under the prejudical error test.¹⁶⁰ Applying the latter test to the facts before it, the court found the admission of the victim's testimony to be prejudical error. "[The testimony] constituted virtually the sole incriminating evidence against [the] defendant. To prevent a miscarriage of justice, a conviction predicated on such tainted evidence cannot be allowed to stand."¹⁶¹

^{156.} For credentials of Dr. Diamond, see People v. Shirley, 31 Cal. 3d at 63 n.45, 641 P.2d at 802 n.45, 181 Cal. Rptr. at 270 n.45.

^{157.} For credentials of Dr. Orne, see id.

^{158.} Id. at 66-67, 641 P.2d at 804, 181 Cal. Rptr. at 272-73.

^{159.} The court added: "We reiterate, however, that for the reasons stated above any person who has been hypnotized for investigative purposes will not be allowed to testify as a witness to the events that were the subject of the hypnotic session." *Id.* at 68, 641 P.2d at 805, 181 Cal. Rptr. at 273-74.

^{160.} See People v. Watson, 46 Cal. 2d 818, 836, 299 P.2d 243, 254 (1956), cert. denied, 355 U.S. 846 (1957).

^{161.} People v. Shirley, 31 Cal. 3d at 70, 641 P.2d at 806, 181 Cal. Rptr. at 275. The California court has, however, refused to adopt a per se exclusion of post-hypnosis testimony. Instead, the court has elected to examine the dual purposes behind Shirley (protecting against colored and unreliable testimony, and assuring the effective right to cross-examination) to determine the need for the testimony's exclusion. See People v. Adams, 137 Cal. App. 3d 346, 187 Cal. Rptr. 505 (1982).

III. Admissibility of Scientific Evidence

The Frye standard has been adopted by a majority of courts throughout the United States. ¹⁶² It has been used to determine the admissibility of evidence derived from polygraphs, ¹⁶³ voiceprints, ¹⁶⁴ neutron activation analyses, ¹⁶⁵ gunshot residue tests, ¹⁶⁶ bitemark comparisons, ¹⁶⁷ sodium pentothal, ¹⁶⁸ electron microscopic scanning analyses, ¹⁶⁹ and numerous other forensic techniques. ¹⁷⁰ The principal justification for the Frye standard is that it establishes a method for insuring the reliability of scientific evidence. ¹⁷¹ The primary advantage of the Frye test, however, is in its essentially conservative nature. ¹⁷²

Most courts that have found that hypnosis does not involve scientific evidence have done so because hypno-induced testimony does not fit neatly within the traditional view of scientific evidence: results from scientific tests or experiments relayed by

^{162.} See supra note 123; supra text accompanying note 150. See also State v. Washington, 229 Kan. 47, 53, 622 P.2d 986, 991 (1981).

^{163.} State v. McCarty, 224 Kan. 179, 182, 578 P.2d 274, 277 (1978); State v. Pleasant, 21 Wash. App. 177, 185, 583 P.2d 680, 685 (1978).

^{164.} United States v. Addison, 498 F.2d 741, 743 (D.C. Cir. 1974).

^{165.} United States v. Stifel, 433 F.2d 431, 438 (6th Cir. 1970), cert. denied, 401 U.S. 994 (1971); State v. Stout, 478 S.W.2d 368 (Mo. 1972).

^{166.} State v. Smith, 50 Ohio App. 183, 193, 362 N.E.2d 1239, 1246 (1976).

^{167.} People v. Slone, 76 Cal. App. 3d 611, 143 Cal. Rptr. 61 (1978); State v. Jones 273 S.C. 723, 259 S.E.2d 120 (1979). For an interesting discussion of *Jones*, see *Evidence*, Annual Survey of South Carolina Law, 32 S.C.L. Rev. 119 (1980).

^{168.} State v. Linn, 93 Idaho 430, 462 P.2d 729 (1969); Henderson v. State, 94 Okla. Crim. 45, 230 P.2d 495 (1951).

^{169.} People v. Palmer, 80 Cal. App. 3d 239, 252, 145 Cal. Rptr. 466, 471 (1975).

^{170.} See, e.g., United States v. Bruno, 333 F. Supp. 570 (E.D. Pa. 1971)(ink identification test); People v. Williams, 164 Cal. App. 2d Supp. 858, 331 P.2d 251, 253 (1958)(Nalline test); Brooke v. People, 139 Colo. 388, 339 P.2d 993 (1959)(paraffin tests); People v. Morse, 325 Mich. 270, 38 N.W.2d 322 (1949)(breathalyzer test); People v. Lauro, 91 Misc. 2d 706, 398 N.Y.S.2d 503 (1973)(trace metal detection test); Puhl v. Milwaukee Auto. Ins. Co., 8 Wis. 2d 343, 99 N.W.2d 163 (1959)(medical testimony respecting cause of birth defects)(overruled on other grounds in In re Stromsted, 229 N.W.2d 226 (Wis. 1980)); State v. Jackson, 615 P.2d 1228 (Utah 1975)(human leucocyte antigen test).

^{171.} Giannelli, The Admissibility of Novel Scientific Evidence: Frye v. U.S.: A Half Century Later, 80 COLUM. L. REV. 1197, 1207 (1980).

^{172.} People v. Kelly, 17 Cal. 3d 24, 31, 549 P.2d 1240, 1245-46, 130 Cal. Rptr. 144, 149 (1976):

For a variety of reasons, Frye was deliberately intended to interpose a substantial obstacle to the unrestrained admission of evidence based upon new scientific principles. There has always existed a considerable lag between advances and discoveries in scientific fields and their acceptance as evidence in a court proceeding. . . . Several reasons founded in logic and common sense support a posture of judicial caution in this area.

expert testimony. These courts claim that hypno-induced testimony does not consist of the results of a mechanical device or test such as a polygraph or tissue analysis. Rather, it is testimony offered by an eyewitness whose recollection has been refreshed as to the incident from which the trial arises. "Although the device by which recollection was refreshed is unusual, in legal effect [the witness's] situation is not different from that of a witness who claims his recollection of an event that he could not earlier remember was revived when he thereafter read a particular document." Thus, as is typical of any method of refreshing recollection, once the witness testifies that he remembers the incident he is to describe, the mechanism of refreshment becomes irrelevant. 1776

Such reasoning ignores the problem associated with hypnosis: the testimony by the witness that he remembers the event he is describing is the direct result of the scientific process of hypnosis. In order critically to assess the reliability of such testimony, one must examine the scientific process of hypnosis to see if it can lead to accurate recall. 176 The court in Polk v. State 177 observed: "The technique of hypnosis is scientific, but the testimony itself of the witness is the end product of the administration of the technique. The induced recall of the witness is dependent upon, and cannot be disassociated from, the underlying scientific method."178 Similarly, the California Supreme Court states: "[I]f the testimony is thus only as reliable as the hypnotic process itself, it must be judged by the same standards of admissibility."178 Accordingly, courts should approach hypnosis as a scientific process, and employ the Frye standard to determine whether hypnosis is generally accepted in the scientific community as a proper mode of refreshing recollection.

The use of the Frye standard has not been universally

^{173.} State v. Mack, 292 N.W.2d 764, 769 (Minn. 1980).

^{174.} Chapman v. State, 638 P.2d 1280, 1284 (Wyo. 1982)(quoting Kline v. Ford Motor Co., 523 F.2d 1067, 1069-70 (9th Cir. 1975)).

^{175. &}quot;[T]he witness testified that at the time she was on the stand she remembered the incident she was describing." Harding v. State, 5 Md. App. 230, 239, 246 A.2d 302, 311 (1968), cert. denied, 395 U.S. 949 (1969). Accord People v. Smrekar, 68 Ill. App. 3d 379, 384, 385 N.E.2d 848, 853 (1979).

^{176.} See People v. Gonzales, 118 Mich. App. 145, 310 N.W.2d 306, leave to appeal granted, 412 Mich. 870 (1981); supra notes 22-71 and accompanying text.

^{177. 48} Md. App. 382, 427 A.2d 1041 (1981).

^{178.} Id. at 393-94, 427 A.2d at 1048.

^{179.} People v. Shirley, 31 Cal. 3d 18, 53, 641 P.2d 775, 796, 181 Cal. Rptr. 243, 264, cert. denied, 103 S. Ct. 133 (1982).

accepted and has received extensive criticism by many legal commentators. They claim *Frye* sets too high a standard for admissibility and prevents acceptance of relevant evidence. Problems arise in identifying the proper scientific field for evaluating general acceptance, defining exactly what must be accepted, and defining what constitutes "general" acceptance in that field. Because of these criticisms, as well as others, 185

181. State v. Catanese, 368 So. 2d 975, 978-79 (La. 1979):

[I]t has been suggested that the requirement of "general acceptance" is tantamount to a requirement that the validity of the test be susceptible of such demonstration as to enable the trial court to take judicial notice of the fact. Clearly, the criteria used for determining the admissibility of scientific evidence should not require the instant and unquestionable demonstration required for the judicial notice of scientific facts.

The Frye standard, however, is not set up to ensure absolute perfection in any scientific technique. Its value lies in the protective barrier of acceptance, by people whose job it is to study and understand a scientific technique, before lay jurors and court personnel are exposed to a technique they are neither prepared nor qualified to judge. See People v. Barbara, 400 Mich. 352, 405, 255 N.W.2d 171, 194 (1977)("It therefore is best to adhere to a standard which in effect permits the experts who know most about a procedure to experiment and to study it. In effect, they form a kind of technical jury, which must first pass on the scientific status of a procedure before the lay jury utilizes it in making its findings of fact.").

- 182. Often, more than one field of science may be involved in the use of a particular technique. Consequently, deciding the proper field to which the technique belongs may present enormous difficulties. Giannelli, *supra* note 171, at 1208-10.
- 183. This problem concerns whether the *Frye* test requires "general acceptance of the scientific technique or of both the underlying principle and the technique applying it." *Id.* at 1211.
- 184. The problem centers around how courts reach the conclusion that the principle or technique is generally accepted. To what extent should courts rely only on expert testimony or take judicial notice of scientific literature on the subject? See id. at 1213-19. See also People v. Shirley, 31 Cal. 3d at 55-56, 641 P.2d at 796-98, 181 Cal. Rptr. at 265-66.

185. One commentator offers two additional criticisms of the Frye standard. Applied specifically to hypnotism, Frye does not permit analysis of the reliability of the hypnotic process used in each case to test reliability, but instead focuses on the general reliability of hypnotism. Also, if hypnotism is reliable under Frye, using Frye as the sole criterion for admissibility may result in admission of evidence to which the jury will attach undue weight. See Comment, Admissibility of Testimony, supra note 27, at 1218. These criticisms are not particularly persuasive. The point is that Frye ensures that the trier of fact will never have to judge the reliability of a process, in a case-by-case method, until the scientific community can agree on the general reliability in any specific case. Second, like any other evidentiary problem, relevancy and reliability are the initial questions. If the probative value is outweighed by other considerations, the evidence still may be excluded. The Frye standard only applies to the initial question: Is this relevant,

^{180.} See, e.g., C. McCormick, McCormick's Handbook of the Law of Evidence § 210 at 489-90 (2d ed. 1972); Boyce, Judicial Recognition of Scientific Evidence in Criminal Cases, 8 Utah L. Rev. 313 (1964); Giannelli, supra note 171, at 1197; Note, Changing the Standard for the Admissibility of Novel Scientific Evidence: State v. Williams, 40 Ohio St. L.J. 757 (1979); Comment, Admissibility of Testimony, supra note 27.

many courts reject the *Frye* standard and adopt the less stringent relevancy standard usually associated with Professor McCormick. 187

The relevancy approach, however, does not adequately protect against the admission of unreliable scientific evidence. The assumption underlying the relevancy approach is that the adversarial process is a sufficient safeguard against unreliable scientific evidence, and the jury is capable of independently evaluating the offered testimony. Unfortunately, most courts have utilized the relevancy approach when deciding on the admissibility of the forensic use of hypnosis. These courts have been all

reliable evidence that is admissible in a court of law? A positive answer does not automatically end all analysis as some commentators seem to think. See Fed. R. Evid. 403.

186. See Cappolino v. State, 223 So. 2d 68 (Fla. 1968), appeal dismissed, 234 So. 2d 120 (1969), cert. denied, 399 U.S. 927 (1970); State v. Catanese, 368 So. 2d 975 (La. 1979); State v. Williams, 388 A.2d 500 (Me. 1978); Ibn-Tamas v. United States, 407 A.2d 626 (D.C. 1979).

187. C. McCormick, Handbook of the Law of Evidence 363-64 (1st ed. 1954). The McCormick approach and the Federal Rules of Evidence are virtually identical. Compare C. McCormick supra, at 363-64 with Fed. R. Evid. 401, 702. For the sake of brevity, this article refers to both the McCormick and federal rule approaches as the "relevancy" approach.

188. United States v. Baller, 519 F.2d 463, 466 (4th Cir.), cert. denied, 423 U.S. 1019 (1975). ("Unless an exaggerated popular opinion of the accuracy of a particular technique makes its use prejudicial or likely to mislead the jury, it is better to admit relevant scientific evidence in the same manner as other expert testimony and allow its weight to be attacked by cross-examination and refutation.").

189. [I]t is important to understand how different juries are today than they were when the restrictive rules of evidence were first developed. On the whole . . . they know generally what is going on in the world. Their educational background is extensive. They think. They reason. They are really very good at sorting out good evidence from bad, of separating the credible witness from the incredible, and of disregarding experts who attempt to inject their opinions into areas of which they have little knowledge. . . . A modern jury, that must deliberate, and must agree, is the ideal body to evaluate opinions of this kind. United States v. Ridling, 350 F. Supp. 90, 98 (E.D. Mich. 1972).

190. See, e.g., United States v. Awkward, 597 F.2d 667 (9th Cir.), cert. denied, 444 U.S. 885 (1979); United States v. Adams, 581 F.2d 193 (9th Cir. 1978); Kline v. Ford Motor Co., 523 F.2d 1067 (9th Cir. 1975); Wyller v. Fairchild Hiller Co., 503 F.2d 506 (9th Cir. 1974); Clark v. State, 379 So. 2d 372 (Fla. 1980); People v. Smrekar, 68 Ill. App. 3d 379, 385 N.E.2d 848 (1979); Harding v. State, 5 Md. App. 230, 246 A.2d 306 (1968), cert. denied, 395 U.S. 949 (1969); State v. McQueen, 295 N.C. 96, 244 N.E.2d 414 (1978); State v. Jorgenson, 8 Or. App. 1, 192 P.2d 312 (1971); Chapman v. State, 638 P.2d 1280 (Wyo. 1982). These courts refuse to treat hypno-induced testimony as scientific evidence. By treating the issue as essentially one of witness credibility, they relegate the questions of hypnosis to a matter for the trier of fact. Pearson v. State, 441 N.E.2d 468, 473 (Ind. 1982). This approach is exactly the relevancy standard as espoused by McCormick. See supra note 187.

Numerous courts very recently have held that the witness is only rendered incompetent to testify to new or changed facts elicited under hypnosis. State ex rel Collins v.

too willing to rely on the adversarial process to assist the trier of fact in judging the credibility of the witness.¹⁹¹ One commentator suggests extensive cross-examination of the previously hypnotized witness coupled with expert testimony and extensive cross-examination of those experts will allow the trier of fact to adequately appraise both the reliability of the hypnosis process and the accuracy (and conversely, the credibility) of the resulting testimony.¹⁹² Some courts share this view. "[Defendant] was entitled to, and did, challenge the reliability of both the remembered facts and the hypnosis procedure itself by extensive and thorough cross-examination of [the witness] and the hypnotist. Under the circumstances, we perceive no abuse of discretion by the district court."¹⁹³

The relevancy approach, however, is simply inappropriate because hypno-induced evidence and typical scientific evidence are not the same. Typically, scientific evidence consists of results of scientific tests performed by experts and relayed to the jury

Superior Court, 132 Ariz. 180, 644 P.2d 1266 (1982); Strong v. State, 435 N.E.2d 969 (Ind. 1982); Collins v. State, 52 Md. App. 186, 447 A.2d 1272 (1982); People v. Nixon, 114 Mich. App. 233, 318 N.W.2d 655 (1982); Commonwealth v. Taylor, 249 Pa. Super. 171, 439 A.2d 805 (1982). The witness remains competent to testify to facts or matters that the witness was able to recall or relate prior to hypnosis. People v. Jackson, 114 Mich. App. 649, 319 N.W.2d 613 (1982). While appearing at first blush to enjoy the merit of compromise between extreme positions, these decisions are unsound in principle because the subsequent testimony of a witness who has been hypnotized (concerning the event in question) at any time prior to testimony has been contaminated. Among other reasons, unintended and unobserved suggestions under hypnosis may render the witness impervious to cross-examination. Thus, cross-examiners could not probe the accuracy of statements made prior to hypnosis if the hypnotic session could have affected the witness's perceptions or beliefs. See Orne Affidavit, supra note 103, at 6. See also infra notes 195, 214.

^{191.} See, e.g., People v. Smrekar, 68 Ill. App. 3d 379, 385 N.E.2d 848 (1979).

^{192.} Spector & Foster, supra note 73, at 590-95. "[The operator's] opinion of the reliability of the technique as a device for retrieving forgotten information would be elicited, and be subject to probing cross-examination. The operator would also offer his opinion of whether the witness's recollection was actually restored during hypnosis." Id. at 593. Many authorities in the field strongly disagree with this last statement. As Dr. Orne states, it is virtually impossible to tell without independent corroboration how accurate recollection may be. See Orne Affidavit, supra note 103, at 14. Dr. Diamond states that "such a solution is naive!" Diamond, supra note 16, at 330.

^{193.} Chapman v. State, 638 P.2d 1280, 1284 (Wyo. 1982). Accord United States v. Awkward, 596 F.2d 667 (9th Cir.), cert. denied, 444 U.S. 885 (1979); United States v. Narciso, 446 F. Supp. 252 (E.D. Mich. 1977); Clark v. State, 379 So. 2d 372 (Fla. App. 1979); Creamer v. State, 232 Ga. 136, 205 S.E.2d 240 (1974); People v. Smrekar, 68 Ill. App. 3d 379, 385 N.E.2d 848 (1979); Harding v. State, 5 Md. App. 230, 246 A.2d 302 (1968), cert. denied, 395 U.S. 949 (1969); People v. Hughes, 99 Misc. 2d 863, 417 N.Y.S.2d 643 (1979); State v. McQueen, 295 N.C. 96, 244 S.E.2d 414 (1978); State v. Jorgenson, 8 Or. App. 1, 492 P.2d 312 (1971).

as ultimate facts by those same experts. The jury is free to believe or disbelieve the expert as to that ultimate fact. Thus, scientific evidence regarding hypnosis consists of expert testimony about both the hypnosis procedure and its possible results. 194 The evidence, however, goes one step further. It also consists of the nonexpert testimony of the direct eyewitness. This testimony is both the ultimate result (i.e., the product of the hypnosis), and more importantly, the ultimate fact (i.e., the facts on which the jury must decide the case). In the typical case, the jury will be confronted with diametrically opposed expert testimony and one subjectively convinced evewitness195 who swears: "This is what I saw." 196 While a jury may be free to believe or disbelieve either expert about the possible results of the hypnosis, most juries would be hard pressed to disbelieve the previously hypnotized witness¹⁹⁷ who is convinced of the truth of his hypno-induced memory. 198

Furthermore, the subjective conviction in the truth of the memory after hypnosis eliminates fear of perjury as a factor ensuring reliable testimony. 199 The problem of fabrication which

^{194.} Even experienced hypnotists are unable to tell if persons remember accurately under hypnosis or are only remembering pseudomemories. Orne Affidavit, supra note 103, at 14; Diamond, supra note 16, at 337; Dilloff, supra note 81, at 6; Spector & Foster, supra note 73, at 578. Therefore any expert testimony as to the accuracy of the resulting memories of the witness after hypnosis can only be speculative at best.

^{195. &}quot;Hypnotized witnesses become virtually unshakeable in their belief in their story." Orne Affidavit, supra note 103, at 6.

^{196.} See, e.g., United States v. Narciso, 446 F. Supp. 252 (E.D. Mich. 1977).

^{197.} The common lay person believes that a person under hypnosis is telling the truth while hypnotized and what that person remembers after hypnotism is the truth. Orne Affidavit, supra note 103, at 7. This belief is erroneous. See, e.g., Orne Affidavit, supra note 103, at 7-8; Spector & Foster, supra note 73, at 577; Dilloff, supra note 81, at 22. Nevertheless, from a juror's viewpoint, a previously hypnotized witness would have an aura of infallability which the juror would find difficult to disregard. See, e.g., TRIAL DIPLOMACY JOURNAL, Fall 1980, at 36.

^{198.} Most persons when aware of their deficiencies in their recall of events, will communicate their awareness by hesitancy, expressions of doubt, and body language indicating lack of self-confidence. The jury relies on these indicators of lack of certainty of recall, and their importance in the determination of the weight of the evidence may be equal to or greater than the bare substance of the testimony. Without adding anything substantive to the witness' memory of events, hypnosis may significantly add to his confidence in his recall. Thus, a witness who quite honestly reveals that he is unsure of the identification of a defendant from a photograph . . . may, after hypnosis, become quite certain and confident that he has picked the right man.

Diamond, supra note 16, at 339-40.

^{199.} One article asserts that this fear ensures that a witness cannot deliberately fabricate under hypnosis and thus ensures reliable testimony in court. See Spector &

occurs under hypnosis is honest in the sense that the subject is not aware that he is fabricating. Therefore, it can hardly be expected that the usual inducements to honesty in ordinary witnesses are apt to be effective for a pretrial hypnotized witness.²⁰⁰ In addition, especially in the area of criminal law, the defendant's ability to present expert testimony as to the reliability of hypnosis for jury perusal is severely cramped by the financial costs of such testimony.²⁰¹

The Frye standard is the proper approach for courts to utilize in the area of hypnosis. Unlike the relevancy standard, the Frye standard focuses on the hypnosis process itself and not on the witness's testimony. Furthermore, the other criticisms directed at the Frye standard are not applicable to the issue of hypnosis. For instance, the general field of experts is clinical hypnotists who have studied its effects. The general principle to be accepted is the reliability of hypnotically refreshed testimony. The way to establish general acceptance in the relevant field is by examining expert testimony on the forensic use of hypnosis and by examining scientific and legal literature on the subject to see whether the use of hypnosis is widely accepted as an accurate method of restoring memory. The only conclusion is that hypnosis does not meet the Frye standard.

Nevertheless, three courts have found that hypnosis satisfies the Frye standard and have admitted testimony from previously hypnotized witnesses as substantive evidence. These courts, however, either failed to properly apply $Frye^{203}$ or did not actually apply Frye at all. Two of these courts simply state (in dictum) that hypnosis, as a reliable means of memory refreshment, has been generally accepted in the scientific community, and find the Frye test satisfied without any supporting material

Foster, supra note 73, at 594.

^{200.} Diamond, supra note 16, at 330.

^{201.} Giannelli, supra note 171, at 1243-45.

^{202.} State v. Greer, 609 S.W.2d 423 (Mo. Ct. App. 1980), vacated on other grounds, 450 U.S. 1027 (1981); State v. Hurd, 86 N.J. 525, 432 A.2d 86 (1981); People v. Hughes, 99 Misc. 2d 863, 417 N.Y.S.2d 643 (1979). Since this article was written, additional cases have implicitly or explicitly followed the approach of the Hurd court. The writer feels these courts adopted the wrong approach. See State v. Beachum, 97 N.M. 682, 643 P.2d 246 (Ct. App. 1982); State v. Martin, 33 Wash. App. 486, 656 P.2d 526 (1982); State v. Long, 32 Wash. App. 732, 649 P.2d 845 (1982).

^{203.} State v. Hurd, 86 N.J. 525, 432 A.2d 86 (1981). See infra notes 206-07 and accompanying text.

^{204.} State v. Greer, 609 S.W.2d 423 (Mo. Ct. App. 1980); People v. Hughes, 99 Misc. 2d 863, 417 N.Y.S.2d 643 (1979).

demonstrating how it was satisfied.205 Neither court examined scientific literature on the subject, nor heard expert testimony.206 Ultimately, each court left the reliability of hypnosis for the jury to weigh in evaluating witness credibility.207 In effect both courts found that hypno-induced evidence was generally accepted among the scientific community because, ipse dixit, it was. With this analysis, neither court actually applied Frye.

One of these courts, State v. Hurd, 208 applied a version of the Frye standard different from the one applied by the courts in State v. Mack, State v. Mena, 208.1 Commonwealth v. Nazarovitch, 208.2 and People v. Shirley. The Hurd court's version of the Frye test read: "Scientific tests are admissible only when they have sufficient scientific basis to produce uniform and reasonably reliable results and will contribute materially to the ascertainment of the truth."209 It held that hypnosis satisfied this modified Frve test.

The purpose of using hypnosis is not to obtain truth Instead, hypnosis is employed as a means of overcoming amnesia and restoring the memory of a witness. In light of this purpose, hypnosis can be considered reasonably reliable if it is able to yield recollections as accurate as those of an ordinary witness. . . . Based on the evidence submitted at trial, we are satisfied that the use of hypnosis to refresh memory satisfies the Frye standard in certain instances. If it is conducted properly and used only in appropriate cases, hypnosis is generally accepted as a reasonably reliable method of restoring a person's memory. Consequently, hypnotically-induced testimony

^{205.} See supra note 204.

^{206.} Two of those courts found testimony admissible in the face of expert testimony stating that hypnosis was not a reliable means of eliciting accurate recall. People v. Hughes, 99 Misc. 2d 863, 417 N.Y.S.2d 643, 646 (Onondaga County Ct. 1979); State v. Beachum, 97 N.M. 682, 643 P.2d 246, 248 (Ct. App. 1981). In essence, these courts simply followed the relevancy approach enunciated in Harding and its progeny. See supra notes 90-116 and accompanying text for a discussion of that standard.

^{207.} See, e.g., State v. Greer, 608 S.W.2d 423 (Mo. Ct. App. 1980). After stating the assumption, "given a proper foundation for general acceptance," the court listed all courts that have admitted hypnosis and concluded that therefore hypnosis is generally accepted, not inherently unreliable, and that these concerns do not go to admissibility as a matter of law, but rather go to the weight to be accorded testimony by the trier of fact. Id. at 434-36.

^{208. 86} N.J. 525, 432 A.2d 86 (1981).

^{208.1. 128} Ariz. 226, 624 P.2d 1274 (1981).

^{208.2. 496} Pa. 97, 436 A.2d 170 (1981).

^{209.} State v. Hurd, 86 N.J. at 536, 432 A.2d at 91 (citing State v. Cary, 49 N.J. 343, 352, 230 A.2d 384, 389 (1967)).

may be admissible if the proponent of the testimony can demonstrate that the use of hypnosis in the particular case was a reasonably reliable means of restoring memory comparable to normal recall in its accuracy.²¹⁰

Hurd is the only reported decision to find that hypnosis is generally accepted in the scientific community and to support its determination with any analysis. This analysis, while persuasive, is deficient when all available materials are studied.

The initial problem is that the *Hurd* court premised general acceptance on the wrong criteria. The court assumed that hypnosis is not used for reviving truthful or historically accurate recall but only for restoring memory comparable in reliability to ordinary recall. This premise ignores a basic fact. The only reason hypnosis is used as an investigatory tool is to retrieve factual information "theoretically" stored²¹¹ in the subject's subconscious.²¹² More importantly, such refreshed memory, whether accurate or confabulated, is subsequently presented to the jury as factually accurate recall. *Hurd* overlooks the fact that memory refreshed through hypnosis, though possibly false, is nevertheless presented as factually accurate memory. Accordingly, the measure of general acceptance must be accuracy, not restoration.²¹³

Hurd sidesteps the issue of accuracy by comparing the problems associated with hypnosis (such as vulnerability to suggestion, the subject's loss of critical judgment, risk of confabulation and pseudomemory, and the hypnotized witnesses' subjective assurance in the accuracy of their memory²¹⁴) with those problems associated with normal witness recall.²¹⁵ The court concluded they were basically the same. "Without underestimating the seriousness of the problems associated with hypnosis, it should be recognized that psychological research concerning

^{210.} State v. Hurd, 86 N.J. at 537-38, 432 A.2d at 92 (citations omitted).

^{211.} Levitt, supra note 62, at 56; see supra note 38 and accompanying text.

^{212.} Accord People v. Shirley, 31 Cal. 3d 18, 641 P.2d 775, 181 Cal. Rptr. 243, cert. denied, 103 S. Ct. 133 (1982).

^{213.} Two concurring judges in *Hurd* advocated this position. State v. Hurd, 86 N.J. at 550, 432 A.2d at 98 (Sullivan and Clifford, JJ., concurring).

^{214. &}quot;The witness' testimony on the stand will be unshakeable; he or she has become literally immune to cross-examination." Levitt, supra note 62, at 57. See supra notes 62-70 and accompanying text.

^{215.} See Note, Did Your Eyes Deceive You? Expert Psychological Testimony on the Unreliability of Eyewitness Identification, 29 STAN. L. REV. 969 (1977) [hereinafter cited as Note, Eyewitness Identification].

the reliability of ordinary eyewitnesses reveals similar shortcomings."²¹⁶ The court's analysis, simply stated, is that if normal witness memory is inherently fallible²¹⁷ and courts must accept eyewitness testimony,²¹⁸ hypno-induced memory, which is equally fallible, also will have to be accepted.²¹⁹

The conclusion overlooks the critical point that normal witness memory is just that, normal witness memory. While fallible and prone to many of the shortcomings associated with hypnosis, ²²⁰ the witness is testifying to something he remembers without any artificial assistance or "fixing." His tainted memory is simply the product of fallible human memory, his testimony consisting of what he believes occurred. Hypno-induced testimony, however, is categorically different. To begin with, the previously hypnotized witness testifies to something he could not remember with normally tainted recall. The witness is not testifying to what he believes he saw but rather what he remembers under hypnosis which becomes what he believes he saw.²²¹ This testimony cannot be considered normal because it is aided by an inherently suggestive process, hypnosis.²²² Thus, tainted normal recall is further tainted by the process of hypnosis.

The *Hurd* court's reliance on "procedural safeguards" to protect against unreliable hypno-induced testimony further complicates matters.²²³ The California Supreme Court observed:

First, a psychiatrist or psychologist experienced in the use of hypnosis must conduct the session. This professional should also be able to qualify as an expert in order to aid the court in evaluating the procedures followed. Although we recognize that there are many other people trained to administer hypnosis and skilled in its use for investigative purposes, we believe that a professional must administer hypnosis if the testimony revealed is to be used in a criminal trial. In this way, the court will be able to obtain vital information concerning the pathological reason for memory loss and the hypnotizability of the witness. Furthermore, the expert will be able to conduct the

^{216.} State v. Hurd, 86 N.J. at 541, 432 A.2d at 94.

^{217.} See Note, Eyewitness Identification, supra note 215, at 990-95.

^{218. &}quot;The fallibility of human memory poses a fundamental challenge to our system of justice. Nevertheless, it is an inescapable fact of life that must be understood and accomodated." State v. Hurd, 86 N.J. at 542, 432 A.2d at 95 (citations omitted).

^{219. &}quot;[A] rule of per se inadmissibility is unnecessarily broad and will result in exclusion of evidence that is as trustworthy as eyewitness testimony." State v. Hurd, 86 N.J. at 541, 432 A.2d at 94.

^{220.} See Note, Eyewitness Identification, supra note 215.

^{221.} Orne Affidavit, supra note 103, at 8-14; Diamond, supra note 16, at 323. See also State v. Mack, 292 N.W.2d 764, 769 (Minn. 1980).

^{222.} See infra notes 242-46 and accompanying text.

^{223.} State v. Hurd, 86 N.J. at 545-46, 432 A.2d at 96-97. The six requirements were those first proposed by Dr. Martin Orne. They are:

[We] are not persuaded that the requirements adopted in Hurd and other cases will in fact forestall each of the dangers at which they are directed. [Also] we observe that certain dangers of hypnosis are not even addressed by the Hurd requirements: virtually all of those rules are designed to prevent the hypnotist from exploiting the suggestibility of the subject; none will directly avoid the additional risks, recognized elsewhere in Hurd that the subject (1) will lose his critical judgment and begin to credit "memories" that were formerly viewed as unreliable, (2) will confuse actual recall with confabulation and will be unable to distinguish between the two, and (3) will exhibit an unwarranted confidence in the validity of his ensuing recollection.²²⁴

Justice Mosk correctly states that even if adequate safeguards for all the problems could be devised he doubts whether "they could be administered in practice without injecting undue delay

interrogation in a manner most likely to yield accurate recall.

Second, the professional conducting the hypnotic session should be independent of and not regularly employed by the prosecutor, investigator or defense. This condition will safeguard against any bias on the part of the hypnotist that might translate into leading questions, unintentional cues, or other suggestive conduct.

Third, any information given to the hypnotist by law enforcement personnel or the defense prior to the hypnotic session must be recorded, either in writing or another suitable form. This requirement will help the court determine the extent of information the hypnotist could have communicated to the witness either directly or through suggestion.

Fourth, before inducing hypnosis the hypnotist should obtain from the subject a detailed description of the facts as the subject remembers them. The hypnotist should carefully avoid influencing the description by asking structured questions or adding new details.

Fifth, all contacts between the hypnotist and the subject must be recorded. This will establish a record of the pre-induction interview, the hypnotic session and the post-hypnotic period, enabling a court to determine what information or suggestions the witness may have received during the session and what recall was first elicited through hypnosis. The use of videotape, the only effective record of visual cues, is strongly encouraged, but not mandatory.

Sixth, only the hypnotist and the subject should be present during any phase of the hypnotic session, including the pre-hypnotic testing and the post-hypnotic interview. Although it may be easier for a person familiar with the investigation to conduct some of the questioning, the risk of detectable, inadvertent suggestion is too great, as this case illustrates. Likewise, the mere presence of such a person may influence the response of the subject.

Id.

Two New York lower courts have adopted *nine* prerequisites. People v. McDowell, 103 Misc. 2d 831, 427 N.Y.S.2d 181 (Sup. Ct. 1980); People v. Lewis, 103 Misc. 2d 881, 427 N.Y.S.2d 177 (Sup. Ct. 1980).

224. People v. Shirley, 31 Cal. 3d 18, 39, 641 P.2d 775, 787, 181 Cal. Rptr. 243, 255, cert. denied. 103 S. Ct. 133 (1982).

and confusion into the judicial process."²²⁵ Furthermore, he does not need a crystal ball to predict that such procedural safeguards will provide "a fertile new field for litigation."²²⁶ In his opinion, the *Hurd* approach is a "game not worth the candle."²²⁷

The Hurd court believed that these procedural safeguards guaranteed a hypnosis process free of suggestion. That court, like three others,²²⁸ believed these procedures could be judged by the test for suggestibility developed in Stovall v. Denno²²⁹ and its progeny²³⁰ to insure procedures that remained suggestion free. Under this approach, the court must "determine whether, under the totality of the circumstances, the procedures used were so impermissibly suggestive as to give rise to the very substantial likelihood of irreparable misidentification."²³¹ This constitutional approach, however, was not designed to deal with the area of hypnosis.

The suggestibility standard is inappropriate for hypnosis for a number of reasons. First, it has been extensively criticized for offering little protection in practice against wrongful conviction of the innocent due to mistaken identification. Also, it was specifically designed to apply to pretrial identification procedures such as lineups and showups. And "it is not quite clear how courts would apply it to hypnosis which produces more information than a simple identification." Furthermore, all authorities agree that the hypnosis process allows the subject to remember fact and fantasy and not even the most experienced professional can differentiate one from the other. How a court

^{225.} Id.

^{226.} Id. at 40, 641 P.2d at 787, 181 Cal. Rptr. at 255.

^{227.} Id. at 40, 641 P.2d at 787, 181 Cal. Rptr. at 256.

^{228.} United States v. Narciso, 446 F. Supp. 252 (E.D. Mich. 1977); State v. Greer, 609 N.W.2d 423 (Mo. Ct. App. 1980), vacated on other grounds, 450 U.S. 1027 (1981); People v. Hughes, 99 Misc. 2d 863, 417 N.Y.S.2d 643 (1979).

^{229. 388} U.S. 293 (1967).

^{230.} See Manson v. Brathwaite, 432 U.S. 98 (1977); Neil v. Biggers, 409 U.S. 188 (1972). See generally C. Whitebread, Criminal Procedure 353-74 (1980).

^{231.} People v. Hughes, 99 Misc. 2d 863, 871-73, 417 N.Y.S.2d 643, 649 (1979).

^{232.} Note, Eyewitness Identification, supra note 215, at 993. Interestingly, the Hurd court relies extensively on this article for its conclusion that hypno-induced memory and normal memory are equally fallible, but the court ignores the analysis in the article stating that the Denno suggestibility standard is unworkable and unreliable.

^{233.} Comment, Admissibility of Testimony, supra note 27, at 1219.

^{234.} See Orne Affidavit, supra note 103; Diamond, supra note 16; Dilloff, supra note 81; Spector & Foster, supra note 73. See also People v. Shirley, 31 Cal. 3d 18, 641 P.2d 775, 181 Cal. Rptr. 243, cert. denied, 103 S. Ct. 133 (1982); State v. Mena, 128 Ariz. 226, 624 P.2d 1274 (1981); People v. Bicknell, 114 Cal. App. 3d 388 (1980)(available on

will determine when the process is free of suggestion is a question that remains unanswered.²³⁵

Secondly, the standard places a heavy burden on the defendant to prove that the process was inherently suggestive.²³⁶ Excepting the most flagrant cases of suggestion,²³⁷ the defendant will be unable to meet this burden.²³⁸ Whether the hypnosis process was suggestive will boil down to experts for each side testifying as to the suggestiveness of the individual process. The judiciary is ill-equipped to determine for itself if any individual hypnosis process is inherently suggestive²³⁹ and will ultimately be forced routinely to admit hypno-induced testimony²⁴⁰ and leave the matter to the trier of fact as an issue of credibility.²⁴¹

LEXIS, States library, Cal. file), hearing granted, Crim. 21582, Cal. (Feb. 11, 1981); People v. Gonzales, 108 Mich. App. 145, 310 N.W.2d 306 (1981); State v. Mack, 292 N.W.2d 1764 (Minn. 1980); Commonwealth v. Nazarovitch, 496 Pa. 97, 436 A.2d 170 (1981).

^{235.} The safeguards that are proposed for pretrial hypnosis, such as videotaping the hypnotism process or allowing only professional hypnotists to perform the process, see State v. Hurd, 86 N.J. at 540-42, 432 A.2d at 94; State v. Martin, 33 Wash. App. 486, 656 P.2d 526 (1982), are useful in the sense that they may prevent overt suggestion on the part of the hypnotists from influencing the subject. However, no procedural safeguards exist or have been suggested that can protect against the inherent suggestiveness of the process. See Orne Affidavit, supra note 103; Diamond, supra note 16, at 332-34, 348-49.

^{236.} United States v. Narciso, 446 F. Supp. 252, 279-82 (E.D. Mich. 1977).

^{237.} See, e.g., State v. Hurd, 86 N.J. at 525, 432 A.2d at 86.

^{238.} See, e.g., United States v. Narciso, 466 F. Supp. 252 (E.D. Mich. 1977).

^{239.} See People v. Shirley, 31 Cal. 3d at 39 n.24, 641 P.2d at 787 n.24, 181 Cal. Rptr. at 255 n.24.

^{240.} As guidelines for use of hypnosis are established by law enforcement agencies, see, e.g., Ault, Hypnosis: The F.B.I.'s Team Approach, F.B.I. LAW ENFORCEMENT BULL., Jan. 1980, 7-8 (checklist for agents to use before any hypnotic session with a potential witness), compliance with such procedures will become a routine matter. The judiciary, like professionals unable to look beyond the actual hypnotic process for suggestion, would be relegated to the role of checking hypnotism sessions for procedural inconsistencies and routinely admitting all procedurally error-free sessions.

^{241.} In effect the use of hypnosis would become a battle of the experts; diametrically opposed experts would testify for each side as to the reliability of the hypnotic process. The court, unable by itself to determine which expert is right, will be forced to leave the issue to the jury. This in fact is exactly what has occurred. In United States v. Narciso, 446 F. Supp. 252 (E.D. Mich. 1977), experts testified for each side, and each side's experts agreed that the other side may be right. The court stated:

The experts testify that any alternative is possible [accuracy or confabulation] . . . but that one or the other theory is more probable. Weighing this testimony . . . the court cannot conclude that the hypnotic interrogation session together with the photographic array creates a very substantial likelihood of irreparable misidentification . . . The court recognizes that there is a possibility of misidentification in the circumstances. . . . On these facts where the probabilities are closely in equipoise, the court will not remove from the jury the function of finding the facts.

Id. at 281-82 (emphasis added).

Lastly, while both hypnosis and lineups can be conducted in a suggestive manner, a lineup in and of itself is not an inherently suggestive process. Hypnotism is. Two important characteristics of a subject in a hypnotic state are hypersuggestiveness and hypercompliance.242 Hypnosis has been defined as an alteration in consciousness and concentration in which the subject manifests a heightened degree of suggestibility.243 The subject's increased compliance stems from the feeling of a close relationship promoted by the hypnotist to ensure cooperation.244 It is a cooperative effort in which the therapist aids the subject by means of a specialized knowledge and technique to achieve a purpose which both have agreed upon as valid and worthwhile.245 It must be remembered that the typical witness will be hypnotized after interviews by police authorities. The purpose of the hypnosis is the noble and worthwhile goal of remembering forgotten facts about the crime to which one has been exposed.

To fully appreciate the problems which may follow a hypnotic session, it is necessary to recognize the scientific fact that a deeply hypnotized individual who is asked to remember and describe something which occurred while he was asleep or not actually present almost always produces something which appears to be memory.²⁴⁶

Similarly a hypnotized witness will invariably remember some facts under hypnosis, and even in the most suggestion-free environment there is no guarantee that such memories are fact and not fantasy. Thus, *Hurd*'s procedural safeguards and the *Stovall* suggestibility standard fail as useful tools in the area of hypnosis. The California Supreme Court correctly concluded: "For all these reasons we join instead a growing number of courts that have abandoned any pretense of devising workable

Leaving the decision to the jury is little more than an abdication of judicial responsibility because the jury is in an even worse position than the judiciary to gauge the reliability of hypno-induced testimony.

^{242.} Levitt, supra note 62, at 56.

^{243.} Spector & Foster, supra note 73, at 570.

^{244.} See, Note, Safeguards Against Suggestiveness: A Means For Admissibility of Hypno-Induced Testimony, 38 Wash. & Lee L. Rev. 197, 200 (1981). See also Commonwealth v. Nazarovitch, 496 Pa. 97, 436 A.2d 170 (1981). "A subject's awareness of the purpose of the hypnotic session, coupled with the hypersuggestibility which the subject experiences, amounts to a situation fraught with unreliability." Id. at 104, 436 A.2d at 174.

^{245.} Spector & Foster, supra note 73, at 571.

^{246.} Orne Affidavit, supra note 103, at 23; Diamond, supra note 16, at 335.

'safeguards' and have simply held that hypnotically induced testimony is so widely viewed as unreliable that it is inadmissible under the *Frye* test."²⁴⁷

IV. THE CONFRONTATION CLAUSE

This writer is not alone in believing that the heart of sixth amendment confrontation²⁴⁸ is cross-examination.²⁴⁹ Cross-examination involves face to face confrontation: two opponents meeting in a judicial setting, each advocating different theories and facts explaining the event in dispute. Typically, confrontation problems have arisen in the context of hearsay declarations offered as substantive evidence at a criminal trial.²⁵⁰ Within the various factual settings, the question has been whether to admit a witness's prior statements as substantive evidence against a defendant even though the declarant is unavailable for cross-examination at trial.²⁵¹ Because of the inherent difficulties attendant to cross-examining witnesses who have undergone hypnosis, a novel and disturbing question arises: in the context of a criminal proceeding, is a defendant deprived of his sixth

^{247.} People v. Shirley, 31 Cal. 3d 18, 40, 641 P.2d 775, 787, 181 Cal. Rptr. 243, 256, cert. denied, 103 S. Ct. 133 (1982).

^{248.} The sixth amendment states in part: "In all criminal prosecutions the accused shall enjoy the right . . . to be confronted with the witnesses against him." U.S. Const. amend. VI. The right to confrontation has been held applicable to the states through the due process clause of the fourteenth amendment. Pointer v. Texas, 380 U.S. 400, 403 (1965). There are numerous scholarly critiques of the Supreme Court's analysis and approach to the confrontation area. See, e.g., Graham, The Confrontation Clause, The Hearsay Rule, and the Forgetful Witness, 56 Tex. L. Rev. 151 (1978); Graham, The Right of Confrontation and the Hearsay Rule: Sir Walter Raleigh Loses Another One, 8 Crim. L. Bull. 99 (1972). The purpose of this section is to explore confrontation within the context of previously hynotized witnesses. Absent a strict application of the Frye rule, this writer contends that sixth amendment confrontation rights are compromised by hypnosis.

^{249. 5} J. WIGMORE, EVIDENCE § 1397, at 158. (Chadbourn rev. 1974). Many Supreme Court opinions in the past equate confrontation with cross-examination. See, e.g., Roberts v. Russell, 392 U.S. 293 (1968); Bruton v. United States, 391 U.S. 123 (1968); Barber v. Page, 390 U.S. 719 (1968); Smith v. Illinois, 390 U.S. 129 (1968); Brookhart v. Janis, 384 U.S. 1 (1966); Douglas v. Alabama, 380 U.S. 415 (1965).

^{250.} Ohio v. Roberts, 448 U.S. 56 (1980); Pointer v. Texas, 380 U.S. 400 (1965). Confrontation issues have also arisen in cases where a witness refuses to answer questions concerning prior statements, Douglas v. Alabama, 380 U.S. 415 (1965); and where the witness at trial claims a faulty memory regarding prior statements, California v. Green, 399 U.S. 149 (1970).

^{251.} See Ohio v. Roberts, 448 U.S. 56 (1980); Mancusi v. Stubbs, 408 U.S. 204 (1972); cf. California v. Green, 399 U.S. 149 (1970) (witness physically present at trial, but "unavailable" due to loss of memory).

amendment right to confront a witness who has been hypnotized for the ostensible purpose of effecting better recall? In addressing this question, it is necessary to discuss the underlying purposes behind the clause itself and the conduct it protects against.²⁵²

In California v. Green, the Supreme Court identified the backbone of the confrontation clause:

Confrontation: (1) insures that the witness will give his statements under oath—thus impressing him with the seriousness of the matter and guarding against the lie by the possibility of a penalty of perjury; (2) forces the witness to submit to cross-examination, the "greatest legal engine ever invented for the discovery of truth;" (3) permits the jury that is to decide the defendant's fate to observe the demeanor of the witness in making his statement, thus aiding the jury in assessing his credibility.²⁵³

If "the mission of the confrontation clause is to advance a practical concern for the accuracy of the truth-determining process," then the adversary system must provide the defendant "an opportunity to cross-examine the witnesses against him." 255

^{252.} For an excellent historical guide to confrontation, see F. Heller, The Sixth Amendment 10 (1951). See also California v. Green, 399 U.S. 149 (1970).

^{253.} California v. Green, 399 U.S. at 158 (quoting 5 J. WIGMORE, EVIDENCE § 1367 (3rd ed. 1940)).

^{254.} Dutton v. Evans, 400 U.S. 74, 89 (1970).

^{255.} Pointer v. Texas, 380 U.S. at 407. A major concern in the context of pre-trial hypnosis is what "opportunity to cross-examine" means. Recent Supreme Court decisions seem to suggest that if a witness testifies at trial, confrontation is satisfied. In California v. Green, 399 U.S. 149 (1970), a witness made statements to a police officer and later testified at a preliminary hearing that the defendant was his drug supplier. At trial, however, the witness could only "guess" if Green was his drug supplier even after the prosecution refreshed his memory with his prior statements. The Supreme Court decided that defendant had adequate opportunity to cross-examine the witness at the preliminary hearing where the witness was under oath and defendant was represented by counsel. The witness's prior statements were admitted into evidence even though he could not remember at trial. Furthermore, the witness appeared at trial and was subjected to the three main aspects of confrontation: oath, cross-examination, and jury perusal. Thus, "the inability to cross-examine the witness at the time he made his prior statement cannot be easily shown to be of crucial significance as long as the defendant is assured of full and effective cross-examination at the time of the trial." Id. at 159. The witness, however, was examined by defendant at the preliminary hearing. Similarly, in Ohio v. Roberts, 448 U.S. 56 (1980), the Supreme Court approved admission of a key witness's prior statement against the defendant. The witness had disappeared and was unavailable for trial. At a preliminary hearing, however, the witness was examined by defendant in an attempt to elicit favorable testimony. The Supreme Court held that defendant's examination of the witness at the preliminary hearing "clearly partook of cross-examination as a matter of form." Id. at 70. In addition, counsel's questioning com-

In sum, confrontation envisions

a personal examination and cross-examination of the witness in which the accused has an opportunity, not only of testing the recollection and sifting the conscience of the witness, but of compelling him to stand face to face with the jury in order that they may look at him, and judge by his demeanor upon the stand and the manner in which he gives his testimony whether he is worthy of belief.²⁶⁶

The Supreme Court has developed general guidelines to be utilized when confrontation problems arise. These guidelines, however, have been developed through a line of cases almost exclusively concerned with hearsay problems.²⁵⁷ In these cases, the witness is not available at trial, and the prosecution seeks to introduce a prior statement made by the absent witness. But in the case of hypnosis these guidelines provide little aid in analyzing whether a defendant's confrontation rights are violated because the hypnotized witness testifies at trial.²⁵⁸ The witness

ported with the principal purpose of cross-examination: to challenge "whether the declarant was sincerely telling what he believed to be the truth, whether the declarant accurately perceived and remembered the matter he related, and whether the declarant's intended meaning is adequately conveyed by the language he employed." Id. at 71 (quoting Davenport, The Confrontation Clause and the Co-Conspirator Exception in Criminal Prosecutions: A Functional Analysis, 85 HARV. L. REV. 1378 (1972)). The court refused to decide whether "mere opportunity" to cross-examine a witness is enough to admit prior testimony. Roberts, 448 U.S. at 70.

Both Green and Roberts implicitly operate upon two crucial assumptions: (1) when examination of the witness occurred at the preliminary stage of a trial, there was opportunity to "test" the memory of the witness before he forgot or disappeared, and (2) because the witness was examined as to his initial perceptions, memory, attitudes, and sincerity, defendant in fact had fair and adequate opportunity to cross-examine.

These assumptions, however, fail in the hypnosis cases. Once hypnotized, a defendant loses all opportunity to cross-examine the original witness. The original witness's initial perceptions and memory are crucial, but are lost to the hypnotic process. Most frightening is that a witness will not even suspect this and will usually assume his "new" memory is real, accurate, and truthful. See Diamond, supra note 16, at 333. Thus, Green and Roberts are premised not only upon opportunity to cross-examine, but in both cases upon defendant's actually taking advantage of that opportunity at a preliminary hearing.

256. Ohio v. Roberts, 448 U.S. at 63-64 (quoting Mattox v. United States, 156 U.S. 237, 242-43 (1895)).

257. Id. at 62-66. Most recently in Roberts, the Supreme Court decided that confrontation means necessity: the necessity to produce a witness against a defendant at trial. If the witness is unavailable at trial, the prosecution bears the burden of establishing that the state has made a good faith effort to procure the witness's presence. Even after these requirements are met, a court must still determine whether the statements bear "adequate indicia of reliability" or "particularized guarantees of trustworthiness." Id. at 65-66.

258. In State v. Mack, defendant argued that the hypnotically induced "memory" in

is subjected to an oath-taking and cross-examination in a formal setting, and the demeanor and countenance of the witness are open to perusal by the jury. There is, in fact, face-to-face confrontation. Nonetheless, several confrontation problems still exist.

First, the practical purpose of the oath (or affirmation) ceremony is to impress upon the witness the duty to testify truthfully.269 The oath, at one time, was regarded as "a summoning of divine vengeance upon false swearing."260 Today, however, it is viewed as a mode of "reminding the witness strongly of the divine punishment somewhere in store for false swearing, and thus putting him in a frame of mind calculated to speak only the truth as he saw it."261 The perjury penalty operates in a similar manner. The witness is cautioned against conscious falsification. The oath reminds him of "ultimate punishment by a supernatural power,"262 while the penalty of perjury reminds him of "speedy punishment by a temporal power."263 Dean Wigmore found the combination of affirmation with the penalty of perjury to be a real and powerful prophylactic device preventing false witness.264 Thus, the special feature underlying the oath or affirmation is that it operates in advance of the admission of evidence; it is an "expedient calculated to supply an antidote or a prophylactic for the supposed weakness or danger inherent in the evidence."265 Thus, an oath-taking ceremony, if anything, strongly cautions a witness against knowingly testifying to false

that case, violated his right to confrontation and cross-examination. State v. Mack, 292 N.W.2d 764, 767 (Minn. 1980). Though Mack does not expressly so hold, the court did recognize that a memory after hypnosis becomes so firmly rooted "that the ordinary indicia of reliability' are completely erased." Id. at 769. The court also noted that "because the person hypnotized is subjectively convinced of the veracity of the 'memory,' this recall is not susceptible to attack by cross-examination." Id. at 770. The Mack court did not rule on the confrontation issue raised because the "proffered testimony does not meet ordinary standards of reliability for admission." Id. at 772. Presumably the offered testimony could not satisfy the Frye test requirement of general acceptance in the scientific community.

^{259.} See, e.g., Flores v. State, 443 P.2d 73, 76-77 (Alaska 1968); Clinton v. State, 33 Ohio St. 27, 33 (1877); Fed. R. Evid. 603; 6 J. Wigmore, Evidence §§ 1817, 1819 (Chadbourn rev. 1976).

^{260. 6} J. WIGMORE, supra note 259, § 1816.

^{261.} Id.

^{262.} Id.

^{263.} Id. § 1831.

^{264.} Id.

^{265.} Id.

statements.266

Hypnosis, however, destroys this prophylactic function. After hypnosis, neither subject nor expert observer is able to distinguish between confabulations and accurate recall in any given case absent corroborating evidence. In fact, witnesses who may have been unsure about a set of events may become absolutely certain after hypnosis. Thus, after hypnosis, a witness cannot knowingly testify to a falsehood because the witness is unable to separate truth from falsehood. The witness claims only one thing: a "new" memory. What is remembered may be either accurate or inaccurate, but the witness cannot know which, and thus by definition can never knowingly perjure himself. Through hypnosis, the oath-taking purpose underlying confrontation is effectively neutralized.

Second, effective cross-examination is seriously impeded and in many cases rendered altogether meaningless. Orne states that a hypnotized subject will tend to mix past knowledge or other factual information gathered from newspaper accounts, prior interrogatories, and inadvertent comments made by others with his own memory. Under hypnosis, these bits of knowledge become fused to form pseudomemories.²⁷⁰ The witness's original memories, attitudes, perceptions, and sincerity are lost to the hypnotic process and, therefore, it is impossible upon cross-examination to sort out which facts the witness knew prior to hypnosis, discovered during hypnosis, or learned after hypno-

^{266.} See generally, 6 J. WIGMORE, supra note 259 at §§ 1816-29.

^{267.} Orne Affidavit, supra note 103, at 11, Diamond, supra note 16, at 337. "It must be emphasized that there is no known way of distinguishing with certainty between actual recall and pseudomemories except by independent verification." Quoted in a resolution passed, in October, 1978, by the Society for Clinical and Experimental Hypnosis, and in August, 1979, by the International Society of Hypnosis, 27 INT'L J. OF CLINICAL & EXPERIMENTAL HYPNOSIS 452, 453 (1979).

^{268.} Dr. Orne, noting an increasing use of hypnosis by the police to create more trustworthy witnesses, testified that

[[]t]ypically, when a witness is a bad witness . . . you hypnotize [him] because . . . the story goes all over the place every time he's asked something different—once you hypnotize [him], he consensually validates the story, and at that point it's fixed . . . [Y]ou can take somebody who is a terribly bad witness and make [him] a very good witness, because you . . . convinced [him] not only of the reality, but that you believe in the reality, and as a consequence [he] become[s] [an] unshakeable witness and that is a profound danger.

State v. Mack, 292 N.W.2d at 769 n.10 (quoting Dr. Orne).

^{269.} See supra notes 62-70 and accompanying text.

^{270.} Orne Affidavit, supra note 103, at 14, 15. Diamond confirms this disturbing phenomonon. Diamond, supra note 16, at 333-36.

sis.²⁷¹ If hypnosis can have "the effect of radically altering the nature of a witness,"²⁷² can it be fairly asserted that there is adequate opportunity to cross-examine a hypnotized witness at trial? Should opportunity to cross-examine be interpreted in light of the reality that hypnosis is concededly used to change, in some way, a witness's memory?²⁷³ The right to cross-examine "seems to involve the most basic right of an individual to confront his accuser without having to be concerned that the accuser's mind has wittingly or unwittingly been altered by special procedures not well understood by the public at large."²⁷⁴ Without an opportunity to cross-examine the witness prior to hypnosis, the second major purpose of confrontation²⁷⁵ is also neutralized. "The greatest legal engine ever invented for the dis-

For an outrageous example of the use of the former testimony exception to the hear-say rule, see State v. Williams, 9 Wash. App. 663, 513 P.2d 1045 (1973), rev'd, 84 Wash. 2d 853, 529 P.2d 1088 (1975).

^{271.} See supra notes 268-69.

^{272.} Orne Affidavit, supra note 103, at 22.

^{273.} State v. Mena. 128 Ariz. 226, 231, 624 P.2d 1274, 1279 (1981).

^{274.} Orne Affidavit, supra note 103, at 24. See People v. Shirley, 31 Cal. 3d 18, 641 P.2d 775, 181 Cal. Rtpr. 243, cert. denied, 103 S.Ct. 133 (1982). Shirley did not need to critically address this issue because the state did not satisfy the Frye standard. The State of California, however, may choose to retry Mr. Shirley for the same alleged offenses. But, by excluding the hypnotic testimony of the victim, Shirley will not have to face at trial the hypnotized victim, at least concerning matters related to the hypnosis. Prior to her being hypnotized, she did testify at a preliminary hearing. Because she is now disqualified from testifying to the events, she becomes unavailable as a witness within the meaning of the former testimony exception to the hearsay rule. Id. at 71 n.60, 641 P.2d at 808 n.60, 181 Cal. Rptr. at 276 n.60. Her original story, prior to the hypnosis, was given in a preliminary hearing where "defendant had the 'right and opportunity' to cross-examine her" and thus, to exclude her testimony altogether he must show her "disqualification as a witness was brought about by the procurement or wrongdoing of the proponent of [her] statement," i.e., the state. Id. If Mr. Shirley cannot satisfy this burden, then he may be retried. The witness "against him" will be the preliminary hearing testimony of the victim. In effect, it is the Green and Roberts dilemma in toto. It is, however, the correct approach, as the majority returns Shirley to the position he would have been in absent the unreliable hypnotic testimony. Thus, Shirley is not forced to face a witness who may have been drastically altered by the hypnotic process, and therefore confrontation is satisfied. Moreover, since Green defense attorneys have been on notice to effectively utilize cross-examination at the preliminary hearings, if they fail to do so, they may lose their only "opportunity." A case in point arises where a witness who testified at a preliminary hearing dies prior to trial. But consider the case where a witness testifies to a small portion of an event at a preliminary hearing, defendant crossexamines, and later, the witness is hypnotized prior to trial. Here, the defendant's right to confrontation is seriously compromised and that witness should not be permitted to testify. Again, as in Shirley, the prior testimony would be admissible. But the subsequent hypnosis contaminates the witness and in many cases is tantamount to tampering with evidence. See Diamond, supra note 16, at 314.

^{275.} See Ohio v. Roberts, 448 U.S. 56 (1980).

covery of truth"276 is effectively derailed.

The third and perhaps most troubling aspect of hypnosis concerns jury observation. A crucial matter in all cases is whether a jury will believe and trust the witness offering testimony. The jury's decision may rest upon a witness's demeanor, memory, sincerity, certainty, and convictions. In many cases, the believability of a particular witness may determine the outcome of a criminal proceeding. But "a witness who is uncertain about a set of events, with hypnosis, can be helped to have absolute subjective conviction about what happened."277 In instances, the content remembered through the hypnotic process will remain the same. But the subjective conviction of the witness is usually entirely different after the hypnotic process.278 The subject may have a strong subjective confidence in the validity of his new memory, making it impossible for an expert or jury to critically assess the credibility of the witness's memory.279 If scientists and experts agree that they can only speculate as to the validity of the "recalled" memory without corroborating evidence,280 can we expect juries to fare any better if the experts themselves cannot tell? Can a jury critically assess the demeanor of a witness who has a "strong subjective confidence" in the accuracy of his new memory? Professor Diamond does not think so:

A subject who has lost the memory of the source of his learned information will assume that the memory is spontaneous to his own experience. Such a belief can be unshakeable, last a lifetime, and be immune to all cross-examination. It is especially prone to "freeze" if it is compatible with the subject's prior prejudices, beliefs, or desires. This type of distorted memory is very apt to appear genuine and spontaneous, and will be unlikely to disappear.²⁸¹

Thus, in most cases the third purpose of confrontation is undermined after hypnosis. A few courts, though, have recently begun

^{276. 5} J. WIGMORE, EVIDENCE § 1367 (Chadbourn rev. 1974).

^{277.} Orne Affidavit, supra note 103, at 11. See generally Dr. Orne's discussion of the Bicknell case. Id. at 19-23. See also Diamond, supra note 16, at 336; Levitt, supra note 62, at 57.

^{278.} Orne Affidavit, supra note 103, at 22; Diamond, supra note 16, at 339, 340. See supra note 267.

^{279.} Diamond, supra note 16, at 333, 336.

^{280.} See supra notes 234, 267.

^{281.} Diamond, supra note 16, at 336.

to take notice of the seriousness of the confrontation problems. In State v. Mena, the Arizona Supreme Court recognized that cross-examination is absolutely essential to the protection of a defendant's rights and is a "vital part of the federal constitutional right to confrontation."282 In State v. Mack, the Minnesota Supreme Court noted that hypnosis erases the "ordinary indicia of reliability" and hypnotic subjects have been able to pass lie detector tests while attesting to facts which researchers knew were false.283 "It would be impossible to cross-examine such a witness in any meaningful way."284 In State v. Bicknell, the court held that testimony which is partially the product of hypnosis violates the confrontation clause of the sixth amendment because the witness cannot be cross-examined on the details of the hypnosis. There the witness was unable to know the details of the process "by definition—because she had been under hypnosis."285

Hypno-induced testimony violates a defendant's right to confront the witnesses against him. Moreover, the confrontation problem is a separate issue. Thus, even assuming the $Frye^{286}$ standard can be satisfied sometime in the future, courts must still consider whether the three major purposes underlying confrontation are satisfied. If these goals of confrontation are sufficiently frustrated even when the Frye standard is met, then the testimony still must be excluded upon constitutional grounds.

V. CONCLUSION

It is by now quite clear that testimony elicited from witnesses regarding events discussed while the witness was hypnotized is extremely likely to be fantasy—confabulation. One can-

^{282.} State v. Mena, 128 Ariz. 226, 232, 624 P.2d 1274, 1280 (1981).

^{283.} State v. Mack, 292 N.W.2d 764, 769 (Minn. 1980); see State v. Bicknell, 114 Cal. App. 3d 388 (1980)(available on LEXIS, States library, Cal. file), hearing granted, Crim. 21582, Cal. (Feb. 11, 1981).

^{284.} State v. Mack, 292 N.W.2d at 769.

^{285.} State v. Bicknell, 114 Cal. App. 3d 388 (1980) (available on LEXIS, States Library, Cal. file), hearing granted, Crim. 21582, Cal. (Feb. 11, 1981). The court refused to adopt any precautionary procedures designed to limit the potentials for abuse. Id. "The abuse is in the admission of incompetent testimony, not in the procedures employed in preparing it." Id.

^{286.} Of course, if the proponent of the hypno-induced testimony cannot satisfy Frye, there is no confrontation problem because the testimony is excluded. It is unclear at this point whether satisfying Frye will also cure the confrontation problems. In any event, those courts who have not yet accepted Frye must still face the confrontation problems hypnosis creates.

not say with certainty that hypnosis cannot accurately restore true repressed memory.²⁸⁷ In some cases, no doubt, lie detection, truth serum, and witchcraft, also work. Perhaps the reading of duck entrails works. But how can the results of hypnosis be validated? The *Hurd* court attempted to validate the results by videotaping hypnotic sessions.²⁸⁸ The stated purpose was to enable the trial court to determine what "cues" the hypnotist may have conveyed to the subject. Yet the same court acknowledges: "Because of the unpredictability of what will influence a subject, it is difficult even for an expert examining a videotape of a hypnotic session to identify possible cues."²⁸⁹ If experts cannot make such determinations, it is vain to imagine that judges or jurors can do so.

The Hurd rules are intended to prevent the hypnotist from exploiting the witness's suggestibility. The procedure does not address the problems that the witness will lose his critical judgment under hypnosis, turning what he had considered unreliable memory into certain recollection; that he will confuse actual recall with information secured from other sources, creating a logical, but false, whole; and that he will evince an unjustifiable confidence in the validity of his ensuing supposed "recollection." Finally, the "safeguards" would produce enormous delay, confusion, and expense. They also would produce future litigation.²⁹⁰

Hypnotically refreshed testimony is so widely viewed as unreliable by the most recent decisions and by the most reputable experts in the field that such testimony cannot meet the Frye standard. In the jurisdictions which follow the "relevancy" rule, hypnotism is so unreliable as to be excludable there as well. After all, if witnesses are not suffered to testify under hypnosis in open court, why should they be allowed to "refresh" their memories in this fashion out of court? It is true, that the state may see itself in a difficult position: should it subject the witness to hypnotism as an investigatory tool and lose him as a witness at trial or use his unhypnotized but weak testimony at a crimi-

^{287.} Several alleged examples are found in H. Crasilneck & J. Hall, Clinical Hypnosis: Principles and Applications 228, 230, 233 (1975). This book itself, however, is instructive in its emphasis. Ninety-eight percent of the book deals with functions of hypnosis other than restoration of memory.

^{288.} State v. Hurd, 86 N.J. 525, 547-48, 432 A.2d 86, 97 (1981).

^{289.} Id. at 538-39, 432 A.2d at 93.

^{290.} See People v. Shirley, 31 Cal. 3d 18, 641 P.2d 775, 181 Cal. Rptr. 243, cert. denied, 103 S. Ct. 133 (1982).

nal trial? One possible answer would be to preserve the "prehypnotic memory" in a deposition.²⁹¹

In recent years there has been some tendency in some jurisdictions to whittle down the *Frye* standard for reception of scientific evidence.²⁹² This study, it is hoped, may cast doubt on the soundness of such development.

Hypnotizing a witness is not like "any other method" of refreshing a witness's recollection. It is not like a song or a scent. The technique of hypnosis does much more than permit the witness to recover repressed actual memories; it actively serves to erect fantasies, creates in the subject an abiding belief in their truth, and makes it impossible for the trier of fact to distinguish between the two. If the testimony is only as reliable as the technique, it must be judged by the same standard of admissibility. Finally, the hypnotized witness's conviction of absolute veracity of his hypnotically induced recollection waxes in strength each time he is asked to repeat his story. At the time of trial, the "memory" is highly likely to be so firmly implanted that he is immune to cross-examination.²⁰³

The Arizona, Minnesota, and Pennsylvania courts pointed the way to what at first blush is somewhat radical but on full analysis becomes inevitable. The superb opinion of Justice Stanley Mosk of the California Supreme Court in *People v. Shirley* applied the last touches. A new rule of incompetence must now be added to the textbooks.

^{291.} See State v. Mena, 128 Ariz. 226, 232 n.1, 624 P.2d 1274, 1280 n.1 (1981). What if the subject, while under hypnosis, makes an exculpatory statement? The rule of exclusion would work singularly unjustly in that case. Perhaps the rule of exclusion would in such a case offend the due process clause.

^{292.} See, e.g., Imwinkelried, A New Era in the Evolution of Scientific Evidence—A Primer on Evaluating the Weight of Scientific Evidence, 23 Wm. & Mary L. Rev. 261 (1981). Cf. Fed. R. Evid. 402.

^{293.} See, e.g., Diamond, supra note 16, at 339; authorities cited by Justice Mosk in People v. Shirley, 31 Cal. 3d at 18-77, 641 P.2d 775-812, 181 Cal. Rptr. 243-80. For an analysis in an analogous situation see Beaver & Biggs, Attending Witnesses' Prior Declarations as Evidence: Theory v. Reality, 3 Ind. Leg. For. 309 (1970).