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EMBRACING THE DARKNESS: *Logerquist v. McVey* and the Doctrine of Ignorance of Science is an Excuse

David L. Faigman*

There is no darkness but ignorance.

—William Shakespeare

Ignorance is not a simple lack of knowledge but an active aversion to knowledge, the refusal to know, issuing from cowardice, pride or laziness of mind.

—Karl Popper

In *Logerquist v. McVey*, the Arizona Supreme Court held that the two now-standard alternative rules of admissibility—the Daubert validity test and the Frye general acceptance test—do not apply to experience-based psychological testimony regarding the phenomenon of repressed memories. Among several reasons for rejecting the Daubert test, the court argued that Daubert was doomed to failure because it relied on the incorrect premise that judges know, or are able to learn, something about science. According to the court, judges have no such competence: “most judges, like most jurors, have little or no technical training and ‘are not known for expertise in science.'” Frye, the Court ruled, also does not apply, because it only applies to “scientific” evidence. Despite being the subject of intense scientific research in the twentieth century, experience-based opinion...
testimony on the phenomenon of repressed memories was not really "scientific." The Court explained its logic: "Frye is applicable when an expert witness reaches a conclusion by deduction from the application of novel scientific principles, formulae, or procedures developed by others." However, the court argued, Frye "is inapplicable when a witness reaches a conclusion by inductive reasoning based on his or her own experience, observation, or research." Thus, albeit quite unintentionally, the Arizona Supreme Court proved its argument against Daubert—that judges don't understand science—by its own prosaic explanation of why Frye does not apply in this case.

In reaching its conclusion that judges and lawyers "are not known for expertise in science," the Logerquist court cited a treatise of which I am a coauthor. Using this quote to support the majority opinion not only belies the lesson of the Preface from which it was taken, it is contrary to the spirit of the entire three volume project. The point of our Preface was to express chagrin that members of the legal profession are not well versed in the scientific method, not to argue that legal doctrine should be premised on this lack of knowledge. Our point was exactly the reverse of the one the court drew. If the court had read on, it would have seen that we strongly advocate judges' sophisticated use of science:

[H]enceforth the legal culture must assimilate the scientific culture. As compared to the sciences, the law obviously has different objectives, values, and time tables in which to work. The law should not, nor could it, adopt the scientific perspective wholly and without qualifications. Science is merely a tool that the law can and must use to achieve its own objectives. Science cannot dictate what is fair and just. We can confidently conclude, however, that science has become, and will forever more be, a tool upon which the law must sometimes rely to do justice.

In fact, the Preface expresses some confidence in the belief that the law's science quotient is rising. We cite Daubert in support of this optimism, a case that has been followed by two more high court decisions that offer still more hope. Our whole objective in preparing the treatise was to bring the

10. Id. at 133 ("This case turns on a non-scientific issue.").
11. Id.
12. Id.
14. Id. at ix.
state of the art on various subjects of expert testimony to a legal audience. Still, clearly there remains a long way to go and there is no certainty that substantial regression will not occur. Logerquist illustrates this very danger.

For now, however, Logerquist appears to be mainly an aberration. It is a dead-end detour along the path to scientific competence among judges and lawyers. Nonetheless, the error of Logerquist is worthy of consideration and study. It is a robust illustration of the difficulty of the road and just how far the legal profession still has to travel. Indeed, if the Arizona Supreme Court had tried, it could not have written an opinion more replete with misconceptions regarding the nature of the scientific enterprise, and the task of integrating that enterprise into the law. In this brief article, I can only respond to what I see as the basic error in the court’s approach to the subject. Specifically, I examine its belief that expert testimony regarding repressed memories, which is ostensibly based on the experience and personal observation of the witness, should be sheltered from any substantial admissibility requirements. The court’s differentiation between experience-based expertise and science-based expertise is fundamentally flawed. In this article, I seek to demonstrate why this is so. As for the decision more generally, I agree with Justice Martone’s conclusion and suffer the same exasperation: “there are almost no views or opinions expressed in the majority opinion that I share.”

I. SCIENCE AND THE SCIENTIFIC METHOD

The Logerquist opinion distinguishes between knowledge that is the product of inductive reasoning and that which is the product of deductive reasoning. Although not always explicit, this basic distinction informs much of the analysis of the opinion. The court explained the consequences of its analysis as follows:

Our decision . . . does not turn on an attempt to determine whether repressed memory is “scientific” or “unscientific.” Plaintiff does not claim her memories are proved true as a matter of scientific fact. Frye is applicable when an expert witness reaches a conclusion by deduction from the application of novel scientific principles, formulae, or procedures developed by others. It is inapplicable when a witness reaches a conclusion by inductive

15. Logerquist, 1 P.3d at 140 (Martone, J., dissenting).
reasoning based on his or her own experience, observation, or research. In the latter case, the validity of the premise is tested by interrogation of the witness; in the former case, it is tested by inquiring into general acceptance.\textsuperscript{16}

The value of distinguishing inductive and deductive reasoning, for the Arizona court, is basically two-fold. First, the court believes that the inductive reasoning process is especially amenable to the rigors of cross-examination in ways that deductive reasoning is not. This argument appears to rely on an analogy to the hearsay rule, investing great faith in the adversarial method when the testimony is within the personal experience of the witness. This hearsay approach to scientific opinion, despite its superficial appeal, is deeply misguided. Second, distinguishing inductive reasoning from deductive reasoning allows the court to avoid determining "whether repressed memory is 'scientific' or 'unscientific.'" Since the plaintiff "does not claim her memories are proved true as a matter of scientific fact," the court informs the reader, the testimony proving her memories true need not be measured by the standards of science. This argument makes no logical sense and, moreover, is not even true in this case.

II. EXPERT OPINION AS HEARSAY

The court tells us that inductive reasoning, that is, testimony based on the personal experience, observation and research of the witness, should be tested by "interrogation of the witness."\textsuperscript{17} And deductive reasoning, that is, testimony based on the experience, observation and research of others, should be tested by "general acceptance."\textsuperscript{18} This idea might be described as the hearsay approach to scientific evidence. If the expert is testifying to facts within his or her personal knowledge, then cross-examination is the great engine for discovering truth. It is not an out of court statement being introduced for the truth of the matter asserted. However, if he or she is testifying on the basis of other people's experiences and opinions, then general acceptance must be demonstrated to the court. However

\begin{itemize}
\item \textsuperscript{16} Id. at 133.
\item \textsuperscript{17} Id.
\item \textsuperscript{18} Id.
\end{itemize}
simplistically appealing this dichotomy might be, it is not an approach well-tailored to obtaining reliable evidence.

The Logerquist court's scientific hearsay rule is premised on a misperception of the structure of scientific evidence. At best, there is only a superficial parallel between hearsay evidence and scientific evidence. Evaluating the reliability of a fact witness' assertions, whether made in court or out of court, is wholly different from evaluating scientific opinion, whether it is ostensibly a product of inductive or deductive reasoning. Whatever it is that triers of fact use to assess credibility of fact witnesses—e.g., nervousness, beady eyes, or lack of eye contact—these indicators offer little guidance when it comes to assessing the opinion of most experts. Whether the studies use double-blind research designs, appropriate statistical methods, adequate data tabulation or coding, suitable population samples, or a score of other indicators of good scientific methods, all are better estimators of the value of an expert's opinion than, say, beady eyes.

The alternative to beady eyes, undoubtedly, is the years of experience or the prestige of the expert's educational and professional accomplishments. If this is so, the initial admissibility determination becomes little more than a qualifications check. And, indeed, that appears to be the extent of rigor the Logerquist court brings to the plaintiff's expert, Doctor Bessell van der Kolk. The court assures the reader that the witness "is not any expert testifying to farfetched theories." The court knows this from his curriculum vitae. Earlier in the decision, the court observed that "[i]t is apparent we are not dealing with an alchemist attempting to change lead into gold." But why is this so apparent? Alchemy, in its time, was considered a viable expertise on just the sort of basis the Logerquist court finds unobjectionable. A sixteenth century alchemist also would have sought to testify "based on the results of his experience, his observations, his own research and that of others with which he is familiar." The alchemist too could have been expected to have an impressive vitae.

The Logerquist court's bias against alchemy and in favor of clinical psychology merely reflects the popular culture of the times. Today, alchemy and astrology are "farfetched theories." The court believes this to be so, but almost certainly could not tell us why it is so. As Justice Martone forcefully points out, nothing in the majority opinion explains what is probative about

19. Id. at 124 (discussing the expert's qualifications).
20. Id.
21. Id. at 118.
23. Logerquist, I P.3d at 124.
psychological opinion on repressed memories and what is not about astrology. For the court, it just knows that astrology is bad and repressed memory theory is good, or, at least, good enough to go to the jury. But how do they know this? Surely, there is a surfeit of astrology experts with impressive vitae and considerable experience with their subject who would be willing to testify. Why can't they testify?

Although the court does not tell the reader, the answer seems clear enough. Only those "experts" who are powerful enough within certain political guilds are permitted to testify. This would not be a bad proxy for estimating empirical value if those guilds used scientific criteria as their measure of value. Unfortunately, many ostensibly scientific guilds do not use scientific criteria to determine what becomes generally accepted. Instead, political considerations play a huge role. Battered woman syndrome, rape trauma syndrome, post-traumatic stress disorder, child abuse accommodation syndrome and sundry other clinical diagnoses do not owe their great success to the research done on them, since little substantial research has been done on them. They are convenient descriptions of reality that have much more to do with political correctness than empirical validity.

The Logerquist court, however, maintains that the probative value of the repressed memory expert lies in his personal experience with the phenomenon. It was the witness' "knowledge, experience and integrity which would give the evidence weight and it was [the witness] who was available for cross-examination." In relying so heavily on personal observation, seemingly to the exclusion of deductive theory, the Arizona Supreme Court thus displays an enlightened sixteenth century view of science. It puts a great deal of faith in the experience of the senses, but doubts the value of theory. In the end, the court adopts a threshold admissibility standard for what it calls "deductive science," but virtually no screening for what it calls "inductive reasoning" or experience. The Arizona court is more Baconian than was Francis Bacon himself.

Working at the end of the sixteenth and start of the seventeenth centuries, Francis Bacon strongly advocated inductive reasoning as the surest path to true empirical knowledge. Bacon distrusted theory, and believed that the accumulation of observations was the only way to truly know the world. Bacon's distrust of theory, however, is partly attributable to the nature of the theories extant at the time. Many natural theories derived from holy writ and

24. Id. at 139 (Martone, J., dissenting) ("Under [the majority's] approach, horoscopes would be admissible.").
25. Id. at 120 (quoting State v. Roscoe, 700 P.2d 1312, 1320 (Ariz. 1984)).
thus the world was expected to conform to it, not the reverse. Therefore, if Galileo looked through his telescope and saw four moons around Jupiter, his telescope must have been defective. There was no room for these moons in the church’s universe, so they must not exist. Bacon rejected such deductions from theory, especially when they were refuted by observation. Bacon would have applauded Thomas Huxley’s statement regarding “[t]he great tragedy of Science—the slaying of a beautiful hypothesis by an ugly fact.”

Bacon was not so naive to believe that facts could organize themselves. Observation alone amounts to little more than collecting sea shells. Bacon discounted theory—mainly in reaction to the dogmatic theories of the time—he did not deny it. The scientific method, as it subsequently developed, sought a balance between inductive and deductive reasoning. From the working scientist’s point of view, the scientific method involves a constant ebb and flow between the collecting of facts and the describing of theory that will give order and meaning to those facts. There is no division in knowledge acquisition between inductive and deductive reasoning. They are both integral parts of the scientific method.

Alone, common experience, or common sense, has not proved to be a powerful tool for understanding nature, whether human or otherwise. The history of ideas is replete with examples of instances where professional communities and laymen alike were misled by common experience. The sun does not revolve around the earth. Base metals cannot be transformed into gold. Spectral evidence does not prove the existence of witches. Blood-letting is not an effective medical therapy. Man and apes evolved from a common ancestor. And Bendectin is not a teratogen. Of course, courts are very much products of their times—or, at least, they should be. Some errors are inevitable, however much we understand science or invest resources to avoid making mistakes. Science is largely a progressive discipline, and thus we generally know more today than we did yesterday. The law can have no expectation of doing better than the knowledge that the times allow. But the law should at least aspire to do as well as the knowledge that the times allow.

It is ironic that the Logerquist court’s essentially Baconian approach to truth, albeit without the rigor Bacon insisted upon, results in a blank check being given to the syndromes and doggerel that qualify as holy writ today. In Bacon’s time, the universe was expected to conform to church doctrine. Its failure to do so was understood as a failure in the instruments of

27. Id. at 15-16.
28. THOMAS HENRY HUXLEY, BIOGENESIS AND ABIGENESIS (1870) (quoted in BARTLETT’S FAMILIAR QUOTATIONS 505 (Justin Kaplan ed., 1992)).
observation, not in the dogma of the popes and the priests. The court's opinion fails to recognize that repressed memories are anything but simply a product of one doctor's personal experience. It is largely a product of dogma sustained by faith. The historical lesson here should not be missed. Whatever researchers eventually discover about the validity of repressed memories, the reasoning of Logerquist will forever lie in the dark ages of alchemy and the geocentric universe. It is not informed by the scientific tradition and utterly fails to comprehend the lessons of that tradition.

III. THE STRUCTURE OF SCIENTIFIC EVIDENCE

The Arizona court's second reason for distinguishing inductive and deductive reasoning is to avoid having to decide "whether repressed memory is 'scientific' or 'unscientific.'" But it is clear from the decision that the court actually has made this determination, since it agreed that "[r]epression . . . has not yet been appropriately tested." Thus, repression is not science. But, the court believes, an expert's experience with the phenomenon still makes the testimony probative, because the "[p]laintiff does not claim her memories are proved true as a matter of scientific fact." Presumably, however, the plaintiff does claim that her memories are true as a matter of fact, just not as a matter of "scientific fact."

The error the court makes is believing that scientific knowledge is discrete or categorical. It is not. The scientific method is a process. Indeed, it is a process that invariably begins with experience. A medical doctor, for example, might observe that blood-letting relieves his or her patients' headaches and thus develops a hypothesis regarding both the mechanism and effectiveness of this therapy. This experience might be multiplied by additional cases. Of course, it is to be expected that not all patients benefit from this therapy, but experience well demonstrates that many do. Does experience demonstrate the effectiveness of blood-letting? For many centuries it did. And, in Arizona, it presumably still does.

A good scientist would systematically examine this hypothesis, comparing for instance, blood letting to drug therapies, such as Advil, pseudo-therapies (such as a sugar pill placebo), or no therapy. The results of such a research project would be the product of the scientific method. In that sense, and that

29. Logerquist, 1 P.3d at 133.
30. Id. at 134 (quoting MODERN SCIENTIFIC EVIDENCE, supra note 13, § 13-2.4 at 150 (Supp. 1999)).
31. Id. at 133.
sense alone, they can be described as "scientific." But there is no threshold that marks a statement as "science" or "scientific." Hypotheses and theories are valuable only to the extent that good research methods corroborate them. Of course, the hypothesis that an association exists between blood letting and headache relief was supported by clinical experience. In this sense, that hypothesis was a product of the scientific method too, since observation is part of that method. It is just that casual observation can often be very wrong so scientists seek to bring additional methods to bear on any hypothesis. The point is that observation is not separate from the scientific method, it is an integral and necessary part of it. But it is merely the first step and, contrary to the Arizona court's conclusion, deserves no special deference.

Consider the example of repressed memories, the subject of the Logerquist decision. A doctor might have examined one or more people who claim to have begun remembering things of a disturbing nature that they had previously not known about. A scientist's approach to this observation would be at least two-fold. On the one hand, employing inductive reasoning, a scientist might look for further instances of this phenomenon. This initial observation could have been an anomaly or not accurate for a variety of reasons. In seeking confirmation, the wise researcher would want to ensure that the underlying traumas occurred, that the amnesia was not explainable by other factors—such as biological amnesia—and that the reports of repression were not spurious products of expectations of either the subjects or researchers. At the same time, using deductive reasoning, the scientist would seek to integrate his or her observations into what is generally known about human memory and the brain. Does this observation conform to theory? Perhaps theory suggests another explanation for the recalled memories other than repression. Or possibly—and of potentially great excitement for the scientist—the theory itself needs to be adjusted to account for these newly discovered facts.

There is no single recipe for how to conduct a scientific investigation. The scientific method is not really just one method at all. It is a rigorous, critical, and careful approach to the development of knowledge. Different empirical subjects require different paradigms to study them. An entomologist might study ants in the laboratory and in the rain forest. A physicist might study the motion of water droplets in a vacuum chamber and in a waterfall. A psychologist might study the accuracy of eyewitness identifications in the laboratory and in the field. Scientists know that each method has its advantages and disadvantages and what is learned from one

32. MODERN SCIENTIFIC EVIDENCE, supra note 13, § 13-2.1.2 at 160 (Supp. 2000).
can be combined with the others to reach more or less certain conclusions. Repressed memories similarly could be, and should be, the subject of an assortment of methodologies, including clinical and experimental, qualitative and quantitative, prospective and retrospective, and psychological and neurological. Almost never will a study, or even a set of studies, resolve whether a phenomenon as complex as repressed memories exists and in what ways it might exist. Isolating the details surrounding this alleged phenomenon should require a prodigious research effort. So far, that research effort has produced little support for the claimed phenomenon.  

The Arizona court might be using the inductive-deductive distinction to resolve a basic incongruity that exists between scientific research and legal fact-finding. Most science is concerned with bringing order to the surfeit of facts that might be studied. Therefore, ecologists study environments, meteorologists study storms, entomologists study bugs and psychologists study people. The basic orientation of science is general and population based. A particular environment, storm, bug or person is not of great interest to the scientist who ordinarily seeks to generalize his or her findings to environments, storms, bugs or people generally. The law, in contrast, employs a medical model orientation to facts. A court is not specifically interested in how people behave, it wants to know how some identifiable person behaved. As I have put it elsewhere, “[w]hile science attempts to discover the universals hiding among the particulars, trial courts attempt to discover the particulars hiding among the universals.”

According to the Logerquist view of the scientific method, the trial court’s search for the particulars hiding among the universals can be a product of mere experience and is not dependent on the success of finding the universals hiding among the particulars. To put it another way, the Logerquist court’s rule allows the possibility that an expert can categorize an observed phenomenon, such as repressed memories, without having to show that such a category even exists. This is not science; it is superstition.

Scientific evidence conforms to these two basic levels of generality, what courts call general causation and specific causation. General causation
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refers to hypotheses that transcend individual cases. Examples of general causation include whether smoking causes lung cancer or silicone implants are associated with atypical connective tissue disorder. The term originated in toxic tort cases, but it usefully describes all kinds of expert testimony. Thus, whether polygraphy is valid or DNA profiling technology is reliable are also examples of general causation. They are facts of general import. Specific causation, in contrast, refers to the determination of whether this particular case is an instance of the general phenomenon. Examples of specific causation would be whether the plaintiff's lung cancer was attributable to having smoked the defendant's cigarettes or whether the DNA test conducted on the defendant's blood sample was done in a reliable fashion.

Rarely should an expert be allowed to testify to specific causation when there is a lack of evidence for general causation. If research does not support a link between Bendectin and birth defects, for example, it simply does not matter how much experience a doctor has had with this subject, he or she should not be permitted to testify on specific causation. If a full moon does not cause aberrant behavior, then an expert should not be allowed to testify that the defendant was adversely affected by the full moon when he robbed the convenience store. His or her experience with the subject is not enough.

Still, there may be times when experience with a phenomenon is itself sufficient. For example, a doctor's experience with a particular type of clamp, when the issue concerns whether leakage occurs with its use, might qualify. It is not that this factual matter could not be subjected to more rigorous tests, it is just that the law might not deem those tests to be necessary. Under the rules of evidence, auto mechanics, real estate appraisers and accountants testify routinely without demonstrating the valid bases for their opinions. In these contexts, authority prevails over proof. What quantum of proof is necessary is ultimately a policy judgment. The more at stake, the more proof should be demanded.

The question, then, is whether a line exists that divides when experience-based testimony should be allowed, and when more should be demanded. Unfortunately, no such bright line exists. However, one somewhat rough dividing line might be to differentiate descriptive facts from inferential facts. Experience-based testimony is generally more probative of descriptive facts. Consider, for example, a favorite form of prosecutorial expert testimony, the police officer as drug expert. Courts routinely allow police officers to testify that the drugs found on the defendant indicate an intention to distribute them,
not simply possess them for personal use. How do these witnesses know this? Presumably, their thought process goes something like the following: The defendant was arrested with twenty ounces of high-grade marijuana, and scales for weighing the drug and materials typically used to package the drug for sale were found in his house. An average user consumes about an ounce of this high grade marijuana every month and has no more than a three month supply on hand at any given time; also most personal users do not have their own scales to weigh the drugs and do not possess an excess supply of packaging materials. These factors, and possibly others, indicate to the experienced police officer that a similarly situated person would intend to sell the drugs and not merely possess them for personal use.

Courts readily admit this experience-based expert testimony. But they are justified in doing so only in part. The officer undoubtedly has knowledge from experience that the average fact finder does not share. The descriptive elements of this experience would be ordinarily valuable for the jury to hear. How much marijuana does the average user consume? Do those who use marijuana typically own scales? The expert should be permitted to testify to these descriptive facts, at least insofar as there is good reason to believe that the officer’s experience in the drug business would allow him to observe these matters. Courts should be more critical, however, when the expert seeks to provide the inferences the jurors should draw from these facts. There is no reason to believe that a police officer is better able to draw these inference than the average layperson. And there are many good reasons for limiting an expert from treading into areas of unbridled speculation.

Although the line between descriptive and inferential facts is not a bright one, it certainly makes much more sense than the line the Logerquist court chose between inductive and deductive reasoning. But even with descriptive facts, courts should not be uninterested in the basis for that information. The dog scent evidence admitted in State v. Roscoe provides a good illustration. The ability of a dog to identify scents would appear to be the quintessential type of descriptive experience. But even that experience is amenable to the

36. See United States v. Brown, No. 99-5395, 2000 WL 1290368, at *2 (6th Cir. Sept. 6, 2000) ("[T]he expert’s] thirteen years of experience in drug investigation together with his involvement in classes in which the issue was discussed is enough grounding to avoid the testimony being labeled ‘speculative.’"); United States v. Brumley, 217 F.3d 905, 911 (7th Cir. 2000) ("[T]he agent’s testimony was based not on his subjective belief or unsupported speculation but rather on his extensive experience investigating methamphetamine distribution crimes."); United States v. Lua, No. 99-10497, 2000 WL 1234618, at *1 (9th Cir. Aug. 31, 2000) ("[T]he expert testified that he has directed or participated in over 500 drug investigations with over 300 involving drug couriers . . . . Given his broad experience in such cases, there was no abuse of discretion in admitting his testimony under Rule 702.").

scientific method. According to the Arizona court, the reason Frye did not apply in Roscoe was because the dog’s identification “was not bottomed on any scientific theory.” 38 Again, the court misunderstands the nature of science and the power of the scientific method. Even in the absence of an explanatory theory, dogs’ ability to identify scents is well within the realm of testing. In fact, there are both general causation and specific causation issues involved with this kind of evidence. The former queries whether dogs, or certain kinds of dogs, have the ability to identify scents. Indeed, contrary to the Arizona court’s facile understanding of the issue, this “theory” of dog proficiency with scents is almost certainly based on general principles of dog physiology. In addition, the specific causation issue concerns whether Harass II, the dog used in the case, has the ability to identify scents. 39 Both the general causation and specific causation issues can be tested and the courts would be well advised to expect this proficiency testing to be done. If the Roscoe court had insisted that some threshold showing be made, it might have avoided the embarrassment of the subsequent disclosure that the dog’s handler was a “charlatan.” 40

Given the structure of science, the distinction the court makes between deductive and inductive reasoning, for purposes of admissibility standards, is chimerical. In fact, inductive reasoning does not really exist separately. It always—it must—serve the process of deductive reasoning. What the court calls inductive reasoning is simply hypothesis formation through anecdotal experience. The Logerquist case and its subject of repressed memories well illustrates my point. The plaintiff’s expert, Dr. van der Kolk, said that he had treated “hundreds of survivors of childhood sexual abuse,” and that he was prepared to testify that some of these “victims do have delayed memories, that their memories are as reasonably accurate as normal memories, if not better.” 41 How would he know something like this?

If the court had given the subject any thought it would have realized that this is a remarkable statement. In fact, it is almost as unbelievable as if he had said that he could turn lead into gold. What sort of experience would be necessary to support his claims about repressed memories? Most importantly, he would have to have some idea of ground truth. How did the expert determine that any allegations of abuse actually happened? Somewhat less important, but much more arrogant, is the doctor’s claim that “delayed

38. Id. at 1319.
39. Id. at 1318.
40. Logerquist, 1 P.3d at 120 (citing State v. Roscoe, 910 P.2d 635 (Ariz. 1996)).
41. Id. at 117 (citing the plaintiff’s response to Defendant’s Memorandum to Assist the Court in Evaluating the Admissibility of Expert Evidence).
memories” are as “accurate as normal memories, if not better.” He thus claims experience with repressed memory and normal memory formation, comparisons of the two, as well as the investigatory capacity to check claims of abuse several decades old. That is some very impressive experience.

In fact, of course, he claims no such experience. What he apparently has had is experience with patients, some proportion of which manifest symptoms consistent with repression. He treats these people, but there is no reason to believe he can distinguish true memories from false memories or has any basis for believing that the phenomenon is real. His expertise is therapeutic, not forensic.

This example illustrates a basic difference between the clinical value of psychological expertise and the law’s needs for that expertise. Clinical psychologists are not in the business, experientially or otherwise, of challenging their clients’ claims. Diagnoses such as rape trauma syndrome or repressed memories do not proceed on an independent judgment that the underlying trauma occurred. No psychologist or therapist is going to question a rape victim’s statement that he or she was raped. Similarly, it would be unheard of for a therapist to interview a client’s family members to determine the truth of a “recovered memory.” The law, however, is in the business of proof, and allegations such as rape and child abuse must be proven. Nothing in the ordinary experience of therapists would contribute anything to the principal issue for which they are invited to testify: does the phenomenon exist and, if so, are the memories recovered reasonably accurate?

The basic error of Logerquist lies in the court’s failure to critically assess the proffered evidence in a scientifically sophisticated way. By his own statement, the plaintiff’s expert asserted that his opinion was informed, in part, by the process of deduction from a scientific theory extant for over a century. But this theory, built largely on a Freudian foundation, fails the test of modernity. It is not simply that repression is not yet science, it has repeatedly failed scientific attempts to validate it. The court’s embrace of personal experience of the truth of repressed memory over the contrary record of scientific exploration is akin to continuing to believe in cold fusion or even extra sensory perception (ESP). Despite fervent believers in these phenomena, many of whom have personal experience with them, the failure

42. Id.
43. Id. The court quoted the witness’ letter to counsel as follows: “I intend to testify that amnesia for traumatic experiences, including for sexual abuse, has been documented in numerous scientific reports for over a century . . . . I have conducted numerous studies on the nature of the human response to trauma, including specifically on memory processes in responses.” Id.
of science to demonstrate their validity must rule the day. This is not to say that repressed memories, cold fusion, or ESP might not turn out to be proved true one day. To be sure, science has yet to definitively disprove them. But in science, as in the law, the proponent has the burden of proof. Based on the record, as even the Logerquist court seems to understand it, that burden has not been met by proponents of repressed memories.

IV. CONCLUSION

From the title of this article to the final paragraph, I admit that I have been harsh in my criticism of the Arizona Supreme Court. The tenor of my criticism stems from my belief that the court does not simply err in its understanding of the scientific method. Instead, the opinion manifests an almost willful desire to remain in the dark ages on this subject. The court admits that "most judges, like most jurors, have little or no technical training and 'are not known for expertise in science.'" 44 With this statement no one would disagree. But to fail to change this state of affairs is unforgivable. The law, by its nature, is inextricably linked with other disciplines. It relies, for example, on history, philosophy and ethics to fulfill its designated role. Would a state supreme court ever readily admit ignorance of these subjects? It is unlikely that one would try. Science and technology permeate every inch of modern society and, consequently, virtually every case before the law. Courts simply no longer have the luxury of ignoring science. The only question is how long it will take for them to fulfill this responsibility.

44. Id. at 129 (quoting MODERN SCIENTIFIC EVIDENCE, supra note 13, at vii).