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Prevalence and Impact of Ethical Problems in Forensic Science

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ABSTRACT: The prevalence of ethical problems in the forensic sciences is difficult to discover because of the limited sources of this information. A clear understanding of ethical violations is essential to establish the extent to which justice is hindered by unethical conduct among forensic scientists and then to improve the ethical state of the profession by addressing these specific problems. Seven major classes of evidence of ethical conduct and examples of each are examined: proficiency testing studies, self-report surveys and focus groups, complaints to forensic science associations, court cases, content analysis of ethical codes, anecdotal data (news reports, the professional literature, and case studies), and circumstantial evidence. Three main categories of ethical problems emerged from the data: problems of competency, individual misbehavior, and problems of practicing science in an adversary system. There is a need for more studies and various data collections to improve understanding of ethical problems in the forensic sciences and to seek to ameliorate them.

KEYWORDS: forensic sciences, symposium, ethics, jurisprudence

How prevalent are ethical problems in the forensic sciences, and what impact do they have on the law's fact-finding process? A complete assessment of the contributions and limitations of the forensic sciences depends upon having an answer to these questions, and yet, given the current state of empirical knowledge about the topic, it must remain equivocal for the time being.

The overall inquiry is important because we do not now know the extent to which justice is not done as a result of unethical conduct among forensic scientists. Depending upon how common or serious the ethical violations are, the knowledge that helps determine whether or not prosecutors file charges and helps courts reach verdicts may be distorted. Both forensic science and the justice system inevitably are at some risk; both would benefit from knowing how much.

The question posed by this study area is essential because any inquiry that hopes to understand and improve the ethical state of the forensic sciences must gain some understanding of the actual nature of what it hopes to improve. Choices made in the other study areas of this project are likely to be influenced by what is known or believed about ethics-related behavior. The definition of boundaries [*1*] may be influenced by what is known about the range of conduct of forensic scientists. Whether enlarged or new legal and policy measures are needed [*2*] depends upon judgments concerning the prevalence and seriousness of various ethical problems. And the ethical obligations of forensic scientists relative to other professions [*3*] implies an examination not only of the respective sets of obligations and the extent

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to which the sets mesh or conflict, but also a consideration of each field's performance under those obligations.

Conversely, the pursuit of answers to the empirical question with which this study area is concerned is dependent upon conclusions drawn within the other areas. What the domain of ethical obligations of forensic scientists is, and the exact nature of those ethical obligations, provide a map for empirical inquiry to follow. The definition of what is an ethical obligation of a forensic scientist will determine what empirical information is relevant. The practical result is going to be that this essentially empirical inquiry will inform and will be informed by the more normative inquiries of the other study areas, and both will need to be revised in light of the other.

Our ability to provide answers to the dual empirical questions of prevalence and impact is limited, first, by the fact that there is only a very limited literature on the subject. Although a start has been made, it so far has been a crude one. The available sources of knowledge do not consist of systematic studies designed to measure ethical behavior in the forensic sciences and assessments of the impact of unethical conduct on the quality of science or justice. The available sources of knowledge consist of relatively casual and imperfect inquiries, such as questions asked of well-placed observers or participants in the system to share their experiences or impressions, and the published experiences of lawyers or judges or the writings of forensic scientists who chose to record those experiences. For the purpose of correctly assessing the limited information now available and lending some guidance to future work in the area, it may be worth considering the difficulty of drawing meaningful inferences from the kinds of evidence available, which we do in the next section.

Difficulty of Answering these Questions Well, Given Current Knowledge

The sources of evidence we have concerning the ethical conduct of forensic scientists which will be reviewed below consist of

- proficiency testing studies;
- self-report surveys and focus groups;
- complaints to forensic science associations' ethics and discipline committees;
- court cases;
- content analysis of ethical codes;
- anecdotal data: news reports, the professional literature, case studies; and
- circumstantial evidence: problems that may be inferred from systematic research not designed to be addressed to problems of ethics.

Most of these sources present difficulties in drawing informed inferences about the prevalence and impact of unethical conduct in forensic science. In the next three sections I discuss the nature of the methodological difficulties posed by these "data."

Analogy to Public Health Research: A Problem of Sampling

If we rely on reported complaints, we not only probably are seeing the tip of the iceberg but may well be getting a distorted idea of what the iceberg itself is like. Doctors once thought that histoplasmosis was a rare and nearly always fatal disease. This was the picture that formed based on patients who presented themselves to doctors and hospitals for treatment. Once public health researchers collected properly sampled data from the population at large, they discovered that the disease was very common and only rarely fatal. Studies of lawsuits stemming from asbestos-related disease in the United Kingdom have presented the puzzle of the missing lung cancer cases. Although the number of mesothelioma cases and asbestosis cases are in their expected proportions, the victims of lung cancer, who must exist in the population, have been filing lawsuits in unexpectedly low numbers. We could go on.

Those sources of data which consist of complaints reported to professional associations or courts, articles in the popular press or case study or personal reports by justice system personnel, and similar unrepresentative efforts create the risk of this problem in our own inquiry. The temptation might be to conclude that the problems which most often arise in the literature or are complained of to forensic science associations are the problems which most often occur. We have no way to know if that is true.

Analogy to Criminal Justice Statistics Research: How Big the Problem is Depends on Where in the Institutional Processing We Look

The measurement of crime has gone through a century and a half of evolution, following a course that has taken researchers from reliance on court data on convictions to crimes-known-to-police data to contemporary victimization studies. If the underlying criminal event is what is of interest, some of that will get lost when victims do not complain to police, when police find no suspect or use their discretion not to make an arrest, and when prosecutors do not file charges. The picture one gets of the prevalence and seriousness of crime varies markedly depending upon whether one counts victims or counts convictions at the end of the judicial process.

If we treat ethical violations as analogous to criminal acts, the implications for our own inquiry is patent. If the unethical conduct itself is the behavior of interest, it is likely to remain largely unknown to us, emerging only after passing through a variety of institutional filters that may keep most instances from us and which may greatly distort the mix of cases which do come to attention.

Analogy to Tests and Measurement: Reliability and Validity

As with any other measurement situation, reports of unethical practices are "measures" of ethics which possess some degree of reliability and validity [*4*]. The degree of reliability and validity will vary with the measure and with subpopulations of what is being measured. In any event, the present state of knowledge provides no assessments of the reliability and validity of the available measures of ethics-related behavior.

What Can We Expect to Learn?

What kind of knowledge can we expect this inquiry to provide, and what can we not expect to learn from it?

Qualitative Answers—The present inquiry may be seen as an effort to develop an inventory of ethical problems in the forensic sciences undertaken essentially to acquire a rough sense of their variety and their relative gravity so as to gain an understanding of the nature of the ethical failings to be found in forensic science. To do even this much would facilitate the development of hypotheses about the causes and cures of ethical misconduct. This we are in a pretty good position to do.

Quantitative Answers—Going beyond the qualitative answers, we would wish to find out the relative frequency of problems of various kinds in various settings. In measuring impact, we would want to be in a position to attribute unambiguously to ethical issues harm that is observed to occur in the criminal justice system, know the magnitude of the harm done, its cost, etc. In evaluating treatments, we would want sufficiently rigorous data so that we really could rule out some proposed solutions as ineffective and retain others. For most forensic science ethical issues, we are quite a way from being able to do this.

Despite these limitations, it is valuable to find out where we are now in understanding these problems and where we still need to go. Even tentative conclusions will be helpful—as long as we realize that is all they are.

The Available Evidence

Proficiency Testing Studies

In proficiency-testing studies, known samples of material such as blood, hair, urine, ballistics, documents, and paint are submitted to laboratories. The laboratory's results can then be compared against the known criterion, and the level of accuracy can thereby be assessed. Similar testing strategies are common in many fields; they can be found in basic research to validate newly developed tests, and they are used in applied research to test the quality of performance of students, practitioners, and laboratories.

The reliability and validity of a test or technique set the upper limit on the accuracy of the information it can generate. Thus, virtually every biomedical test used in health care has a known sensitivity and specificity. With this knowledge plus information on the incidence of a disease in the population, physicians can properly interpret the results of laboratory tests (see Krupp et al. [5], especially Chapter 11, "Chemical Analysis of Blood and Urine"). Without such information, a rational interpretation of a test result is not possible. This is the "authentication" of a process that the law of evidence requires (see Federal Rules of Evidence, Rule 901 (b) (9)). This is the capability of a scientific process under ideal conditions.

But the practical reliability and validity of a test may be further reduced by the imperfections of the operational laboratory environment, equipment, and personnel. Equipment may be incorrectly calibrated or in need of maintenance; personnel may not know how to perform a test properly or be too overworked and rushed. Valid processes may, in human organizations and human hands, produce inaccurate results. It is this "bottom line" of accurate results—the outcome of a process in an operational situation—that ought to be of greatest interest to a consumer of laboratory results, and this is the question that proficiency testing is capable of answering. Proficiency testing tells whether or not, at the end of the line, a correct answer comes out.

In the forensic science world, such testing really began with the publication of *Crime Laboratory Proficiency Testing: Final Report* [6]. This study sent a wide variety of materials to approximately 200 crime laboratories throughout North America. The results showed a considerable range of results depending upon the materials being analyzed and the laboratory doing the analysis. That is, some materials tended to be misidentified consistently, while others consistently tended to be identified accurately (Table 1); and some laboratories did a generally poor job on many materials, while others did a generally good job.

This approach has been continued on a voluntary basis in a program offered to laboratories by the Collaborative Testing Services, Inc., under the advisory supervision of a committee of laboratory directors appointed by the American Society of Crime Laboratory Directors (ASCLD). Interested laboratories pay a fee to obtain a test sample, submit an anonymous report, and later receive the correct results as well as the findings of other participating laboratories against which to compare their own findings. The individual laboratories' identities are completely shielded from identification by this procedure. Although these reports are provided to the participants, the data have not been pulled together by forensic area (or otherwise) and published in a more accessible place. A description of this program, complete with data on yearly participation rates (Table 2) and response rates (participating labs which return their completed reports) (Table 3) has been published by Lucas et al. [7]. This is the largest and most important crime laboratory proficiency testing program now in existence.

In principle, proficiency testing ought to reveal the "bottom-line" performance of forensic science work with respect to each type of material and problem presented—in a manner of speaking, the state of the art. But the advisory committee points out that such inferences are likely to be misleading. Laboratories self-select to participate, and many of those do not actually complete reports. Thus, participation rates and response rates are not high enough to provide data that can be relied upon to be representative. In addition, one cannot know if the treatment given the test sample is typical of the work done on actual cases by the labora-

TABLE 1—*Crime Laboratory Proficiency Testing Research Program: percentages of laboratories reporting results of "unacceptable proficiency":*

$$\frac{\textit{Number of "unacceptable" responses}}{\textit{Number of laboratories responding with data}} \times 100 = \textit{Percent "unacceptable"}$$

Sample Number	Sample Type	Number of Labs Responding With Data	Number of "Unacceptable" Responses	Laboratories Submitting "Unacceptable" Responses, %
1	drugs	205	16	7.8
2	firearms	124	35	28.2
3	blood	158	6	3.8
4	glass	129	6	4.8
5	paint	121	24	20.5
6	drugs	181	3	1.7
7	firearms	132	7	5.3
8	blood	132	94	71.2
9	glass	112	35	31.3
10	paint	111	57	51.4
11	soil	93	33	35.5
12	fibers	120	2	1.7
13	physiological fluids (A and B)	129	(A) 3 (B) 2	(A) 2.3 (B) 1.6
14	arson	118	34	28.8
15	drugs	143	26	18.2
16	paint	103	35	34.0
17	metal	68	15	22.1
18	hair (A,B,C,D, and E)	90	45 25 49 61 32	dog(A) 50.0 cat(B) 27.8 deer(C) 54.4 cow(D) 67.8 mink(E) 35.6
19	wood	65	14	21.5
20	questioned documents (A and B)	74	4 14	(A) 5.4 (B) 18.9
21	firearms	88	12	13.6

tory. Thus, compared to the aggregate proficiency revealed by this program, the actual operational performance of forensic science laboratories may be considerably better (for example, if test samples tend to be used as a training opportunity for inexperienced staff members or if it is not given as careful attention because it is "only a test")—or considerably worse (for example, if only the better laboratories participate or if the test samples are given unusually careful attention). Apart from the substantive results concerning the level of proficiency in the forensic sciences, one might also learn something about the state of the forensic sciences from the participation and response rates as well as the passion for anonymity that seems to be required by the laboratories. There is some irony here—people in the business of discovering and exposing the truth are afraid to unveil their own levels of ability to the scrutiny of the public or the forensic science community, or perhaps do not trust the proficiency of the scientists who are testing their testing.

A study by Peat et al. [*8*] explores the feasibility of more proactive proficiency testing in forensic toxicology. They selected a representative sample of 100 laboratories, submitted 20 samples (of blood, urine, gastric contents, and liver homogenate), and received responses from 61 to 73% of the laboratories. The results showed few false positives, but a large interlaboratory variation in quantitation of some drugs and many false negatives for the detection

TABLE 2—*Yearly participation in proficiency testing program sponsored by Forensic Sciences Foundation and carried out by Collaborative Testing Services, Inc.*[a]

	Number of Laboratories by Sample Type									
	1978	'79	'80	'81	'82	'83	'84	'85	'86	'87
Drugs	73	83	88	81	84	87	114	137	147	172
Physiological fluids	74	79	75	66	71	75	98	120	135	142
Paint and glass	68	84	82	68	59	70	91	102	119	122
Hairs and fibers	68	84	82	79	...	68	96	109	122	129
Firearms and toolmarks	42	52	72	66	52	53	70	82	93	106
Flammables and explosives	...	...	80	70	56	68	104	71	117	135
Latent prints						38	45	51	58	70
Metal						33	...	...	...	...
Questioned documents							40	42	47	57
Footwear impressions								84	89	112
	Total Number of Laboratories Enrolled									
	97	116	116	104	89	117	142	200+	200+	200+

[a]Sources: Ref *7:* Report of the Proficiency Advisory Committee to the Annual Meeting of the American Society of Crime Laboratory Directors, 1987.

of certain chemicals. Perhaps most important, however, the authors note that such studies demonstrate a willingness to participate in independent testing and that the data provide a baseline for measuring and promoting improvement in the state of the art.

Similar proficiency studies have been carried out by the Centers for Disease Control (CDC) and the National Institute on Drug Abuse (NIDA), beginning in 1971. Their concern was urine screening for drugs of abuse, which screening had been found to reflect serious proficiency problems [*9*]. All laboratories receiving federal funds for urinalysis screening for methadone treatment programs were required to participate. Specialty laboratories correctly identified morphine 50% of the time and methadone 70% of the time, while hospital laboratories had true positive percentages of only 29%. Hansen et al. [*10*] summarized CDC's proficiency test surveys for the period 1972 to 1981. They found that false negative error rates ranged from 11 to 94% for barbiturates, 19 to 100% for amphetamines, 0 to 100% for cocaine and codeine, and 5 to 100% for morphine. False positive error rates ranged from a low

TABLE 3—*Response rate by year (in percent) of laboratories participating in the FSF Proficiency Testing Program* [7].

Category	1978	1979	1980	1981	1982	1983
Drugs	80	55	56	49	43	73
Physiological fluids	65	43	38	29	42	44
Paint and glass	47	34	39	41	52	53
Hairs and fibers	42	34	33	23	...	54
Firearms and toolmarks	57	43	42	25	51	55
Flammables and explosives			32	32	40	67
Latent prints						63
Metals						45

of 0 to 6% for barbiturates to a high of 0 to 66% for methadone. Perhaps the major lessons to be drawn from this are that errors are indeed made and that there is a wide range of interlaboratory variation.

The ethical issues raised for the forensic science profession and for society may be these. Error in measurement is inevitable. Nothing never errs. Given that reality, what duty does a forensic science professional owe society by way of being knowledgeable about such data and willingly sharing such information with fact finders (including their own personal and their laboratory's performance record)? Or contributing to efforts to develop such knowledge in enough detail so that we may know the level of accuracy for identifying different kinds of material using different kinds of methods under different kinds of conditions—at least by participating in proficiency testing programs? On the other hand, does the responsibility for carrying out such research belong elsewhere? But even then, could operational laboratories ethically refuse to participate as subjects in such research?

As an analogy, suppose medical science, broadly defined, refused to carry out the studies necessary to be able to state what the state of their diagnostic art is, or refused to participate in such studies, or refused to share the results of such studies with each other and with their clients. Could we regard such refusals as appropriate professional conduct? Or at least not unethical? Both fields have public services to perform. Both have knowledge they must develop in order to perform their service delivery tasks well. And both face a tradeoff between the time and resources required to deliver primary services and the time and resources required to perform, or at least assist in, knowledge building. Is it unethical to do research when you are already overworked and just getting the cases processed? Or is it more unethical to keep processing cases so that one can neither develop additional knowledge nor properly evaluate the products that are being produced? The basic dilemma is that if you stop to do the research, you will not get all the other work done; if you do not stop to do the research, your level of performance will never advance.

Self-Report Surveys and Focus Groups

Saks and Van Duizend Interviews—As part of a broad ranging study of the use of scientific evidence in litigation, Saks and Van Duizend [*11*] interviewed varied participants (judges, lawyers, and experts, including forensic scientists) in nine cases. In addition, they asked those persons about experiences in other cases and they interviewed judges, lawyers, and other well-placed observers not connected with those cases. Among other findings about the ways in which scientific experts function in the legal process, this work identified a number of questions relevant to the ethical posture of scientific experts.

1. Experts often were told not to speak to anyone from the other side of the case. What limits may be imposed on an expert's communication with lawyers or experts on the other side? How willing are forensic scientists to share their findings and explain the meaning, strengths, and weaknesses with defense as well as prosecution? (Most or all states permit discovery or require disclosure of prosecution laboratory reports to the defense.)
2. As a related point, do prosecution forensic scientists have an ethical duty to make known exculpatory findings to the defense as well as the prosecution? Do defense experts have the converse duty? Or do they have a responsibility *not* to make it known? (See the discussion by Schroeder [*12*].)
3. Many experts reported working with prosecutors who were not well-briefed on the scientific facts involved in the case. Does the forensic scientist have any ethical responsibility for insuring that the lawyer conducting the examination of the expert will be properly prepared?
4. To whom does the expert owe his or her first loyalty: the party calling, the court, or the fact finder? If the fact finder, what is the forensic scientist's ethical responsibility to insure that the fact finder fully understands the testimony (rather than being awed or mystified by

it)? Can the forensic scientist be content with merely answering the questions put by prosecuting and defense attorneys? How detailed or perfunctory should the answers be? Might the forensic scientist sometimes be obligated to tell the judge that more needs to be said than has been elicited by either attorney?

5. Does the forensic scientist have any obligation to correct failures of the adversary process to reveal important facts? Or does he or she have the reverse obligation: to submit to the adversary process and let the lawyers and the process control the evidence that is brought to the attention of the fact finder? In other words, to what extent do the rules of the legal process, especially concerning discovery, create a tension between the ideal of science as a neutral fact-finding process and the ideals of law as a means of insuring justice and fairness [*13*]? What are forensic scientists to do when the ideals of science are thwarted by legal rules? Is it ethically permissible (or required) to thwart the legal process?

6. Are ethical problems raised by the virtual monopoly ownership of forensic scientists by the prosecution? (See data of Kalven and Zeisel [*14*] concerning who presents expert witnesses: the imbalance strongly favors the prosecution.)

7. How far may a forensic scientist go in becoming an advocate for one side or the other? To what extent may a forensic scientist work on testimony with an attorney and cooperate with the attorney in wording the testimony in such a way that the attorney will be able to argue for the attorney's preferred inference from the testimony? How much may (or must) the forensic scientist insist on explaining the qualitative and quantitative limits of the findings of an analysis? (Attorneys often want experts to express a degree of certainty that the data may not be able to support.)

8. Forensic scientists often are overworked and may have insufficient time to do a completely professional job. (Perhaps this explains the gap between what a scientific technique is in principle capable of doing and what the operational performance of the test is in practice). (See discussion above, under proficiency testing.) What are the forensic scientist's ethical obligations when it has not been possible to conduct a test fully and properly?

9. It may be that the aura of science and the practice of avoiding exposure of errors have won forensic scientists a degree of deference by fact finders that is not warranted by the actual usual probity of the evidence offered. It is also possible that the errors of forensic scientists are subject to more scrutiny than those of other scientists and that for forensic scientists the confluence between the public image and the actual degree of probity are greatest. (However, see the survey of jurors' opinions of the trustworthiness of various kinds of expert witnesses by Saks and Wissler [*15*].) In any event, do forensic scientists bear any ethical responsibility to help the fact finders place their testimony in its proper proportion, and neither overweight nor underweight it?

10. "The Prosecutor felt the police were uninformed and lazy about collecting and protecting evidence. The expert witness said that most police were unaware of the basic principles of labeling and preservation and sometimes expected the laboratory to magically correct damage done to evidence by poor police handling" [*10*]. What are the ethical obligations of forensic scientists working under such circumstances? (Also see the discussion of collection of samples in Peterson [*16*].)

San Diego Interviews—The director of the present project interviewed eleven persons (nine forensic scientists and two attorneys knowledgeable about forensic science) attending the annual meeting of the American Academy of Forensic Sciences in San Diego in February 1987. They were presented with seven problems and were asked to indicate which ones they thought were the most serious and most prevalent in forensic science practice today. The seven problem areas, here ranked from most to least serious according to the consensus of those interviewed, were:

(1) incompetence;

(2) failing to inform the fact finder adequately of the strengths and weaknesses of the forensic science evidence, or otherwise misleading the fact finder;

(3) giving opinions that exceed the data;
(4) lack of objectivity, yielding to bias or influence;
(5) misrepresentation of credentials or competencies;
(6) dishonesty or knowing falsification of findings or both; and
(7) failure to report serious unethical behavior of colleagues.

It is worthy of note that several of these overlap with the Saks and Van Duizend interview findings discussed above, particularly Items 2, 3, and 4. On the other hand, note that plain incompetence was cited by these respondents (who were mostly forensic scientists, unlike the Saks and Van Duizend interviewees, who included lawyers and judges as well as experts) as the most serious of the ethical problems involving forensic scientists.

Complaints to Forensic Science Associations' Ethics and Discipline Committees

Many and perhaps most professional associations have committees that receive complaints of unethical conduct on the part of association members. The complaints received by these organizations can be an important official source of information about the types of ethical problems that may exist among forensic science practitioners. On the other hand, as with those received by such committees in other professional organizations, the complaints received are almost certainly unrepresentative and under-representative of the actual problems occurring. As in most other kinds of "litigation," the filed cases are almost certain to represent only the tip of the iceberg. While offering some insights, these complaints undoubtedly have important limitations as a sampling of ethical violations in forensic science.

The jurisdictional rules of professional association ethics committees impose certain obvious limitations from the start. Complaints can be brought only against members, only for those offenses specified in the particular code of professional responsibility under which the complaint is brought, and must be triggered by the complainant taking the trouble to complain. Thus, quack practitioners who do not belong to any professional association of forensic scientists cannot be sanctioned, and conduct which might be deemed by some as unethical but which is not covered by the code could not give rise to a sanction (though such complaints sometimes are brought but are then dismissed by the ethics committees as outside of their jurisdiction). The extent of the harm done, the nature of the offense, or the frequency with which practitioners commit a particular kind of offense all could produce a selective picture of the kinds and volume of offenses. With these caveats in mind, we nevertheless believe it is enlightening to examine a sampling of the complaints brought.

Saks and Van Duizend [*11*] contacted the chairs of the ethics committees or general counsels to the following professional associations: American Academy of Forensic Sciences (AAFS), National Society of Professional Engineers (NSPE), American Medical Association (AMA), American Psychological Association (APA). They inquired about the number, types of complaints brought, and disposition of the complaints. They summarize what was shared with them this way:

> All of the organizations said that complaints against members for litigation-related ethical questions were rare. The one group that did receive and was accustomed to dealing with such complaints was, understandably, the American Academy of Forensic Sciences. The chairman of its ethics committee told us that two types of complaints were brought against members acting in their role as expert witnesses. One type had to do with misrepresenting qualifications. . . . Regarding substantive misrepresentations, the chairman said these were as likely to be brought by the calling party as by the adverse party. In such cases the ethics committee's procedure was to assemble an ad hoc committee of substantive experts who would look into the case and make recommendations to the committee. Essentially, these complaints are resolvable into one of two conclusions. Either an expert witness did assert opinions unwarranted by the available data and the accepted scientific principles, or a difference of opinion between experts was within reasonable bounds given the state of knowledge in the subject. In his several years of experience on the ethics committee, the chairman told us, the former conclusion was never reached.

As part of the present project, we examined the reports of 18 cases disposed of by the ethics committee of the AAFS during the period from February 1978 to February 1986. The complaints are listed in Table 4, along with their frequency of occurrence among the cases.

These 18 cases were resolved in the following ways: in 3 cases, a finding of no ethical liability on the merits; 8 cases were dismissed for want of jurisdiction or failure to state a complaint included in the code or some other procedural shortcoming; and in 6 cases, a finding of ethical liability and imposition of a sanction. The sanctions included 1 suspension, 2 formal censures, and 3 expulsions. (See the comparable review of CAC ethics cases in Peterson and Murdock's paper in this symposium on p. 749.)

For our purposes, the most troubling complaints had to do with substantive misrepresentation or distortion of evidence, because that sort of unethical conduct can undercut the central value of forensic science testimony. These violations occurred in three cases: One involved a document examiner who offered an opinion that went beyond what could be supported; this person was given a formal censure. Another involved medical examiner reports and testimony concerning autopsies and related examinations that in fact were never performed; the person was expelled. Note that the complainee's explanation for his conduct was that the volume of work and lack of time or additional staff compelled him to cut corners. The third case involved a complaint of misrepresentation of case facts in a paper presented at a professional meeting. The committee found that some errors were made but did not warrant a finding of ethical violation.

Court Cases

Whatever a search of the case law turns up is likely to be, on the one hand, an extremely unrepresentative sampling of the ethical problems of forensic scientists and, on the other hand, an important marking of one extreme of (at least allegedly) unethical conduct. The unrepresentativeness results from the limited overlap between ethics and illegality. Much unethical conduct simply does not subject one either to civil or criminal liability. Even improper conduct which seriously prejudices a party is dealt with primarily through imposing sanctions which disfavor the offending side (with the ultimate sanction being the awarding of a civil case to the aggrieved party). Further, even claims that are brought against a forensic scientist (for perjury or fraud or perhaps a suit for malpractice) are most likely to be resolved through a negotiated settlement or, if brought to trial, not be the subject of an appeal. All of these will keep the bulk of the iceberg of problematic professional conduct below the surface. Moreover, the only feasible systematic method for searching legal cases is to look for published appellate opinions (plus the relatively few trial court opinions that are published). That is to say, only a fraction of the problems that occur in any area of life become legal complaints, only a fraction of the filed cases reach trial, and only a fraction of the cases tried are appealed. And not all of the appeals are published.

On the other hand, unethical conduct which does appear in the law reports reveals the

TABLE 4—*Summary of ethical complaints adjudicated by American Academy of Forensic Sciences between February 1978 to February 1986.*

Misrepresentation of credentials, qualifications	4
Incompetence, testifying outside area of expertise	3
Misrepresentation of data, findings; testifying to an unsupportable opinion testifying about examinations never performed	3
Criminal activity involving drugs	3
Offering conflicting opinions	2
Management, administrative misconduct failure to follow administrative procedures	2
Problems involving fees	1

extreme edge of the conduct and the more legally difficult cases with which the law has been presented. And these are certainly of interest to this project. Reported cases would indicate the sorts of ethical problems that are also illegal and regarded as so serious that the public sanctions associated with legal action are brought to bear to deter such behavior or compensate its victims.

Our search for reported cases turned up those reported in the Appendix to this paper, "Annotated Cases Involving Litigation Against Expert Witnesses." Following is a summary of what these cases consist of.

One category of cases consists of instances in which expert witnesses were convicted of or charged with perjury for giving false testimony in court. Two noteworthy points can be made about this category of cases. First, in most instances the charges are based on testifying to false educational credentials. Rather than this being the only thing that expert witnesses lie about, it is more likely that such lies are the easiest ones to detect and prove. This point came up earlier in our discussion of forensic science association ethics committee cases. The substance of an expert's testimony would be difficult to prove to be false (although at least two of our cases are of this sort). First, the cross-examiner or investigator would have to know the subject matter and have access to information that few lawyers have. Moreover, since the most important part of an expert's testimony is what the law regards as "opinion," and since opinions are not regarded as something that can be shown to be true or false, the substance of an expert's testimony is not likely to be vulnerable to this sort of attack. The second interesting point is that many of these cases involve expert witnesses who are not usually classified as "forensic scientists" (that is, not employees of police laboratories).

The second set of cases in the Appendix are those in which the published opinion does not make clear whether or not the expert witness was formally charged with perjury; the issue before the court in these cases is whether or not, given the falsification by the expert, the defendant is entitled to receive a new trial. Again, the most frequent kind of falsification is one's educational or professional qualifications, and again the experts in hot water are not exclusively laboratory forensic scientists.

In the third set of cases, the courts hold that negligent mistakes or inaccuracies by expert witnesses do not constitute perjury. These are cases of error or incompetence, in contrast to the apparently intentional falsifications of the preceding groups of cases. In one of these cases, the court explicitly makes the point that "It is almost impossible to prosecute an expert witness for perjury." In this set of cases, the errors have to do with the substantive testimony of the experts: incorrect fingerprint identifications (three of these cases), interpretations of tests, and so forth. One can inadvertently reach a wrong result in one's work; it is difficult to say inadvertently that one has a degree that one did not earn.

The fourth group consists of cases in which courts disallowed the recovery of civil damages against experts who gave false or negligently erroneous testimony. The reason for denial of damages given in all or most of these cases is that testimony and reports provided to courts are privileged and shielded from civil suit. Even in cases in which the falsification was the result of a deliberate conspiracy to falsify testimony or records or reports to the court, although perjury charges can be brought and convictions won, civil damages cannot [*17*].

Several general and tentative conclusions can be drawn from the existence of these cases. Some forensic scientists lie some of the time, most likely concerning their qualifications (also see Starrs [*18*]). Sometimes forensic scientists commit errors or falsify the findings of their examinations. And since the law is reluctant to reverse convictions based on such false testimony, is unlikely to proceed criminally in such matters (especially if the evidence is less than clear), and has no civil remedy to offer victims of falsification, the incentives are small for bringing these problems to the attention of courts. The forensic science profession will obtain little guidance from such cases, and we will obtain little data. On the other hand, the problems made evident by such cases involve matters that are not controversial among foren-

sic scientists: lying or misrepresenting credentials or examination findings are frowned upon.

Content Analysis of Ethical Codes

Presumably, ethical codes have something to do with the ethical or unethical behavior of the members of the organization promulgating the code. For our purposes we can overlook the debate over how much of an impact codes of ethics have on the thinking and behavior of a profession's members. This study area's interest in ethical codes stems from the assumption that a code of ethics tells you the sorts of problems a profession has encountered, or perceives to be a problem, and by promulgating their code a profession is trying to get its members to resist doing these things. By turning a code of ethics on its head, we have a statement of the sorts of unethical conduct members of a profession have been seen (or at least thought) to engage in characteristically. That last word reflects the assumption that each profession gives rise to a unique set of behaviors which define its unethical conduct.

Our assumption, of course, may be incorrect so as to overinclude in our catalog of unethical behaviors. Merely because a behavior is listed in a code of ethics does not mean that the behavior is engaged in often, at all, or even that it ever has been in the past (though this seems unlikely). A second caution about this use of ethical codes is that they may lead us to underinclude. Merely because a behavior is not listed in a code of ethics does not mean it is ethical and does not mean it is not engaged in. We examined the following sets of ethical codes:

1. California Association of Criminalists (CAC),
2. Midwestern Association of Forensic Scientists (MAFS),
3. Southwestern Association of Forensic Scientists (SWAFS),
4. Northeastern Association of Forensic Scientists (NEAFS),
5. International Association for Identification (IAI),
6. International Association for Identification: Calif. State Div. (IAI:CA),
7. Association of Firearm and Tool Mark Examiners (AFTE),
8. Bureau of Forensic Sciences: Ill. Department of State Police (BFS:IL), and
9. American Society of Crime Laboratory Directors (ASCLD).

Table 5 summarizes the ethical canons gleaned from this examination of ethical codes, which the reader may turn around and view as statements of unethical practices which probably have been encountered among forensic scientists. (The code of the ASCLD is not included in this table because many of its provisions are directed at a different level of problems—the organizational level.)

To the extent that the contents of ethical codes reflect problems a field has experienced (and probably continues to experience) this table provides another list of ethical problems from some unusually well-placed observers—the forensic scientists' organizations.

Anecdotal Data: News Reports, The Professional Literature, Case Studies

Other sources of miscellaneous reports on ethical problems in forensic science include news reports, the professional forensic science and legal literature (in contrast to the scientific or doctrinal literature of those fields), and studies of particular cases. All of these contribute anecdotal data—and perhaps in the aggregate it is somewhat more than anecdotal—about the kinds of ethical issues that may arise in the practice of forensic science.

A review of the professional literature (as well as a series of interviews) conducted by Saks and Van Duizend [*11*] uncovered the problems contained in Table 6, which is reproduced from that work.

TABLE 5—*Analysis of ethical codes from various forensic science organizations.*

Provision	1	2	3	4	5	6	7	8
RELATING TO SCIENTIFIC METHOD								
Should be unbiased, minimum anticipation of what results should be, maintain rigid impartiality	X	X	X	X	X			X
Should not bolster conclusions by using unwarranted and superfluous tests	X	X					X	
Should not use "secret" methods or processes, not open to scrutiny	X	X					X	X
Should insist upon representative and reliable materials on which to perform examination	X						X	X
Should not use unreliable, unproven, or discredited procedures	X	X					X	
Should keep abreast of new developments	X	X					X	X
Should keep skills sharp, participate in proficiency testing								X
RELATING TO EXAMINATIONS AND CONCLUSIONS								
Should use proven and accepted methods	X	X	X	X	X	X	X	X
Should do sufficiently thorough examination				X			X	X
Should not knowingly distort tests or interpretations of them	X			X			X	
Should refuse to be swayed by evidence or matters outside the specific materials under consideration	X	X					X	X
Should not confuse scientific fact with investigative theory	X		X	X			X	
Should not go beyond own competence	X	X	X	X			X	X
Where results are capable of alternative interpretations, should not select the one favoring the side by which he or she is employed	X						X	
RELATING TO ADVERSARY PRESENTATION								
Should be available for pre-trial interviews with both prosecution and defense attorneys								X
Should disclose exculpatory findings to the court if it appears prosecution is not going to make disclosure to defense	X							X
Should not misrepresent qualifications			X	X			X	X
Should not give opinions on matters not subjected to formal examination	X						X	X
Should not leave false impressions in the minds of fact finders	X	X		X			X	
Should not present testimony in a way that wins it more weight than it is due	X	X	X				X	
Should not limit testimony to evidence that supports the view of the side employing the forensic scientist; should see to it that the court understands the evidence as it is	X	X		X			X	
Should not assist the contestants in a case in implanting false impressions	X						X	
Should not confuse or conceal concepts from fact finders	X							
Displays should not be designed to mislead fact finder	X	X					X	
RELATING TO GENERAL PRACTICE								
Should be willing to reexamine evidence submitted by another forensic scientist; however, should try to resolve discrepancy before case goes to trial; goal should not be to thwart justice	X	X	X				X	
Members convicted of felonies or certain other crimes can be expelled			X					

TABLE 5—*Continued.*

Provision	1	2	3	4	5	6	7	8
RELATING TO PROFESSION								
Should make new discoveries and developments widely known	X	X		X	X	X		
Should cooperate in improvement through research					X	X		
Should direct attention to methods which appear invalid or unreliable	X	X						
Should refrain from seeking personal publicity	X	X						
Should not take undue credit	X							
Should bring to the attention of the association forensic scientist who has committed (serious or frequent) infractions	X	X	X					X

Following is a list of problems gathered, primarily from news reports, in the course of the current project.

1. Misrepresentation of credentials. This offense ranges from embellishments which involve placing only a toe beyond the borders of the truth through to thoroughgoing falsification of one's credentials. Numerous case examples of such misrepresentation of credentials by forensic scientists are documented in the sources cited [*18-20*].

2. Failure of police and forensic scientists to give adequate attention to physical evidence, to coordinate with each other for competent collection. Backlogs in laboratories, problems of storage, which render evidence useless. When the samples are or may be defective, what are the ethical obligations of the forensic scientist in making use of or refusing to make use of the data [*16,21*]?

3. Lack of scientific grounds for the work. Asserting conclusions that go beyond the data or for which no data exist to permit a rational inference to be drawn [*22-24*].

4. Failure to or inability to separate scientific/clinical from value/legal [*25*]. (Also see discussion in Monahan and Wexler [*26*].)

5. Drawing overly strong or inaccurate conclusions from insufficient evidence. Failing to respect the limits of the available evidence or the scientific process applied to the evidence [*27-29*].

6. The commission of errors of omission or negligence, even by people who may have the basic skills to perform the tasks. (This is evidenced by the numerous instances of forensic scientists who submit unacceptable responses in proficiency testing programs.) Also see *Imbler v. Pachtman* (negligent failure of fingerprint expert to find latent print of a person other than the defendant on an object dropped by the culprit at the crime scene) [*30,31*].

7. Educational background and training that is inadequate, suited only to preparing technicians, not scientists (that is, little real understanding of the scientific basis of what they are doing; do not understand the nature and limits of their techniques) [*25,32*].

8. Working in an organization, rather than as an independent consulting professional, subjects scientists and engineers to pressure to go along with what their employers want. Resisting the pressure, and especially "whistleblowing," typically results in punishment [*33,34*].

9. Outright falsification of data. The counterpart to fabricating data which do not exist is hiding data which do exist [*34-36*].

10. Experts in independent practice may derive so large a portion of their incomes from litigation-related work that they cannot afford to remain intellectually independent. That is, they may be too eager to please the party calling them. For the scientists employed in a government laboratory, is this problem diminished or magnified [*13,37*]?

TABLE 6—*Summary of problems identified and solutions proposed.*[a]

Problems Identified	Solutions Proposed	Problems Addressed
Pre-filing	**Educational solutions**	
1. Locating qualified experts	Teaching lawyers about science	1,5,9,11,12,13
2. Failure of investigators (police, fire) to protect and preserve possible evidence	—Law school courses —Continuing legal education —Preparation of suitable materials —More interaction between law schools and university science departments	
Pretrial	Teaching scientists about the legal process	4,5,8,10
3. Inadequate discovery for disclosure of scientific and technical evidence, inadequate joining of the issues at trial	—Academic base for full-time forensic scientists —Continuing education for occasional experts —Preparation of suitable materials —More interaction between law schools and university science departments	
4. Availability of experts to meet with adverse party's lawyers (other than by deposition)	Training police on evidence collection procedures which will facilitate scientific analysis	2
5. Inadequate attorney-expert interaction (insufficient familiarity with subject matter, inadequate preparation; conflicts over fees)	**Expert source lists prepared by** Bar associations Professional organizations of scientists Independent organizations	1
6. Imbalance of resources	**Court-appointed impartial panels**	1,4,10
7. Missed opportunities for settlement	**Certification programs**	1,10,11
Trial	**Creation of independent forensic science laboratories**	4,6
8. Unclarity of expression by experts	**Creation of forensic science laboratories for the defense in criminal cases**	4,6
9. Lack of skill by counsel in organizing and eliciting scientific testimony		
10. Role conflict (on part of experts)		
11. Difficulty on court's part in deciding what evidence to admit or exclude, and which experts to find qualified		
12. Ability of trial courts (including juries) to make decisions on scientific and technological issues		
Post-trial		
13. Institutional capacity of appellate courts		

Increase in admissions of law students with science backgrounds	5,9,11,12,13
Procedural solutions for trial courts	
Enhance discovery of scientific evidence	3
Enforce requests for admissions	7,12
Pretrial conferences on scientific issues	7,12
Court-appointed experts	10,12
Court advisers	10,12
Special masters	7,12
Advisory juries	10,12
Increased use of judicial notice	12
Increased use of stipulations	11
Seriated trials	12
Flexible, creative trial procedures by judges in appropriate cases	12
Science courts to establish presumptive validity	11
Quality control by professional and scientific organizations	12
of forensic science laboratories (certification)	12
of expert testimony by members (peer review)	12
Solutions for appellate courts	
Advisory panels	13
Science courts	13
Appointment of judges with science backgrounds	13
Appointment of clerks with science backgrounds	13
Preliminary opinions	

[a]From Saks and Van Duizend [*11*], Table 2, pp. 112–113.

Circumstantial Evidence: Problems That May be Inferred from Systematic Research Not Designed to Address Problems of Ethics

Inquiry into the prevalence and impact of ethical problems in forensic science is informed, finally, by systematic studies conducted to study other problems but which may permit inferences to be drawn about forensic science ethical issues, most likely to provide circumstantial support for the more direct sorts of evidence provided above. Most of the "direct" evidence suffers from incompleteness of one kind or another (being anecdotal, or imperfectly sampled, or simply not studied yet). The circumstantial evidence, like all circumstantial evidence, suffers from the gap between what is known and what is inferred. The present report will do no more than to provide a few illustrations of such studies and their possible implications.

Research which describes the organizational arrangements within which forensic science is practiced indicates that about 80% of the nation's crime laboratories are located within police agencies [*38*]. This would suggest that an even higher proportion of the forensic science that is conducted in North America is carried out within and paid for out of police agency budgets. Concerns about undue command or "cultural" influence, excessive caseloads, and inadequately trained scientists are supported by such findings. The neutral fact-finding norms of science are incompatible with the crime-fighting culture of police agencies. The result is likely to be that the quality of forensic science suffers [*16*]. Whereas scientists are concerned that too many forensic scientists too often draw unsupportable inferences from their data, the prosecutor's view is that forensic scientists are "too cautious" [*27*].

In their classic study of the *American Jury,* Kalven and Zeisel [*14*], among many other things, gathered data on the kinds of evidence presented in the 8000 criminal jury trials examined. Their findings showed that scientific expertise of every kind save one was far more frequently offered by the prosecution than by the defense. (The one exception was the testimony of psychiatrists, who have to be offered as part of an affirmative defense if the defense of insanity is pleaded.) Although the defense rarely counters defense experts with rebuttal experts of its own, the prosecution usually is able to rebut any kind of defense expert with one of its own. What these findings may be taken to demonstrate is the imbalance of resources available to the parties to criminal litigation. The same state of affairs does not occur in civil litigation between corporate parties. To the degree that the law or society have institutionalized this imbalance, the assumption of the adversary process—that cross-examination and rebuttal evidence will serve to keep both sides honest and assist the fact finder in determining the truth—will not be met. When one side to litigation consists of repeat players who rarely are challenged effectively, the conditions are created which permit incompetence, carelessness, or falsification to go undetected.

Such findings and inferences, of course, are merely consistent with the sorts of ethical problems addressed earlier; they do not prove the existence of the problem. More direct study is needed to determine the extent to which correcting the sorts of problems found in these studies (namely, organizational location of forensic scientists and the imbalance of resources between the parties) would correct the problems found elsewhere (proficiency that appears to fall below the standard we might hope for and the occurrence of falsified laboratory findings and testimony).

Conclusions

One set of conclusions from this review of available information pertaining to the prevalence and impact of ethical problems in forensic science is substantive: what sorts of problems have been found and what impact do they have. The other is methodological: what is the extent of and limits upon the available information.

Substance of the Findings

The problems that emerge from the various information sources fall into three broad categories.

Problems of Competency—This category consists of problems of ability/inability. How well can forensic scientists and forensic science be counted on to "get the right (scientific) answer." This kind of problem was rated first in the San Diego interviews, and appears somewhat in the news reports, but appears barely at all in our other sources. This category embraces problems of inadequate education and training, inadequate skill, failure to understand the basic science and statistical base on which a technique rests, failure to keep up with new findings, and so on. In an environment which fails to provide the necessary time and resources to do the work properly, even individual competence can become vitiated by what we may call "organizational incompetence." People who are overworked and overwhelmed are not likely to produce the "right answer" as often as the criminal justice system should expect. Thus, where it exists, the problem of competence is both caused and solved by both organizational and individual factors.

The virtual absence of an academic base for forensic science—both to train forensic science professionals and to carry out research to advance the field—is probably a major contributor to the problem of competency. Similarly, the inability of forensic science laboratories to be adequately funded and institutionally separate from police agencies probably contributes to shortcomings of both human and other resources. If there were adequate training programs in college and in the form of on-the-job and continuing education, effective credentialing, hiring standards, and adequate financial, physical and time resources, the quality of forensic scientists and forensic science undoubtedly would improve.

Because the problem of competency is the most fundamental of the categories, it is at once the least interesting "ethically" and theoretically as well as the one that may have the greatest impact on the quality of forensic science, at least at this stage of its evolution.

Individual Misconduct—In this category we find misbehavior at the individual level. Our San Diego interviews place this among the least important of the problems, yet these are the ones most often adjudicated against forensic scientists within their professional societies as well as in courts. The most common among these is misrepresentation of one's background and credentials. But if people are willing to lie about something on which it is so easy to be caught, how common and how damaging to the fact-finding process are misrepresentations about the substance of forensic science: fabrication of findings, exaggeration of findings, withholding of exculpatory findings, and other knowing attempts to create in the fact finder an impression that is not supported by the scientific evidence? In practice it may be difficult to distinguish this category of ethical problems, which presumably is due to some weakness of individual moral fiber, from the consequences of the pressures that fall into the third category.

Problems of Practicing Science in an Adversary System—In this category we find problems that are likely to be the most insoluble—the inherent tensions between the goals and methods of science and the goals and methods of litigation. Each makes sense and serves vital social purposes in its own domain. When joined, they may tend to harm each other. Here are problems that confront even the most morally upright, best-trained scientist, in the most generously supported laboratory, even one which is independent of police and prosecutorial agencies. The presentation of evidence in an adversary system is necessarily subject to influence and control by attorneys for both sides, each of which is seeking to find support for a different theory of what actually happened as it bears on the defendant's possible criminal liability.

How complete and detailed must a set of tests and the report and testimony about those tests be? How much disclosure may or must the ethical forensic scientist engage in? No presentation of facts can be exactly neutral. How does the forensic scientist decide what to

present and how to present it? Is it the responsibility of the forensic scientist witness to make clear to a judge or jury details that neither lawyer has chosen to inquire about? (See an extensive discussion of these problems in Ref *11*). Note that many if not most of the problems in Table 5 (ethical codes) fall into this category.

What makes this category the most interesting and difficult is that for many of the questions, there are no clear answers as to what is ethically proper. And no "solutions" are likely to be developed in the near future or ever, only difficult and complicated accommodations and balancing. Here is where the forensic scientist needs to be a professional who understands not only science but the purposes and procedures of the law as well.

Methodological Conclusions

As noted at the outset of this paper, the sources of information on which we have had to rely are highly limited and imperfect. Consequently, it is only natural that our different sources of information cause different kinds of "ethical" concerns to seem paramount. And we cannot reconcile the differences in any rigorous way. One of the great needs in the area of studying ethical problems in forensic science is to undertake various kinds of data collections to fill in the picture, so that our knowledge of the types of problems, their prevalence, their impact, and their amelioration can be made more complete and more accurate.

APPENDIX

Annotated Cases Involving Litigation Against Expert Witnesses

Expert Witness Convicted of or Charged with Perjury for False Testimony

Kline v. State, 444 So.2d 1102 (Fla.Dist.Ct.App. 1984) (psychologist convicted of perjury for falsely stating he possessed doctoral degree during murder trial of Theodore Bundy)

People v. Alfano, 420 N.E.2d 1114 (Ill.App.Ct. 1981) (defendant entitled to hearing when arson expert testified falsely as to his qualifications, expert charged with perjury) (same arson expert as in *Cornille* and *Stevenson*)

People v. Cornille, 95 Ill.2d 497 (1983) (arson expert for state commits perjury, criminal defendant gets new trial, arson expert charged with making a false statement)

Stevenson v. State, 473 A.2d 450 (Md. 1984) (arson expert testified falsely as to academic credentials, no new trial where evidence overwhelmingly points to guilt of criminal defendant)

State v. DeFronzo, 394 N.E.2d 1027 (OhioCt.Comm.Pleas 1978) (criminal defendant gets new trial, police officer who committed perjury pleads guilty to 8 counts of falsification)

People v. Dickinson, 130 Cal. Rptr. 561 (1976) (prosecution for perjury, defendent/accident reconstruction specialist testified falsely as to engineering credentials in prior civil action) (same expert in *Lueck*, *Simmons*, and *Torres*)

Southern Pac. Trans. Co. v. Lueck, 535 P.2d 599 (Ar. 1975) (remanded to trial court for determination of probable result if retried), aff'd after rehearing, 540 P.2d 1258 (Ar. 1975) (no new trial)

Simmons v. Southern Pac. Trans. Co., 133 Cal. Rptr. 42 (Cal.Ct.App. 1976)

Torres v. National Abrasive Co., No. 103899, Dept. 7, San Joaquin County, Cal.

State v. Elder, 433 P.2d 462 (Ka. 1967) (laboratory technician convicted of two counts of perjury for giving false testimony concerning his educational background)

State v. Sullivan, 130 A.2d 610 (N.J. 1957) (three counts of perjury upheld against doctor who gave false expert evidence regarding the physical condition of certain prisoners)

Expert Commits Perjury or Gives False Testimony, but Opinion is Unclear as to Whether Expert was Criminally Charged

Maddox v. Lord, 818 F.2d 1058, 1062 (2nd Cir. 1987) (forensic serologist admits to testifying falsely as to academic credentials)

Harre v. A.H. Robins Co., 750 F.2d 1501 (11th Cir. 1985) (case remanded for new trial where expert witness, a doctor, testified falsely)

Trapp v. American Trading and Production, Corp., 414 N.Y.S.2d 11 (1979) (civil suit, expert maritime witness lies, defendant receives new trial)

Mackbee v. Ford Motor Co., 327 So.2d 654 (La.Ct.App. 1976) (trial court completely disregards testimony of expert witness that falsely testified regarding his credentials)

In re Kirshke, 125 Cal. Rptr. 680 (Cal.Ct.App. 1975) (police criminologist gives false testimony regarding his qualifications as anatomy expert, gives false testimony regarding acoustics, and negligently presents ballistics evidence, but no new trial)

Commonwealth v. Burgess, 288 A.2d 810 (Pa. 1972) (lab technician commits perjury as to her credentials, but no new criminal trial) (same lab technician as in *Mount* and *Alston*)

Commonwealth v. Mount, 257 A.2d 578 (Pa. 1969) (death sentence for rape-murder vacated where lab technician perjured herself as to her qualifications)

Commonwealth v. Alston, 243 A.2d 404 (Pa. 1968) (no post-conviction relief where lab technician perjured herself as to her qualifications)

Donati v. Gualdoni, 216 S.W.2d 519 (Missouri, 1948) (false testimony by expert witness concerning forgery of signature on will, new trial)

Negligence (Mistake or Inaccuracy) by Expert Does Not Constitute Perjury

Sears v. Rutishauser, 466 N.E.2d 210 (Ill. 1984) (court states that "It is virtually impossible to prosecute an expert witness for perjury.")

People v. Lovitz, 468 N.E.2d 1010 (Ill.App.Ct. 1984) (state's firearms expert testifies inaccurately and revises opinion after he discovers design defect; this does not constitute perjury)

State v. Spearin, 485 A.2d 626 (Me. 1984) (no new trial where expert witness qualifications were at most inadvertently and insubstantially misstated and possibly inaccurate; testimony not false, just impeaching)

People v. Wolfe, 449 N.E. 2d 980 (Ill.App.Ct. 1983) (expert's misstated testimony of the speed of defendant's vehicle not sufficient to deprive defendant of due process)

State v. Caldwell, 322 N.W.2d 574 (Minn. 1982) (where no evidence of intentional falsification, no new trial when fingerprint expert misidentifies fingerprint)

State v. Burton, 544 S.W.2d 60 (Mo.Ct.App. 1976) (inaccurate or mistaken testimony by psychiatrist regarding interpretation of MMPI test is false testimony, not perjury)

In re Imbler, 387 P.2d 6 (1963) (error by fingerprint expert, "honest error in expert opinion is not perjury even though further diligence and study might have revealed the error")

No Civil Remedy Allowed for Perjury or Negligent Testing or Testimony by Expert

Kahn v. Burman, 673 F. Supp. 210 (E.D. Mich. 1987) (plaintiff's consultant and expert witness shielded from civil liability of medical malpractice action)

Carden v. Getzoff, 235 Cal. Rptr. 698 (Cal.Ct.App. 1987) (suit against accountant for false evidence provided in marital dissolution proceeding, testimony in court is privileged publication) (court cites, at 701 n.6, Block case, negligent—not perjured—calculation by toxicologist, later tort suit barred)

Lawson v. Hensley, 712 S.W.2d 369, 370 (Ky.App. 1986) ("Civil action for damages will not lie for perjury made during litigation either by a party or witness.")

Hokanson v. Lichtor, 626 P.2d 214, 218-19 (Kan. 1981) (suit against medical doctor for offering false evidence in civil trial)

Bailey v. Rogers, 631 S.W.2d 784 (Tex.Ct.App. 1982) (civil suit against accountants appointed by court for negligent preparation of report; report is absolutely privileged communication; court, quoting *Clark v. Grigson*, explains rationale for such immunity)

Clark v. Grigson, 579 S.W.2d 263, 265 (Tex.Civ.App. 1978) (civil suit against psychiatrist; court holds: "No civil liability exists on the part of an expert witness who forms an opinion and states that opinion in the course of his testimony in a judicial proceeding, even though he may have been negligent in the process.")

Ragsdale v. Watson, 201 F. Supp. 495 (W.D. Ark. 1962) (civil suit against three doctors for submission of false and misleading reports presented in workman's compensation case; no such action allowed)

Agnew v. Parks, 343 P.2d 118 (Cal.Dist.Ct.App. 1959) (conspiracy by doctors involving perjury)

Owens v. Mench, 81 Pa. D. & C. 314 (1952) (civil suit against opthalmologist for falsification of records and false testimony in a prior civil trial; only remedy for false testimony is criminal charge of perjury)

Herman v. Jobes, 198 N.E. 316 (Ind. 1935) (civil action against physicians and others for conspiracy to give false testimony, no such collateral action allowed)

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