

## COMPONENTS OF PROOF IN LEGAL PROCEEDINGS

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CERTAIN problems in law stand up stoutly against attack but yet lure the audacious to storm ramparts which never can be fully captured. Among these is the problem of proof, that inner citadel which lies behind the outposts of the law of evidence.

Do these outer barricades protect or have they become doubtful symbols in the desert? To judge of this, or to gain access to the citadel of final conviction, whether under a plaintiff's flag or a defendant's standard, one must be aware of the approaches which lead inward from the alien world of doubt and disputation. It is the limited purpose of this paper to explore the several approaches which lead to that ultimate state of conviction which we call proof.

The approaches to proof are not confined to well-labeled high roads of factual evidence. They include pathways among preconceptions, and avenues through psychological, logical, legal, factual and scientific materials. If it were possible by subtle means to dissect the final state of conviction produced in the mind of a trier of facts, one might hope to say in the particular case what pathway persuasion had actually travelled. The proponent of the issue may have deployed his forces along the several approaches, as indeed he should, so that in retrospect one may be hard put to say which attack broke the barrier of skepticism or breached the defenses of doubt.

Let us look briefly at the terrain through which these approaches wind. We shall remember that each pathway to proof is but one component of a diversified attack upon the guarded mind of the trier of fact which, after all, is the citadel of final proof to which we first alluded.

### I. THE COMPONENT OF PRECONCEPTION

Preconceptions may color what the witness sees, what the auditor hears, how the advocate proceeds, how judges rule or in what way triers of

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fact react to proofs. Justice stigmatizes them and science holds them suspect, rules of court are designed to repress them and counsel seek in examining a panel to strike every prospective juror who has preconceptions, mental or emotional, inimical to his side of the case. Yet these residual attitudes, derived from a myriad of unspecified sources, are so much a part of us all, that extirpation is not possible and reasonable control is difficult. I doubt if one can characterize the complex matrix of ideas, superstitions, prejudices, emotions, and the like with any precision. It is hardly feasible to set off these a priori materials which modify proof by drawing a sharp line of demarcation separating them from similar factors noticed later under the "psychological" component. Under "preconceptions" one may include fixed notions, attitudes or emotional reactions acquired prior to the particular litigation. By contrast, one may use the "psychological component" of proof to specify more focal problems generated by the immediate case such as capacities of witnesses for accurate observation and recollection and reactions in the trier of fact produced by trial stimuli.<sup>1</sup>

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1. The following illustrations may serve as typical examples of the intended distinction between remotely acquired preconceptions and immediately generated psychological stimuli:

a. *Preconceptions.* In a series of district court negligence cases arising from traffic accidents, plaintiff was approaching the intersection from the left but, under doctrines elaborated by appellate courts and applicable to circumstances of the collision, this was no legal bar to recovery. The trial judge would have entered verdict for the plaintiff but the jury found for defendant. In doing so they determined fault by the simple rule of the traffic court long known to the jurors, that the person approaching an intersection from the right has the right of way. ULMAN, *A JUDGE TAKES THE STAND* (1933) 29.

Judge Ulman points out that juries also ignore the rule that contributory negligence, however slight, is a bar to plaintiff's recovery, and give effect to equitable preconceptions by adjusting the size of their verdicts in keeping with the comparative negligence of the parties. *Id.* at 31 *et seq.*

b. *Psychological Stimuli.* Chafee has shown how psychology engendered by the last war caused relaxation of standards of proof. Indictments and convictions under the Espionage Act resulted where the evidence was too flimsy to prove the offense charged. Noteworthy was the case of *Abrams v. United States*, 250 U. S. 616 (1919), a prosecution under the Espionage Amendment of 1918. Defendants were convicted and sentenced to twenty years imprisonment for distributing circulars agitating against the Government's policy in despatching an expedition to North Russia in the summer of 1918. The judgment was affirmed by a 7-2 opinion of the Supreme Court, Holmes and Brandeis dissenting. Professor Chafee feels that there was no adequate proof of "intention to produce curtailment of munitions", or of "intention to interfere with the war with Germany", these being necessary ingredients of the Government's case.

"The trial judge ignored the fundamental issues of fact, took charge of the cross-examination of the prisoners and allowed the jury to convict them for their Russian sympathies and their anarchistic views. The maximum sentence available against a formidable pro-German plot was meted out by him to the silly, futile circulars of five obscure and isolated young aliens, misguided by their loyalty to their endangered coun-

Preconceptions cover the whole scale from naïve belief in social fictions to bigoted belief in various prejudices, racial, economic, religious or political. They span the half formulated philosophy of the man in the street who in living by his dim lights has criteria for mental decision as truly as a Spinoza whose introspective system is more logical, symmetrical and complete. These preconceptions include ethical considerations and the fusion of many mores and concepts of righteousness to produce a sense of decency. Combine the common impulses of twelve men to make a decent disposition of the dispute at hand and one has the so-called philosophy of the "square deal", which I take it is the most crucial orientator and determinant of jury deliberations and verdicts.

So far as one can ascertain from the *Apology of Socrates*, which Plato wrote some time after his master's death, the great philosopher was not even technically guilty of violating any positive law of the city of Athens. He was selected as a likely political scapegoat and in his trial one finds the deficit of proof made good by appeals to the prejudices of jurors. The charge leveled at him was that of corrupting the youth and worshipping strange gods. Athens traditionally was a city of free speech, where philosophers and sophists were at liberty to speak their minds, even to the extent of saying that there was no Zeus, and that the function of "higher education," as taught to the young, was to enable them to "make the worse appear the better reason." Socrates himself scrupulously observed all the forms respected by good citizens. But the prosecutors pointed out that he frequently expressed himself monotheistically and such circumstances were so incongruous with preconceptions of a majority of the jurors that he was put to death.

In the time of Galileo (1564-1642), tradition had associated the astronomy of Ptolemy and the physics of Aristotle with Christianity, and an attack upon one was deemed an assault upon the other, just as in the twentieth century the Fundamentalists have come to associate special creation with Christianity, so that we find such things as laws against teaching the theory of evolution. Galileo adopted the Copernican system and he discovered novae, the phases of Venus, the moons of Jupiter, and sun spots, all of which were inconsistent with the geocentric solar system and location by dogma of definite places for heaven and hell. As a result of the so-called first trial in 1616, actually an informal

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try and ideals who hatched their wild scheme in a garret, and carried it out in a cellar.

". . . The lesson of *United States v. Abrams* is that Congress alone can effectively safeguard minority opinion in times of excitement. Once a sedition statute is on the books, bad tendency becomes the test of criminality. Trial judges will be found to adopt a free construction of the act so as to reach objectionable doctrines, and the Supreme Court will probably be unable to afford relief." CHAFFEE, *FREE SPEECH IN THE UNITED STATES* (1941) 139-40. For a discussion of the *Abrams* case, see *id.* at 103-40.

investigation, Cardinal Bellarmine exacted a promise from Galileo that he would not hold to, teach, or defend the Copernican system recently declared heretical. In 1632 Galileo came into direct conflict with papal preconceptions when he published his *Dialogues of the Two Principal Systems of the World, the Ptolemaic and Copernican*. Here he made two of the interlocutors able spokesmen in defense of the Copernican system while a third, aptly named Simplicius, feebly supported the Ptolemaic astronomy. The authorities rejected the statement of Galileo that these were merely hypotheses, stopped the sale of the book, and appointed a commission of theologians which entered these findings:

(1) That the imprimatur was put on the book without permission.

(2) That the Ptolemaic system was defended in the dialogue by a simpleton and inadequately in any event.

(3) That Galileo deviated from hypothesis to make express statements.

(4) That he broke the Papal injunction of 1616.

The second trial before the Inquisition was clearly colored by preconceptions of the triers of fact. It stretched from April 12, 1633, to June 22, 1633, the *Dialogue* was finally burned, and Galileo was imprisoned. In addition, he was compelled to make a formal recantation in the most humiliating terms, an interesting example of an effort to "torture" testimony to make it lend support to preconceived conceptions of the trier of fact.<sup>2</sup>

In the witchcraft cases tried in Old and New England in the last sixty years of the seventeenth century, we have more recent examples of preconceptions affording the foundation for proof of guilt.<sup>3</sup> In cases where witnesses of one race are customarily disbelieved in social deference to another, we have a current instance. One of the vices of the general verdict system which encouraged the procedural reform of special issues was the ease with which jurors could use their verdict as a legal means of expressing extra-legal preconceptions.

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2. See MACDONELL, *HISTORICAL TRIALS* (1927) 109-28.

3. KITTREDGE, *WITCHCRAFT IN OLD AND NEW ENGLAND* (1929) 3: "There was a famous witch-trial at Exeter, England, in 1682. Roger North was present, and here is his account of the state of public opinion: "The women were very old, decrepit, and impotent, and were brought to the assizes with as much noise and fury of the rabble against them as could be shewed on any occasion. The stories of their arts were in everyone's mouth, and they were not content to belie them in the country, but even in the city where they were to be tried miracles were fathered upon them, as that the judge's coach was fixed upon the castle bridge, and the like. All which the country believed, and accordingly persecuted the wretched old creatures. A less zeal in a city or kingdom hath been the overture of defection or revolution, and if these women had been acquitted, it was thought that the country people would have committed some disorder.'"

Not long ago Dr. Bourne, an eminent British medical man, openly violated prohibitions of the criminal law by aborting a fifteen-year-old unmarried girl, pregnant as the result of rape.<sup>4</sup> Preconceptions about the propriety of medical interference had a most interesting result both on court and jury. The trial judge, in summing up, started with the accepted legal premise that abortion was justifiable under the controlling statute<sup>5</sup> "for the purpose of preserving the life of the mother." But he charged the jury in such a manner as to make preservation of life synonymous with protection of the girl's health against the nervous shock of an unwanted birth and made it clear that the jurors should not look upon the case as it would one involving the professional abortionist.<sup>6</sup> This latitude was quite broad enough for the jurors to apply their own preconceptions and they returned a verdict of not guilty.

The strategy of Clarence Darrow in more than one celebrated case depended upon converting the limited issue of guilt into a broader social issue or even a class struggle in which jurors were made either participants, or champions of an oppressed class of which the defendant was but a symbol. In the *Woodworker's Conspiracy* case, a prosecution arising out of a labor controversy, he charged the complaining witness with being the unindicted criminal for exploiting labor, stigmatized the prosecution as "an assignment by the District Attorney of the State of Wisconsin to George M. Paine," brought in collateral issues regarding the benighted economic philosophy announced by Senator Hammond of South Carolina in 1857, and called upon the jury to "render a verdict in this case which will be a milestone in the history of the world and an inspiration to the dumb, despairing millions whose fate is in your hands."<sup>7</sup>

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4. *Rex v. Bourne*, 3 All E. R. 615 (Cent. Crim. Ct. 1938).

5. Offenses against The Person Act, 1861, 24 & 25 Vict., c. 100, § 16.

6. "The case here is very different. A man of the highest skill, openly, in one of our great hospitals, performs the operation. Whether it was legal or illegal you will have to determine, but he performs the operation as an act of charity, without fee or reward, and unquestionably believing that he was doing the right thing, and that he ought, in the performance of his duty as a member of a profession devoted to the alleviation of human suffering, to do it. That is the case you have to try." By somewhat strained analogies, the court went on to imply that conjectural shortening of life by the nervous sequelae of unwanted pregnancy would warrant medical interruption of pregnancy on the ground of "preserving the life of the mother." *Rex v. Bourne*, 3 All E. R. 615, 616 (Cent. Crim. Ct. 1938).

7. STONE, CLARENCE DARROW FOR THE DEFENSE (1941) 112: "The jury brought in a verdict of 'not guilty'; with the weight of the centuries on their shoulders they could do no less." At another place (p. 166) Stone says: "Rarely did he attempt to convert the courtroom merely to the innocence of his client; rather he converted them to a mel- low and tolerant philosophy of life in which all mankind was innocent as charged. Before long opposing attorneys, witnesses, jurymen and judges were sweating in a glow of brotherly love."

Arado has given us varied illustrations of verdicts determined by preconceptions or collateral psychological factors in his accounts of criminal trials in Chicago courts.<sup>8</sup> Reid was convinced that "a religious and ethical system may conflict daily with common sense (that is, evidence) and yet persist for a hundred generations."<sup>9</sup> Schmeing's experimental investigations showed that certain farmers of lower Saxony are so susceptible to spiritualistic and occult manifestations, hallucinations, "second sight" and premonitions, that the pronounced eidetic ability renders it difficult to obtain objective statements from them in court.<sup>10</sup> Moore expressed the opinion that all testimony is modified by cultural patterns.<sup>11</sup> Datta took issue with Montague's assertion that testimony is neither an ultimate nor an independent source of knowledge. He felt that testimony does provide information even though extrinsic proof, such as an independent inference or perception, may be needed to verify its truth.<sup>12</sup> Eliasberg, I think, overstated an assumption partially true when he declared that "testimony is primarily a function of the commands of the group, brought to bear on the person testifying."<sup>13</sup> In any event we may be sure that the judicial process rarely escapes the impingement of preconception though the impact on proof in any case may or may not be prejudicial to justice.

Allusions have previously been made to the philosophy of the "square deal" as a touchstone of jurors and an ever present concern of the trial lawyer in formulating his case. The willingness of jurors to credit testimony or to enter a fact-finding upon it is conditioned in an important way by their desire to do equity between the parties. It is a fact well known to trial lawyers that one's position is immeasurably strengthened if his client's position can be formulated in equitable terms. It is extremely interesting that jurors of whatever stratum or station, and of whatever level of life morally and mentally, share a common impulse to use the verdict as an instrument for achieving their notions of a

8. Arado, *Vignettes of the Criminal Court* (1932-41) J. CRIM. L. & CRIMINOLOGY, vols. 23, 25, 26, 27, 30 and 31 (for page references see indices of individual volumes).

9. Reid, *Memory* (1922) 109 NATURE 551-52.

10. Schmeing, *Justiz und Eidetik* (1937) 28 MONATSSCHRIFT FÜR KRIMINALPSYCHOLOGIE UND STRAFRECHTSREFORM 113.

11. "The cultural pattern and its pervasive control of human values can be disregarded in testimony no more than in other lines of social phenomena and interaction. Social values determine facts quite as much as they are in turn determined by them. Probably no social group has the insight to differentiate between fact and current cultural fiction." Moore, *Elements of Error in Testimony* (1935) 19 J. OF APPL. PSYCHOL. 447.

12. Datta, *Testimony as a Method of Knowledge* (1927) 36 MIND 354-58. See MONTAGUE, *THE WAYS OF KNOWING* (1925).

13. Eliasberg, *Zur Psychologie des Aussagenden und Schwörenden Zeugen* (1930) 35 ZEITSCHRIFT FÜR ANGEWANDTE PSYCHOLOGIE 353.

"square deal." This application of the "golden rule" in jury rooms by persons who rarely observe it in the outer world may represent an interesting example of identification of the trier of fact with the party thought to have been wronged. Again, it may sometimes represent ego preservation seeking expression through a verdict that other members of the community will approve and applaud. What constitutes a "square deal" varies according to the place, the time, the parties and the jurors in the box, and sometimes it depends more on what whittlers on the court house square may think than upon dictums found in books of ethics. The "square deal" philosophy has exceptional weight if it chances to parallel independent sympathy reactions. These latter usually aid a plaintiff rather than a defendant and a corporation less than an individual. No one can feel sorry for a poor corporation whose home office is in New York City.<sup>14</sup>

## II. THE PSYCHOLOGICAL COMPONENT OF PROOF

### A. SCIENTIFIC PSYCHOLOGY: STUDIES OF ACTIVITIES INVOLVED IN PROOF MAKING

We have learned much and will profit even further from experimental studies of psychological activities such as perception, recognition, discrimination, interest, recollection and the effect of all sorts of direct and collateral modifiers of accurate observation and reporting. The illustrious Hans Gross was a lawyer, but he left a deep imprint on scientific proof and indeed has been proclaimed the "father of scientific

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14. Once, after the writer lost some large fire insurance cases in which he expected to establish the defense of arson, the clerk of court congratulated him on the conduct of the litigation and sought to pour on the balm of consolation. "A defendant," he said, "has not won a fire insurance case in this county in thirteen years, so you need not feel badly. Down here people regard a fire insurance policy as a promissory note which becomes due and payable when the fire occurs." On another occasion it was possible by a happier formulation of the psychology of the dispute to escape defeat. This was a case which at the outset seemed hopeless in that a woman with two children was "lawing" X, her divorced husband, to establish rights in valuable property. This lady litigant had married a second time and her new husband was in court. The distribution of the property turned upon facts to be found by the jury and it seemed likely that in such a contest between a woman and a man the jury's sympathy reactions would be too powerful to overcome. It was possible to change the complexion of the litigation in a legitimate manner not foreign to certain issues, by showing that the second husband of the plaintiff was eager to have and to hold the property in question but was quite disinclined to assume parental responsibilities toward the plaintiff's two minor children. His position became grasping and avaricious in the eyes of the jury. They took the view that he was trying to sit on the nest the first husband had made. They shrank from awarding a verdict to so callous a person as the second husband and promptly returned fact findings supporting a judgment for X.

criminology."<sup>15</sup> In his classic work on criminal investigation,<sup>16</sup> Dr. Gross wrote with acumen and insight upon the frailty of human observation and showed how all the senses at times may give false reports of external events. We identify things by impressions or patterns rather than by detailed criteria and may confuse analogous patterns. Even perception often involves undisclosed inferences which may be erroneous and so lead to visual or auditory conclusions ranging from mere inaccuracy to sheer illusion. Transference may occur, as in the case where stage scenery is so arranged by placing actual stones and trees in the foreground that the observer imputes reality to the entire panorama.

Early in the century psychologists pounced upon the staged melee or confusion drama as an experimental means of studying these inaccuracies.<sup>17</sup> These showed that Sir Walter Raleigh's disturbance over varying spectator accounts of the affray outside the tower was a concern to be shared by courts and lawyers.<sup>18</sup> Professor von Liszt, the criminologist, ushered in these seances by a drama staged at the University Seminary in Berlin, involving an apparently genuine quarrel between two students in which blows were exchanged and a revolver fired. The spectators wrote accounts of what transpired and descriptions showed from 26% to 80% of erroneous statements. Exclamations were attributed to silent spectators, various actions were fictitiously imputed to participants, and many observers failed to recollect essential features of the transaction.<sup>19</sup>

Individual powers of observation are infinitely variable and on the whole undependable. On February 25, 1910, at the Union Club in Boston, George G. Crocker and three companions put on a short skit involving a brokerage transaction. Each of seventeen observers wrote down his version of what occurred. Two crucial facts were involved: first, the order as repeated by the broker differed from the order as given, and second, a pocket book was stolen. No one of the witnesses reported the happenings correctly and their several versions showed numerous inaccuracies and discrepancies.<sup>20</sup> Such infirmities of observation and recol-

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15. Born in Graz, Austria, in 1847, Gross qualified for law in 1869, served as "Untersuchungsrichter" (examining magistrate) of the Criminal Court at Czernovitz, Austria, and became Professor of Criminal Law in the University of Graz in 1905.

16. GROSS, *HANDBUCH FÜR UNTERSUCHUNGSRICHTER, ALS SYSTEM DER KRIMINALISTIK* (2 vols. 1893), translated into eight foreign languages; in English under the title, *CRIMINAL INVESTIGATION, A PRACTICAL TEXTBOOK FOR MAGISTRATES, POLICE OFFICERS AND LAWYERS* (by John Adam and J. Collyer Adam; 3d ed. edited by Norman Kendal, 1934).

17. See VAN GENNEP, *LA FORMATION DES LÉGENDES* (1905) 158-59 (experiment before the Congress of Psychologists).

18. See Moore, *Elements of Error in Testimony* (1935) 19 J. OF APPL. PSYCHOL. 447, 458.

19. Hugo Münsterberg, Professor of Psychology at Harvard, recounted many variations of such experiments in his book, *ON THE WITNESS STAND* (1908).

20. See CROCKER, *A TEST OF THE ACCURACY OF THE TESTIMONY OF BY-STANDERS* (pamphlet in the Harvard Law Library, 1912).



lection account for many appalling conflicts of testimony which we are prone to set down to intellectual dishonesty, self interest, prejudice or pure sympathy reactions.<sup>21</sup>

Psychological experiments done in exploring testimonial defects have been imitative of the original prototypes. There are limits to what can be learned by this method and difficulties in maintaining proper scientific controls. There has been a relative paucity of studies terminating in pragmatic techniques and practical suggestions. Perhaps this is because mechanics of jury trial militate against successful employment of many psychological techniques. It may be that Münsterberg's caustic criticisms of law for failure to use the psychologist have been followed by resigned timidity. Among studies calculated to have legal utility we may notice Feingold's work at Harvard on the processes of *Recognition and Discrimination*<sup>22</sup> from which he concluded among other things that:

- (1) "Recognitive ability varies inversely as the degree of similarity.
- (5) "The objects must reach at least 25% similarity before they can have a confusing effect on the process of recognition.
- (8) "It is more difficult to recognize an identical object in a totally different setting from the one in which it was originally seen than in the same setting, the ratio of difficulty being about as 27:1.
- (9) "It is more difficult to recognize an identical item in a new setting than a totally different item in the setting previously experienced, the ratio of difficulty being about as 12:1.
- (10) "Recognitive ability varies inversely as the number of objects perceived — time being constant.
- (11) "Recognitive ability varies inversely as the number of objects exposed — time being proportionate and not more than one second per object."

Feingold suggested the desirability of determining issues of unfair competition in trade-mark violation and "passing off" cases by psychological tests of the actual confusion created by the supposed simulation. Desai gathered evidence tending to show that surprise partially arrests the motor activity in which the subject is engaged and that the surprising stimulus tends to become focal at the expense of existing processes,

21. See ARNOLD, *PSYCHOLOGY APPLIED TO LEGAL EVIDENCE AND OTHER CONSTRUCTIONS OF LAW* (2d ed. 1913). See also BURT, *LEGAL PSYCHOLOGY* (1931); GROSS, *CRIMINAL PSYCHOLOGY* (translated from the 4th German ed. 1911); McCARTY, *PSYCHOLOGY FOR THE LAWYER* (1929); ROBINSON, *LAW AND THE LAWYERS* (1935). In connection with expert testimony, see OSBORN, *THE PROBLEM OF PROOF* (2d ed. 1920) and OSEBURN, *THE MIND OF THE JUROR AS JUDGE OF THE FACTS; OR, THE LAYMAN'S VIEW OF THE LAW* (1937).

22. Feingold, *Recognition and Discrimination* (1915) 18 *PSYCHOL. MONOGRAPHS* No. 2.

whether cognitive, emotional or conative.<sup>23</sup> Lucas and Murphy presented one hundred mixed advertisements, fifty from the current issue and fifty from the forthcoming issue of a large, general magazine to regular readers of that journal, and found that up to 50% of the group interviewed falsely remembered seeing certain of the unpublished ads in print.<sup>24</sup> Moore wrote an interesting article devoted to the psychological factors which may impair testimony.<sup>25</sup>

In 1905 Binet and Simon brought out the precursor of our modern intelligence tests. Properly applied, these tests constitute important auxiliary modes for gaining scientific insight into certain personality factors such as individual capacity and aptitude. The original test was a standardized interview containing a number of questions and problems. The test and its many modifications aim to replace guesswork "sizing up" of subjects by a uniform comparative measure of the tested qualities. These, together with psychometric tests of all descriptions, now help the psychiatrist and the social worker verify the intellectual endowment of individuals they must study. Would it be feasible to use I.Q.'s (intelligence quotients) to rate testimonial qualifications? An I.Q. of 70 or less suggests feeble-mindedness or even severer mental impairment. But an I.Q. of 150 affords no adequate basis for assuming that X is a better witness than Y who has a recorded I.Q. of 140. Too many qualifying factors affect reliability of testimony for us to allow small superiorities to govern relative credibility. It might be of interest to know that a witness had an I.Q. of a moron, but whether the law can or will make proper use of such information must depend upon more refined development of trial mechanisms than those which now obtain. It is now feasible to determine whether a particular individual excels in visual or auditory observation.<sup>26</sup> Thus a witness may be highly trustworthy as regards conversation, but quite inaccurate as to written material he has

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23. Desai, *Surprise, a Historical and Experimental Study* (1939) 7 BRITISH J. OF PSYCHOL. MONOGRAPH SUPP. No. 22.

24. Lucas & Murphy, *False Identification of Advertisements in Recognition Tests* (1939) 23 J. OF APPL. PSYCHOL. 264.

25. Moore, *Elements of Error in Testimony* (1935) 19 J. OF APPL. PSYCHOL. 447. He touched upon the following very pertinent considerations: (1) the cultural definition (inability to differentiate between fact and current social fiction); (2) stereotypes (tendency to replace "certain variant aspects of experience with features or qualities more in keeping with a pattern which we have come to accept"); (3) suggestion in the court room; (4) suggestion outside the court room; (5) conditions of observation; (6) degrees of attention; (7) relative efficiency of visual and auditory observation; (8) distraction; (9) complexity of matters observed (as affecting attention brought to bear); and (10) participation by the witness ("while proximity to the incident and even participation in it may reduce accuracy for complicated or emotion-producing action, kinaesthetic response usually aids instead of deterring accurate recall").

26. See *id.* at 454.

read.<sup>27</sup> Such criteria may yet come to fruitful application in our judicial system of tomorrow.

Gordon, in 1924, showed that in discrimination of test weights the average judgment becomes more valid as the number of participating judges increases. Estimates by two hundred subjects of a test weight yielded an average judgment in perfect agreement with the independent criterion, namely, the actual weight used.<sup>28</sup> Eysenck's experiments led him to conclude that a similar relation obtains between judgments of beauty or affective value, and the number of judges used. He found that if rankings of twelve pictures by 700 people were adopted as a standard, the judgments of 200 test individuals correlated perfectly with the standard ratings.<sup>29</sup> Inasmuch as there was no interaction of opinion, such experiments afford no psychological proof of the superiority of group judgments. They demonstrate an interesting effect of the law of averages when one applies the statistical method to a large enough group to permit errors of overstatement to cancel or balance errors of underestimation. When we shift to jury deliberations, we are dealing with smaller numbers, and a social interaction enters in. One cannot escape the sway of positive leadership and the fact that strong convictions of aggressive members tend to override weaker opinions of more indifferent jurors. Some evidence exists that deliberation and discussion tend to make a group judgment superior to the opinion of the average participant,<sup>30</sup> but it is doubtful whether jury verdicts can be considered as at all subject to any "averaging" out of error by statistical principles operative in the foregoing experiments.

The possible effect of interest on a witness is fairly well appreciated even by lay jurors. An honest watchman swore in a criminal case that he had locked a gate. There was positive proof to the contrary. It was so much a duty of the watchman to lock the gate that his mind rebelled at the idea that he had been derelict.

On the side of the trier of fact, the most crucial psychological principle, I think, is that each of us tends to judge in the light of his own past. To a varying degree, each trier of fact introduces into the process of weighing and interpreting evidence a subjective component based upon

27. See Dallenbach, *Two Pronounced Cases of Verbal Imagery* (1927) 38 AM. J. OF PSYCHOL. 667-69.

28. See Gordon, *Group Judgments in the Field of Lifted Weights* (1924) 7 J. EXP. PSYCHOL. 398-400.

29. Eysenck, *The Validity of Judgments as a Function of the Number of Judges* (1939) 5 J. EXP. PSYCHOL. 650.

30. See Bechterew, *Die Ergebnisse des Experiments auf dem Gebiete der kollektiven Reflexologie* (1924) 24 ZEITSCHRIFT FÜR ANGEWANDTE PSYCHOLOGIE 305; Shaw, *A Comparison of Individuals and Small Groups in the Rational Solution of Complex Problems* (1932) 44 AM. J. PSYCHOL. 491; Watson, *Do Groups Think More Efficiently than Individuals?* (1928) 23 J. ABN. & SOC. PSYCHOL. 328.

personal experience, beliefs, and conceptions of what things are likely or probable in light of the current social order as he sees it:

"The King of Siam gave credence to every thing which a European ambassador told him, as to the circumstances and conditions of Europe, until he came to acquaint him, that the rivers and sea were occasionally made so hard, by the cold, that people could walk on them; but this story he totally disbelieved and rejected, as entirely repugnant to every thing which he had either seen or heard; and the ground of his disbelief was perfectly rational."<sup>31</sup>

Another fact of signal importance, is that different triers of fact require different amounts and kinds of proof in order to be convinced. A WPA worker might be partial to lay evidence in situations where a blue ribbon juror with a college degree might give controlling weight to scientific testimony. It is also a fact to be noted that members of a jury panel may have dissimilar notions of what is an adequate performance of the task of proof making.<sup>32</sup>

#### B. GARDEN VARIETY PSYCHOLOGY: EVERY DAY REACTIONS OF HUMAN BEINGS WHICH MAY AFFECT THE PROCESS OF PROOF MAKING

a. *Fear-flight Reactions.* Proof is of no value unless it is available at the moment of trial. Thus maintaining control of one's source of evidence is of crucial importance.

Example: X was an officer of a fraternal insurance order and in collecting premiums became acquainted with the signatures of mem-

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31. ANONYMOUS, *THE THEORY OF PRESUMPTIVE PROOF; OR, AN INQUIRY INTO THE NATURE OF CIRCUMSTANTIAL EVIDENCE* (1815) 15. "A similar principle sways our belief in respect to the acts of individuals, as arising in the society and period in which we live. We always refer the credibility of the case to what has fallen within our own observation and experience of men and things. We readily give credence to acts of common occurrence, and are slow in yielding our assent to the existence of new and unlooked for events. When a wretch, at no distant period, in affluent circumstances, was accused of having stolen some sheets of paper in a shop, the judges admitted him to bail against evidence, because the charge was altogether unlikely in one of his condition in life. From these instances, we may safely infer that the principles for our believing or disbelieving any fact are rather governed by the manners and habits of society, than by any positive law. The writers on the general law of evidence, such as Mascardus and Menochius, have accordingly declared that all proof is arbitrary, and depends on the feelings of the judges." *Ibid.*

32. An Englishman, a Frenchman, a German, and an American, all learned men and pleasant dinner companions, agreed to write a scholarly book on the elephant for their reunion one year thence. When the occasion arrived, the Frenchman entered with a slender volume of verses bound in red morocco entitled *The Elephant, My Love*; the Englishman carried a tome entitled *The Elephant and the British Empire*; the American had a book jacketed in a multi-colored wrapper labeled, *The Elephants in Barnum and Bailey's Circus*; and the German, with apologies, presented Volume I of a projected ten volume series, this initial installment being titled: *Elephant: (Angulate Mammal, Genus Elephas), Vol. I, The Process of Gestation and Reproduction.*

bers, including that of *Y*. After *Y* died, leaving a large estate, an unnatural testamentary disposition of his property was attacked as a forgery. *X* was interviewed by contestant and it became evident that she could give valuable support to the contention that the alleged testamentary signature of *Y* was spurious. Her statement was taken. On the eve of the trial she fled to an unknown place. Due to emotional lability she was excessively frightened by the prospect of going to court and this indisposition was furthered by the fact that her testimony would put her in conflict with other members of the fraternal insurance order who were being called by proponent of the will to prove the authenticity of *Y*'s signature. Her loss did not prove fatal to contestant's proof of the defense of forgery, but it well might have done so. There was a tactical error in failing to reassure the witness and if need be put her under subpoena so that her appearance in court could have been justified in her mind as compulsory rather than elective. As she later declared, she did not desire to appear voluntarily to testify in opposition to her friends even though she had a steadfast conviction as to the facts.

b. *The Combat Complex or the "Righter of Wrongs."* This type of witness never gets out of pocket, is the unpaid partner of the trial lawyer and helps him find and organize evidence.

Example: *X* was a roomer in the house of *Y*. *Y*'s wife and daughter filed affidavits of lunacy charging that *Y* was *non compos mentis* and had indulged in conduct which was irrational, bizarre and sometimes dangerous. *X* took up the cudgels for *Y* although he was no special friend of *Y* and by so doing would invite certain publicity unfavorable to himself and his business. *X* was always at the lawyer's office when wanted and at the court house half an hour early. He helped to unearth a surprising chain of verifiable contradictory evidence which totally destroyed the strongly fabricated case of those who almost succeeded in having *Y* committed.

c. *The Case of Reconstructed Recollection.* That one has committed witnesses to signed statements as to how an accident or how a transaction occurred, does not necessarily mean that such persons will duplicate this version by testimony on the trial. Change of position often occurs where the statement is contrary to the sympathies of the witness or the investigator indulges phrases favorable to his side of the case in recording the account for the speaker to read and sign. One also may see a change of position where witnesses are not contacted regularly and reformulate their recollections before trial to correspond with unconscious partiality or a desire to aid the opposite litigant.

Example: *X* was driving a truck along a country road and was temporarily on the left hand side throwing a paper to a farm house. Servants of *Y* coming from the opposite direction in a produce

truck going at an excessive rate of speed, failed to avail themselves of the means at hand with safety to themselves to avert a collision after discovering *X*'s position of peril. *X* was critically injured in the collision and was unconscious for three days. During this time *Y*'s insurance carrier, *Z*, through its claim agents, pinned down all of the eye witnesses to the transaction on signed statements favorably worded to absolve *Y* from negligence. *Y* and *Z* refused to settle and failed to maintain contact with the witnesses. In the meantime *X*'s lawyer found that the true facts were not quite as *Z*'s investigators had related in the statements signed by the credulous farm hands. These witnesses saw the error of their statements and when called to the stand by *Y* and *Z*, testified for *X*, although at no time was any undue pressure exerted upon them or untoward suggestions made as to what their testimony should be.

d. *Psychological Imponderables*. In the trial of all cases the lawyer comes up against potent influences which bear directly on proof making and the final state of conviction but yet lie beyond the periphery of legal objection. These unspecified and variable factors are like magic arrows against which the armor of the law affords incomplete and uncertain protection. It is not feasible here to pick up more than a few of these random darts for cursory examination.

(1) *Psychological Imponderables in Dealing with Jury: Appraisal of Jury Psychology and Responsiveness to Various Formulations and Appeals*. An appreciation of how the average human being reacts to testimony in the light of current mores and prejudices is one of the most valuable weapons of the trial lawyer under a system where less promising members of the general populace are used as triers of fact in all types of cases. Ordinary law cases are decided upon the law as given by the court and the evidence introduced upon the trial. For that reason it is held improper and prejudicial argument if a counsel seeks to establish conviction of the existence of facts favorable to himself by inviting the jurors to consider facts which are outside the record.<sup>33</sup>

Yet every trial lawyer knows that very real influences in the making of proof are brought to bear by methods both benign and reprehensible which evade proper challenge and timely objection in the course of trial. These we may call collectively "psychological imponderables." Daily, cases are won or lost on the mere countenance of counsel, for an "affidavit face" can add substantial weight to the proof of an otherwise unpromising claim. No greater example of this magic influence for good

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33. The rule is to prevent counsel from giving unsworn evidence not subject to cross-examination. The making of fact assertions foreign to record evidence is improper argument to the jury. If the conduct is materially prejudicial it suffices to reverse judgment provided the affected party takes such objection as local practice law requires to preserve the error.

or bad upon the argument of the case can be cited than the well-known and almost inescapable power which Rufus Choate exerted over jurors by his personal conduct and demeanor.<sup>34</sup>

It might even be said that court room manners are to some extent dictated by the psychology of trial and the type of guests one has in the jury box. Great sincerity and honesty of purpose probably have no substitutes, but there is also room for subtlety and finesse in addressing one's efforts to the psychology of the triers of fact. That some lawyers recognize this delicate truth and that others ignore it accounts for many differences in the success of counsel in comparative litigation. This psychology, not about the willingness of food-starved or sex-starved mice to cross an intervening charged runway to get satisfaction on the other side, but in relation to human reactions to trivial things, plays an imponderable but not inconsequential part in the successful making of proof.

It is a naïve assumption to think that a trial lawyer can invoke every objection to evidence recognized as legally valid. The jury reaction to the perennial objector is unfavorable. Oftentimes an impression is created that counsel is shutting out light from the case and preventing the jurors from getting the full facts. Psychological imponderables thus act as a partial veto on full application of rules of evidence. It is a mark of the advocate to know the limited occasions when his case is best served by vigorous objection. The graciousness with which one objects influences the frequency with which he may do so without creating antagonism.

Jurors may respond favorably to a show of excessive brilliance, and this is the rationale which underlies the practice of some defendant lawyers in examining a jury panel to address each prospective juror by his name without looking at the jury list. This depends upon committing to memory the name of every juror as he is being examined by the plaintiff's attorney and such a feat often makes a deep impression on the jurors before the actual trial is even begun.<sup>35</sup> On the other hand, a diametrically opposite approach is one which depends upon the sym-

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34. " . . . we do know, from those who heard and saw him, that he was the most persuasive of speakers, with a power over an indifferent or hostile jury which has been compared to the fascination of a bird by a snake. This was what he loved. 'No gambler,' wrote Senator Hoar, 'ever hankered for the feverish delight of the gaming table as Choate did for that absorbing game, half chance, half skill, where twelve human dice must all turn up together one way, or there is no victory.' Something of an actor he must have been, and most of what he did,—his smiles, his asides, his apparently careless gestures,—was done consciously, for the effect which it would produce on the jury." FUESS, RUFUS CHOATE, THE WIZARD OF THE LAW (1928) 171.

35. Probably the jury reaction runs thus: Lawyer X is obviously a brilliant fellow; smart men do not waste time on cases that have no bottom; ergo, X's connection with the case is pretty good evidence that there is sound substance to his client's position.

pathy of the average man for the underdog. Jurors subconsciously try to balance the scales and their sympathies go out to the inexperienced lawyer in his effort to cope with a veteran antagonist. For this reason an alert young trial lawyer often has an advantage over his elder opponent.<sup>36</sup>

(2) *Psychological Imponderables in Use of Pleadings.* Counsel has the right to read his pleadings or to make an opening statement at the start of a case to apprise the jurors of his position and what he will seek to prove. Pleadings are not evidence, except so far as offered for admissions contained therein, but in arriving at a verdict, jurors are often unable to separate recollections based on evidence from those based on reading of pleadings.<sup>37</sup> Indeed, a preconception equivalent to half-proof is sometimes established by this adroit, extra-legal use of pleadings. In a case of conspiracy to defraud, in which two lawyers among others were sought to be implicated as co-conspirators, the plaintiff pleaded that the nefarious agreement was made in building X. The building had a bad reputation and, scarcely a month before, a lawyer had cut his client's throat there in a dispute over a \$5.00 fee. The episode had received newspaper notoriety and members of the jury were prepared to believe that if murder was done by lawyers in building X, it was a likely place for mere conspiracies to be hatched. No possible exception to the pleadings could reach the allegation.

Again, we sometimes see pleadings used for inflammatory purposes to aggravate damages. A motion to strike may be ineffectual where, as in wrongful autopsy cases, a plaintiff alleges acts were done wantonly and maliciously. The heat of these allegations, directed to arousing further the jurors' antipathies to body dissection and to getting full pecuniary advantage of historical taboos, far exceeds any fire actually in the case, for in most instances the autopsies were made for scientific reasons but without technical consent. The gravamen in these cases is not personal injury to a dead body, but interference with quasi-property rights of the next of kin to have possession of the undisturbed body for purposes of burial. The measure of damages is based on mental suffering

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36. The writer learned this truth of trial practice from one who employed it with surprising success. Actually he was a man of remarkable attainments and a strategist second to none. I doubt if there were very many trial lawyers against whom he came in his early days who had a sounder command of the legal bearings of the litigation. Far from being ostentatious, he so conducted himself that one might well imagine he was at a great disadvantage in coping with his older opponents and before the case had progressed far, the jury was unconsciously helping him to fight an uphill battle.

37. If counsel confines his preliminary statement to facts admissible in relation to the litigation, trial courts are slow to hold that failure to support the statement by evidence is reversible error. It is said that evidence may reasonably fall short of bona fide expectations entertained at the start of trial. See cases collected in Note (1939) 118 A. L. R. 543.



and injury to the feelings. Thus the standard is subjective rather than objective and punitive damages may well be awarded for technical trespasses unaccompanied by any actual wanton disregard or malice on the part of the examining physician.

For instance, in *Actna Life Insurance Company v. Burton*,<sup>38</sup> the insurance company was sued by next of kin for unauthorized autopsy done under written consent to discover whether decedent actually died from a compensable cause. Plaintiffs repudiated the consent, claiming that it was obtained by fraud subsequent to the autopsy and in a trial to a jury recovered a verdict for \$2,500. In affirming judgment for plaintiff, the appeal court held that the trial judge did not err in refusing defendant's motion to strike certain allegations as redundant, prejudicial and inflammatory. These were as follows:

“. . . said surgeons and doctors, acting as the agents, workmen and employees and representatives of said defendants, with large steel knives, steel saws, steel pliers and steel instruments of various kinds, cut, sawed, mutilated, lacerated and opened the dead body of the plaintiff's said husband, removing therefrom the stomach, bowels, heart, lungs, arteries, and other organs, which were cut into, lacerated, and mutilated by said surgeons and doctors working for said defendants, at defendant's special instance and request, all without the knowledge and consent of plaintiff,” and “. . . by reason of the horrible and gruesome cutting, laceration, mutilation, tearing, and sawing of the flesh, veins, heart, lungs, and other vital organs of her said husband, the memory of which is continuously in her mind, haunting her every move and action,” etc.<sup>39</sup>

Medical men know that the usual post-mortem examination is not a profanation of the dead, but a surgical opening of the body in a routine manner to discover the cause of death by scientific means; it need not, and rarely does, disfigure the body for burial. Yet the imaginative jury is licensed to believe that the doctors tore the body asunder like so many vultures in a ghoulish crime against decency and the dead.<sup>40</sup> The appellate court looked for legal license rather than for prospect of prejudice, and upheld the pleading in these words:

“It is never reversible error to refuse to strike out parts of the complaint unless its nature is so impertinent that it reflects on char-

38. 104 Ind. App. 576, 12 N. E. (2d) 360 (1938).

39. *Id.* at 578-79, 12 N. E. (2d) at 361.

40. Indeed, degradation, abuse and mutilation seem in some quarters to be a part of the judicial conception of autopsy. In upholding a wife's right to recover for an unauthorized post-mortem examination of her husband's body done at Bellevue Hospital, Patterson, J., said in *Foley v. Phelps*, 1 App. Div. 551, 555, 37 N. Y. Supp. 471, 474 (1st Dep't 1896): “The right is to the possession of the corpse in the same condition it was in when death supervened. It is the right to what remains when the breath leaves the body, and not merely to such a hacked, hewed and mutilated corpse as some stranger, an offender against the criminal law, may choose to turn over to an afflicted relative.”

acter or is scandalous, and we do not believe, in view of the general allegations of the complaint as a whole, [that the autopsy was wrongful, unlawful and wilful] that it operated to prejudice the appellant."<sup>41</sup>

(3) *Psychological Imponderables in Conduct of Court and Counsel.* A trial judge may show his distaste for one side of a case in such a manner as to control the locus of jury conviction.

The Federal Constitution preserves to federal courts the right to make fair comment on the evidence, since this was a prerogative of trial judges at common law. In a noteworthy line of decisions of which *Quercia v. United States*<sup>42</sup> is illustrative, the Supreme Court has condemned as prejudicial error any use of the power of comment to add to or distort evidence, or to give purely personal inference or conjecture the unwarranted garb of fact and thus to "render vain the privilege of the accused to testify in his own behalf." The *Quercia* case involved a prosecution for alleged violation of the Narcotic Act, and the trial judge charged the jury:

"And now I am going to tell you what I think of the defendant's testimony. You may have noticed, Mr. Foreman and gentlemen, that he wiped his hands during his testimony. It is rather a curious thing, but that is almost always an indication of lying. Why it should be so we don't know, but that is the fact. I think that every single word that man said, except when he agreed with the Government's testimony, was a lie."

Chief Justice Hughes wrote an opinion reversing the conviction. He held that the trial court had not indulged mere dissection and analysis of evidence for guidance of the jury, but had so far transgressed bounds of fair comment that the prejudice was not cured by the trial court's further charge:

"Now, that opinion is an opinion of evidence and is not binding on you, and if you don't agree with it, it is your duty to find him not guilty."<sup>43</sup>

41. For other wrongful autopsy cases based on similar inflammatory pleadings, see *Patrick v. Employers Mutual Liab. Ins. Co.*, 233 Mo. App. 251, 118 S. W. (2d) 116 (1938) (verdict: \$1,500 actual, \$6,000 punitive, damages); *Coty v. Baughman*, 50 S. D. 372, 210 N. W. 348 (1926) (verdict \$1,500); *Louisville & N. R. R. v. Blackmon*, 3 Ga. App. 80, 59 S. E. 341 (1907); *Palenzke v. Bruning*, 98 Ill. App. 644 (1901); *Aetna Casualty & Surety Co. v. Love*, 132 Tex. 280, 121 S. W. (2d) 986 (1938), *aff'g* 99 S. W. (2d) 646 (Tex. Civ. App. 1936).

42. 289 U. S. 466 (1933).

43. Even so, fair comment has such a powerful influence on proof making that plaintiffs suing in state courts often dismiss petitions seeking large damages of foreign defendants and refile for less than \$3,000 to circumvent imminent removal of the cause to the federal courts on the jurisdictional ground of diversity of citizenship.

Judicial comment on the weight and credibility of evidence is usually forbidden to state courts by local practice acts. Whatever the rule as to comment, such prejudice as taints proscribed remarks will usually appear from the recorded utterance and the ordinary exception and assignment of error afford a reasonably satisfactory mode for securing review by the appeal court. Beyond these borderline cases lies a further group where the prejudice may be as real but more difficult to record. The trial judge may throw a psychological weight into the scales by his attitude or demeanor. He may assume an air of indifference by reading a paper during examinations by one counsel, or make correct rulings on evidence in an angry voice or one so embellished by gestures or facial grimaces as to indicate a distaste for one side of the case. It is difficult to get the prejudice of such conduct into the record for the reason that verbal or subjective reactions cannot always be discovered from the typed version of trial court proceedings. Bystanders' bills and affidavits of counsel are not ideally suited to their preservation. Appeal courts probably realize that various spectators might place different interpretations on the trial court's judicial demeanor. Possibly they dread opening a door for reversals which might swing wide and often on the hinges of counsel's imagination. These practical reasons may account for the fact that courts inveigh against improper conduct of this subtle sort, but shrink from declaring it such prejudicial error, standing alone, as will warrant reversing a judgment. Some opinions rest on the ground that bad manners of the trial court do not tender a fit subject for appellate review if the action complained of does not disclose an independent mistake of law.<sup>44</sup> In other opinions the trial judge is verbally chastized for bad manners or warned in abstract language, but the judgment in the particular case is affirmed for professed want of any demonstrable prejudice from the conduct.<sup>45</sup> Some courts openly profess a disinclination to

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44. *Lewis v. Crenshaw*, 47 Cal. App. 781, 191 P. 72 (1920) (contract action: judgment for defendant affirmed: laconic, decisive and extremely brief rulings, disconcerting to counsel, not prejudicial if legally correct); *Todd v. Boston Elevated Ry.*, 208 Mass. 505, 94 N. E. 683 (1911) (tort action: judgment for defendant affirmed: tone of voice of presiding judge is not subject to exception unless some error of law is committed); *Beal v. Lowell Ry.*, 157 Mass. 444, 32 N. E. 653 (1892) (judgment for defendant affirmed: tone of charge); *Briffitt v. Wisconsin*, 58 Wis. 39, 16 N. W. 39 (1883) (criminal action: judgment for state affirmed: peculiar manner and language of trial judge in making correct rulings gives them force and is commendable. ". . . the only question for this court is whether such rulings were correct as matters of law. His manners we have nothing to do with. That is a matter entirely personal except when expressing error.").

45. *Hickey v. Webster County*, 148 Iowa 337, 127 N. W. 658 (1910) (tort action: plaintiff appealed from small judgment in his favor which he thought inadequate. Affirmed. That court read those instructions favorable to defendant impressively and effectively, and perceptibly lowered his voice in reading those favorable to plaintiff, even if properly raised in motion for new trial, would not prove harmful effect: ". . . If,

broaden their burdens of review by looking into the subtleties of trial court decorum with hypercritical (or even critical) eye.<sup>46</sup> In the few instances where appeal courts have remanded causes as well as rebuked the trial judge for improper demeanor, it is usually a fact that another ground is primarily relied upon. The opinion may even offer an apologia and express assurances that the court would not have been inclined to reverse the judgment of the lower court on conduct alone.<sup>47</sup> To preserve

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therefore, it appeared as a fact in this record that the trial judge did at any stage in the reading of his instructions, 'perceptibly lower his tone of voice,' it must be manifest to counsel upon further reflection that we would be quite helpless to determine from such fact whether appellant was hurt or helped by such modulation."); *Vaughn v. May*, 9 S. W. (2d) 156 (Mo. App. 1928) (tort action for slander: judgment for plaintiff affirmed: comments involved, but dictum as to conduct); *Egan v. United Ry. of St. Louis*, 227 S. W. 126 (Mo. App. 1921) (tort action: judgment for defendant affirmed); *Banks v. Empire Dist. Electric Co.*, 4 S. W. (2d) 875 (Mo. App. 1928) (tort action: judgment for plaintiff affirmed: comments manifesting impatience of judge over duration of examination and declaration that court had another case to try did not constitute prejudicial error); *Settle v. Crawford*, 155 Okla. 291, 9 P. (2d) 38 (1932) (replevin action: judgment for defendant affirmed: error assigned to comments on ground that "they reflected upon plaintiff"; also conduct not fully described; held no apparent prejudice).

See *Ott v. Board of Registration in Medicine*, 276 Mass. 566, 177 N. E. 542 (1931) (Board's decree cancelling physician's license for professional misconduct reversed for want of fair hearing where Board members went beyond impatience, discourtesy or bad manners to indulge sarcastic affronts to petitioner's counsel and thus prevented his making a reasonable cross-examination).

46. *Hickey v. Webster County*, 148 Iowa 337, 127 N. W. 658 (1910) (as to the complaint of "lowered voice," the appeal court said: "It may be proper to suggest here that the burdens of this court will be greatly multiplied, if not magnified, if it must assume the responsibility of controlling the elocutionary taste and judgment of the trial courts."); *Fuller v. Johnson*, 80 Conn. 493, 68 Atl. 977 (1908) (contract action: judgment for defendant affirmed. Error assigned: addressing plaintiff as "this man" and defendant as "Mr. Johnson" in such a way as to slur plaintiff and prejudice jury against him. Held: "The off-hand remarks of a trial judge in announcing an interlocutory ruling are not the proper subject of such minute and verbal criticism."); *Empire Oil & Refining Co. v. Fields*, 188 Okla. 666, 112 P. (2d) 395 (1940) (tort action: judgment for plaintiff affirmed: heated exchanges between court and defendant's counsel marked by clear judicial hostility. ". . . mere decisiveness or abruptness of manner is not necessarily objectionable, nor is impatience, discourtesy, or bad manners, provided the essentials of sound judicial conduct are not violated, and complaint cannot ordinarily be made of the tone of voice used by the judge, unless some actual error is committed." Rehearing denied, January 7, 1941).

47. *Kribs v. Jefferson City Light, Heat & Power Co.*, 215 S. W. 762 (Mo. App. 1919) (tort action: judgment for plaintiff reversed on another ground); *Nash v. Fidelity Fire Ins. Co.*, 106 W. Va. 672, 146 S. E. 726, 63 A. L. R. 101, 107 (1929) (contract action: judgment for plaintiff reversed: overinterrogation by court of defendant's witness. "If reversal depended entirely upon this assignment, we would not likely consider it sufficient, but, taken in connection with other clear errors, it but stresses the conclusion that defendant has not had a fair trial."); *Kinney v. Town of West Union*, 79 W. Va. 463, 91 S. E. 260 (1917) (judgment for plaintiff reversed: "undue activity" of presiding judge apparently involving over-lengthy questioning of jurors in such way as

his assignment of error to a demeanor objected to as prejudicial, counsel must tender his bill of exceptions for approval and allowance by the trial judge,<sup>48</sup> and thus the official impugned paradoxically judges his own conduct and by qualifying the bill may neutralize it. The lesson of these cases is that counsel will not profit by inviting belligerency of the court and must learn to command the respect and consideration which most courts uniformly extend.<sup>49</sup>

Presence and conduct of bystanders may exert a collateral effect on proofmaking and yet leave the fact of prejudice so mooted and speculative that no successful objection can be made. In *Chicago Junction Railway Company v. McGrath*, a death action against a carrier for negligence, while judge and counsel had withdrawn to argue a motion, one of plaintiff's witnesses said to the jury that he hoped they would do the square thing by the widow and give her a substantial verdict. No connection was shown with the plaintiff. The appeal court held that a new trial was properly denied.<sup>50</sup>

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to indicate court's view of the case. In reversing, appeal court indicates it probably would not have done so had the conduct been the only error in the case); *Sawyer v. Brown*, 108 Okla. 265, 236 P. 404 (1925) (judgment for plaintiff reversed: error in excluding evidence plus prejudicial attitude and demeanor of trial judge in presence of jurors). (Mr. Paul Ryan, a student in the Harvard Law School, assisted in developing authorities on "angry voice").

48. *Chicago City Ry. v. Anderson*, 193 Ill. 9, 61 N. E. 999 (1901).

49. "And if you look at the life of that distinguished ornament of the Northern Circuit later known as Lord Abinger, you will find reference is made to an occasion on the Circuit when with all the usual formalities he was congratulated at Grand Court because of a machine which it was alleged he had invented. The machine was said to be kept out of sight, but it was such that it caused the Judge before whom he was appearing to move his head in a particular way indicating agreement with all that Scarlett said. In his memoir Scarlett thus explains his machine: 'My machine, however, consisted in nothing more than to study to avoid laying down any propositions that were not evident, and that could not be supported by plausible argument; to make no misstatement or exaggeration of the facts, and, above all, not to combat with warmth any matter advanced by the Judge, nor indeed to oppose at all but where I was satisfied I could alter his opinion by the most inoffensive reasoning.' Observe his care not to quarrel with the Court, and not to fall foul of a Judge unnecessarily." SINGLETON, *CONDUCT AT THE BAR AND SOME PROBLEMS OF ADVOCACY* (1933) 28-29.

50. 203 Ill. 511, 68 N. E. 69 (1903) (two grounds: (1) Defendant failed to object until after verdict whereas trial court's timely instruction to disregard would have erased effect. (2) Error was harmless because witness merely reiterated sympathies for widow manifest from his testimony and by his conduct probably impaired rather than aided the effect of his evidence). The difficulty here was that counsel was not wanting in diligence because the episode occurred during his legitimate absence from the room, and the assumption that the error was harmless involved pure speculation.

See also *Bias v. Chesapeake & Ohio Ry.*, 46 W. Va. 349, 33 S. E. 240 (1899) (action for negligently running over and killing eighteen-month-old child who had wandered onto right of way. During jury view sheriff took small red dress worn by deceased child at time of injury and placed it on a stick eighteen inches high thrust into the roadbed

Counsel may face the jury rather than the box in examining witnesses and by facial gestures interpose unspoken side-bar remarks on the testimony. In retrospective examination of the cases of Clarence Darrow, one sees how often the question of guilt became incidental to the issue of class struggle, or to the theme that man is a cork tossed willy-nilly and not the master of his fate as Henley suggested. Rules against improper argument have multiplied, and since either party on appeal may suffer reversal for their infringement, they have a curbing influence in civil litigation.<sup>51</sup> Even here the gentle reprimand of the judge may not dis-

at the point on the railroad track where the accident occurred. The purpose was to test the distance at which the child should have become visible to the engineer, but it should be noted that conditions were not comparable enough to make the experiment valid for the jurors made their view in the daytime while walking whereas the engineer's view was at night from the cab of a rapidly moving locomotive. Held: not sufficient misconduct to require discharge of jury, or to set aside verdict in view of court's cautioning jury to disregard).

It will be appreciated that these and similar cases raise a series of important questions: (1) Is an instruction to disregard actually effective in erasing the impression made on the jury by extraneous incidents? (2) Should the primary test be diligence of counsel, or should it be an inherent duty of the trial judge to act to the end of protecting proof making from collateral appeals? (3) Should the fact that the incident was spontaneous or innocent and not inspired by counsel or litigants make the episode harmless error or should the probable effect be the test?

51. The law proscribes all varieties of inflammatory, emotional and collateral appeals calculated to prejudice unbiased exercise of the fact finding function. Whether diligent objection at the time is required to preserve the error varies with the case and with local law. The usual test is whether or not the argument was so flagrant that the trial court's instruction to disregard would have been ineffectual to erase the prejudicial effect from the jurors' minds.

Among the varied instances of improper argument held to be so prejudicial as to require reversal of the judgment obtained in the trial court, we may notice the following: *Moss v. Sanger*, 75 Tex. 321, 12 S. W. 619 (1889) (*racial prejudice*: plaintiff attacked as a swindling and defrauding Jew); *Ogodziski v. Gara*, 173 Wis. 371, 181 N. W. 227 (1921) (*religious prejudice*: plaintiff argued that all witnesses for the defense were Catholics and subservient to their priests); *People v. Rosa*, 275 P. 961 (Cal. App. 1929) (*political prejudice*: prosecutor in arson case made prejudicial allusions to defendant's affiliations with IWW); *Smith v. Jennings*, 121 Mich. 393, 80 N. W. 236 (1899) (*sectional prejudice*: defendants attacked as Shylocks from another state who robbed local workingmen); *Secor v. Heyman*, 123 Misc. 168, 205 N. Y. Supp. 348 (Sup. Ct. 1924) (*prejudice against Wall Street*: in action by stockbroker it was prejudicial for customer's counsel to argue: "There is many a man sitting on the benches in the park because he lost his money down in Wall Street"); *Fair v. State*, 168 Ga. 409, 148 S. E. 144 (1929) (*prejudicial allusion to prevalence of crime*: appeal to the jury by solicitor general to convict defendant of murder because statistics showed that Georgia had 561 murders in 1922); *Zemliansky v. United Parcel Service*, 175 Misc. 829, 24 N. Y. S. (2d) 672 (Sup. Ct. 1940) (*unwarranted aspersions against witnesses*: respectable physician who testified for defendant was characterized as "the greatest and most unmitigated rotten liar I have ever seen and a tool of the defendants"); *McCollum Exploration Co. v. Reaugh*, 146 S. W. (2d) 1109 (Tex. Civ. App. 1940) (*wealth of defendant corporation*: argument that corporation with capital stock of \$500,000 should

abuse the jury's mind of inflammatory or prejudicial utterances, and a firmer policy both in levying fines for contempt and declaring mistrials is needed in some quarters.

In criminal cases where the state has no appeal, defendant's counsel is often able to bring in collateral issues and innuendoes, particularly in state courts, and to indulge prejudicial argument and side-bar remarks with only such restriction as judicial reprimand may impose. The state, as in the Hauptmann case, may be favored by "trial in the press" or the pressure of public opinion on jurors, but an assignment of error that the case was made into a "legal circus" to the prejudice of the accused may not avail the convicted defendant.<sup>52</sup>

(4) *Psychological Imponderables and the Appeal Court.* We often hear lawyers say in regard to a case which they have lost on appeal: "It's a nice opinion, but it isn't about my case." Appeal courts are subject to unspecified motivations. In some cases it appears that the decision is reached first by involved mental operations or on equitable grounds, and a suitable opinion then constructed to support it. A particular decision may involve a choice between competing premises. What initial premise the court chooses may well hinge on private preconceptions prevalent in that tribunal regarding such subjects as justice in the particular litigation, the proper means and ends of jurisprudence, economic postulates, equitable considerations and the proper ordering of the social system. The legal reasons given in the opinion can hardly be

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pay more exemplary damages than a poor defendant); *West Texas Utilities Co. v. Renner*, 53 S. W. (2d) 451 (Tex. Comm. App. 1932) (*appeal to emotion and sympathy*: "Tap, tap, tap" of plaintiff's wooden leg contrasted with easy, quiet life of company officials).

The wide range of improper argument requires the trial practitioner to master its ramifications and to be acquainted with all the pertinent decisions in his particular jurisdiction.

52. *State v. Hauptmann*, 115 N. J. Law 412, 180 Atl. 809 (1935). See, however, *State v. Henry*, 196 La. 217, 198 So. 910 (1940): Large throngs attended trial for manifest purpose of expressing public sentiment that woman accused of murder should be hanged rather than given life imprisonment. There was prejudicial pre-trial in newspapers. The trial judge permitted one hundred and fifty spectators to crowd inside the rail. The audience indulged in vocal expressions and outcries without proper judicial reprimand. Certain spectators made hanging motions with their hands. A conviction of murder was reversed on the ground that fair trial had been defeated by these unrestrained collateral appeals directed to the jurors. The court properly substituted "probable prejudice" as tested by judicial inference for proof of "actual prejudice" by the offended party.

Guarantee of an impartial judicial atmosphere in the court room should be an automatic right and not a privilege contingent on showing actual prejudice from the extraneous interference. "Furthermore, the question of what effect the misconduct and the demonstrations of the bystanders and spectators had on the jurors is for the court to decide and not for members of the jury to pass upon, for a juror is competent to show misconduct but not how that influence operated on his mind." 196 *id.* at 256, 198 So. at 922.

expected to yield clear disclosure of these deeper motivations. To say this is not to condemn courts but to re-echo an empirical fact now so well recognized as to be truism rather than mere iconoclasm. It explains the shifting content of substantive law concepts which as a matrix have an effect in specifying requirements of proof. Thus terms such as "police power," "freedom of contract," "in restraint of trade" and the like go on acquiring new meanings from one era to another, for definitions change with the "definers" though the words to which they attach remain the same.<sup>53</sup>

Courts may stretch the doctrine of judicial notice too far in supplying evidence for a decision which would find no factual foundation in the record. In other cases, particularly where the factual evidence transcribed and sent up to the appeal tribunal from the trial court is long and complicated, there may be an unconscious reorientation of the operative facts. Green has shown that "the net-work of theory increases in complexity with the multiplicity of data" and that this enlarges the chance that facts will be grouped improperly to bolster up a particular theory which the appeal court would like to make controlling.<sup>54</sup> Glueck thinks that if trial judges in criminal cases were required by rules of court to file opinions setting out the grounds and motivations for imposing one sentence rather than another, this visible record would stimulate ratiocination and lead to a more critical and scientific consideration of the reasonable grounds of action in individual cases.<sup>55</sup>

One should not infer that the impact of psychological imponderables has any uniform or even closely predictable effect on the making of proof. But probably so long as mere men are involved in the judicial process, such factors will operate, and bear some causal relation to the final state of conviction. Certainly a glimpse far into the past shows employment of these collateral appeals in proof making. Quintilian openly espoused the use of psychological imponderables in every manner possible as a natural and legitimate part of the art of persuasion.<sup>56</sup> The Athenians

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53. Mr. Justice Holmes said: "A word is but the skin of a living thought." See Pound, *Liberty of Contract* (1909) 18 YALE L. J. 454, for a discussion of factors which have entered into judicial interpretation of "freedom of contract." And see Powell, *The Logic and Rhetoric of Constitutional Law* (1918) 15 J. PHIL., PSYCHOL. & SCI. METHODS 645. Mr. Powell's thesis is that "the logic of constitutional law is the common sense of the Supreme Court of the United States." He points out that the judicial process as seen in constitutional law operates through the judgment of individuals.

54. GREEN, *JUDGE AND JURY* (1930) 25 *et seq.*

55. Personal communication.

56. "Both parties as a general rule may likewise employ the appeal to the emotions, but they will appeal to different emotions and the defender will employ such appeals with greater frequency and fulness. For the accuser has to rouse the judge, while the defender has to soften him. . . . Appeals to pity should, however, always be brief, and there is good reason for the saying that nothing dries so quickly as tears. . . . And if we spend too much time over such portrayal our hearer grows weary of his tears, takes



are said to have forbidden appeals to the emotions<sup>57</sup> after Hyperides' defense of Phryne, but this injunction seems to have been applied only in cases tried before the Areopagus,<sup>58</sup> and appeals for pity were common in ordinary courts of Athens in the fourth century.

### III. THE LOGICAL COMPONENT IN PROOF MAKING

Division of reasoning into inductive and deductive modes and stressing of formal logic afford no guarantee of sound proof making. These exercises truly may whet ratiocinative powers of the advocate and sharpen his ability to assess validity of inferences. But as some one well said, a man may become so sharp that he cuts himself. At the outset we may indulge a few miscellaneous comments on the role of logic. Logic deals with inferences which may be drawn from premises, true or false, while lawyers are primarily concerned with proving the premises or underlying primary facts. It was Sir James Mackintosh who remarked, "Men fall into a thousand errors by reasoning from false premises to fifty they make from wrong inferences from premises they employ." The reasoning process depends upon detecting similarities and differences and in estimating probabilities. It is of primary importance that one should not draw inferences from a fact until it has been proved. It is too much to expect that jurors or witnesses will ever apply formal logic to proof, for the average man is not likely to take up the study of metaphysics in replacement of the evening radio, bingo or horse-racing preoccupations. Again, in the words of Laplace, "How can you frame a mathematical formula when you are dealing with passions, personal interests, and complicated circumstances?" The growing complexity of life requires more and more that we rest on the verities asserted by others which practical expediency forces us to accept without oppor-

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a breathing space, and returns once more to the rational attitude from which he has been distracted by the impulse of the moment.

"Actions as well as words may be employed to move the court to tears. Hence the custom of bringing accused persons into court wearing squalid and unkempt attire, and of introducing their children and parents, and it is with this in view that we see blood-stained swords, fragments of bone taken from the wound, and garments spotted with blood, displayed by the accusers, wounds stripped of their dressings, and scourged bodies bared to view. The impression produced by such exhibitions is generally enormous, since they seem to bring the spectators face to face with the cruel facts. . . . Still I would not for this reason go so far as to approve a practice of which I have read, and which indeed I have occasionally witnessed, of bringing into court a picture of the crime painted on wood or canvas, that the judge might be stirred to fury by the horror of the sight. For the pleader who prefers a voiceless picture to speak for him in place of his own eloquence must be singularly incompetent." 2 THE INSTITUTIO ORATORIA OF QUINTILIAN (with an English translation by H. E. Butler; The Loeb Classical Library) 387 *et seq.*

57. See ATHENAEUS, DEIPNOSOPHISTAE xiii 590.

58. ARISTOTLE, RHETORICA Bk. I, i, i.

tunity for personal verification. Even a doctor must rest most of his precepts of practice upon respected hearsay. This being true, principles of reliance tend to become paramount, so that an advocate may think it judicious to partake sparingly of the materials of formal logic.<sup>59</sup>

The science of proof is neither synonymous with the law of evidence nor reducible to logical abstractions. One lesson we can take from logic is to insist that sharp distinctions be drawn between facts and inferences. In this connection it is helpful to divide facts on the one hand into those ultimate facts proof of which is necessary to sustain a cause of action or defense, and on the other into such subsidiary facts as constitute mere evidence for making that proof. Such distinction agrees with Bentham's dual breakdown into "principal facts" and "evidentiary facts."<sup>60</sup>

Simplicity is further served by thinking of all types of evidence as being either direct or circumstantial. Direct evidence involves immediate perception or apprehension of an ultimate fact. Circumstantial evidence may be direct in a sense, but differs in the fundamental respect that it involves perception or apprehension of mere evidentiary facts and so requires one or more inferences to bring the original observation into probative relationship with the ultimate fact which it tends to establish.

It should be clear that circumstantial evidence varies so widely in its relevancy and probative value, that any generalization concerning its merit is erroneous, whether it be Bentham's dictum that it is superior to direct testimonial evidence or the more generally held opposite view that it is inferior and less trustworthy. Lord Coleridge characterized circumstantial evidence with eloquent precision:

"I think one might describe it as a network of facts cast around the accused man. That network may be a mere gossamer thread, as light and as unsubstantial as the air itself. It may vanish at a touch. It may be that, strong as it is in part, it leaves great gaps and rents through which the accused is entitled to pass in safety. It may be so close, so stringent, so coherent in its texture that no efforts on the part of the accused can break through. It may come to nothing—on the other hand, it may be absolutely convincing. . . . The law does not demand that you shall act upon certainties alone . . . In our lives, in our acts, in our thoughts we do not deal with certainties; we ought to act upon just and reasonable convictions founded upon just and reasonable grounds."<sup>61</sup>

Let us consider two examples:

(a) *A* is standing outside a house when he sees *X* emerge therefrom at full speed with hair dishevelled, clothes disarranged, fear

59. See JEVONS, *ELEMENTS OF LOGIC* (1883). The lawyer will find in Wigmore's collections of flesh and blood cases highly valuable illustrations of abstract principles. WIGMORE, *THE SCIENCE OF JUDICIAL PROOF* (3d ed. 1937).

60. See BENTHAM, *RATIONALE OF JUDICIAL EVIDENCE* (1827) 18.

61. Quoted in RIDDELL, *SOME THINGS THAT MATTER* (1922) 123.

delineated on his countenance and shrieking for help, hotly pursued by *Y*, who is brandishing a butcher knife. *Y* has a malicious and angry look upon his face. *A*'s visual perception of this episode is immediate or direct evidence that *X* is fleeing from the house to escape *Y*'s assault with a deadly weapon.

(b) *A* is standing on the corner and sees *X* emerge in like manner, but not followed by *Y*. Such incident is circumstantial evidence that he is fleeing some danger within the house. It is here, however, that we observe the crucial distinction and dangerous differences between immediate and circumstantial evidence. The action of *X* is consistent with other causes than an attack by *Y*. It may be that *X* is an insane person who has hallucinations of attack and is fleeing from an imaginary assailant.<sup>62</sup>

The capacity of circumstantial evidence to raise ambiguous or even contradictory inferences creates problems of elimination similar to those which confront the physician when an ill patient exhibits certain signs and complains of certain symptoms. As a rule, such sets of signs and symptoms point to several alternative possibilities rather than to a single disease to the exclusion of all others. To arrive at the diagnosis scientifically, the physician must do a differential diagnosis which involves ruling out the possibilities, one by one, by proper means of investigation, until a single conceivable disease remains implicated as the true cause. Similarly, failure to apply proper methods of corroboration and elimination to the alternative inferences raised by particular circumstantial evidence may result in serious miscarriages of justice.

These considerations lead to the necessity for discrimination and corroboration. The principle of discrimination requires that one contrive to use such portions of several available species or items of evidence

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62. If one presses the matter with the zeal of a true skeptic, it is possible to argue that even simple perception is not self-declaratory truth but a complex conclusion based on concealed inferences. By way of illustration, Hans Gross gives an amusing example of how a thorough skeptic would need reason to make certain that a glass on the table is real and not imaginary. "When for instance I say, 'There is a glass,' I would appear to report a very simple sense-perception. But let us look at it a little closer. To express myself exactly I should have to say something like this: 'As I have never known myself to be the victim of hallucinations; as I have not been, so far as I know, in bad health; as further I have no reason to suppose that anyone has been trying to deceive me by an optical illusion by means of mirrors or some physical trick; as besides I have no ground for surmising that there is upon the table a picture so artistic as to make a painted glass appear a real glass; as finally I cannot imagine that the people of this house have their table glass of rock crystal; I feel entitled to state that what I saw on the table was an ordinary glass.'

"Of course it is not suggested that one should go so far and give such a complete series of reasoning every time that a deposition is taken down; everyone knows what is intended by the words 'I have seen a glass.' But everyone ought to know also that such an affirmation contains reasoning, and reasoning the correctness of which must be frequently examined." Gross, *op. cit. supra* note 16, at 39-40.

as are best calculated to foreclose doubt and establish conviction. The inquiries and criteria which govern the comparative value of evidence spring from the science of proof making rather than from rules of evidence. Among the considerations pertinent to this evaluation of evidence in terms of its probative value are these:

(1) Does the witness have or lack an interest in the outcome of the litigation or any motive for distortion? Testimony against interest tends to be even stronger and more convincing than mere disinterested testimony.

(2) What opportunity did the witness have for observation?

(3) Did the witness have proper facilities and capacities for observation?

(4) Were any records of the original observations made to vouchsafe initial accuracy and subsequent recollection?

(5) Is the proposed mode of proof superior or inferior in point of reliability and percentage of error to an alternative source of evidence?

(6) One should prefer evidence whose inferences or conclusions lend themselves to objective modes of jury demonstration. The terminal purpose here is to enable the trier of fact to substitute reliance upon his own senses, so far as possible, for assertions or opinions of the witness.

(7) One should prefer evidence which leads to the desired conclusion by means of the smallest number of intermediate inferences. As the chain of inference lengthens, the certainty of sequence tends to diminish and the strain on credulity and understanding increases.

(8) One should prefer evidence which gives rise to a maximum of positive inferences with a minimum of negative or ambiguous inferences. This reduces the burden of collateral explanation.

(9) One should prefer all forms of evidence which involve sensory appeal. Tangible proof and jury demonstration are neglected means of exciting the interest of the trier of fact, holding his attention and producing conviction.

(10) One should prefer proof which fits in with the experience of the trier of fact over that which calls for belief in evidence foreign to his past conditioning.

(11) One should resort to diversification of evidence among as many as possible of the six named components of proof. We might call this approach to proof maximal use of multiple appeal as contrasted with less versatile or unitarian methods.

(12) One should stress maximal use of confirmatory evidence with special accent upon corroboration at all possible tangents rather than corroboration by mere cumulation of evidence.

It is not practicable now to elaborate the several principles here proposed as touchstones for valuing evidence and selecting among alternative

proofs, but limited comment may be in order. Proof by jury demonstration is a neglected art. We have alluded previously to the "sensory appeal" of objective evidence. This arises in part from its capacity to arouse interest and hold attention. It depends also on satisfaction reactions felt by the trier of fact when he is able to rest in larger measure upon the testimony of his own senses. Secretly each of us is from Missouri and prefers to be shown. Shakespeare cautioned: "Let every eye negotiate for itself and trust no agent." Reliance upon the frail human qualities of perception, observation, recognition, discrimination and memory are lessened and the trier of fact is brought into close proximity with the ultimate issue through the medium of his own visual and auditory senses. The long chain of inference and opinion is shortened. Let us suppose that in proving disability under a life insurance policy, *X*, attorney for the plaintiff, seeks to show that his client, *Y*, is no malingerer but is suffering from enlargement of the heart caused by advanced cardiac disease. *X* might avail himself of several choices in proving that *Y*'s heart actually is enlarged.

(1) He might offer Dr. *A* to testify that when he listened to *Y*'s heart with a stethoscope he heard a murmur which settled the diagnosis to his satisfaction and bespoke advanced progression of heart disease. Dr. *B* for the defendant might testify that he listened and heard no such murmur.

(2) *X* might offer Dr. *C* to testify that he percussed out the topography of the heart and found it grossly enlarged.<sup>63</sup> The defendant might offer Dr. *D* to testify that he percussed the heart and found only minimal enlargement.

(3) *X* might offer through Dr. *E* an electrocardiogram of *Y*'s heart. This is an electrical tracing of the cardiac cycle made possible by action currents accompanying the cardiac impulses which arise near the base and extend toward the apex of the heart exciting contraction of the muscle bundles and thus producing the heart beat. Enlargement of the heart may cause a shift of the electrical axis and a resultant distortion of the electrocardiograph (EKG) tracing. Suppose, however, Dr. *F*, being called by defendant, says he cannot agree to the interpretation and considers the curves normal. The tracings are so complicated that a lay trier of fact cannot make a safe interpretation for himself even with visual access to the evidence and still must rely on one opinion or the other.

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63. "Percussion" refers to the clinical method originated by the Viennese physician, Auenbrugger, in 1762, whereby one places one finger on the test area and strikes it briskly with another finger. Cavities or air-filled lungs yield a resonant note, while fluids and solids give a duller sound. On this basis one may map out the contours of the heart with a degree of accuracy dependent largely upon his own skill.

(4) Lastly, attorney *X* might offer an X-ray picture of the heart. It is an axiom of medicine and roentgenology that when the width of the heart exceeds one half the intrathoracic diameter, normal limits have been passed and the heart is pathologically enlarged. This is an accepted criterion which leaves little or no room for disagreement. The lay trier of fact can see plainly the cardiac contours on the so-called five foot film of the heart and he can use a ruler to measure the heart width as well as the distance from one side of the rib cage to the other. Reliance shifts from the relater of fact to the percipient juror, conflicts of opinion are forestalled, and the evidence of heart enlargement approaches proof positive. The evidence does not give rise to negative or ambiguous inferences. It tenders visual corroboration in lieu of verbal opinion. Similar possibilities of selection are apt to exist in all types of cases and in respect to the most diverse issues and the making of these choices represents the essence of logical proof making.

Logical problems are involved in such questions as competency of witnesses, relevancy of testimony, probative value of particular evidence, and perhaps even the credibility of witnesses. The relation of a given effect to its possible causes will always pose problems in logic. This does not imply that the rules of formal logic can compete with experience in supplying the significant logical criteria for the solution of these problems.<sup>64</sup> Scientific tests to determine the percentage of error implicit in particular types of proof yield criteria which are more trustworthy than intuitive opinion. Thus, by virtue of thousands of tests, Larson is able to say that the so-called lie detector in its present form and under ideal conditions is reliable in 90% of cases.<sup>65</sup>

The law has not been entirely willing to risk the logical faculties of jurors and so has surrounded many of these problems with rules which we might call pronouncements of judicial logic. Insofar as there is still material left for logical resolution by jurors, we must be honest enough to recognize that triers of fact do not reason from formal premises but from a plexus of personal experience. This accounts for the fact that jurors often reject scientific evidence and elect to believe a contrary version founded upon lay testimony which strikes nearer home. This truth the Roman law recognized in arranging that praetors

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64. Justice Holmes: "The life of the law has not been logic; it has been experience." *THE COMMON LAW* (1881) 1. How much more true is this declaration when applied to problems of proof.

65. It may be argued that these scientific tests themselves depend upon logic. In science we shift between inductive and deductive forms of reasoning without computation. The method of experimental verification depends more on isolating a problem, setting up controls to rule out variants, and then seeing whether test results can be reproduced by independent investigators using the same technique. Our conclusions rest upon harmonious experience and only very partially on abstractions of logic.

should decide the legal issue first and then delegate to judges the function of determining facts in an informal way curtailed hardly at all by rules of evidence.<sup>66</sup> If the trier of fact be competent and appropriate, the odds are that he will draw upon the wealth of his own personal experience for trustworthy criteria. He can be trusted to determine the value of evidence as proof of the ultimate fact, though he may never consciously formulate explicit premises as a basis of judgment.<sup>67</sup>

This truth rests upon the general principle that the man with sufficient experience has already discovered the valid logic and the deceitful fallacies of the subject in controversy. It is not to be doubted that the cause of scientific proof will profit by more specific and exacting criteria of competency and admissibility. Still, the larger and ultimate desideratum is to fill the chairs of the triers of fact with men whose special experience fits them to separate chaff from wheat in litigated cases without uncomfortable reliance upon artificial rules of logic foreign to their every day lives.

In touching upon the "psychological" component of proof, we saw how the testimonial activities of perception, discrimination, interpretation and memory are open to defective exercise. In the present section we have noticed how circumstantial evidence by raising alternative inferences may create dangerous ambiguities. When confronted by contradictory inferences, jurors are likely to choose that possibility which best accords with their own personal experience and understanding. There is the further risk that triers of fact will not appreciate the existence of all the competing inferences or, if aware of them, will not require the proper proof to rule out one hypothesis and rule in another. Furthermore, circumstantial evidence derived from testimonial activities may have the same infirmities that so often impair direct evidence. In consequence of the fact that both species of evidence are so open to mistake, corroboration becomes the most important logical consideration either in welding together or splitting asunder a chain of proof. In this connection the

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66. The date of origin of this mechanism is not settled, but it is generally attributed to approximately 150 B. C.

67. "Questions of evidence are continually presenting themselves to every human being, every day, and almost every waking hour, of his life.

"Domestic management turns upon evidence. Whether the leg of mutton now on the spit be roasted enough, is a question of evidence; a question of which the cook is judge. The meat is done enough; the meat is not done enough: these opposite facts, the one positive, the other negative, are the principal facts—the facts sought: evidentiary facts, the present state of the fire, the time that has elapsed since the putting down of the meat, the state of the fire at different points during that length of time, the appearance of the meat, together with other points perhaps out of number, the development of which might occupy pages upon pages, but which the cook decides upon in the cook's way, as if by instinct; deciding upon evidence, as Monsieur Jourdan talked prose, without having ever heard of any such word, perhaps, in the whole course of her life." 1 BERTHAM, *RATIONALE OF JUDICIAL EVIDENCE* (1827) 18-19.

trial lawyer will find that his position is strengthened by cumulative testimony. That several persons witnessed the happening of an unlikely event may bespeak a joint illusion but the normal reaction of jurors is to regard such agreement among spectators as corroboration that the incident did occur as related. Cumulative testimony, however, does not have such corroborative power as confirmation through unlike or dissimilar means. Let us suppose that we are in doubt as to whether our feeling of warmth is due to excessive heat from without or to some internal condition causing fever. The first surmise gains ground when we see that the wall thermometer is standing at 100° F. The more doubtful or obscure the fact in issue, the more valuable is corroboration from all possible tangents, that is to say, by evidence resting upon diverse sources and dissimilar modes of proof. To the mathematical mind each new approach has the tendency of further minimizing the probability of error. In addressing oneself to the less critical minds among the twelve jurors the rule still holds, although one must recognize that one man may be convinced by a species of evidence which makes little or no impact upon the mind of another. As a corollary of this principle of diversification, the proponent of a contention will find that by using as many as possible of the six named components of proof, he may produce conviction of an ultimate fact in a way which quite overpowers the strongest cumulative testimony of his adversary.<sup>68</sup>

#### IV. THE FACTUAL COMPONENT OF PROOF

Ultimate facts constitute the very atmosphere of jurisprudence for substantive law is a flame that cannot burn in a vacuum. We might say that all of Procedure is dedicated to providing mechanisms for doing justice between parties in accordance with ultimate facts, that Proof deals with the manifold activities of establishing those facts, and that the Law of Evidence is concerned with the artificial rules thought to determine what testimony is relevant, competent and worthy of credit.<sup>69</sup> Much of what we have said in discussing the logical component of proof is as apropos here.

A "fact," whether it be ultimate or primary, or merely evidentiary, acquires significance to total proof by virtue of its context. The striking of eleven by a village clock may enable an observer to fix the time of a burglary; or it may establish that a sick man died before his life insurance policy expired at midnight. The advocate is interested in conjunctions of facts which taken together will establish or destroy a given

68. See p. 578 *infra*.

69. "Subjects of Jurisprudence, are, Facts and Laws: facts are the source and the cause of laws. From facts proceed rights and wrongs; both requiring the government of law,—to establish and enforce the one; to restrain and punish the other." RAM, A TREATISE ON FACTS AS SUBJECTS OF INQUIRY BY A JURY (1861) 1.



legal issue. The addition or subtraction of a single fact may alter the applicability of one or more doctrines of substantive law. In proof making he must study facts as solitary entities and as collective units. Whenever he discovers a significant fact opening up new legal orientations, he must suspect and search out the whole plexus of interrelated facts. Here I must be content to touch upon certain special aspects of the factual component of proof:

a. *Bentham's Analytical Division of Facts.* Bentham sought to differentiate facts according to three distinctions, namely:

"I. *Distinction the first.* Facts physical (having its seat in some inanimate being); facts psychological (having its seat in some animate being).

II. *Distinction the second.* Events, and states of things. Source of the division in this case, the distinction between state of motion and a state of rest. . . .

The fall of a tree is an event, the existence of the tree is a state of things: both are alike facts.

III. *Distinction the third.* Facts positive and negative. . . . In the existence of this or that state of things, designated by a certain denomination, we have a positive, or say, an affirmative fact: in the non-existence of it, a negative fact. . . . Thus, by *health*, is meant nothing more than the absence, the non-existence, of disease; by *minority*, the individual's non-arrival at a certain age; by *darkness*, the absence of light; and so on."<sup>70</sup>

It is natural that Bentham should have sought to separate insensate objects from animate beings which possess the reasoning faculty and a capacity to be acted upon by sensory stimuli. The second distinction between a state of motion and a state of rest is nothing more nor less than the old function-structure dichotomy into which introspective psychologists have always delighted in resolving objective reality. The third distinction between positive and negative facts is illusory. A negative fact is nothing more than the establishment of a contrary and contradictory state of affairs either by a party or his opponent in such a way as to displace and destroy belief in the ultimate fact which the moving party needs to prove as a part of his case. It is more realistic to classify a "negative fact" as contradictory evidence since it is not a fact of legal consequence until the jury verdict or finding of the court so establishes it.

b. *Functional Viewpoint with Emphasis on Differentiation of Fact and Opinion.* Many states have now passed statutes providing that a properly certified copy of a duly filed death certificate ". . . shall be

70. BENTHAM, *op. cit. supra* note 67, 45-50.

prima facie evidence of the facts therein stated."<sup>71</sup> Litigants in insurance cases have found the death certificate a convenient means to make prima facie proof of cause of death without producing the medical witness.<sup>72</sup> Judicious wording of the recitals may impart the guise of fact to rank hearsay, opinion, or sheer speculation.<sup>73</sup> The hardship of these cases lies in deprivation of cross-examination by defendant,<sup>74</sup> in frequent passing off of mere opinion and incompetent hearsay as fact unless the defendant can discharge the difficult burden of going forward now shifted to him to discredit the recitals, and in the fact that the certificate is customarily made out by a partisan, the doctor usually being the family physician who attended decedent in his last illness. It is an axiom of proof that an expert's opinion is no better than the facts upon which it rests, but here that guarantee may be destroyed if the certifying physician place himself beyond subpoena at the time of trial. And if defendant calls the physician to the stand he may thereby make him his own witness. This species of sub rosa practice of clinical forensic medicine in our courts unfairly shifts to a defendant much of the burden of going forward which should rest with the plaintiff. The primary difficulty lies in the failure of courts to distinguish mere opinion from recitals of fact which alone are given hearsay exemption.

In *Dow v. United States Fidelity and Guaranty Company*,<sup>75</sup> the beneficiary under an accident policy obtained a \$7,900 judgment for accidental death of assured from immersion in a bathtub filled with scalding water. The victim was found in a bathroom whose walls were wet with condensed steam. Defendant contended that the assured must have succumbed to pre-existing angina pectoris, a heart disease, else he could

71. See, e.g., 13 TEX. ANN. REV. CIV. STAT. (Vernon, 1940) art. 4477, Rule 54a.

72. *Louisville Gas & Electric Co. v. Duncan*, 235 Ky. 613, 31 S. W. (2d) 915 (1929).

73. See *Walcott v. Sumner*, 308 Mass. 413, 32 N. E. (2d) 685 (1941).

74. *Fidelity Mutual Life Insurance Co. v. Hembree*, 240 Ky. 97, 41 S. W. (2d) 649 (1931) (reversed on ground of variance between pleading and proof).

75. 297 Mass. 34, 7 N. E. (2d) 426 (1937). *Accord*, *Southland Life Insurance Co. v. Brown*, 121 S. W. (2d) 653 (Tex. Civ. App. 1938) (death certificate reciting "suicide" held admissible on behalf of insurer to support defense under life insurance policy); *Abbott v. Prudential Insurance Co.*, 89 N. H. 149, 195 Atl. 413 (1937); *Walcott v. Sumner*, 308 Mass. 413, 32 N. E. (2d) 685 (1941) (aged tenant was found lying on lower floor with her skull fractured. In wrongful death action against owners of building for alleged negligence in maintaining building, it was necessary for plaintiff to prove that decedent was injured by a fall down the stairs. Held: In respect to medical examiner's death certificate, which recited "Fractured Skull Fall downstairs in Boston on Sept. 23, 1935," it was error for trial court to exclude all of these words except "Fractured Skull." The medical examiner was not present at the time of injury. All the circumstantial evidence upon which the inference of a fall could be predicated was before the jury and they found for defendant. The trial court ruled correctly on this evidence. In holding the excluded recitals competent, the Supreme Judicial Court perpetuated the error of the *Dow* case by making hearsay opinion superior to the factual evidence from which it must have been deduced).

not have stayed in the scalding water, whereas the beneficiary hypothesized that assured must have slipped and accidentally fallen into the tub. The death certificate relied upon contained these recitations: "Burns of body and legs. Accident. Exposed to scalding water in bath tub." In overruling exceptions to the sufficiency of the certificate to make out prima facie proof of "accidental" death, the Supreme Judicial Court said:

"By [the General Laws] . . . such a record is 'prima facie evidence of the facts recorded.' The word 'accident' was properly included in the record of facts as part of the cause and manner of death which . . . the medical examiner was required to report to the city clerk. Cause and manner of death in a report of this kind are necessarily matters of opinion or judgment deduced from other facts found rather than matters of direct observation."<sup>76</sup>

The medical examiner could infer that the burns were due to scalding water but the pronouncement that the death was due to accident was a gratuitous opinion not deducible from scientific evidence.

The point intended to be made is that, even under statutes which exempt only facts from the hearsay rule, courts fail to distinguish opinion and tolerate second hand evidence loaded down with vices inimical to sound principles of proof making.<sup>77</sup> Other illustrations could be

76. *Dow v. United States Fidelity & Guaranty Co.*, 297 Mass. 34, 37, 7 N. E. (2d) 426, 428 (1937).

77. There are several possible correctives for this specific practice:

(1) The trial court should always grant a continuance if the subpoenaed certifier is not available to be called to the stand for cross-examination.

(2) A certificate should be held incompetent to prove cause of death when its recitals show that they do not rest upon personal knowledge or investigation of the certifier (hearsay upon hearsay). *Heffron v. Prudential Insurance Co.*, 137 Pa. Super. Ct. 69, 8 A. (2d) 491 (1939).

(3) A certificate should be held incompetent to prove cause of death when its recitals show that they rest upon the assertions of a lay person, as for instance, a non-medical coroner. *Miller v. McCarthy*, 198 Minn. 497, 270 N. W. 559 (1936).

(4) Statutes making death certificates admissible as "prima facie evidence of facts therein stated," may be construed to include only such items as fact and date of death and identity of decedent, and not statements as to cause, this being always a matter of opinion. *Heffron v. Prudential Insurance Co.* and *Miller v. McCarthy*, *supra*.

(5) It may be held in respect to certain statutes that the statutory intent is to arrange for recording of vital statistics and use of the information in non-contested connections, but not as evidence of cause of death in litigation between private parties where that is one of the vital issues in dispute. *Re Curtiss's Will*, 140 Misc. 185, 250 N. Y. Supp. 146 (Surr. Ct. 1931).

(6) The most satisfactory control is to substitute for the antiquated coroner system a model Medical Examiner Law giving exclusive jurisdiction to forensic medicine experts of investigation of cause of death in a broad category of cases including "casualty" (similar to New York Act), death of persons not attended by a physician, and cases where there is suspicion of foul play. Such an act is made effectual by coupling it with a burial law requiring proper death certificate to be filed before burial permit will be

cited of failure to insist on dissection of opinion from fact with consequent injury to ascertainment of truth.

c. *Subversion of Proof by Technical Rules of Evidence.* All technical rules of evidence derive their justification from supposed efficacy in protecting or improving the making of proof. One must notice, however, the several causes which tend to magnify the rules while their philosophical basis becomes more dim. The multiplication of precedents, the distance to original formulations in older cases, the urgency of law business have all been leading for some years to an accent on administration of law precedents at the expense of critical evaluation. The rule is accepted as a standard nostrum; the law dispenses the new "pink bottle" of medicine with eventual forgetfulness of the particular disease for which the original prescription was concocted. This process in time leads in the field of common law evidence to an excess of non-specific remedies poorly applied. Precepts of sound proof tell us that the most valuable guarantee of accuracy is to prefer the best evidence of a transaction. This in turn makes the testimony of the person best situated for correctly observing a transaction superior proof to that of one less favorably situated. It also makes hearsay testimony vouchsafed by a motive

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issued by health authorities. If a certificate contains recitals of medico-legal import, no permit will be issued until the medical examiner has made an investigation and filed an official certificate.

Even here, recitals based on non-medical or hearsay opinion, should not be receivable as prima facie evidence of cause of death. The mechanisms mentioned should be used to guarantee competent investigation. Where cause of death is contested on the ground that it rests on opinion, the law should require the medical examiner to be produced in order to protect the valuable privilege of cross-examination. If the suspect opinion is actually an expert inference based upon scientific evidence rather than adopted hearsay, the conclusion of the examiner will not suffer through forced disclosure of its basis.

Most of the death certificate statutes intended that causes of death would be confined to natural deaths by disease and certified by the physician last in attendance on the deceased. Thus the physician was expected to certify from personal knowledge on the basis of ante-mortem examinations. (*Heffron v. Prudential Insurance Co., supra*). Post-mortem examination by a non-attending physician, if done by a competent examiner, is even more reliable in determining the medical causation of death. The difficulty lies in broadening causation to include the more remote and conjectural question of whether the death was intended or accidental, and extraneous circumstances preceding the verifiable medical cause. Here the non-attending medical examiner may be drawing inferences from scientific observations or he may be adopting rumors or hearsay, and the uncertainty of its factual basis forbids that the certificate be accepted as prima facie evidence of fact until adequate exploration of the foundation on which the opinion rests.

(7) In respect to the residue of cases where recitals of a death certificate might impute death to a medico-legal cause, as for instance some causation covered by an insurance policy, the insurer may protect against fraud and imposition by contract clauses in the policy securing the right to post-mortem as well as ante-mortem examinations. *Aetna Life Insurance Co. v. Lindsay*, 69 F. (2d) 627 (C. C. A. 7th, 1934).

for accuracy sometimes preferable to non-hearsay evidence. It is not unusual to see courts ignoring the principles of proof to pay homage to stereotyped rules of evidence even though by so doing they prefer an inferior to a superior species of proof.

Example: In *Hill v. Aetna Life Insurance Company*<sup>78</sup> assured was killed by a train and the beneficiary sued on an accident policy which provided for benefits of \$1,000 except in event assured was killed "entering or trying to leave a moving conveyance using steam as motive power" in which event only \$200 should be payable. Defendant contended that assured received his fatal injuries as the result of trying to leave a railroad car while the train was in motion.

(1) To this end defendant offered a witness who saw the train pass, glimpsed the deceased man struggling and falling alongside the train, ran to him, rolled him over and obtained his story. The court held that the trial judge properly excluded the statement of deceased as to how he had sustained his injury, because the conversation was not a part of the *res gestae*, being narrative rather than exclamatory, and so incompetent hearsay.

(2) The deceased later had told plaintiff, the beneficiary, the facts of the accident but this testimony, too, was held properly excluded as hearsay.

(3) A brother of the deceased man, on the basis of still more circuitous hearsay, made out an affidavit attached by the plaintiff to the proof of loss and stating that "just after the train started John Hill stepped from the train and was caught by his overalls and thrown under the car wheels." The Supreme Court held that this evidence of the cause of death was admissible, though hearsay, because a part of the proof of loss.

Thus we have the spectacle of a court shutting out the best evidence volunteered by a witness present at the scene of the accident, while admitting circuitous hearsay probably derived from the same source by others not on hand at the time of the injury.

Let us consider, also, the case of patient *X* who enters hospital *A* for diagnosis and treatment and in his past history gives a vague account of procedures applied five years earlier at hospital *B* in a neighboring town. The examining physician in *A* will write to *B* for a report. Several physicians at *B* may have treated *X* and various entries on hospital charts have been transferred to a permanent book, but the superintendent of *B* merely sends forward his own abbreviated summary. This is hearsay but it is better evidence to guide diagnosis and treatment than the first hand account given by the patient because originally it rested on more expert knowledge, it was preserved against failure of recollection, and hospital *B* has no motive for distortion. Indeed, it has

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78. 150 N. C. 1, 63 S. E. 124 (1908).

every desire to report correctly in order to do its bit in keeping up the accuracy of exchanged information. Thus the source of evidence and its personality are more important than the dress it wears. Even if the courts refuse to agree, the advocate must still give it superior credit when judging the merits of a case for himself in the course of pre-trial investigation.

d. *Study of Evidence in Terms of the Ultimate Fact to be Proved.* The science of proof could probably be advanced by studying the factual component more astutely as regards alternative types of evidence admissible to prove a given ultimate fact.<sup>79</sup> Sources of proof are often overlooked in preparation of cases because the lawyer is unaware that certain facts are relevant or is unacquainted with dissimilar methods of proving the same fact. It is not necessary that every conceivable ultimate fact be explored in terms of every relevant evidentiary fact which could be pressed into service in litigation. This would entail unending volumes and much desultory study. However, certain crucial and frequently recurring, facts upon which multiple legal consequences depend, could be explored in an affirmative way in teaching proof as a positive science. Not only is there wanting among law school graduates a proper knowledge of all the alternative paths and mechanisms of proof, but seasoned lawyers often come to unmerited defeat because of inadequate grasp of the several species of evidence and varieties of witnesses one might use to prove or disprove the crucial issue.

## V. THE LEGAL COMPONENT OF PROOF

One cannot ignore the fact that proof making is conditioned by the philosophy of jurisprudence, the mechanisms of trial, and the rules of substantive and procedural law current at a given time. We may distinguish three general orders.

a. *Early Common Law and Justice by Combat.* We must recall that as late as 1818 Judge Ellenborough held, in the case of *Ashford v. Thornton*,<sup>80</sup> that no change had been made warranting departure from the ancient common law rule in murder trials that "the mode of trial by law in such a case of appeal is by 'battle', at the election of the appellee except where the appellee is an infant or a woman or above sixty years

79. So far as I know one of the earliest efforts in this general direction was RAM, *TREATISE ON FACTS AS SUBJECTS OF INQUIRY BY A JURY* (1861). See also MOORE, *A TREATISE ON FACTS OR THE WEIGHT AND VALUE OF EVIDENCE* (1908); ABBOTT, *FACTS* (5th ed. by P. W. Viesselman, 1937); NICHOLS, *APPLIED EVIDENCE* (1928, Supp. 1934).

80. 1 Barn. & Ald. 405 (1818). This decision occasioned a sensation and resulted in the statute of 59 Geo. III, c. 46 (1819), which abolished criminal appeals and trials by battle in writs of right.

of age." In trial by battle we see the primitive concept of letting the best man win by "might and main," using all the strength and means at his command short of actual foul play. This combat aspect of litigation has psychological connotations running deeper than self vindication of one's cause by valor or might. It expresses the animosity factor in litigation, the desire to be at one's assailant and "have it out." Later we see the more primitive arrangement giving way to combat by proxy in the form of bilateral litigation. Each party still fends for himself under rules of diligence but aided by a lawyer as his paid champion. The law suit here still retains a dual character, on the one hand being a means of settling disputes with approximate justice, and on the other a sublimation mechanism for combat feelings and expression of grudges. The court room is a genteel battle ground and party strategy is not taboo. It is a litigant's own fault if he brings to his cause a legal champion wanting in skill or knowledge. Collateral proof making flourishes alongside more exact modes of proof, and accent is placed on elaboration of exclusionary rules of evidence because of inexpertness of lay jurors. This order of things, largely still current, is beautifully described by Judge Hutcheson's holding in *Maryland Casualty Company v. Reid*<sup>81</sup> that a certain argument of plaintiff's attorney was not sufficiently prejudicial to require a reversal:

" . . . a trial is no cool process of mere science. It is not, it cannot be, rigidly formal, coldly logical. In a trial proof is but the means to an end. That end, not the stirring of a mild and passive sympathy in the minds of the triers with the litigant's point of view, but the inducing there of the impulse to believe, the will to say 'for the plaintiff,' or 'for the defendant'. All preparation for judicial proof looks toward, and all such proof is finally presented in a trial, an action in form, dramatic in every case, in fact, overwhelmingly so in many of them. The very nature of a jury trial makes this so. Here men deal in dramatic fashion with the human equation in the most illusive forms. Here men strive for the mastery, not over each other, but over the minds of the triers, to induce there the will to believe, and to declare. Minds which are induced to and do reach their conclusions in the atmosphere of drama, and often under the pressure of emotional stress, by the loose and ordinary methods of persuasion and influence common to the street. . . .

"It is of the essential nature of a jury trial, then, that though its purpose is the same as that of a scientific investigation, to fully present the gathered facts which will furnish the grounds for correct induction, these gathered facts are presented for decision in a dramatic setting, are introduced in a dramatic way, and the trial itself must come to a dramatic end in a solemn and fateful pronouncement.

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81. 76 F. (2d) 30 (C. C. A. 5th, 1935).

For a common law jury trial is at last a trial, with its attack and its defense, its action and its suspense, and not a scientific inquiry, which in a leisurely and impersonal way may continue indefinitely until the quest is at an end. . . ."<sup>82</sup>

b. *Shift from Justice by Combat to Justice by Administration.* Under this order of things, accent shifts from litigation by strategy to mechanisms of procedure and proof better designed to get at the true facts of dispute.<sup>83</sup> Though bilateral disputation tends to perpetuate the adversary characteristics of combat, there is new emphasis on economy of pleadings, pre-trial discovery, arbitration and compromise, and revision of rules of procedure.<sup>84</sup> Roscoe Pound, in *Ulrich v. McConaughey*, characterized this shifting emphasis as follows:

"The common law originally was very strict in confining each party to his own means of proof, and, as it has been expressed, regarded a trial as a cock-fight, wherein he won whose advocate was the gamest bird with the longest spurs. But we have come to take a more liberal view and have done away with most of those features of trials which gave rise to that reproach."<sup>85</sup>

c. *Ascertainment of Ultimate Facts by Scientific Modes of Proof.* The natural continuation of the foregoing trend in law would seem to be toward careful reappraisal and replacement of many of the elaborate exclusionary rules of evidence by more expert mechanisms of proof. We see a visible shift in this direction in relaxation or abolition of strict rules of evidence in proceedings before administrative bodies and Workmen's Compensation Commissions. Dissatisfaction with existing mechanisms of proof does not guarantee improvement. By the very act of liberalizing standards of admissibility we commit ourselves to methods for improving the discrimination of the trier of fact in dealing with the enlarged evidentiary material. Only by supporting the innovation by appropriate modes of procedure and trial can we broaden the range of admissibility while preserving and increasing guarantees that relevant, probative and trustworthy evidence will be applied properly in the process of proof making.<sup>86</sup>

82. *Id.* at 32.

83. For a valuable summary and appraisal of procedure mechanisms, see Simpson, *A Possible Solution of the Pleading Problem* (1939) 53 HARV. L. REV. 169.

84. Witness the new Federal Rules and the nation-wide movement toward thorough revision of rules of procedure in state courts.

85. 63 Neb. 10, 20, 88 N. W. 150, 154 (1901).

86. One also encounters the legal component in deciding which of several alternative legal modes or mechanisms of proof making he will use. Strategic considerations dictate these selections, but the subject is substantial. The writer feels it is wise to reserve it for a future paper dealing with the legal mechanics of proof making.



## VI. THE SCIENTIFIC COMPONENT OF PROOF

Scientific proof varies in its decisiveness according to whether it rests upon opinion regarding a controversial subject or upon some irrefutable demonstration of fact. But all evidence worthy of being called scientific, wherever it falls along the range of reliability, has qualities calculated to make it more trustworthy than other types. It usually satisfies the preferential requirements mentioned as logical criteria. It is largely free of the defects of perception, discrimination, imagination and recollection which impair most verbal testimony. Ideally it substitutes standard techniques and controlled conditions for haphazard impressions. It employs procedures enabling independent corroboration by other impartial experts. Its results are difficult to refute by any species of direct contradiction. Thus in the trial of Ruth Snyder and Judd Gray for the murder of Albert Snyder, offhand it might have seemed fanciful to suppose that Gray, a small man, could have tied Snyder, a large athletic man, to a bed with window sash preliminary to fracturing his skull with a window weight. Dr. Gettler, the eminent toxicologist, was able to account for the seeming improbability by his post-mortem analysis of Snyder's brain showing that the victim was first intoxicated and then chloroformed. The defense could not counter this proof.

It is usually true that scientific proof excludes a maximum of ambiguous inferences and narrows the probability of error much more sharply than ordinary evidence. It has the peculiar virtue of detachment provided the investigation is made by an impartial expert with no interest in producing a particular verdict. It generally has the strategic quality of surprise testimony and lessens the scope of counter theory. By this very attribute it curtails invention of explanation in cases involving questions of fraud or criminal complicity. Its high degree of accuracy makes it relevant and trustworthy and advances the doing of justice in the settling of disputes.

It is often ideally suited to jury demonstration, a neglected but powerful mode of producing conviction. In questioned document cases, for example, the several badges of forgery, such as pen lifts, meticulous copying so different from the free flow of spontaneous handwriting, variations in formation of characteristic letters, differences in slant, height of writing, and pen pressure all become visually eloquent by making photographic enlargements of the scrutinized signature for comparison with genuine standards. Because of the several superiorities of scientific proof, the advocate will do well to make all possible use of it, and the law will serve justice by fostering various mechanisms for its more perfect utilization.

## VII. DIVERSIFIED USE OF THE COMPONENTS OF PROOF AS A MEANS OF CORROBORATING EVIDENCE AND PRODUCING CONVICTION

Each component of proof has some special and peculiar bearing on persuasion. Different triers of fact react more to one component than another. Employment of diverse approaches to prove the existence of an ultimate fact introduces a powerful factor of cross-fire corroboration which eliminates lingering doubts. Proof from every possible tangent has more force than mere cumulative evidence, for this latter proceeds along a single road and leaves other pathways of approach untravelled and open for invasion of skepticism and doubt. One must emphasize all inferences which tend to produce the desired conviction and negative those which lead to contrary conclusions. In the complex function of trying law suits, one must first be satisfied of the merit of his cause, and then marshal and make proof with due regard to simultaneous use of all six components.

Example: In a forged document case the proponent offered thirty-five witnesses who swore that they had long known the signature of the testatrix and could identify it as genuine. This is what we might call cumulative testimony carried to the "nth" degree. Contestant used an entirely different mode of corroboration of non-execution of the will which called for using only seven witnesses. These, however, were spread over the several components (preconceptual, psychological, logical, factual, legal and scientific) with more acumen, as follows:

(1) *Preconceptions*: The will, if genuine, would disinherit an only son, and this is contrary to the average juror's philosophy as to paternal obligations and tends to stamp the will as an unnatural disposition.

(2) *Psychological*: The testatrix had practically reared contestant's two sons; if the will were genuine, it made no provision for them, which seemed unlike testatrix psychologically.

(3) *Logical*: The purported inducement for the execution of the will offered for probate was simultaneous execution by proponent, second husband of testatrix, of a mutual will of like terms in which he provided that should he die first, all of his property should go to testatrix. In turn the alleged will made by testatrix, and attacked as a forgery, provided that in event she should die before her second husband, the proponent, all the rest and residue of her property should go to him. To prove that mutual benefits in making alleged mutual wills could not have been a material motive, contestant showed that testatrix was a very wealthy woman in her own right, but that her second husband was practically penniless, so she could have received no benefit from this arrangement.

(4) *Factual*: Proponent relied upon opinions of lay witnesses that the signature was that of testatrix. Contestant showed that in signatures admittedly signed by proponent, the letters "er" were written with the same slant and style. These facts were stressed as the foundation for an inference and opinion that proponent forged his wife's signature.

(5) *Legal*: Contestant frustrated efforts of proponent's thirty-five witnesses to harmonize their evidence by invoking the rule that each witness had to wait outside the court room until called to the stand.

(6) *Scientific*: In addition to lay testimony denying authenticity of the signature, contestant offered a noted handwriting expert who demonstrated to the jury by photographic enlargements a number of pen lifts in the signature under scrutiny. There were other indicia of forgery which could be shown to the jury visually.

Proponent did not diversify his proof among the six components, offered no scientific testimony of authenticity, and relied on mere cumulative corroboration rather than on what we may call corroboration at all possible tangents. Although the thirty-five witnesses offered by proponent numbered among them two sisters of the dead woman, a lawyer who drew the will and a second lawyer who swore he signed it as a witness, the proof of contestant was so convincing that within an hour after retirement, the jury returned a verdict of forgery.

### VIII. CONCLUSION

All may not agree that the problem of proof should be so broadly formulated and many would confine it strictly to the competency, relevancy and materiality of particular evidence or modes of proof to establish the existence of ultimate facts directly or inferentially. Whether one views the problem narrowly as a logician might be inclined to do, or broadly as perforce a trial lawyer must, the primacy of the problem of proof over mere technical rules of evidence can hardly be questioned. Wigmore himself has proclaimed this in his intriguing book, *The Science of Judicial Proof*,<sup>87</sup> and McCormick, another authority on the Law of Evidence, has expressed similar sentiments.<sup>88</sup> Morgan and Maguire

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87. ". . . this process of Proof represents the objective in every judicial investigation. The procedural rules for admissibility are merely a preliminary aid to the main activity, *viz.* the persuasion of the tribunal's mind to a correct conclusion by safe materials. . . . And, for another thing, the judicial rules of admissibility are destined to lessen in relative importance during the next period of development. Proof will assume the important place; and we must therefore prepare ourselves for this shifting of emphasis." WIGMORE, *THE SCIENCE OF JUDICIAL PROOF* (3d ed. 1937) 4.

88. "A competent manipulation of the armory of rules which the modern law of evidence furnishes would require that cases be tried by specialists who did nothing else. The game would be at least as difficult as the new five-suited bridge. But in fact, the trial lawyer knows that the game as it is played is not bridge at all, but poker, and

have expressed critical dissatisfaction with the rules of evidence in terms of utility,<sup>89</sup> and Davis recently showed how poorly they fit fact finding activities involved in administrative law.<sup>90</sup>

I have sought to stress the neglected importance of the functional approach to proof and the fallacy here of thinking in legal "compartments" or on a single plane. Proof making is a two sided coin: on one side is all that has to do with witnesses and sources of evidence; on the other is all that affects the trier of facts. Formulation of the legal position and marshalling of proof can be practiced as a science. In making proof and inducing conviction, one can proceed scientifically in employing selective methods and in making diversified use of the several components, but here science passes into art. Like the physician we may diagnose scientifically but somewhere in treatment we may have to apply art to bring the case to a successful conclusion.

In breaking proof down into such factors as preconceptions, and psychological, logical, factual, legal and scientific ingredients, I do not maintain that these several components are of like quality or kind. They cannot always be homologized, for some represent structural units and some functional mechanisms or modes of approach. Sometimes they involve legal and sometimes extra-legal materials and many defy precision methods in their analysis and application. Yet diverse and heterogeneous as they are, each is an essential part of the intricate mosaic of the proof making process in actions at law.

No one can logically maintain that proof making is entirely scientific. Still it is true, I think, that the trial lawyer must practice proof making according to some plan and sequence. This calls for employing the several components of proof in a proper manner according to a functional approach based on strategic selection among alternatives open at each

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that a good stack of chips in the form of adequate preparation of the facts and substantive law, a stout heart, a shrewd knowledge of human nature, and a fair run of cards, are all he needs.

"In actual jury trials the machinery of evidence rules, devised to filter the testimony for the untrained minds of the jurymen, has become too complex for use except to the limited extent indicated above." McCORMICK, *Tomorrow's Law of Evidence* (address before the Dallas Bar, June 11, 1938) in *THE DALLAS BAR SPEAKS* (1938) 117, 119.

89. ". . . there is scarcely a segment of the subject which does not call for re-examination and revision. What is needed is a well-designed and well-constructed code built upon the two leading principles, enunciated by Thayer more than forty years ago '(1) that nothing is to be received which is not logically probative of some matter requiring to be proved; and (2) that everything which is thus probative should come in, unless a clear ground of policy or law excludes it.'" Morgan and Maguire, *Looking Backward and Forward at Evidence* (1937) 50 HARV. L. REV. 909, 922-23.

90. Davis, *An Approach to Problems of Evidence in the Administrative Process* (1942) 55 HARV. L. REV. 364.

step of the judicial process. It will be observed that the components of proof have been specified in a certain order, namely: preconceptual, psychological, logical, factual, legal and scientific. I have placed the first two terms on the left as indicating values likely to be unspecified, collateral and sometimes prejudicial to the science of accurate proof making though always pertinent to the art of persuasion. As reforms may be made, greater accent and reliance must be placed on components toward the right end. Here we come into the realm of ideal criteria and mechanisms, look more closely to probative value, and encounter the several species of scientific proof. In the quest of law for truth we may hope and expect that these "right end" components of proof will early attain their fitting place of pre-eminence.