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PSYCHOLEGAL RESEARCH: PAST AND PRESENT

*Wallace D. Loh**

THE PSYCHOLOGY OF EYEWITNESS TESTIMONY. By *A. Daniel Yarmey*. New York: The Free Press. 1979. Pp. xvi, 285. \$15.95.

EYEWITNESS TESTIMONY. By *Elizabeth F. Loftus*. Cambridge, Mass.: Harvard University Press. 1979. Pp. xiv, 253. \$15.

SOCIAL PSYCHOLOGY IN COURT. By *Michael J. Saks* and *Reid Hastie*. New York: Van Nostrand Reinhold Co. 1978. Pp. ix, 245. Cloth, \$14.95; paper, \$7.95.

THE CRIMINAL JUSTICE SYSTEM AND ITS PSYCHOLOGY. By *Alfred Cohn* and *Roy Udolf*. New York: Van Nostrand Reinhold Co. 1979. Pp. xi, 345. \$17.95.

At the start of the 1970s, a "new and growing interest in the relationship between law and psychology" was observed.¹ By the end of the decade, various institutional developments — including an "explosion"² in the publication of articles and books;³ the appearance of specialized journals;⁴ and the establishment of interdisciplinary training programs and professional societies⁵ — seemed to augur the

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1. Katz & Burchard, *Psychology and the Legal Enterprise*, 19 KAN. L. REV. 197, 199 (1971).

2. Saks, *On Tapp (and Levine)*, 77 MICH. L. REV. 892, 897 (1979).

3. A survey of various psychological journals showed a "significant increase" in the number of psycholegal studies published since the early 1970s. See Tapp, *Psychology and the Law: An Overture*, 27 ANN. REV. PSYCH. 359, 363 (1976). From the turn of the century to 1966, only about half a dozen books on law and psychology were published in English. All are cited in the first part of the article. More books on the subject have appeared in the past three years than in the preceding three quarters of a century.

4. E.g., LAW & PSYCH. REV., J.L. & HUMAN BEHAVIOR, CRIM. JUST. & BEHAVIOR. Only 28 years ago, a group of leading law teachers and psychologists concluded that there was no need for a journal of law and psychology. School Developments, *Summary of a Conference on Law and Psychology*, 5 J. LEGAL EDUC. 355, 361 (1953).

5. Joint degree programs have been established recently at the University of Nebraska and the University of Maryland (in collaboration with the Johns Hopkins University). Since the mid-1960s the Russell Sage Foundation has funded various nondegree granting law and social science programs at different law schools, including a law and psychology program at Stanford Law School. The principal professional organization, the American Psychology-Law Society,

"coming of age"⁶ of the relationship. The four books reviewed here provide a representative sample of the breadth and quality of current empirical research. This Review uses these books as a springboard for an historical, conceptual, and methodological assessment of the field. It begins with an intellectual history of the relations between the disciplines in order to place contemporary developments in perspective.⁷ The next two sections consist of conceptual and methodological critiques of two areas that traditionally have been and still remain the principal foci of attention of research psychologists: eyewitness testimony and the criminal trial process. The Review concludes with some themes culled from experience that capture the mood, difficulties, and prospects of applying psychology to the law.

I. HISTORY OF PSYCHOLOGY AND LAW

The interest in psychology and law is not of recent vintage, but dates back to the early days of experimental psychology. The intellectual history unfolds in four stages.

*Pioneering Stage (1900s): "Yellow Psychology"*⁸

The first area of psycholegal research, as well as the oldest area of applied psychology generally, was the study of the reliability of witness testimony.⁹ At the turn of the century, European psychologists proposed the creation of a "practical science of testimony."¹⁰ The most active expositor became William Stern of Breslau, who developed the *Aussage* or remembrance experiments.¹¹ Laboratory subjects were shown pictures and subsequently asked to recall the details through different forms of questioning in a variety of sugges-

was established in 1974. For a survey of these and other institutional developments, see Tapp, *supra* note 3, at 362-70; Tapp, *Psychological and Policy Perspectives on the Law: Reflections on a Decade*, 36 J. Soc. ISSUES 165, 168-72 (1980).

6. See Loh, *Psychology and Law: A Coming of Age*, 24 CONTEMP. PSYCH. 164, 165 (1979).

7. Despite a long tradition and rapid recent developments, there has not been any systematic historical essay or conceptual overview of the field of law and psychology. Summary sketches are found in Tapp, *supra* note 3, at 360-62; Redmount, *Psychology and Law*, LEGAL AND CRIMINAL PSYCHOLOGY 22, 44-50 (H. Toch ed. 1961); and Levine & Tapp, *The Psychology of Criminal Identification: The Gap from Wade to Kirby*, 121 U. PA. L. REV. 1079, 1089-95 (1973). Efforts at surveying the field have been directed principally to reviewing the empirical literature on selected topics. See Tapp, *supra* note 5, at 169, for citations to recent reviews.

8. Moore, *Yellow Psychology*, 11 LAW NOTES 125 (1907).

9. See A. ANASTASI, FIELDS OF APPLIED PSYCHOLOGY 548 (1964).

10. Whipple, *The Observer as Reporter: A Survey of the "Psychology of Testimony,"* 6 PSYCH. BULL. 153 (1909) (quoting A. BINET, LA SUGGESTIBILITÉ (1900)). A lawyer-criminologist, Hans Gross of Prague, was another early proponent of the scientific study of testimony in his book on KRIMINALPSYCHOLOGIE (1897).

11. W. STERN, BEITRÄGE ZUR PSYCHOLOGIE DER AUSSAGE (1903).

tive contexts. Inaccurate recollection was the norm, and from this finding Stern concluded that courtroom witnesses were generally unreliable.¹² This procedure was later replaced by "reality experiments" designed to simulate more realistically the observation and reporting of events.¹³ In a typical scenario, a quarrel between two students suddenly erupts in the midst of a class session and one of them draws a revolver. The instructor then stops the staged incident and asks for a description of what occurred from the rest of the class. The results uniformly show substantial errors in the recall of almost every facet of the event (words spoken, weapon used, etc.), with the degree of inaccuracy increasing when the report is elicited by leading questions or after a lapse of time since the initial observation.¹⁴ These *Aussage* experiments were used by Stern to evaluate the trustworthiness of particular witnesses in German courts, as well as to train police officers and judicial officials in the fallibility of cognitive processes.¹⁵ They have also become the paradigm for current research on eyewitness identification; they are repeated so often that the findings are no longer considered novel.¹⁶

There was initially no indigenous psychology of *Aussage* in this country.¹⁷ Most of the work here merely described or replicated the European studies. The first book on the subject in English that introduced American psychologists and lawyers to the continental de-

12. For example, there was a general inclination to exaggerate (three trees in the original observation were recalled as a forest), additional items were substituted or created in order to add coherence to the remembered picture, and leading questions were found capable of exercising a well-nigh fatal power. See Stern, *The Psychology of Testimony*, 34 J. ABNORMAL & SOC. PSYCH. 3 (1939).

13. At Stern's suggestion, the first reality experiment was conducted in 1901 in a German law school class. See *id.* at 10-11.

14. An averaging across the findings of different studies showed that testimony by free narration was the most accurate means of eliciting the initial observation (about 75% accuracy). Errors increased substantially when testimony was elicited by leading or suggestive questions. See Whipple, *supra* note 10, at 163-65.

15. See Stern, *supra* note 12, at 12.

16. In a modern version of the reality experiment, the videotape of a mugging was broadcast on the nightly news of a major television station in New York City. It was followed by the showing of a lineup of six suspects, and viewers were asked to call in with their identification of the mugger. Less than 15 percent of the 2000 respondents correctly identified the assailant, a rate no better than random selection. Buckhout, *Nearly 2000 Witnesses Can Be Wrong*, SOC. ACT. & L., May 1975, at 7.

17. That the evaluation of witnesses originated and was better received in Europe than here can be explained in part by the differences in adjudication procedures. In an inquisitorial system, the judge takes the initiative in summoning and questioning witnesses, whereas in the adversarial system that task is left to the party litigants. Deciding without a jury, the continental judge is more likely to call on psychological experts for aid in observing and examining the trustworthiness of witnesses. In the German courts, for example, psychologists improvised face-recognition experiments and attempted to reconstruct the events described by individual witnesses. They did not limit themselves to testifying about the unreliability of the human senses in general. See Stern, *supra* note 12, at 14, 18.

velopments was written in 1908 by Hugo Münsterberg, Director of the Psychological Laboratory at Harvard University.¹⁸ He summarized the experimental literature bearing on the unreliability of perception and memory, and proposed the use of word-association tests to help determine the guilt of the accused in criminal trials. Moreover, he made sweeping claims about the superiority of psychological methods to those of law. He scorned the adversary system of adjudication as a museum of irrational procedures. With missionary zeal, Münsterberg castigated the legal profession for not embracing the new science:

The time for such Applied Psychology is surely near. . . . The lawyer alone is obdurate.

The lawyer and the judge and the juryman are sure that they do not need the experimental psychologist. . . . They go on thinking that their legal instinct and their common sense supplies them with all that is needed and somewhat more.¹⁹

Lawyers promptly lambasted the "presumptuous little book"²⁰ as "yellow psychology."²¹ In a merciless satire John Wigmore described a libel suit brought against Münsterberg by the legal profession for injury to its good name.²² Wigmore cross-examined Münsterberg on each of his assertions and found them wanting. The satire concluded with the judge finding for the plaintiff and determining that psychology had nothing to offer to the law at that time.²³ Beneath some of the rhetorical excesses were perceptive criticisms of the *Aussage* experiments that are still applicable to current research on eyewitness testimony. Wigmore pointed out that the results on testimonial accuracy were based on group averages. In a courtroom, it is the reliability of a specific witness that is in question, and "[t]he new psychology cannot [assess] error of *individual* witnesses."²⁴ More importantly, the experiments fail to address the critical legal question: "[w]hether the alleged percentages of testimonial error . . . do really produce misleading results in the verdicts."²⁵ The ulti-

18. ON THE WITNESS STAND (1908).

19. *Id.* at 9-11.

20. H. CAIRNS, LAW AND THE SOCIAL SCIENCES 169 (1935).

21. See Moore, *supra* note 8.

22. Wigmore, *Professor Münsterberg and the Psychology of Testimony: Being a Report of the Case of Cokestone v. Münsterberg*, 3 ILL. L. REV. 399 (1909).

23. He pointed out that even among the German psychologists there was no universal acceptance of the reliability and validity of the experimental procedures to evaluate witnesses; some claimed the results were "defective," "overhasty," and that the "use of psychological experiments in trials must be rejected." *Id.* at 412-13.

24. *Id.* at 423.

25. *Id.* at 426.

mate issue is not the frequency of testimonial errors of witnesses but the prejudicial impact, if any, upon the trial outcome. Wigmore proceeded to conduct his own reality tests in which witnesses testified about the staged incident before a jury. The results confirmed his hunch that a jury, in the course of deliberation, succeeds in finding facts that more accurately reflect what happened than would be expected from the testimonial errors.²⁶ Nevertheless, since the time of Stern and Münsterberg the reliability of witnesses has been "the central theme of the psychology of testimony" and has "received by far the lion's share of research attention,"²⁷ and with one notable exception,²⁸ every subsequent study has regarded the reliability of testimony — rather than of the verdict — as the key adjudicative issue.

After Wigmore's rejoinder, American psychologists "left the law rather severely alone."²⁹ Some disavowed Münsterberg's "extravagances" as "not benefit[ing] science or truth";³⁰ others disparaged as "opportunist" any undertaking in applied, as opposed to scientific, psychology.³¹ There followed a period of silence and inaction lasting about fifteen years, broken only by some annual reviews of *Aussage* studies and their forensic applications in Europe.³²

*Legal Realist Stage (1930s): "Psychologism in the Law"*³³

The end of the 1920s and the 1930s saw a revival of interest in psychology and law, this time initiated mostly by lawyers. Interest was manifested in two directions: toward the application of psychology to selected aspects of legal practice, and toward a radical critique of substantive legal doctrines and appellate court decision-making based on psychology.

26. See J. WIGMORE, *THE SCIENCE OF JUDICIAL PROOF* 698-701 (1937).

27. Fishman, *Some Current Research Needs in the Psychology of Testimony*, 13 J. SOC. ISSUES 60 (1957).

28. Marston, *Studies in Testimony*, 15 J. CRIM. L. CRIMINOLOGY 5 (1924).

29. Hutchins, *The Law and the Psychologists*, 16 YALE REV. 678 (1927).

30. Moore, *The Value of Psychology to the Lawyer*, 19 CASE & COMM. 795 (1913).

31. Titchener, *Psychology: Science or Technology*, 84 POPULAR SCI. MONTHLY 39, 51 (1914).

32. Every year from 1910 to 1917 (except for 1916), Whipple wrote an annual review of European developments: *Recent Literature on the Psychology of Testimony*, 7 PSYCH. BULL. 365 (1910); *The Psychology of Testimony*, 8 PSYCH. BULL. 307 (1911); *Psychology of Testimony and Report*, 9 PSYCH. BULL. 264 (1912); *Psychology of Testimony and Report*, 10 PSYCH. BULL. 264 (1913); *Psychology of Testimony and Report*, 11 PSYCH. BULL. 245 (1914); *Psychology of Testimony*, 12 PSYCH. BULL. 221 (1915); *Psychology of Testimony*, 14 PSYCH. BULL. 234 (1917). Another continental study of note during this period, which served as a model for current research (see text following note 138 *infra*), was by Muscio, *The Influence of the Form of a Question*, 8 BRIT. J. PSYCH. 351 (1916).

33. Kennedy, *Psychologism in the Law*, 29 GEO. L.J. 139 (1940).

Books appeared that were written by and for attorneys for the purpose of presenting "in a practical way the psychological factors involved in the practice of law."³⁴ In *Psychology for the Lawyer*, for example, there were chapters on lie detection, covert suggestion, identification of facial and bodily expressions, and the traditional subject of testimonial certitude.³⁵ Another volume on *Legal Psychology* consisted, according to its subtitle, of "Psychology applied to the trial of cases, to crime and its treatment, and to mental states and processes."³⁶ In an overview entitled *Law and the Social Sciences*, an English lawyer observed that psychology at that time had attracted far more attention from the legal profession than the other social sciences.³⁷ Then as now, the contributions were centered on two broad domains, the psychology of the cognitive processes of witnesses, and the psychology of crime and criminal personality. Books tended to rely as much on popular psychology as on research data in canvassing information useful in lawyering. Only one book of this genre was authored by a psychologist during this time. In addition to covering the conventional subjects, it introduced a new topic for study in the measurement of public confusion between similar trade names.³⁸

Some legal scholars and psychologists sought to revamp the whole of legal theory and methodology with the aid of psychology. One of the most ambitious and controversial undertakings was by Edward Robinson, a psychology professor and law lecturer at Yale University. In a book on *Law and the Lawyers*, he advocated the use of the method and viewpoint of science, particularly behaviorist psychology, to salvage jurisprudence from the doldrums of its outdated conceptualism.³⁹

[I]t will be a fundamental principle of the new philosophy of law, that every important legal problem is at bottom a psychological problem and that every one of the many traditions about human nature which are to be found in legal learning needs to be gone over from the standpoint of modern psychological knowledge.⁴⁰

He urged the substitution of "plain psychological facts"⁴¹ for such legal concepts as intent, the reasonable person, and stare decisis —

34. D. McCARTY, *PSYCHOLOGY FOR THE LAWYER* iii (1929).

35. *Id.*

36. M. BROWN, *LEGAL PSYCHOLOGY* (1926).

37. H. CAIRNS, *supra* note 20, at 173.

38. H. BURTT, *LEGAL PSYCHOLOGY* 424-35 (1931).

39. E. ROBINSON, *LAW AND THE LAWYERS* (1935).

40. *Id.* at 51.

41. *Id.* at 122.

only then would law cease to be "an unscientific science."⁴²

Predictably, Robinson — like Münsterberg — did not make many friends in the legal community. In a scathing review entitled "The Jurisprudence of Despair," Phillip Mechem complained that Robinson had criticized a straw man of his own making, namely the unreasonable lawyer who inhabits a world of legal fictions and is out of touch with reality.⁴³ He further complained that most of the "scientific" psychology relied upon by Robinson consisted of unverified theories and unsubstantiated generalizations. Mechem despaired at the prospect of waiting for psychology to provide the necessary knowledge before allowing law to manage human affairs.

The rebuff of Mechem and others⁴⁴ glossed over an important contribution of Robinson to the analysis of the role of psychology in law. Robinson perceived that the strategy of seeking one-to-one linkages between psychological findings and legal problems, characteristic of studies on witness testimony, was bound to end in disappointment. Laboratory results on the fallibility of perception and memory simply do not transfer wholesale to the practical task of evaluating witness reliability.⁴⁵ Hence, he "rejected the notion that jurisprudence can wait for a collection of psychological laws so definite and reliable as to be directly applicable to the solution of practical legal problems."⁴⁶ This represented a shift in the way the relations between the two disciplines had been viewed. Up to then, psychologists began by combing through their inventory of information and then applying whatever seemed relevant to law and lawyering. Robinson cast doubt on the immediate utility of available psychological learning, and suggested instead a two-step approach: First, psychologists should begin with substantive issues of importance to law — "[i]n the existing legal materials there is a mine of data for psychological investigation";⁴⁷ then, the "interrogatory attitude of psychology"⁴⁸ should be brought to bear on the behavioral premises implicit in legal doctrines. The value of psychology, as he saw it, lay not in providing "ready-made"⁴⁹ answers but in bringing to jurisprudence an attitude or point of view about the role of empir-

42. *Id.* at 1.

43. Mechem, *The Jurisprudence of Despair*, 21 IOWA L. REV. 669, 676 (1936).

44. See, e.g., Goodrich, *Institute Bards and Yale Reviewers*, 84 U. PA. L. REV. 449, 451-54 (1936).

45. See E. ROBINSON, *supra* note 39, at 112-13, 117.

46. *Id.* at 118.

47. *Id.* at 120.

48. *Id.*

49. *Id.* at 115.

ical inquiry. This modest and sensible proposition, embedded as it was in his more impassioned diatribes against the conservatism of the law, was lost on his legal critics.

Some of Robinson's colleagues at Yale Law School actually heeded the call to apply the psychological viewpoint to specific doctrinal issues. Underhill Moore sought to explain inconsistent judicial decisions in a banking law problem as arising, not from different interpretations of legal rules, but from differences in "institutional patterns of behavior" of bankers in the various jurisdictions.⁵⁰ To discover these patterns he observed the day-to-day actions of bank employees and their responses to hypothetical problem situations. But his series of elaborate studies yielded, according to one critic, only "inconclusive" results.⁵¹ Subsequently, with an experimental psychologist, Moore studied the effect of changing traffic ordinances on the parking behavior of drivers.⁵² It was again an heroic effort to apply the approach and method of psychology — in this instance, the stimulus-response theory of learning — to one tiny corner of the law. This time, Moore's effort to assess the law from a rigidly behavioristic approach met with only silence from the legal community.⁵³

In another series of studies by Robinson's colleagues, Robert Hutchins, a lawyer, and Donald Slesinger, a psychologist, critiqued rules of evidence. Their aim, "preliminary to experimental attack, [was to analyze] the law of evidence [so as] to make explicit its psychological assumptions and criticize them in the light of those of modern psychology."⁵⁴ These assumptions included rough-and-ready notions about the memory and mental competency of witnesses, the reliability of excited utterances made under stress (thereby rendering them admissible as an exception to hearsay), and the validity of the concept of consciousness of guilt.⁵⁵

50. See generally Moore & Hope, *An Institutional Approach to the Law of Commercial Banking*, 38 YALE L.J. 703 (1929).

51. Fuller, *American Legal Realism*, 82 U. PA. L. REV. 429, 433 n.14 (1934).

52. See generally Moore & Callahan, *Law and Learning Theory: A Study in Legal Control*, 53 YALE L.J. 1 (1943).

53. Psychologists, however, reacted positively to the study. This was an era during which the behavior theory of learning was used to account for all of human conduct. Law was seen as behavioral engineering based on learning principles. See Hull, *Moore and Callahan's "Law and Learning Theory": A Psychologist's Impressions*, 53 YALE L.J. 330-31, 337 (1944). A more recent effort at explaining legal conduct in terms of Hull's learning theory is found in Schwartz, *A Learning Theory of Law*, 41 S. CAL. L. REV. 548 (1968).

54. Hutchins & Slesinger, *Legal Psychology*, 36 PSYCH. REV. 13, 13 n.1 (1929).

55. See, respectively, Hutchins & Slesinger, *Some Observations on the Law of Evidence — The Competency of Witnesses*, 37 YALE L.J. 1017 (1928); Hutchins & Slesinger, *Some Observations on the Law of Evidence — Spontaneous Exclamations*, 28 COLUM. L. REV. 432 (1928); Hutchins & Slesinger, *Some Observations on the Law of Evidence — Consciousness of Guilt*, 77

Although these essays may be among the "best informed and most intelligent analyses"⁵⁶ of the psychology of evidence, their substantive impact on evidence law and psychological research has been negligible.⁵⁷ The "modern psychology" they relied upon for proposing reforms of existing rules consisted as much of untested generalizations and informed conjecture about human behavior (which were no more unimpeachable than the commonsense assumptions they sought to replace) as of scientific findings.⁵⁸ The experimental studies they cited were not originally designed to address evidentiary questions, so their extrapolation of the results to the courtroom represented a big and arguably unjustified leap.⁵⁹ As one commentator put it, they "appropriated, not the *facts* of psychology, but the psychological *approach* in contemplating problems of law."⁶⁰ Their essays were essentially policy analyses of law based upon tenuous propositions⁶¹ disguised as rigorous psychological findings.

Their legacy, which has been all but forgotten today,⁶² lies in

U. PA. L. REV. 725 (1929). Others soon followed their footsteps; see, e.g., Gardner, *The Perception and Memory of Witnesses*, 18 CORNELL L.Q. 391 (1933).

56. H. CAIRNS, *supra* note 20, at 219.

57. Their proposed changes are not included in the Federal Rules of Evidence. Several of their criticisms were again raised in Stewart, *Perception, Memory, and Hearsay: A Criticism of Present Law and The Proposed Federal Rules of Evidence*, 1970 UTAH L. REV. 1.

58. This is illustrated in their treatment of memory. The rule on impeachment of memory allows wide-open cross-examination on events unconnected to the facts testified to on direct examination. Repeated instances of inability to recollect would raise doubt about the witness's claimed remembrance of the material issue. The premise is that memory is a unitary factor — one has either a good or poor memory. Hutchins and Slesinger argued that studies showed there is no single "faculty" of memory. Recollection varies depending on the subject matter recalled and the passage of time. They proposed that the rule be changed to restrict the scope of cross-examination to facts closely connected to the facts of the direct testimony. Hutchins & Slesinger, *Some Observations on the Law of Evidence — Memory*, 41 HARV. L. REV. 860 (1928). However, the experimental studies did not unequivocally prove that the different aspects of memory were unrelated. Some of the studies showed that individuals differed in recall of words, faces, and numbers. Also, some of the empirical assertions made by the authors were incorrect, even in the light of the psychology of their day. They assumed, for example, that the forgetting curve is constant; in fact, the forgetting rate varies according to the nature of the material learned, the method of testing recall, intervening events between the learning and testing, and other factors. In any event, none of the studies they cited was originally designed to address this evidentiary question. In extrapolating these studies to the legal context, they substituted one generalization or informed conjecture for another.

59. See H. CAIRNS, *supra* note 20, at 191-98.

60. Redmount, *supra* note 7, at 45.

61. Plausible but untested empirical generalizations about behavior which lawyers rely on (e.g., the reliability of dying declarations or of excited utterances) and which psychologists disparage as "unscientific" have been called "fireside inductions." Meehl, *Law and the Fireside Inductions*, 27 J. SOC. ISSUES 65 (1971). Meehl argues that psychology has its own fireside inductions which are no more "scientific" than those of lawyers. As Justice Frankfurter cautioned, "So we have to be constantly on our guard lest psychology be more unequivocal in her wisdom when she speaks to lawyers than when she speaks to psychologists." F. FRANKFURTER, *LAW AND POLITICS* 297 (1939).

62. None of the four books reviewed here, which include sections on the psychology of

their effort to integrate the two disciplines rather than in the substance of their scholarship. In articulating this approach, Slesinger appeared to agree with Robinson that it "is a naive assumption on the part of psychologists and lawyers that . . . results exist that can be readily applied" to legal issues.⁶³ He went on to propose:

[T]he first step in the development of legal psychology should be a logical and psychological analysis of legal situations. . . . The preliminary analysis is the job of the lawyer and the logician, and the result will not be scientific fact, but hypotheses, which, when scientifically tested, may become facts. When the analysis is made the student of behavior may step in, and not, as in the past, to coordinate the results of his study with that of the legal student, but to devise methods of investigating the behavioral hypotheses elaborated in a different field.⁶⁴

For Robinson and Slesinger, the initial question was not "What is known in psychology that can be carried over to the legal process?" Instead, after analyzing the legal dimensions, the question became "What kinds of new research can be done by psychology to illuminate the factual aspects of the legal problems?" In this view, rapprochement between the disciplines does not come about by coordinating existing psychological findings to legal issues, but by conducting afresh investigations tailored to these legal concerns.⁶⁵ In their essays on evidence, Hutchins and Slesinger did not respond to their own call to go beyond "coordinating" results to "experimental attack." The task was left to a later generation.

The Context of Legal Realism

The developments in this period should be viewed against the

evidence, even mention any of the Hutchins and Slesinger articles. The comprehensive survey of the empirical literature by Tapp, *supra* note 3, also fails to cite them.

63. Slesinger & Pilpel, *Legal Psychology: A Bibliography and a Suggestion*, 26 PSYCH. BULL. 677 (1929).

64. *Id.* at 680.

65. Another psychologist, a contemporary of Slesinger, sought to uncover the reasons for the discord between psychologists and lawyers despite their professed interest in collaboration. He found no real meeting of the minds:

The lawyer is not convinced that the psychologist has any comprehension of legal problems; the psychologist [sees] the lawyer fumbling blindly . . . and rebukes him for not drawing freely upon that body of knowledge *he* has so carefully and laboriously built up.

He placed the responsibility on both sides: the lawyer for his unfamiliarity with psychology and the psychologist for his "insensitivity to the lawyer's point of view." The issue was framed as follows:

It is not a question, in short, of replacing legal decisions by psychological analyses . . . but rather a problem of gradual assimilation of psychological knowledge by the law when and where it is needed, and when and where it is available.

Powers, *Psychology and Law*, 32 J. ABNORMAL SOC. PSYCH. 258, 274 (1937).

background of the legal realist movement in jurisprudence. This revolt against formalism in law was sparked by Justice Holmes's comment in 1898 that "[t]he life of the law has not been logic: it has been experience."⁶⁶ Formalist jurisprudence conceived of law as a closed, deductive body of logically ordered rules. Such a view left little room for empirical inquiry. Justice Holmes lifted this logical veil to consider the role that extra-legal influences such as socioeconomic factors, judicial attitudes, and community values play in the shaping of judicial decision making. He saw law as part of the processes of society, not as an autonomous logical system. The legal realists of the 1930s, concentrated at the Yale and Columbia Law Schools, went further in portraying law not as "a 'code' . . . but as in first essence a going institution, [so that] it opens itself at once to inquiry by the non-technician."⁶⁷ It was in this climate that legal scholars began foraging the psychological thickets for applications to their craft and social scientists began to be appointed to law faculties.

Not all realists, however, marched under one flag. The radical faction of the movement called for a complete overhaul of formalism. It denied that legal precepts and logical reasoning had any effect on case law except as after-the-fact rationalizations of decisions;⁶⁸ it elevated emotional experiences and personal history to first causes of judicial conduct;⁶⁹ it repudiated "the heaven of legal concepts" based on abstractions and embraced "such positive sciences as . . . psychology."⁷⁰ The middle-of-the-road faction also recognized that judicial decisions were shaped by societal and personal influences, but nonetheless believed that rules played an effective though limited role in the totality of law.⁷¹

66. O. HOLMES, *THE COMMON LAW* 1 (1881). Another early source of realist inspiration was Bingham, *What Is the Law?* (pt. 1), 11 *MICH. L. REV.* 1 (1912).

67. Llewellyn, *The Normative, the Legal, and the Law-Jobs: The Problem of Juristic Method*, 49 *YALE L.J.* 1355 (1940).

68. According to one commentator, a judge does not follow law, but law follows the judicial hunch — emotion and intuition, not reasoning or precedents, control judicial decisions. Hutcheson, *The Judgment Intuitive: The Function of the "Hunch" in Judicial Decision*, 14 *CORNELL L.Q.* 274 (1929). Certainty and rationality in the law were dismissed as a "basic myth." J. FRANK, *LAW AND THE MODERN MIND* 3 (1930).

69. "[T]he most salient [feature of the judicial process] is that the decision is reached after an emotive experience in which principle and logic play a secondary part." Yntema, *The Hornbook Method and the Conflict of Laws*, 37 *YALE L.J.* 468, 480 (1928). "An opinion is but the smoke" that covers the underlying psychological processes. L. GREEN, *JUDGE AND JURY* 53 (1930).

70. Cohen, *Transcendental Nonsense and the Functional Approach*, 35 *COL. L. REV.* 809, 821 (1935). Overhaul of the entire legal machinery in light of behavioral psychology was proposed, because "by controlling the individual's environment you can control his character and predict his future actions." Beutel, *Some Implications of Experimental Jurisprudence*, 48 *HARV. L. REV.* 169, 175 (1934).

71. Llewellyn has been "regarded as the man most representative of the movement as a

A major difference between the two groups was the extent of their acceptance of the curative powers of psychology. At the time, psychology was not an integrated discipline. This was an "era of 'psychologies,'" of several schools vying each for the title of "the new psychology."⁷² Some radical realists chose one school, behaviorism,⁷³ and accorded it a dominant place in the reform of the judicial process. These included Robinson and Moore. Others opted for the Freudian psychoanalytic school,⁷⁴ and still others adopted a *mélange* of viewpoints.⁷⁵ The moderates such as Hutchins and Slesinger made use of experimental findings and methods for the betterment of legal doctrines, but they did not join the bandwagon of any particular psychological school.⁷⁶

It is curious that the radical followers of a jurisprudence that emphasized close adherence to empirical facts so cavalierly accepted debatable theories. It is also ironic that the two principal theories they subscribed to were diametrically opposed in their explanations of the causes of conduct. Behaviorism was positivist, acknowledging only observable acts as determined by external stimuli; Freudianism was subjectivist, focusing on the interplay of unconscious drives and conscious restraints. Both were mechanistic conceptions that made no accommodation for purposive action and ratiocination as movers of behavior. It was this denial of rationalism that appealed to realists intent on exposing the nonrationality of the law. They relied on psychology, perhaps not so much as a science, but as an ideology for their judicial reform. They replaced the authoritarianism of precedents and rules with dogmatic generalizations from psychological theories. They espoused not psychology, but psychologism, in the law. Except for some greater legal sophistication, they did exactly

whole." Fuller, *supra* note 51, at 430. See generally, Llewellyn, *A Realistic Jurisprudence — the Next Step*, 30 COLUM. L. REV. 431 (1930).

72. Dunlap, *The Theoretical Aspect of Psychology*, in *PSYCHOLOGIES OF 1925*, at 309 (2d ed. C. Murchison 1927).

73. See *Schools of Behaviorism*, in *id.* at 1-81. Some went so far as to suggest the study of sub-vocal behavior of judges rather than the language of the opinion. See Oliphant, *A Return to Stare Decisis* (pt. 2), 14 A.B.A.J. 159, 161 (1928).

74. See, e.g., J. FRANK, *supra* note 68; Hutcheson, *supra* note 68.

75. Thurman Arnold, a co-teacher with Robinson in a class on law and psychology at Yale, wrote *THE FOLKLORE OF CAPITALISM* (1937), which one reviewer described as containing "a measure of behaviorism, a dash of Gestaltism, a bowing acquaintance with the experimental techniques, a large admixture of psychoanalysis and psychiatry of various brands, and a liberal dose of the social psychology of crowds." M. LERNER, *IDEAS ARE WEAPONS* 208 (1939).

76. Others too made pleas for moderation, deploring the extreme psychologism in the law. See, e.g., Cohen, *Justice Holmes and the Nature of Law*, 31 COLUM. L. REV. 352 (1931); Pound, *The Call for a Realist Jurisprudence*, 44 HARV. L. REV. 697 (1931).

what their law colleagues rebuked Münsterberg for doing twenty years earlier.

If what psychologists do is to be relevant to lawyers, it needs to be marshalled and organized around issues of legal significance. This implies a conception or working hypothesis of law to guide the choice of issues for investigation and to establish a method of analysis. Realism offered a conceptual alternative to formalism. By emphasizing the factual underpinning of rules, the behavioral impact of judicial decisions, and the social policies served by law, it invited empirical inquiry into law. Such empirical studies as were carried out, however, dealt with narrowly circumscribed rules of evidence and banking law, or with relatively trivial problems such as parking and, later, the writing of bad checks.⁷⁷ The manifestos and discussions on methodology were kept, for the most part, at a respectful distance from actual fact gathering. The bequest of realist jurisprudence was the promise rather than the application of its social-legal approach to law.⁷⁸

All was quiet on the psychology-law front during the 1940s. There were scattered studies on the usual topics of witness testimony,⁷⁹ evidence rules,⁸⁰ and criminal behavior,⁸¹ and simulations of jury decision making were introduced.⁸² On the whole, this work did not add significantly to what had been done before, and provoked no response from the legal profession.

77. F. BEUTEL, *SOME POTENTIALITIES OF EXPERIMENTAL JURISPRUDENCE AS A NEW BRANCH OF SOCIAL SCIENCE* (1957). Lamenting that law has developed "nothing new since the days of the Roman Empire," Beutel presented an "Experimental Jurisprudence" procedure for investigating the impact of legal rules on human conduct. *Id.* at 3. This procedure was illustrated with pilot studies on deterring the writing of bad checks. For a sharp rebuttal that questions the premise that the social problems addressed by law can be resolved solely on bedrock facts gathered by scientific methods, see Cavers, *Science, Research, and the Law: Beutel's "Experimental Jurisprudence"*, 10 J. LEGAL ED. 162 (1957).

78. Realism did have some impact on legal education by broadening the curriculum to reflect the interrelation between law and the social sciences. See Britt, *The Social Psychology of Law*, 34 ILL. L. REV. 802, 809-10 (1940); Frank, *Why Not a Clinical Law School?*, 81 U. PA. L. REV. 907 (1933); Hutchins, *Legal Education*, 4 U. CHI. L. REV. 357, 366 (1937); Llewellyn, *On What is Wrong with So-Called Legal Education*, 35 COLUM. L. REV. 651, 660 (1935); .

79. Snee & Lush, *Interaction of the Narrative and Interrogatory Methods of Obtaining Testimony*, 11 J. PSYCH. 229 (1941). See generally Eliasberg, *Psychiatric and Psychologic Opinions in Court*, 39 J. CRIM. L. & CRIMINOLOGY 152 (1948); Whitmer, *Psychology in Law and Criminology*, PSYCHOLOGY IN USE (2d ed. J. Gray ed. 1951).

80. See Britt, *The Rules of Evidence — An Empirical Study in Psychology and Law*, 25 CORNELL L.Q. 556 (1940).

81. See Schmideberg, *Psychological Factors Underlying Criminal Behavior*, 37 J. CRIM. L.C. 458 (1947).

82. Weld & Roff, *A Study in the Formation of Opinion Based Upon Legal Evidence*, 51 AM. J. PSYCH. 609 (1938); Weld & Danzig, *A Study of the Way in Which a Verdict is Reached by a Jury*, 53 AM. J. PSYCH. 518 (1940).

Forensic Stage (1950s): Psychologists on the Stand

Up to this time, legal psychology had been an applied endeavor in name only. It had made little direct impact on litigation or judicial decision making. Although psychologists in Europe had served as expert witnesses since the turn of the century,⁸³ and Münsterberg had long exhorted the American judiciary to bestir itself and follow suit, it was not until "1950 that [American] psychologists [began] to make an appreciable contribution in this role."⁸⁴ The contribution, however, was not by experimental psychologists testifying on witness reliability. The era of forensic psychology was ushered in by clinical and social psychologists testifying in the areas of mental disorders, pretrial publicity, and civil rights.

Judicial decisions in 1940⁸⁵ and 1954⁸⁶ permitted clinical psychologists with sufficient education and experience to testify as experts on mental disorders and their causal connections to criminal or tortious conduct.⁸⁷ The broadening of admissibility of expert psychological testimony occurred during a time of increased professionalization (*e.g.*, state certification and licensure), rapid growth of mental health professions, and formulation of legal doctrines of insanity consistent with modern psychiatry.⁸⁸ An extensive literature on the professional and legal aspects of the role of psychologists in court suddenly mushroomed.⁸⁹

At the same time, developments in survey research and sampling methodology led to applications in litigation,⁹⁰ particularly to the assessment of the extent of community bias toward a defendant due to prejudicial pretrial publicity.⁹¹ At first, however, the survey results introduced by experts testifying in support of a motion for venue

83. Stern, *supra* note 12.

84. A. ANASTASI, *supra* note 9, at 564.

85. *People v. Hawthorne*, 293 Mich. 15, 291 N.W. 205 (1940).

86. *Hidden v. Mutual Life Ins. Co.*, 217 F.2d 818 (4th Cir. 1954).

87. See generally Comment, *The Psychologist as Expert Witness: Science in the Courtroom?* 38 MD. L. REV. 539, 544-54 (1979).

88. See *Durham v. United States*, 214 F.2d 862 (D.C. Cir. 1954), *overruled*, *United States v. Brawner*, 471 F.2d 969 (D.C. Cir. 1972).

89. See, *e.g.*, Louisell, *The Psychologist in Today's Legal World* (pt. 1), 39 MINN. L. REV. 235 (1955); Louisell, *The Psychologist in Today's Legal World* (pt. 2), 41 MINN. L. REV. 731 (1957); McCary, *The Psychologist as an Expert Witness in Court*, 11 AM. PSYCHOLOGIST 8 (1956); McCary, *A Psychologist Testifies in Court*, 15 AM. PSYCHOLOGIST 53 (1960); Schofield, *Psychology, Law, and the Expert Witness*, 11 AM. PSYCHOLOGIST 1 (1956); Weitz, *An Expert Witness*, 12 AM. PSYCHOLOGIST 42 (1957).

90. See H. BARKSDALE, *THE USES OF SURVEY RESEARCH FINDINGS AS LEGAL EVIDENCE* 47-123 (1957).

91. See, *e.g.*, Woodward, *A Scientific Attempt to Provide Evidence for a Decision on Change of Venue*, 17 AM. SOC. REV. 447 (1952).

change were usually excluded on grounds of hearsay: the original respondents, as well as the survey researcher, were expected to be present for cross-examination.⁹² Trial courts did not reach the real issue underlying admissibility — namely, the methodological competence of the survey — until more than a decade later, when the Supreme Court broke precedent and reversed a conviction because of pretrial publicity,⁹³ and then endorsed the liberal granting of venue change requests as a judicial cure for unfavorable media impact.⁹⁴

The landmark School Desegregation Cases in 1954⁹⁵ saw the participation of social psychologists and other social scientists in their most visible and controversial forensic role to date. In several of the lower court proceedings, Kenneth Clark, the plaintiff's leading psychological expert, testified to studies that purported to show the harmful effects of segregation on children's personality and learning.⁹⁶ On the appeal to the Supreme Court, Clark was joined by some thirty other distinguished social scientists in appending to appellant's brief a "Social Science Statement" that summarized the available research data on the effects of segregation and the probable consequences of desegregation.⁹⁷ The Court, in holding that "separate educational facilities are inherently unequal,"⁹⁸ found that segregation of school children "solely because of their race generates a feeling of inferiority" and "[retards their] educational and mental development."⁹⁹ The "modern authority" for these findings were the writings of Clark and others, cited in the now celebrated footnote eleven.¹⁰⁰ Social scientists read the opinion as an acknowledgement of their impact in constitutional adjudication. "Proof [of wrongfulness of segregation]," said Clark, "had to come from the social psychologists."¹⁰¹

The reaction from the legal community was swift and caustic. Edmond Cahn rightly criticized the methodological shortcomings

92. Zeisel, *The Uniqueness of Survey Evidence*, 45 CORNELL L.Q. 322 (1960).

93. *Irvin v. Dowd*, 366 U.S. 717 (1961).

94. *Sheppard v. Maxwell*, 384 U.S. 333 (1966).

95. *Brown v. Board of Educ.*, 347 U.S. 483 (1954).

96. Clark, *The Social Scientist as an Expert Witness In Civil Rights Litigation*, 1 SOC. PROB. 5 (1953).

97. Reprinted as, *Appendix to Appellants' Brief: The Effects of Segregation and the Consequences of Desegregation: A Social Science Statement*, 37 MINN. L. REV. 427 (1953).

98. *Brown v. Board of Educ.*, 347 U.S. 483, 495 (1954).

99. 347 U.S. at 494.

100. 347 U.S. at 494-95 n.11.

101. Clark, *Desegregation: An Appraisal of the Evidence*, 9 J. SOC. ISSUES 1, 3 (1953).

and unjustified inferences of Clark's experiments.¹⁰² Moreover, he feared that if reliable data were tendered on the issue, the merits would be thought to stand or fall with them, so that a change in scientific conclusions would force a change in the constitutional finding regarding segregation. He argued, "I would not have the constitutional rights of Negroes — or of other Americans — rest on any such flimsy foundation as some of the scientific demonstrations in these records."¹⁰³ He also dismissed as mere "literary psychology" a poll, cited in footnote eleven, showing the nearly unanimous but undocumented opinions of social scientists on the harmful effects of segregation.¹⁰⁴ Other legal critics described the behavioral evidence presented in the "Brandeis brief"-like¹⁰⁵ Statement as "more social than scientific"¹⁰⁶ and "merely corroborative of common sense."¹⁰⁷ The footnote was seen as no more than a consolation gesture to Clark and company for their fidelity to the cause.

The debate served to ventilate the issues surrounding the role of the social sciences in constitutional adjudication. It helped to set the stage for contemporary applications in other areas of constitutional law-making. The legal critics undoubtedly had the better part of the argument in disclaiming any direct impact of the empirical findings on the decision itself. If, as the Court said, segregation is "inherently unequal," then its wrongfulness is self-evident; the holding represents a moral judgment not grounded on factual proof. This is not to say, however, that the data may not have had an indirect effect on the shaping of the final outcome. Even normative conclusions are

102. In *Briggs v. Elliott*, 98 F. Supp. 529 (1951), *rev. sub nom.* *Brown v. Board of Educ.*, 347 U.S. 483 (1954), the second case in the School Desegregation Cases, Clark presented white and brown dolls to sixteen black children aged six to nine years in Clarendon County, South Carolina, where the trial was held. He found that most of the children identified with and preferred the white doll, even though they recognized that the brown doll was more like themselves. From this result, Clark inferred that the children had feelings of self-rejection and inferiority. The small sample size, the lack of a control group, the debatable inference, and the absence of a showing that these negative attitudes, even if properly inferred, were the product of school segregation rather than general societal patterns, were pointed out by Cahn, *A Dangerous Myth in the School Segregation Cases*, 30 N.Y.U. L. REV. 150, 161-65 (1955). On the other hand, the doll study can be viewed as a kind of projective test which communicated the pathos of the children's reactions with a force that could not be better captured in a more rigorously designed experiment. See R. KLUGER, *SIMPLE JUSTICE* 330-31 (1976).

103. Cahn, *supra* note 102, at 157.

104. *Id.* at 161.

105. The so-called "Brandeis Brief" was first used by Louis Brandeis in *Muller v. Oregon*, 208 U.S. 412 (1908), to present social, psychological, and economic information in order to establish the reasonableness of social legislation limiting women's working hours, thereby providing factual support for the presumption of its constitutionality. See generally Doro, *The Brandeis Brief*, 11 VAND. L. REV. 783 (1958).

106. Karst, *Legislative Facts in Constitutional Litigation*, 1960 SUP. CT. REV. 75, 105.

107. Black, *The Lawfulness of the Segregation Decisions*, 69 YALE L.J. 421, 430 n.25 (1960).

generated by an awareness of the facts; research results can illuminate and sharpen the factual premises of constitutional decision making. What was said to have been but common knowledge about the psychological consequences of segregation was the product, at least in part, of the substantial corpus of research that had accumulated over the years and worked its way into popular learning and then into the living law.

The imprimatur of "modern authority" served other functions as well. It added legitimacy to the overruling of a well established doctrine that was itself rationalized in terms of the "psychological knowledge"¹⁰⁸ of its time. The united front of the social scientists, in contrast to that of other scholars,¹⁰⁹ reinforced the image of broadly based agreement on the evil of segregation that the Court sought to convey in its own unanimous opinion. Another indirect use of the empirical contribution was to show the mere possibility of harm resulting from racially discriminatory legislation, thereby shifting the burden to the state to come forward and prove that its actions were not presumptively unconstitutional.¹¹⁰ For this procedural objective, the Court was wholly justified in accepting the findings with an uncritical eye.

The experiences of the forensic stage suggest two ways that psychology can be used in adjudication.¹¹¹ One is in the application of law, as an aid to judicial fact-finding. In resolving a dispute, a court is called upon to apply a rule of law (the major premise) to its findings of fact (the minor premise) in order to reach a decision. When the rule itself is uncontested and only the facts are in dispute (as in cases involving a defendant's mental competency to stand trial or the extent of community prejudice that renders unlikely an unbiased ve-

108. The "modern authority" served to discredit the "psychological knowledge at the time of *Plessy v. Ferguson*," *Brown v. Board of Educ.*, 347 U.S. 483, 495 (1954). *Plessy* was rooted in Social Darwinist ideas about the biological bases of racial attitudes and their imperviousness to change by legislation. See Bernstein, *Plessy v. Ferguson: Conservative Sociological Jurisprudence*, 48 J. NEGRO HIST. 196 (1963).

109. Leading historians were enlisted by both sides to prepare briefs in response to an intermediate order by the Court which requested further argument on the intention of the framers of the fourteenth amendment regarding public school segregation. *Brown v. Board of Educ.*, 345 U.S. 972 (1953) (Miscellaneous Orders). These briefs "must surely have amounted to the most extensive presentation of historical materials ever made to the Court." Bickel, *The Original Understanding and the Segregation Decision*, 69 HARV. L. REV. 1, 6 (1955). There was, however, no consensus among the historians, and the Court dismissed their materials in one sentence: "At best, they are inconclusive." *Brown v. Board of Educ.*, 347 U.S. 483, 489 (1954). Thus, "the Court rejected history in favor of sociology" in footnote eleven. Kelly, *Clio and the Court: An Illicit Love Affair*, 1965 SUP. CT. REV. 119, 144.

110. P. FREUND, *THE SUPREME COURT IN THE UNITED STATES* 151-52 (1961).

111. See Greenberg, *Social Scientists Take the Stand: A Review and Appraisal of Their Testimony in Litigation*, 54 MICH. L. REV. 953 (1956).

nire) psychological testimony can aid in the determination of the applicability of the rule. The other use is in the creation of law, as an aid to judicial legislation. When both the applicable law and the facts are at issue, as they were in the desegregation problem, the presentation of behavioral data on the disputed facts can help shape judge-made law either directly or indirectly. It is a central feature of the nature and growth of law that "[t]he issues of fact arise out of the law, but at the point of application of law, the issue of law also arises out of the facts."¹¹² There is a chicken-and-egg relationship between law and facts that makes possible the use of empirical research in the judicial process. Existing legal rules give facts their legal significance, but facts, in turn, can also beget new legal rules.¹¹³

The Cahn-Clark exchange chilled further enthusiasm by psychologists for research on law for about a decade. Lawyers and psychologists went their separate ways, and such work as was done — mostly by lawyers — simply retread old ground. A 1929 book on *Psychology for the Lawyer* reappeared in retitled and slightly revised version.¹¹⁴ Another attorney urged, as Hutchins and Slesinger had a generation earlier, "a complete reconsideration of the rules of evidence to conform them . . . to what we know of the human condition," but his book offered no reform proposals.¹¹⁵ A volume on case law governing eyewitness identification alluded to psychological conditions of suggestiveness, but no empirical research was de-

112. Hart & McNaughton, *Evidence and Inference in Law*, in EVIDENCE AND INFERENCE 48, 61 (D. Lerner ed. 1959).

113. *Id.* at 61. The interrelationship between issues of fact and law suggests a method for collaboration between lawyers and psychologists in reform-oriented litigation. In the course of identifying the legal issues, a lawyer can indicate to the psychologist the kinds of empirical data that might be needed. Legal rules define the types of facts relevant for adjudication. An anti-segregation rule might state, for example, that there is wrongful discrimination if there is substantial racial imbalance in a school system as a result of deliberate actions by school officials. It is only when segregation is deemed wrong (a normative judgment embodied in the rule) that one needs to inquire about the facts of racial imbalance and official conduct — "The issues of fact arise out of the law." Although the initial factual questions for investigation are posed by the lawyer, the psychologist does not remain in a handmaiden's role. He may call attention to other facts which the lawyer had not considered and which could alter the character of the legal issue itself. He might do research that shows that segregated schooling produces detrimental personality and educational effects on minority children irrespective of whether the segregation came about by deliberate action or by fortuitous circumstances. The lawyer could use these findings to challenge the existing rule by arguing that these effects are sufficient to find unlawful discrimination, without any further showing of improper official motive (which may be difficult to prove). Here is an instance of using psychological research to help create new law. This is possible because "at the point of application of law, the issues of law also arise out of the facts." As Hart and McNaughton state, "[T]he truth is that neither [the psychologist nor the lawyer] can be in complete command. They have to learn how to work together . . . and each having a sense of the other's potential contribution in developing the analysis." *Id.* at 62.

114. D. MCCARTY, *PSYCHOLOGY AND THE LAW* (1960).

115. J. MARSHALL, *LAW AND PSYCHOLOGY IN CONFLICT* (1966).

scribed or undertaken.¹¹⁶ The first psychology text since realist days appeared, entitled *Legal and Criminal Psychology*.¹¹⁷ It dealt far more with "criminal" matters (psychopathic personality, drug addiction, corrections, etc.) than with "legal" ones (*e.g.*, trial tactics and psychology of judges). This literature shows that psychology and law "mingled only at their peripheries"; the relations were marked by "high defensiveness on both sides."¹¹⁸ In contrast, "genuine cross-disciplinary research"¹¹⁹ between lawyers and other social scientists, notably sociologists and political scientists, came to full flower during this period.¹²⁰ Some of the studies — particularly those on jury decision-making,¹²¹ legal socialization,¹²² and legal impact¹²³ (*e.g.*, of school prayer decisions and of insanity doctrines) — dealt with social psychological subject matter and even relied on social psychological theories and methods. The irony is that the empirical approach to law advocated by Robinson and other realists began to take hold at the time when psychologists withdrew from the field.

The Coming of Age (1970s): New Research on Procedural Justice

In a 1973 conference, a legal scholar said with remarkable prescience that psychology and law would be one of the two "growth stocks" in law and the social sciences generally.¹²⁴ Since then, more psychologists have been doing more empirical research on law-related matters than in all the preceding years combined. The interest was revived in part by the social-political activism of the 1960s, which helped shape a generation of social scientists who sought to reconcile their training in scientific research with the call of social action by engaging in studies that had, in the overused term of its

116. P. WALL, *EYE-WITNESS IDENTIFICATION IN CRIMINAL CASES* (1965).

117. *LEGAL AND CRIMINAL PSYCHOLOGY* (H. Toch ed. 1961).

118. Riesman, *Some Observations on Law and Psychology*, 19 U. CHI. L. REV. 30, 32 (1951).

119. Ladinsky, *The Teaching of Law and Social Science Courses in the United States*. Working Paper No. 11, Center for Law and Behavioral Science, University of Wisconsin, Madison (1975).

120. This empirical literature is reviewed in Skolnick, *The Sociology of Law in America*, SOCIAL PROBLEMS, Special Summer Supplement (1965).

121. *E.g.*, Strodtbeck, James & Hawkins, *Social Status in Jury Deliberations*, 22 AM. SOC. REV. 713 (1957).

122. *E.g.*, J. COHEN, R. ROBSON & A. BATES, *PARENTAL AUTHORITY: THE COMMUNITY AND THE LAW* (1958).

123. *E.g.*, W. MUIR, *PRAYER IN THE PUBLIC SCHOOLS* (1967); R. SIMON, *THE JURY AND THE DEFENSE OF INSANITY* (1967).

124. Friedman, remarks given in *Assessment Conference: Developments in Law and Social Sciences Research*, 52 N.C. L. REV. 969, 1071 (1974).

day, "social relevance." The courts spearheaded changes in civil, criminal, and political rights, so that law again became a focus of applied research. Three score years after the publication of Münsterberg's book, the field was finally coming into its own.

The scope of contemporary empirical inquiry has expanded beyond the traditional confines of witness testimony and evidence rules to encompass a wide variety of topics.¹²⁵ There are some common themes in this extensive literature that help place the field as a whole in perspective. Most, though by no means all, of the research undertaken today deals with criminal rather than civil justice, with the judicial rather than the legislative or administrative sectors of the legal system, and with procedural rather than substantive law — in essence, the main focus is on the criminal trial process.

To establish a framework for this Review, it is useful to think of this process as comprising four sequential phases: pretrial influences (including eyewitness identifications) on the jury; selection of the jury; presentation of testimony (filtered through evidence rules) and law (via judicial instructions) to the jury; and finally, decision-making by the jury. The complex of legal rules that govern each of these phases and the values they implicate constitutes procedural justice. The centerpiece of this framework of procedural justice is the jury. It is the one subject that has commanded the most attention of psychologists in the past ten years.¹²⁶ This emphasis is conceptually justifiable. Although only a minority of cases go to trial and fewer yet are heard by a jury, the ideal of using lay members to find facts, to interpose the conscience of the community, and to legitimate official action is part of the foundation of our system of justice. Much of procedural law can only be understood in relation to, and in the context of, the institution of the jury. On the one hand, jurors are regarded as "the nerve center of the fact-finding process."¹²⁷ On the other, there has been a historical distrust in the judgment of ama-

125. For example, the first two books on psycholegal research published during the 1970s dealt, respectively, with the new subjects of procedural justice and legal socialization. J. THIBAUT & L. WALKER, *PROCEDURAL JUSTICE: A PSYCHOLOGICAL ANALYSIS* (1975) ("to date procedural justice has not been the subject of much, if any, social science research," at 2); LAW, JUSTICE, AND THE INDIVIDUAL IN SOCIETY: *PSYCHOLOGICAL AND LEGAL ISSUES* (J. Tapp & F. Levine eds. 1977), reviewed by Saks, *On Tapp (and Levine)*, 77 MICH. L. REV. 892 (1979).

126. A review of studies on the jury found that 90% of them were conducted within the past fifteen years. S. Penrod, *A Study of Attorney and "Scientific" Jury Selection Models* (1979) (unpublished Ph.D. thesis, Department of Psychology, Harvard University). For review of this literature, see Gerbasi, Zuckerman & Reis, *Justice Needs a New Blindfold: A Review of Mock Jury Research*, 84 PSYCH. BULL. 323 (1977); Davis, Bray & Holt, *The Empirical Study of Decision Processes in Juries: A Critical Review*, in *LAW, JUSTICE, AND THE INDIVIDUAL IN SOCIETY: PSYCHOLOGICAL AND LEGAL ISSUES* (J. Tapp & F. Levine eds. 1977).

127. *Estes v. Texas*, 381 U.S. 532, 545 (1965).

teurs who are untutored in legal subtleties and inexperienced in evaluating evidence. Consequently, an elaborate web of procedural rules has evolved to shield the jury at each phase of the fact-finding process from extraneous influences that might bias its decision.¹²⁸ Nevertheless the jury remains the hub that holds together the spokes of procedural justice. Directly or indirectly, the jury provides the backdrop for empirical study of the criminal process.

The four books reviewed here provide a fairly representative sample of the breadth and quality of current psycholegal research. The first two are on eyewitness identification and the next two cover the remaining three phases of fact-finding in criminal proceedings.

II. PSYCHOLOGY OF EYEWITNESS IDENTIFICATION

The two books on eyewitness testimony — by A. Daniel Yarmey, Professor of Psychology at the University of Guelph, Ontario, and by Elizabeth F. Loftus, Professor of Psychology at the University of Washington — represent the first and only volumes by North American psychologists on the subject since the days of Münsterberg. Each has unique features, so that they complement more than they overlap one another. Yarmey asserts that this is the “most advanced” area of psychological research and the “most able to make a significant contribution to the legal system” (p. 228). To assess how the literature measures up to these claims, it is first necessary to place the research problem in its legal and historical context.

An eyewitness' in-court identification of the accused can be highly damaging to the defense because of the weight a jury might attach to it.¹²⁹ However, such an identification may mean two different things. It may mean that the witness recalls seeing the accused at the crime scene, or that the witness recalls identifying the accused at a lineup or photographic identification session at the police stationhouse. In the first instance, the reliability of the initial observation is subject to the inherent frailties of perception, memory, and recall. In the second, police pressures to make a positive identification may be a situationally induced source of bias. In either case, if the defense is unsuccessful in impeaching the eyewitness' testimony by showing the unreliability of the observation and/or the prejudicial police influence, the outcome of the trial may well be determined in advance.

128. J. THAYER, *A PRELIMINARY TREATISE ON EVIDENCE AT THE COMMON LAW* 47 (1898).

129. “The fact is that juries do not recognize its [eyewitness testimony's] unreliable nature. . . .” G. WILLIAMS, *THE PROOF OF GUILT* 119-20 (3d ed. 1963).

In the Supreme Court's first major attempt to confront the "dangers inherent in eyewitness identification and the suggestibility inherent in the context of the pretrial identification,"¹³⁰ it noted that this type of evidence "'accounts for more miscarriages of justice than any other single factor.'"¹³¹ Although the lineup was held to be a critical stage at which suspects had a right to counsel, the Court retreated a few years later and limited the right to post-indictment lineups.¹³² Even the presence of counsel at the lineup, however, does nothing to detect or alleviate any unreliability in the original observation at the crime scene. Absent the right to counsel, the validity of a pretrial identification is determined by the totality of circumstances: it must be both unnecessarily suggestive and conducive to misidentification before it violates due process.¹³³

The psychology of eyewitness testimony represents the convergence of three research traditions. One is the early *Aussage* experiments that demonstrated the fallibility of the cognitive processes and provided the methodological prototype for current studies. A second tradition is basic experimental research on perception and memory during the past fifty years. A classic study of remembering in 1932 showed that it is a constructive rather than reproductive process: instead of simply storing and retrieving information, it is "an *effort after meaning*."¹³⁴ Subsequent research elaborated the idea that the mind is not a mirror that merely reflects the external world, but rather a dynamic process that creates its own vision of reality. A third intellectual source is the studies of social perception and social psychology since 1950.¹³⁵ These studies took into account, as earlier experimental psychology had not, the social setting in which perception operates. The studies described the motivational bases of perception and the processes of conformity to social influence. Yarmey and Loftus have pulled this extensive research literature from differ-

130. *United States v. Wade*, 388 U.S. 218, 235 (1967). *Wade* was decided together with *Gilbert v. California*, 388 U.S. 263 (1967), and *Stovall v. Denno*, 388 U.S. 293 (1967).

131. *United States v. Wade*, 388 U.S. 218, 229 (1967) (quoting WALL, *supra* note 116, at 26). The possibility of misidentifications by eyewitnesses has also been discussed by commentators. See Levine & Tapp, *supra* note 7, at 1081; E. BORCHARD, *CONVICTING THE INNOCENT* (1932); Comment, *Expert Testimony on Eyewitness Perceptions*, 82 DICK. L. REV. 465, 467 (1978).

132. *Kirby v. Illinois*, 406 U.S. 682 (1972).

133. *Manson v. Brathwaite*, 432 U.S. 98, 112-16 (1977). See generally N. SOBEL, *EYEWITNESS IDENTIFICATION: LEGAL AND PRACTICAL PROBLEMS* § 37 (1972 & Supp. 1980).

134. F. BARTLETT, *REMEMBERING: A STUDY IN EXPERIMENTAL AND SOCIAL PSYCHOLOGY* 44 (1932).

135. E.g., Asch, *Effect of Group Pressure upon the Modification and Distortion of Judgments*, in *READINGS IN SOCIAL PSYCHOLOGY* 174 (3d ed. E. Maccoby, T. Newcomb & E. Hartley eds. 1958); Bruner, *Social Psychology and Perception*, in *id.* at 185.

ent specialities of psychology together into a coherent whole and applied it to the problem of eyewitness identification in criminal cases.

Yarmey's The Psychology of Eyewitness Testimony

Directed to lawyers and psychologists, this book is an "integrated account of our knowledge of the psychological and legal aspects of eyewitness identification" designed to "show the relevance and implications for the criminal justice community of the scientific literature" (p. xiii).

It begins with an attempt to "place psychology in relationship to law" (p. 15). Although both disciplines deal with the same subject matter, the control of behavior, law has been "indifferent or even hostile" to psychology (p. 6). Yarmey places the responsibility on both sides equally. He cites approvingly the view that psychologists have been "ideologically tendentious and often completely uninformed with respect to the law" (p. 16); on the other hand, he believes lawyers guard the courts as their private preserve and "subconsciously resent the entry of [other] experts" (p. 32). To surmount the "communication gap" (p. 33), he presents an overview of how the police and the courts operate that places eyewitness testimony in its legal context. Oddly, however, there is no discussion at all of stationhouse identifications and their effect on guilt determination at trial. Instead, the overview describes police field interrogations and the use of probability theory to quantify burdens of proof, neither of which seems to bear any relation to the subject of the book.

The major portion of the book, and its principal contribution, consists of a systematic exposition of the principles and research findings of cognitive psychology. Integrating a wide-ranging literature, Yarmey lucidly describes the effects of motivation and learning on perception, the different components of memory, and the social context of perception. He also examines specialized topics such as the remembering of faces and the cognitive processes of the young and the aged.¹³⁶

Although this exposition is informative and well presented, the legal reader eventually begins to wonder about the implications of the assemblage of theories and data for eyewitness identification. It is not until more than halfway through the book, in a meager eight

136. The book also includes a chapter (eight) on various topics pertaining to the trial process: the order of presentation of evidence, the effectiveness of judicial instructions on the jury, the use of the polygraph, and so on, which are not connected to the main subject on eyewitness testimony. This chapter, therefore, is excluded from this Review.

pages (pp. 152-59), that an attempt is made to join the psychological research with the legal issues. After a review of the 1967 trilogy of Supreme Court cases, Yarmey states that there has been considerable subsequent legislative reform of lineup procedures, but then dismisses the procedures as "beyond our scope of interest" (p. 153). Since the Court itself has suggested that legislation or police regulations which eliminate the risk of suggestions at lineups might "remove the basis for regarding the stage as 'critical,'" ¹³⁷ one would have thought that empirical evaluation of these new procedures would be one of the most interesting areas of applied research. There is also no mention of post-1967 decisions which have changed significantly the legal dimensions of the problem. Instead, Yarmey devotes attention to the unreliability of pretrial identifications. "What still needs emphasis and discussion . . . is the unwarranted trust that police officers, jurors, and the courts persist in giving to lineups and eyewitness identifications" (p. 153). Based not on any direct studies but on extrapolation from cognitive research generally, he asserts that "mistaken identity from lineups is often the rule and not the exception" (p. 159). He fails to discuss what could be done to mitigate the risk of error or what alternatives the law could pursue. The implication appears to be that this type of evidence should be excluded entirely, although Yarmey never explicitly says so, perhaps because it is an obviously unrealistic option.

The book's purpose of presenting an integrated account of modern cognitive psychology is admirably attained. The same cannot be said about the related purpose of showing cognitive psychology's legal relevance and implications for eyewitness identifications. Yarmey says that "[t]he most important contribution that psychology can make to legal decision making is to provide scientific information that would not ordinarily be available to the law" (p. 35). However, as Slesinger stated back in the realist days, it is not enough simply to come forward with basic psychological knowledge and hope that somehow lawyers will grasp its legal significance.¹³⁸ Understanding of how cognitive processes function does not readily translate into practical decision making, any more than knowledge of only the physical and chemical properties of clay enables a sculptor to do better modeling. Beyond educating lawyers about the fallibility of the senses, assuming that they are uninformed about this fact of human experience in the first instance, there remains the basic

137. *United States v. Wade*, 388 U.S. 218, 239 (1967).

138. *See* text at notes 63-64 *supra*.

empirical and policy question in this area: what can and should be done about potentially erroneous eyewitness identifications? Yarmey does not address it, but Loftus attempts to face it head on.

Loftus's Eyewitness Testimony

Loftus's objectives are the same as Yarmey's: to integrate a diverse empirical literature and to show "how this body of research should be fitted into . . . the legal system" (p. xiii). She uses the "universally accepted" three-step sequence of cognition — acquisition, retention, and retrieval — as the means of conceptual organization (p. 21). Evidence law, too, recognizes these three processes when it prohibits hearsay and requires that a declarant be present in court so that his perception, memory, and narration can be tested by cross-examination.

Eyewitness testimony portrays the mind as a malleable and constructive process rather than as a mechanical unit that records and faithfully reproduces the original event. Acquisition of information by perception is shaped by situational conditions (*e.g.*, exposure time) and subjective influences (*e.g.*, stress, cultural expectations). Once the information is encoded and stored, it can be manipulated externally to create a new "memory" and thereby distort subsequent recollection. In a series of ingenious experiments, Loftus demonstrated how the phrasing of a question can subtly alter the original information by introducing nonexistent events. After seeing a film of a car accident, some subjects were asked to estimate the speed of the cars when they "smashed," and others were asked the same question when they "hit." A week later, all were asked if they saw broken glass at the accident scene. The "smashed" subjects were much more likely to respond affirmatively, even though there was none in the film. Thus, memory is malleable and consists of a combination of the original perception with subsequent information acquired during the retention phase. To enhance testimonial accuracy, Loftus recommends that police and attorneys "should do whatever possible to avoid the introduction of 'external' information into the witness's memory" (p. 78).

Likewise, the mode of retrieval can affect remembering. In other studies on the influence of wording of questions on testimony, Loftus found that subjects who were asked how fast the cars in the film were going when they "smashed," "collided," "bumped," "hit," or "contacted" each other gave the following average estimates, respectively, in miles per hour: 40.8, 39.3, 38.1, 34.0, and 30.8 (p. 96). The implication is that out-of-court statements can be shaped by the choice of

words used in questioning. Unless the questions are known in addition to the answers, it would be difficult later at trial to evaluate the reliability of the testimony. It is precisely for this reason that evidence law requires the presence of the declarant so that cross-examination can probe the testimony for possible distortion.

The two books go well together. Yarmey's review of the literature is more eclectic, canvasses a broader swath, and places greater emphasis on the acquisition stage. Loftus's review focuses more on the retention and retrieval phases, with her own original experiments receiving the particular attention they deserve. Whereas Yarmey devotes relatively little coverage to the legal aspects of eyewitness identification, nearly one third of Loftus's book pertains to them.

She begins with an overview of all the principal Supreme Court decisions on the subject, and then suggests how psychological methods can be used in analyzing sources of bias in corporeal and photographic lineups. She concludes that eyewitness testimony is unreliable and considers four possible remedies.¹³⁹ First, outright exclusion is rejected as an impractical and too drastic option, especially since the trend of modern evidence law is toward greater admission.¹⁴⁰ Second, she finds a corroboration requirement defective because, like an exclusionary rule, it transforms an issue of weight into one of admissibility. Third, she professes doubt as to the efficacy of cautionary jury instructions, although she cites no empirical basis (somewhat unusual for an experimentalist) for her skepticism. The fourth and most viable option, according to Loftus, is expert psychological testimony. The general constraints on expert testimony¹⁴¹ — qualified expert, proper subject matter, accordance with generally accepted explanatory theory, and probative value outweighing prejudice — are said to apply to a psychologist's opinions on eyewitness testimony. Ultimately, admission of expert psychological testimony lies within the trial court's discretion, and Loftus acknowledges that, to date, it has been excluded more often than it has been permitted (p. 199).¹⁴²

139. Loftus's discussion relies principally on Note, *Did Your Eyes Deceive You? Expert Psychological Testimony on the Unreliability of Eyewitness Identification*, 29 STAN. L. REV. 969 (1977).

140. "[T]he distinct tendency of the Federal Rules of Evidence is to admit rather than exclude." 1 WEINSTEIN'S EVIDENCE ¶ 105[02] (1980). FED. R. EVID. 402 provides that "All relevant evidence is admissible, except as otherwise provided."

141. These principles were outlined in the leading case of *United States v. Amaral*, 488 F.2d 1148, 1153 (9th Cir. 1973), holding that the exclusion of expert psychological testimony on the effects of stress on perception was not an abuse of the trial court's discretion.

142. See also Note, *supra* note 139, at 1012.

Elsewhere, Loftus and others specializing in eyewitness identification concede that "the research has not had a great impact" on the judicial process.¹⁴³ The law has not ruled eyewitness identifications inadmissible; it has not required sua sponte delivery of cautionary instructions;¹⁴⁴ it has rejected expert testimony on such makeshift reasons as trespassing on the province of the jury. More than a generation ago, Robinson also noted that "[p]sychologists have not been called in any numbers to assess the credibility of witnesses."¹⁴⁵ Despite the advances of cognitive psychology as a science, its applications to legal testimony seem to have remained unchanged. Loftus, like Yarmey, suggests that one reason is the unavailability of published summaries of research for the legal community. Others attribute the lack of impact to the "reactionary and closed-minded" nature of the legal system,¹⁴⁶ which suggests that the chapter on yellow psychology is not over. But the differences between the two disciplines on eyewitness identification are too persistent and pervasive to be explicable only on these grounds. Loftus's otherwise valuable contribution terminates prematurely with the call for more liberal admission of expert testimony. That is psychological whistling in the judicial wind. Instead, it is necessary to delve into more substantial reasons that go to the crux of the difficulties of applying psychology to the law. This Review of the psychology of eyewitness testimony will conclude with a brief analysis of two such interrelated reasons: psychological research has not dealt with issues relevant to the policies behind the law; and there are basic differences between the two disciplines in the kinds of information they gather and in the methods by which they are gathered that place limits to their rapprochement.

The Legal Impact of Eyewitness Research

The principal message that emerges from the long history of eyewitness research is the general fallibility of the witness.¹⁴⁷ The infre-

143. Wells, *Applied Eyewitness-Testimony Research: System Variables and Estimator Variables*, 36 J. PERSONALITY SOC. PSYCH. 1546, 1547 (1978), citing unpublished papers by E. Loftus, R. Buckhout, and others.

144. See *United States v. Telfaire*, 469 F.2d 552 (D.C. Cir. 1972) (No error in failing to give sua sponte cautionary instructions on fallibility of eyewitness identification in absence of request by defense counsel, but a model instruction was nonetheless set forth with the caution that failure to adopt it or its equivalent would "constitute a risk [of reversal] in future cases." 469 F.2d at 557.)

145. E. ROBINSON, *supra* note 39, at 98.

146. Wells, *supra* note 143, at 1547 (quoting R. Buckhout).

147. Other contemporary writers in addition to Loftus and Yarmey have reiterated this theme. According to Saks and Hastie, "We have emphasized the unreliability of eyewitness

quently stated but strongly implied corollary is that eyewitness evidence results in mistaken convictions. It is impossible to determine reliably the incidence of this cause-and-effect relationship, but the anecdotal reports¹⁴⁸ on which this implication is based need to be placed in perspective. It is improbable that such miscarriages of justice are a common outcome in criminal prosecutions. Only about ten percent of cases nationwide go to trial,¹⁴⁹ and in most of these the identity of the perpetrator is not in issue.¹⁵⁰ It is estimated that eyewitness evidence is used in only five percent of criminal trials.¹⁵¹ Even when identity is contested, most are not "pure identification" cases that rest solely on eyewitness testimony.¹⁵² It is no coincidence that in all of the identification cases decided by the Supreme Court there has been ample circumstantial or other evidence to connect the defendant with the crime, apart from the identification testimony. Wrongful convictions tend to generate headline attention out of proportion to their actual incidence. While this is not to underplay the seriousness of the problems posed by the use of eyewitness testimony, it does suggest that proposals for preventive or remedial measures should not be more drastic than what the ill requires.

One should also recognize the methodological limitations of eyewitness research. Studies on eyewitness identification uniformly reveal low accuracy rates, from which is inferred that actual eyewitnesses in real life situations are probably as inaccurate as the experimental subjects. However, it is likely that inaccuracies in the simulated setting are inflated because of the procedure used. In the real world, witnesses who agree to attempt a station-house identifica-

testimony." P. 190. Levine and Tapp concluded that there is "ample justification for regarding all eyewitness identifications with skepticism." Levine & Tapp, *supra* note 7, at 1124.

148. The opinions, legal commentary, and psychological sources all rely on selected case histories. Commonly cited are F. FRANKFURTER, *THE CASE OF SACCO AND VANZETTI* (1927), and E. BORCHARD, *supra* note 131. Systematic data on wrongful convictions due to misidentification do not exist.

149. Y. KAMISAR, W. LAFAVE & J. ISRAEL, *MODERN CRIMINAL PROCEDURE* 23 (5th ed. 1980).

150. Most crimes are property crimes (burglaries, auto thefts, etc.) in which proof of identity is seldom by eyewitness. Personal crimes (assaults, homicides) typically involve parties who are acquainted with each other. It is in robberies that the use of eyewitness identification is most prevalent. *United States v. Wade*, 388 U.S. 218, 230 (1967).

151. See N. SOBEL, *supra* note 133, at 4.

152. Most are "identification plus" cases where circumstantial or other kinds of evidence are available. The incidence of "pure identification" cases is thought to be "rare." N. SOBEL, *supra* note 133, at 11. Recently, an analysis of every single criminal case involving a lineup in England and Wales during 1973 was conducted. 45% of the suspects in the 2,116 cases were identified at the lineup. Of these, only 347 (or about 16% of the total number) were "pure identification" cases, and nearly three fourths resulted in convictions. P. DEVLIN, *REPORT TO THE SECRETARY OF STATE FOR THE HOME DEPARTMENT OF THE DEPARTMENTAL COMMITTEE ON EVIDENCE OF IDENTIFICATION IN CRIMINAL CASES* 162 (1976).

tion are self-selected. For example, if twenty persons are at a bank when a robbery occurs, only four or five might agree to view a lineup. It is possible that only those who really got a good look at the robber would come forward. In contrast, in a staged crime in a classroom, all of the students are asked to describe the incident and the suspect. The accuracy scores in reality experiments consist of averages of the reports of the entire sample of subjects, irrespective of whether they were paying attention or napping. If the studies included only those students who said they watched the entire incident carefully, the reported accuracy rate would probably rise substantially.¹⁵³ Indeed, one commentator notes that "low accuracy may be preferred among researchers."¹⁵⁴ Inaccurate identifications speak for themselves, but accurate ones require explanation or have to be discounted.

The subject of eyewitness identification can be approached from three cognate levels of analysis. The first is the psychological level: the sources, nature, and magnitude of the unreliability inherent in identifications. The second is the social psychological level of communication and influence: the impact of the testimony on the jury's verdict. And the third is the system level: the institutional procedures designed by the law to safeguard the jury against these biasing effects. A main reason why the legal applications of psychological research have been limited is that psychology and law have each given primary attention to different levels of the subject.

Reality experiments have focused on the psychological level, on demonstrating the fallibility of observation and recall. The history of the research is one of "show and tell" — show the existence of bias of subjects in the laboratory, and tell the legal community about the inference that eyewitnesses in the real world are unreliable.

But the legal community has not been preoccupied with this level of analysis.¹⁵⁵ One reason is that particularized proof rather than

153. Furthermore, at the time of the unexpected incident in the classroom, students may not realize it is staged. Later, however, when they are asked to describe it, they know it was "only an experiment." Knowledge that this was not a real crime may lead subjects to make guesses, which they might not do if real consequences ensued from their identifications.

154. Wells, *supra* note 143, at 1552. Wells notes that researchers tend to choose as confederates for staged events those persons who have no distinctive characteristics in order to make identifications as difficult as possible. This kind of research led another psychologist to conclude, with respect to the studies on the reliability of witness testimony in criminal trials generally (and not limited to eyewitness identifications), that psychologists tend "to oversell the legal implications of their work and . . . expect their findings to be regarded as virtual saviors of the integrity of the legal system. In fact, these findings tended to be too vague and inconclusive to have any practical value." Greer, *Anything But the Truth? The Reliability of Testimony in Criminal Trials*, 11 BRIT. J. CRIMINOLOGY 131, 142 (1971).

155. The *Wade* trilogy, for example, made only passing reference to the psychological

general proof is required in adjudication. “[I]t is not enough,” Wigmore said, “to realize empirically that there are possibilities of error in testimonial evidence, and to adopt an attitude of caution. It is desirable to learn, if we can, how *extensive* are the possibilities of error.”¹⁵⁶ Even if such measurements of error were possible, they “would be true in general only, and would still not be usable to diagnose the individual witness.”¹⁵⁷ The law cannot assume that because eyewitnesses in general are fallible, a particular eyewitness is mistaken too. At present, expert psychological testimony can only point to factors that are known to be potentially biasing. Loftus admits that “any psychologist who attempted to offer an exact probability for the likelihood that a witness was accurate would be going far beyond what is possible” (p. 200). Yet because this is precisely the judgment that the fact-finder is called upon to make, expert psychological testimony is of little assistance.

The real point of contention between psychology and law is not the fact of eyewitness fallibility as such, but the purported impact of the supposedly fallible testimony upon the ultimate outcome of the trial — that is, at the social psychological level of analysis. Psychologists assume that this testimony fatally taints the verdict. However, as early as 1909, Wigmore questioned whether the testimonial errors found in laboratory experiments produced incorrect jury verdicts. He proposed that “[t]he way to answer this is to include a jury (or judge of facts) in the experiment, and observe whether the findings of fact follow the testimonial errors or whether they succeed in avoiding them and in reaching the actual facts.”¹⁵⁸ Of the dozens of eyewitness identification studies conducted since then, only Wigmore’s own reality experiments¹⁵⁹ and a major study by a psychologist-lawyer in 1924¹⁶⁰ have assessed the impact on the fact-finder. In general, these results showed that “[t]he findings . . . tend[ed] to have a *lower rate* of errors than the average testimonial rate; *i.e.*, somehow the testimonial errors [were] correctly adjusted (in part) by the judge’s or jury’s reflection.”¹⁶¹ (Neither Yarmey’s nor Loftus’s

sources of misidentification and emphasized instead the bias arising from police suggestiveness. See *United States v. Wade*, 388 U.S. 218 (1967).

156. J. WIGMORE, *supra* note 26, at 692 (emphasis in original).

157. *Id.*

158. Wigmore, *supra* note 22, at 426.

159. J. WIGMORE, *supra* note 26, at 698-701.

160. See Marston, *supra* note 28, at 6-31, reproduced in part in J. WIGMORE, *supra* note 26, at 710-20.

161. J. WIGMORE, *supra* note 26, at 720.

books nor other current psychological reviews¹⁶² on eyewitness testimony even mention these studies.) These early studies are not inconsistent with the Kalven and Zeisel study's conclusion that the jury is not as incompetent and unreliable as supposed.¹⁶³ The burden of persuasion therefore rests with those psychologists who assume that eyewitness evidence, because of its demonstrated fallibility in the laboratory, has a greater distorting effect on the jury's decision than other kinds of evidence of suspect reliability.

To put the problem simply, psychological writings equate potential bias (general fallibility) with actual bias (mistaken verdict). The law distinguishes the two. The due process test for evaluating eyewitness identifications states the two elements in the conjunctive: the identification set has to be suggestive and it has to result in misidentification.¹⁶⁴ The law's reluctance to assume categorically a one-to-one correspondence between the potential unreliability (which is conceded) and its actual impact in a particular trial (which must be proved) is one reason why the courts have not rushed to embrace expert psychological testimony.

Since the law can do little about the fallibility of the senses as such (other than recognize it), it has instead devised institutional means to counteract the possible effects of fallible testimony on the jury's decision. It has required the presence of counsel at post-indictment lineups, reiterated its trust in cross-examination as an instrument to expose bias, recommended the drafting of legislation and regulations to govern identification procedures, proposed model cautionary instructions, and so on. In contrast, psychological research has largely neglected the system level where its applications would be of greatest use to law. Instead of continuing to demonstrate in the laboratory the inaccuracy of perception and recall and to bewail the futility of eyewitness testimony, psychologists need to concentrate on system level research.¹⁶⁵ There have been virtually

162. *E.g.*, Wells, *supra* note 143.

163. They found that in about three fourths of the cases, the judge and the jury agree on the verdict. Although they did not analyze eyewitness cases separately, it does not seem likely that jury decisions would be more "mistaken" (as measured by divergences from bench decisions) with identification evidence than with other complex, circumstantial evidence. H. KALVEN & H. ZEISEL, *THE AMERICAN JURY* 56 (1966).

164. *Manson v. Brathwaite*, 432 U.S. 98 (1977).

165. Wells, *supra* note 143, at 1548, has distinguished between applied research on "estimator variables" and "system variables." The former refer to variables that cannot be controlled or manipulated in the real world, such as a defendant's physical characteristics or the severity of a crime. The effects of such variables on the outcome of a case can only be estimated by research. The latter refer to variables that are susceptible to control, such as the structure of a lineup. Most of the applied psychological research has been on estimator variables and, in general, has had little practical utility for the criminal justice system.

no investigations on the adequacy of existing police regulations on lineups, or the efficacy of cautionary instructions, or the impact of different kinds of eyewitness identification upon the jury. Since the publication of her book, Loftus has begun simulation studies on the effect of expert psychological testimony on the jury's verdict.¹⁶⁶ The purpose is to test the claim, made in excluding such testimony, that scientific experts unduly influence the jury. This is the kind of research that holds promise for legal policy.¹⁶⁷

The difference in levels of analysis is related to a basic difference in the methods of inquiry of psychology and law. Experimental research gathers aggregate data and uses statistical measures of central tendency and variation. This approach is suited for dealing with large numbers of cases. Trial adjudication is designed to investigate and determine the facts of a specific case. It is a "clinical" procedure that seeks particularized information of a single instance. The experimental method is designed to secure "legislative facts" — facts about broad social, economic, or behavioral phenomena that can be relied upon in the creation of new law and policy. The trial process is intended to gather "adjudicative facts" — facts that explain who did what, when, where, how, and with what motive in a given case.¹⁶⁸

Since the 1950s, expert testimony by clinical psychologists regarding a defendant's mental state or a witness's testimonial competence has raised only questions of weight, not of admissibility. The clinician does not testify about the conditions that bring about mental disorder in general; he gives his opinion about the sanity or competence of the particular defendant or witness at that trial. The

166. Loftus, *Impact of Expert Psychological Testimony on the Unreliability of Eyewitness Identification*, 65 J. APPLIED PSYCH. 9 (1980).

167. In trying to safeguard the judicial process from the possible effects of human bias, whether arising from fallible eyewitnesses or other sources such as partial jurors, the law has always focused on the system rather than the individual level of analysis. For example, to assure an impartial jury, the law does not inquire into the state of mind of individual veniremen. There are virtually no legal standards to regulate inquiries about a person's biases at voir dire. See *Swain v. Alabama*, 380 U.S. 303 (1965) (peremptory challenges based on race are not a denial of equal protection); *Ristaino v. Ross*, 424 U.S. 589 (1976) (trial judge's refusal to allow voir dire questioning about racial bias upheld because it had no nexus with the trial issues). Instead, the law regulates the procedures governing the selection and composition of the venire, to ensure that it constitutes a representative cross-section of the community. See note 170 *infra*. Thus, control for impartiality is exerted at the system level, not at the psychological level. If psychological research is to have an impact on the judicial process, it too must focus on the system level. In the area of jury impartiality, psychologists have already shifted to this level in trying to improve the voir dire process by "scientific" jury selection. See text at notes 170-71 *infra*. In the area of eyewitness testimony, research on system level variables is barely beginning. In this respect, it cannot be said, as Yarmey believes, that eyewitness testimony represents the "most advanced" area of psycholegal research. P. 288.

168. See 2 K. DAVIS, ADMINISTRATIVE LAW TREATISE § 15.03 (1958).

experimental psychologist, in contrast, does not have the where-withal to test the reliability of any particular eyewitness. In testifying about human fallibility in general, he is offering legislative facts to a fact-finder charged with an adjudicative task.

Expert testimony by social psychologists in the School Desegregation Cases did not raise admissibility issues. Although the subject of their testimony — the effects of segregation on the personality and learning of black children in general, and not of the particular children in the lawsuit — rested on legislative facts, the courts treated them more like clinical than experimental psychologists. The issue of school desegregation had societal implications that transcended the immediate interests of the litigants; the courts were engaged not only in adjudication but also in judicial legislation. Since matters of broad social policy were at stake, the experimental data and generalizations presented by Kenneth Clark and others at least suggested the direction the law should take and helped clarify the factual basis of the normative issues. No such legislative-type determinations are involved in evaluating the testimonial certitude of any given eyewitness. Expert testimony about general results is unhelpful in purely adjudicative cases,¹⁶⁹ and this may be why experimental psychologists have found the courts less receptive to them than to their other psychological brethren.

III. SOCIAL PSYCHOLOGY OF THE CRIMINAL TRIAL PROCESS

The next two books cover a broad range of topics pertaining to the criminal process, but they primarily discuss social psychological research on jury selection, jury decision-making, and presentations of evidence and law to the jury. *Social Psychology in Court* is co-authored by Michael J. Saks, Associate Professor of Psychology at Boston College, and Reid Hastie, Associate Professor of Psychology at Harvard. *The Criminal Justice System and Its Psychology* is by Alfred Cohn and Roy Udolf. Both hold the position of Associate Professor of Psychology at New College of Hofstra University; the latter is also a member of the New York Bar.

Saks and Hastie's Social Psychology in Court

"This text," the authors say, is "a veritable catalog of social science research conducted in the courtroom or in simulated, mock-courtroom settings" (p. 3). One might substitute "the criminal court-

169. See generally Robbins, *The Admissibility of Social Science Evidence in Person-Oriented Legal Adjudication*, 50 IND. L.J. 493, 495-99 (1975).

room," because civil proceedings are excluded from its scope. Targeted for undergraduates, law students in trial practice courses, and attorneys, it attempts to "illuminate the behavior of the actors in the courtroom setting and even suggest ways to improve the trial process" (p. 1). After opening with an overview of the stages in a criminal prosecution, the book is organized in terms of the principal actors: there are chapters on the judge, jury, lawyer, defendant, and "evidence" (*i.e.*, the eyewitness). The chapters most effectively integrating law and social psychology, and likely to be of greatest interest to a legal readership, are those on jury selection, jury decision making, and eyewitness testimony. This Review will concentrate on the jury materials.

Saks and Hastie discuss two applications of empirical research to jury selection. The first concerns the representativeness of the venire drawn from the eligible population. The authors begin by setting forth the constitutional dimensions of the problem. The sixth amendment guarantees the right to an "impartial jury" that reflects a cross-section of the community, and the fourteenth amendment equal protection clause forbids the purposeful exclusion or underrepresentation of cognizable groups. Saks and Hastie describe how statistical techniques can be used to test whether a discrepancy between an obtained and an expected racial composition of the venire is beyond chance occurrence. If it is, discrimination in venire selection is inferred. They then criticize the Supreme Court decisions in this area because the justices "have not made their mathematics explicit," relying instead on an "intuitive 'feel' for a 'significant' discrepancy" (p. 53).¹⁷⁰

A second application is the use of so-called scientific jury selection to supplement traditional voir dire questioning in impanelling the petit jury. Saks and Hastie provide an excellent description of this new method, which consists of using survey research methods, attitudinal measures, and statistical techniques to construct a psychological and demographic profile of a "favorable" juror that defense attorneys can use in screening veniremen. Although "virtually no one who has used scientific jury selection has lost a case" (p. 62),

170. The authors have misread the cases. The Court has consistently held that a prima facie case of invidious racial discrimination under the equal protection clause is not demonstrated by improbability alone, and that proof of wrongful intent also needs to be established. In *Whitus v. Georgia*, 385 U.S. 545, 552 n.2 (1967), the Court applied probability analysis to show that the large discrepancy between actual and expected black veniremen could not have been due to chance, but nonetheless ruled that such a showing was unnecessary because the selection process itself was not racially neutral. *Accord*, *Castaneda v. Partida*, 430 U.S. 482 (1977); *Alexander v. Louisiana*, 405 U.S. 625, 630 (1972).

they caution that its effectiveness cannot be evaluated absent controlled comparisons. If the prosecution's evidence had been stronger, the defense lawyers less illustrious, and the political or racial element missing in the score of criminal conspiracy cases where this jury selection technique has been used, the trial outcome might have been different. The authors conclude with a thoughtful discussion of the ethical and policy questions that this development poses for the adversary process.

Supreme Court cases in the 1970s upholding state jury sizes of less than twelve¹⁷¹ (but not less than six)¹⁷² members and jury decisions by less than unanimous verdicts¹⁷³ were the catalyst for the revival of psycholegal research and of jury simulation research in particular. The decisions came at a time when psychologists were turning to social policy issues. The subject of the jury folded in well with long tradition of social psychological study of small groups. In determining the permissible size and unanimous verdict rules, the Court rejected centuries of common-law practice and adopted a functional test according to the effect of the changes on the purpose of the jury institution. With respect to size reduction in criminal juries, for example, the Court found that the difference between six- and twelve-member juries was only "negligible" with respect to maintaining a representative cross-section of the community and safeguarding group deliberation, and that the six-member jury therefore preserved the basic role of the jury as a buffer between the government and the individual.¹⁷⁴ Saks and Hastie present this legal background and then review the extensive experimental literature on the behavioral consequences of size reduction and majority verdicts. They conclude that the Court's finding of a "negligible" difference is not supported by the research evidence. Small juries reduce the probability that minorities will be represented and diminish the frequency of hung juries. Majority verdicts could block meaningful participation in the deliberation by minority members, relegating them to a cosmetic role on the jury.

The Court's use of research data in these jury decisions illustrates

171. *See Williams v. Florida*, 399 U.S. 78 (1970).

172. *See Ballew v. Georgia*, 435 U.S. 223 (1978).

173. *See Apodaca v. Oregon*, 406 U.S. 404 (1972).

174. *See Williams v. Florida*, 399 U.S. 78, 102 (1970). The Court's reasoning can be cast in syllogistic form: twelve is constitutional (based on history and precedents); the effects of six are only negligibly different from the effects of twelve (in terms of the purposes of ensuring a representative cross-section and unimpaired group deliberation); therefore, six is constitutional. Psychological research, then, is brought to bear in testing the minor premise of the decision.

the possibilities and limitations of empirical analysis in constitutional adjudication. Kalven has proposed that behavioral science can best contribute to legal problems that do not involve deeply held values and inaccessible facts (*e.g.*, the wrongfulness of segregation) or facts too well-known to merit empirical documentation (*e.g.*, the general fallibility of the senses, or the unreliability of hearsay).¹⁷⁵ What remains is a critical middle area "where the premises are not that unshakeable and where the facts are not that accessible."¹⁷⁶ It is in the determination of facts of "the middle range"¹⁷⁷ that empirical analysis is most useful. The effects of jury size and majority verdicts would seem to be middle range problems. Since there is no inherent value in any given size or verdict criterion so long as the functions of the jury remain unaffected, the Court relied on a means-end analysis; as the authors put it, the "Court tried to answer empirical questions with empirical answers" (p. 79).

It appears, however, that even in the middle range, behavioral data serve only an indirect or limited role in constitutional law-making. The most interesting decision for purposes of analyzing this epistemological issue is *Ballew v. Georgia*,¹⁷⁸ which invalidated juries with less than six members. The only reference to this case by Saks and Hastie is a statement that it is "noteworthy because the Supreme Court took generous note of the social science research" (p. 86). It is even more noteworthy because the Court distorted the research findings, treating the conclusions as it would highly malleable case law. The eighteen studies¹⁷⁹ the Court reviewed concluded that the effects of six- and twelve-member juries were different, yet the Court reaffirmed the constitutionality of six-member juries.¹⁸⁰ At the same time, the Court relied on studies showing differences between six- and twelve-member juries to conclude that there was "[no] clear line"¹⁸¹ between six- and five-member juries. It then decided that five-member juries were unconstitutional.¹⁸² The data were appar-

175. Kalven, *The Quest for the Middle Range: Empirical Inquiry and Legal Policy*, in *LAW IN A CHANGING AMERICA* 56 (G. Hazard ed. 1968).

176. *Id.* at 67.

177. *Id.* at 65.

178. 435 U.S. 223 (1978).

179. 435 U.S. at 231 n.10.

180. As in note 174 *supra*, the reasoning can be restated in syllogistic form: twelve is constitutional (this major premise is based on precedents and history); the effects of six are different from the effects of twelve (as shown by the eighteen studies cited in footnote 10); therefore, six is constitutional (*i.e.*, *Williams* is reaffirmed). Logically, of course, the deduction should have been that six-member juries are unconstitutional.

181. *Ballew v. Georgia*, 435 U.S. 223, 239 (1978).

182. This is, of course, illogical. The Court is reasoning: six is constitutional (this is axio-

ently used to ornament a decision reached on other legal and policy grounds;¹⁸³ hence, a concurring opinion mocked the "heavy reliance on numerology."¹⁸⁴ Still, this is not to say that because normative and political considerations were involved, empirical analysis was irrelevant. Constitutional issues can be decided only by appraising the factual grounds for governmental action. Documentation of the impact of size changes on the jury's purpose laid bare the value questions and helped frame the legal issue more sharply. Answers to or at least attitudes toward the factual questions were as essential to the outcome (albeit in an indirect way) as the doctrinal and policy analysis.

Saks and Hastie are to be highly commended for undertaking to pull together nearly 400 empirical references into an orderly whole. However, if there is one weakness of the book from a lawyer's viewpoint, it lies in the organization. By structuring each chapter around a separate "actor," the book gives a static and fragmented picture of the criminal process. It fails to capture both the intricate web of relationships that bind and define the different actors, and the non-adversarial, assembly line processing of cases that characterizes the lower criminal courts. Saks and Hastie readily acknowledge this defect at the end of the book: "Indeed, it would be more informative to ignore the entities composing the system and to look instead at the relationships among them" (p. 205). A remedial effort is made in the final chapter entitled "The Court as a Social System and as Part of a Social System." However, the belated introduction of system level concepts such as "inter-role conflict," "exchange relationships," and "social equilibrium" remains at a plane of abstraction removed from the behavior of criminal justice actors described in the preceding chapters.

matic, established by *Williams*); the effects of five are not clearly different from the effects of six (supposedly shown by the eighteen studies); therefore, five is unconstitutional. The studies dealt only with the difference between six- and twelve-member juries. By generalizing the results to the difference between five- and six-member juries, the Court took into account the direction but not the magnitude of the change. If the Court cannot discern a "clear line between six members and five," the logical conclusion should have been that five is constitutional.

183. The Court proposed an alternative or additional test for determining the validity of jury size, namely, a balancing of the state's interest in the value of administrative efficiency (savings in court costs and time) against the individual's (and also society's) interest in the value of an impartial jury. 435 U.S. 223, 243-44 (1978). *Ballew* and the other jury cases of the 1970s should be seen against the backdrop of a changing social-political climate — one that saw a nation increasingly worried about street crime, desirous of greater control over its local institutions, skeptical of national solutions to local problems — and "the new federalism" theme of the Burger Court. See generally, Wilkes, *The New Federalism in Criminal Procedure: State Court Evasion of the Burger Court*, 62 Ky. L.J. 421 (1974).

184. 435 U.S. 223, 246 (1978) (Powell, J., concurring).

Because the materials are organized around individual actors rather than selected issues inherent in the various phases of the criminal process, the book is less meaningful to lawyers than it could be.¹⁸⁵ The chapters on jury selection and jury size will undoubtedly seize lawyers' imaginations because the research information is marshalled, from the outset, around recognizable policy issues. The other chapters, in contrast, begin with and are structured around psychological themes. A chapter on "The Lawyer," for example, is divided into issues of persuasion, social perception, attribution theory, and the like. This mode of presentation makes good sense for psychologists, but lawyers are not used to thinking along these lines. They are likely to approach the criminal process in terms of system level problems first, and then to turn to the social sciences for whatever contributions they may have to offer. It is incumbent upon the proponents of applying psychology to law to articulate the connections between the two. To bring in the psychological research before the issues of legal interest are identified is placing the cart before the horse.

Cohn and Udolf's The Criminal Justice System and Its Psychology

Written as a text for undergraduates, the book attempts "to present and integrate both legal and psychological principles involved in the criminal justice system" (p. vii). On the assumption that "[n]o social scientist is likely either to work effectively within this system or to contribute sufficiently to its improvement without a basic understanding [of it]," the authors introduce "roughly equal amounts of psychological and legal concepts" (p. 1). The book appears to have two distinct foci. The first half covers criminal law and criminology, and the second half pertains to criminal procedure and social psychological research in criminal court. The latter half is coextensive in subject matter, if not in coverage, with the Saks and Hastie volume.

The book begins with a three-chapter introduction to law. First, in eleven pages, the history and structure of the American legal system is surveyed, and a potpourri of basic concepts defined (including

185. Another consequence of this organizational format is the existence of some imbalance in the scope of coverage. Legally interesting topics regarding the criminal court process on which there is also substantial empirical research such as plea bargaining, fair trial versus free press, and prerecorded videotaped trials merited only one or two brief paragraphs. On the other hand, a single study on bail setting (that reached the unstartling conclusion that a prosecutor's recommendation is the chief determinant of the bail amount set by the judge) was described in eleven pages (pp. 27-38), or about five percent of the entire book. It is the authors' prerogative, of course, to decide what to include and what to treat as primary material, but they should make explicit the criteria they use for selection. This they did not do.

stare decisis, civil actions, natural law, jurisdiction, and the Bill of Rights, to mention only a few). The chapter is disorganized and bears little relationship to the substance of the book. Next, six purposes of the criminal law are enumerated, but only one of them — punishment — is discussed because it is the “most universally agreed-on purpose” (p. 13). The authors describe it as no “better example of the Freudian defense mechanisms of rationalization,” since psychology teaches that “punishment does not change behavior” (p. 12). Yet they concede it is “simplistic in the extreme to extrapolate from the behavior of [rats] to people” (p. 12). These kinds of sweeping assertions permeate the legal chapters of the book. The criminal process is lambasted as “a colossal failure” (p. 13), one that “causes more crime and recidivism than it prevents” (p. vii), but nowhere do Cohn and Udolf document their statements or qualify them as editorial opinions. At the same time, the authors say that the effectiveness of the criminal process is a “largely unanswerable question” (p. 13). The legal chapters read at times more like a political tract than textbook material, and even then the authors are Janus-faced in their positions. The legal introduction mercifully terminates with an uncontroversial exposition of the principles of the New York Penal Code.

The remainder of the first half of the book deals with criminology: historical and modern theories of criminal behavior, victimology, and career patterns of criminal justice officials. Unlike the legal chapters, which contain no references and are haphazardly written, the social chapters are the book’s redeeming grace — they are well researched, clearly organized, and informative.

The second half of the book again begins with several legal chapters. They include descriptions of the pretrial stages, of the trial from jury selection to the verdict, and of post-conviction procedures. Structured more coherently than the previous chapters on criminal law, they provide an overview of the criminal process. However, there is virtually no mention of the constitutional dimensions of this process except for passing reference to *Miranda*¹⁸⁶ and *Escobedo*,¹⁸⁷ which are the only cases cited. There is no discussion of any of the legal or policy issues that are at the cutting edge of criminal justice. And there is no integration of the legal materials with any of the social science chapters. One can diligently study these chapters without learning how or to what extent the Bill of Rights restrains official

186. *Miranda v. Arizona*, 384 U.S. 436 (1966).

187. *Escobedo v. Illinois*, 378 U.S. 478 (1964).

conduct or what kinds of questions to ask for purposes of research and reform. On the whole, the chapters read like a garden variety, continuing legal education lecture on trial practice given by a local practitioner — some practical information, a few generalities, and a lot of homilies. Advice (for the intended audience of undergraduates?) such as the following abounds: “It is a good idea for opposing counsel to keep a poker face during summations and to avoid taking notes” (p. 198). “[I]t is extremely important that the lawyers do not give the jury the impression of talking down to them” (p. 179). “[R]udeness and abusive tactics on the part of counsel are not only poor trial strategy and a sign of bad manners, they are also unprofessional conduct” (p. 179).

The social psychology research is presented in three chapters. One deals with scientific jury selection. Compared to the treatment in Saks and Hastie’s book, the chapter omits the legal context of the problem and is less analytical in assessing the technology. On the other hand, the chapter contains lively descriptions of its use in several publicized cases. A second chapter on “Psychological Factors in Trials” encompasses eyewitness testimony, confessions, jury size, pretrial publicity, and courtroom persuasion. It is a less comprehensive catalog of studies than the Saks and Hastie book, but each cited study is more richly described. Again, the research is presented in a legal vacuum. There is also little conceptual or methodological criticism of the research. The chapter’s virtue lies in a detailed and clear exposition of the selected studies. Finally, Cohn and Udolf include a chapter on imprisonment, covering legal and empirical studies of the death penalty.

Cohn and Udolf do not attain their objective of integrating the psychology and law of the criminal process. The book conveys the image of two disciplines proceeding on parallel and nonintersecting tracks. Even the book’s title is stated in the conjunctive (“*and*”) rather than the prepositional form (psychology *of* criminal justice). It is not enough, and arguably unnecessary, to give a broad survey of criminal law and criminal procedure prior to addressing empirical inquiries. More important is an analysis of specific legal issues that pertain to the particular research. In an epilogue, the authors attempt once more to identify “areas in which law and psychology have come together in the past” or in which “they will join in the future,” and to make “predictions as to the contributions that psychology” can make to criminal justice (p. 308). They propose that “the role of psychologists in improving our adversary legal system is . . . [almost] nonexistent” (p. 310). They criticize their colleagues

who recommend "replacing juries and the adversary system with an inquisitorial system" as being "learned in their science but abysmally ignorant of legal theory" (p. 310). This is a specious argument because no such recommendation has ever been published, even in the days of yellow psychology. It is curious that after devoting one-third of their book to psychological research on the adversary process, the authors should suddenly conclude, without more, that all of the foregoing studies are legally irrelevant. They suggest, instead, that the role of psychologists is "more one of working within the [criminal justice] system than one of changing it" (p. 311). By this they mean the preparation of probation reports, supervising probation officers, prescribing prison therapy programs, and serving as expert witnesses. Again, one wonders why they wrote a book on *research* when they argue that the usefulness of psychology to law lies in its *clinical* applications. Fortunately, not all psychologists share their vision of the psycholegal enterprise.

The Legal Impact of Social Psychological Research on the Criminal Trial Process

Except for research on jury selection, jury size, and majority verdicts, current investigations on the criminal trial process have not left a distinctive mark on the law. The potential for making a significant contribution is there, however, if two principal shortcomings are remedied.

One limitation is the inability to generalize simulation experiments to the legal world. Most of the courtroom studies described in the two books just reviewed have high internal but low external validity.¹⁸⁸ Compared to the early reality experiments,¹⁸⁹ for example, current social psychological studies are much more rigorous in ensuring that the results are due to the manipulated (rather than uncontrolled or unknown) variables,¹⁹⁰ but are no better in terms of the

188. Internal validity, the *sine qua non* of experimentation, refers to whether the experimental treatment actually affected the outcome. There is high internal validity when any changes in outcome can be attributed with considerable confidence to the experimental manipulation rather than to some other (uncontrolled) factor. External validity refers to the extent of the generalizability of the results to different populations and settings. As with any question of inductive inference, it is never completely answerable. See D. CAMPBELL & J. STANLEY, *EXPERIMENTAL AND QUASI-EXPERIMENTAL DESIGNS FOR RESEARCH* 5 (1963).

189. See text at note 13 *supra*.

190. In the jury experiments, for example, the differences in verdicts can be attributed quite confidently to the experimental manipulations of jury size, but in the reality experiments, the fallibility in the identification may be due to a variety of factors other than or in addition to the unreliability of the senses. See text at note 153 *supra*. This is not to say, of course, that the jury studies have no internal validity problems at all. For a discussion of possible uncontrolled variables that might produce confounding effects, see Bray & Kerr, *Use of the Simulation*

generality of these results.¹⁹¹ This is because simulated procedures often are not the functional equivalent¹⁹² of actual processes. Some of the most common sources that detract from the verisimilitude of laboratory studies include the following: selection of college students rather than real jurors in mock juries;¹⁹³ recording of individual juror decisions rather than the group verdict;¹⁹⁴ presentation of a short, written transcript or audiotape of a trial rather than a more realistic audiovisual film;¹⁹⁵ introduction of experimental variables in ways that are disproportionate to their actual role in litigation, thereby artificially magnifying their impact;¹⁹⁶ omissions¹⁹⁷ and errors¹⁹⁸ in simulated instructions to the mock jury; and "simulation" of court procedures that have no correspondence to the reality that purportedly is being simulated.¹⁹⁹ A clear lesson from the long his-

Method in the Study of Jury Behavior: Some Methodological Considerations, 3 LAW & HUMAN BEHAVIOR 107 (1979); Zeisel & Diamond, "Convincing Empirical Evidence" on the Six Member Jury, 41 U. CHI. L. REV. 281 (1974).

191. "[R]esults of most laboratory-based studies [of juries] are of unknown and generally unknowable generality." Bermant, McGuire, McKinley & Salo, *The Logic of Simulation in Jury Research*, 1 CRIM. JUST. & BEHAVIOR 224, 225 (1974).

192. In simulation research, a distinction is made between functional and structural equivalence. The former refers to the modeling of processes and functions and the latter to an exact laboratory replication of the real world phenomenon. Simulation studies in social psychology strive for functional verisimilitude.

193. Real juries have been found to be less likely to convict than mock juries of the same size, presumably because the former have a more demanding standard of proof beyond a reasonable doubt. Zeisel & Diamond, *supra* note 190, at 281 n.47.

194. This is usually justified on grounds of financial and temporal economy. These are true economies only if individual decisions are predictive of the group verdict, an assumption that receives some support in H. KALVEN & H. ZEISEL, *supra* note 163, at 488.

195. The greater the verisimilitude, the lower the guilty rate in jury simulations. Specifically, the percentage of not guilty verdicts rendered by mock jurors when the evidence is presented in the form of a brief summary, a transcript, an audiotape, or an audiovisual film was found to be, respectively, 30%, 43%, 67%, and 78%. Bermant, McGuire, McKinley & Salo, *supra* note 191, at 230-31.

196. For example, in one study one fourth of all of the information presented to the mock jury consisted of presentation of expert psychological testimony. It would be unusual in an actual trial to find such testimony representing that large a share of the proceedings. See Loftus, *supra* note 166.

197. Oddly, simulations of criminal jury decision-making often do not include instructions to the jurors of the burden or standard of proof. This may partly account for the higher guilty verdicts found with mock rather than real jurors. See, e.g., *id.*; Hans & Doob, *Section 12 of the Canada Evidence Act and the Deliberations of Simulated Juries*, 18 CRIM. L.Q. 235 (1975-1976); Wolf & Montgomery, *Effects of Inadmissible Evidence and Level of Judicial Admonishment to Disregard on the Judgments of Mock Jurors*, 7 J. APPLIED SOC. PSYCH. 205 (1977).

198. It is not uncommon in criminal jury studies to find that the jurors are instructed to return a verdict of "innocent or guilty." In psychological texts, too, the jury's decision is formulated in terms of an innocence standard rather than a "guilty or not guilty" verdict. See, e.g., Wolf & Montgomery, *supra* note 197, at 211-12; YARMEY, p. 24. Some studies ask mock jurors to give verdicts expressed in degrees of guilt. E.g., Sue, Smith & Caldwell, *Effects of Inadmissible Evidence on the Decisions of Simulated Jurors: A Moral Dilemma*, 3 J. APPLIED SOC. PSYCH. 345 (1973).

199. See, e.g., Walker, Thibaut & Andreoli, *Order of Presentation at Trial*, 82 YALE L.J.

tory of eyewitness research is that the legal community is reluctant to embrace laboratory findings of suspect generalizability. Moreover, even when that methodological feature is unimpeachable,²⁰⁰ another condition must be met to assure the legal applicability of the research — it has to be directed toward questions of significance to law.

A second limitation, then, is that many of the simulated trial studies, with the notable exception of the jury studies already mentioned, do not draw legally relevant conclusions because, in part, they do not take the legal implications of the problem into account. An example is found in the area of presentations of evidence and of law to the jury; specifically, in studies on the effect of judicial instructions on limited admissibility. This is at present a major subject of research and debate in the psychology of evidence law. Saks and Hastie as well as Cohn and Udolf review this literature. The “other crimes” evidence rule renders inadmissible a defendant’s prior record as part of the prosecution’s case-in-chief for the purpose of showing probable guilt regarding the crime charged.²⁰¹ However, it is admissible for the limited purpose of impeaching the defendant’s credibility if he chooses to take the stand.²⁰² The law attempts to protect the defendant from any adverse inferences by instructing the jury to consider the criminal record only for the authorized purpose.²⁰³ The premise that a juror is capable and willing to compartmentalize the evidence as directed has been criticized by some legal

216 (1972). In this widely cited study on order of presentation of evidence (*see* Saks & Hastie, pp. 105-07; Cohn & Udolf, pp. 222-24), the investigators counterbalanced the sequence in which the prosecution or the defense presented its evidence which consisted of statements of fact). This procedure does not simulate the opening statements phase of trial, since evidence is not ordinarily introduced at that time. It does not simulate the presentation of the cases-in-chief of either the prosecution or defense, because in an actual trial any advantage that the prosecution may enjoy by proceeding first is offset by the defense’s option to cross-examine immediately after any direct testimony. If order has any effect at all, it is probably at the summation phase of trial. But their procedure does not simulate it because the presentations are of facts, not of arguments. Further diminishing this study’s verisimilitude was the absence of instructions on burden and standard of proof and the fact that the prosecution did not have the last word before the jury. The prosecution’s presumed advantage of opening and closing the trial is justified in legal theory by the allocation of the high burden of proof to the state. Unless these two features are present in the simulated procedure, it cannot be said, as the authors assert, that their study “[incorporates] the essential characteristics of legal fact-finding.” *Id.* at 217.

200. The foregoing criticisms of jury simulation are not meant to suggest that there are no sound studies. For a series of experiments of admirable verisimilitude and methodological cleanliness, *see* Miller, Bender, Boster, Florence, Fontes, Hocking & Nicholson, *The Effects of Videotape Testimony in Jury Trials: Studies on Jurors Decision Making, Information Retention, and Emotional Arousal*. 1975 B.Y.U. L. REV. 331.

201. FED. R. EVID. 404(b).

202. FED. R. EVID. 404(a)(3).

203. FED. R. EVID. 105.

commentators²⁰⁴ and judges,²⁰⁵ and subjected to empirical testing by psychologists.

In the typical experimental design, mock jurors listen to a taped criminal trial. Half of them are informed about the defendant's past record and half of them are not. A judge delivers limiting instructions to the first group. Several studies have found the instructions "futile"²⁰⁶ because more convictions are rendered when record evidence is introduced. On this basis, researchers have proposed a blanket exclusion on the admissibility of prior criminality. Saks and Hastie conclude that "[t]he disturbing implication [of these studies is] that jurors will typically ignore or misunderstand instructions from the bench" (p. 39), and that in the area of evidence, "once again legal practice and scientific psychology are in conflict" (p. 163). Commenting on these studies, Cohn and Udolf say the findings are proof of "uncontrolled variables affecting the impact of a trial's structure on the jury" (p. 254). However, there are other studies, not discussed in either book, that show the opposite result: mock jurors who are given the limiting instruction render fewer convictions than those not so instructed.²⁰⁷ Thus, other reviewers, noting these "conflicting results,"²⁰⁸ state that the effectiveness of the instructions is "uncertain."²⁰⁹

An analysis of the policy of the rule suggests that the positions are not inconsistent. Here, as in other evidence rules, a balancing of competing values is inherent in the fact-finding process: full disclosure to aid truth determination is balanced against fairness in the manner in which guilt is adjudicated. On the one hand, as an actuarial matter there is a strong association between past conduct and future propensity; wholesale exclusion of the record "would probably have as its principal consequence a lessening of the reliability of

204. "A judge giving instructions is like a general giving orders without ever knowing whether they are carried out." Cleary, *Evidence as a Problem in Communicating*, 5 VAND. L. REV. 277, 294 (1952).

205. "The naive assumption that prejudicial effect can be overcome by instructions to the jury . . . all practicing lawyers know to be unmitigated fiction," *Krulewitch v. United States*, 336 U.S. 440, 453 (1949) (Jackson, J. concurring); limiting the evidence as instructed is "a mental gymnastic which is beyond not only their [the jury's] power, but everybody's [sic] else." *Nash v. United States*, 54 F.2d 1006, 1007 (2d Cir. 1932) (Learned Hand, J.); Frank, *supra* note 68, at 184 (equating instructions with medieval exorcism).

206. Hans & Doob, *supra* note 197, at 252. See also Doob & Kirshenbaum, *Some Empirical Evidence on the Effect of s. 12 of the Canada Evidence Act Upon an Accused*, 15 CRIM. L.Q. 88 (1972); Wolf & Montgomery, *supra* note 197.

207. Cornish & Sealy, *Juries and Rules of Evidence*, 1973 CRIM. L. REV. 208.

208. Davis, Bray & Holt, *supra* note 126, at 337.

209. *Id.*

jury verdicts."²¹⁰ On the other hand, it is contrary to the ideals of presumption of innocence and reformation of offenders to saddle an accused with the burden of his past misdeeds; unfettered admission could prejudice a jury and cause it to use a lower standard of proof with repeat offenders. What the law does, then, is to strike a compromise between the two extremes. If the limiting instruction is seen as a means of harmonizing competing values, one would expect convictions to be highest under unlimited admission, lowest under total exclusion, and in-between under limited admission. This, of course, is precisely what the seemingly conflicting results show.²¹¹ The instructions are effective in achieving the desired procedural equilibrium.

Thus, unless researchers are informed about the legal dimensions of their psycholegal studies, they run the risk of drawing incorrect conclusions from the findings. In this instance, they have approached the problem solely on utilitarian grounds and neglected to consider that other social values, extrinsic to accurate fact-finding, are implicated in a trial. Moreover, they also run the risk of not recognizing and pursuing other legally interesting questions. The courts have analogized limiting instructions to a judicial "placebo."²¹² By definition, the pretended cure sometimes works, and sometimes fails. The research question, then, is not only whether these instructions are effective, but also under what circumstances they are likely to be more or less effective. The judicial literature is a mine of research ideas about possible determinants of effective-

210. 1 WEINSTEIN'S EVIDENCE 105-36 (1980). In civil-law countries, prior record is admissible to show bad character or propensity to crime. 1 WIGMORE ON EVIDENCE § 193 (3d ed. 1940).

211. In the Hans & Doob study, *supra* note 197, the percentage of guilty verdicts returned by "experimental" jurors instructed to limit the prior record (of robbery convictions) only for the purpose of evaluating credibility and not for determining the likelihood of the defendant's commission of the charged crime (of robbery) was 40%. The percentage of guilty verdicts returned by "control" jurors, who were not exposed to the prior record, was zero. Consequently, Hans & Doob concluded the instructions were "futile." *Id.* at 253. In the Cornish & Sealy study, *supra* note 207, there were four groups of mock jurors in a theft prosecution: (1) jurors exposed to the prior record of convictions (for offenses similar to the indicted crime) but given no limiting instructions; (2) jurors exposed to a dissimilar prior record but given no limiting instruction; (3) jurors exposed to a similar prior record and given the limiting instruction; (4) a control group of jurors not exposed to any prior record information and not given any limiting instructions. The percentage of guilty verdicts for each of the groups was, respectively, 57%, 33%, 35%, and 27%. The third group is equivalent to the experimental group in the Hans & Doob study, and the fourth group, of course, was equivalent to their control group. Thus, contrary to conclusions that these studies show "conflicting results," the pattern of findings is consistent with legal theory: limiting instructions are more effective (in terms of reducing guilty verdicts) than no instructions at all, but are less effective than the total exclusion of the prejudicial evidence.

212. *United States v. Grunewald*, 233 F.2d 556, 574 (2d Cir. 1956) (Frank, J., dissenting).

ness²¹³ — such as the length of the prior record, the amount of other incriminating evidence, the timing of the instructions, and the manner in which they are delivered — that has yet to be exploited by psychologists.²¹⁴

IV. CONCLUSION

Some themes culled from the history of law and psychology can help place in perspective the current problems and future prospects of psycholegal research. The history is characterized by a succession of dialectical interchanges. At first, with simplistic optimism, psychologists (at times joined by lawyers) propose that their methods and knowledge can be applied to the redemption of law. The over-selling of psychology prompts the legal community to snap back and put psychologists in their place. This dampens further interest in interdisciplinary collaboration and for a decade or so the law is left to

213. See, e.g., *Delli Paoli v. United States*, 352 U.S. 232 (1957) (listing specific circumstances to be evaluated in any given case in determining whether limiting instructions provide sufficient protection).

214. The law appears to maintain a paradoxical attitude toward jury instructions. On the one hand, it recognizes their futility; see note 205 *supra*. On the other, it continues to require that they be delivered because they might be efficacious. In *Spencer v. Texas*, 385 U.S. 554, 565 (1967), the Court said:

It would be extravagant in the extreme to take *Jackson [v. Denno]*, 378 U.S. 368 (1964) holding that a procedure in which the jury was instructed to disregard a confession if it first found it to be involuntary was violative of due process] as evincing a general distrust on the part of this Court of the ability of juries . . . to sort out discrete issues given to them under proper instructions by the judge in a criminal case, or as standing for the proposition that limiting instructions can never purge the erroneous introduction of evidence or limit evidence to its rightful purpose.

Thus, there are two distinct yet related questions in the evaluation of these instructions. One is the factual question that is responsive to empirical research: are the instructions effective? But the courts are raising another, norm-oriented question: should the evidence have been excluded? If yes, they would say the instructions were ineffective and reverse the conviction; if they decide no harm ensued from its admission, they would conclude that there is no basis for claiming the instructions were not effective. Efficacy of instructions, then, is a judicial conclusion made on normative grounds to justify the admission or exclusion of evidence.

One could imagine a continuum of harm caused by the admission of the evidence. At one end, when the evidence was obtained by means that infringe upon constitutionally protected rights, there is an almost irrebuttable presumption of harm and courts are likely to say that the instructions are *per se* ineffective. E.g., *Jackson v. Denno*, 378 U.S. 368 (1964); *Bruton v. United States*, 391 U.S. 123 (1968). At the other end, when the admitted evidence implicates no constitutional values and it does not appear that a defendant has otherwise been harmed by it (e.g., because there is overwhelming other evidence to support the conviction apart from the prejudicial evidence; see Note, *Other Crimes Evidence at Trial: Of Balancing and Other Matters*, 70 *YALE L.J.* 763, 784-85 (1961)), courts are likely to conclude that the instructions are effective and let the jury verdict stand. In between, there is a large, nebulous middle zone, where the challenged evidence causes no clear constitutional harm, but a general issue of fairness is raised. It is here that the possibilities for empirical research are the greatest. The factual issue of efficacy comes to the fore when the answer is not foreclosed or determined a priori by normative considerations. If the critical evidence is not inherently inadmissible or irreparably prejudicial, courts are unlikely to disturb the jury's decision. The task for empirical analysis is to determine the conditions of efficacy in this middle range.

muddle along its own way. The lessons are later forgotten and a new cycle of approach-rebuff-withdrawal is repeated. The debates during the different periods of this history — between Münsterberg and Wigmore, Robinson and Mechem, Clark and Cahn — illustrate this contrapuntal pattern. In the best of times, an uneasy partnership has prevailed;²¹⁵ in the worst of times, there has been outright hostility; in between and most of the time, each side carried on “as though the other did not exist.”²¹⁶ During the present boom period of psycholegal research, there has not been any instance of outright rejection by the legal profession. Indeed, some legal scholars have viewed favorably,²¹⁷ though with a critical methodological eye,²¹⁸ this research revival. So long as psychologists do not overshoot their mark and are sophisticated about the role and limitations of empirical inquiry in the legal process, they are unlikely to visit upon themselves the kind of legal reproach experienced in the past. The field has now come of age in several key respects.

First, there is increasing consciousness that psycholegal studies require, as psychologists of the realist period indicated, more “sensitivity to the lawyer’s point of view.”²¹⁹ “[T]he first step in the development of legal psychology should be a[n] . . . analysis of legal situations.”²²⁰ Without a conception of the legal parameters of a problem, there is no assurance that the particular aspect being studied has any special importance, or even relevance, to the policy concerns of lawyers. In an applied endeavor, it is more important to produce answers that are meaningful to law than to ask questions that are of interest to psychological theory. Psychologists today are not insensitive to this. If there is one feature that distinguishes the four books reviewed here from past publications by psychologists, it is that now there are deliberate efforts to integrate the research into a legal framework. Arguably these efforts have not always been entirely successful, but from a long-range viewpoint, that they are being undertaken is in itself promising.

Second, a critical mass of specialists in psycholegal studies is now

215. See generally Katz & Burchard, *supra* note 1.

216. Fahr, *Why Lawyers are Dissatisfied With the Social Sciences*, 1 WASHBURN L.J. 161 (1961).

217. Friedman, *supra* note 124, at 1070, noting that the “boom” in psycholegal research is “long overdue” and that “[t]here is bound to be more action in the future.”

218. See, e.g., Damaška, *Presentation of Evidence and Factfinding Precision*, 123 U. PA. L. REV. 1083 (1975) for a critique of the procedural justice experiments of J. THIBAUT & L. WALKER, *supra* note 125.

219. Powers, *supra* note 65.

220. Slesinger, *supra* note 63, at 680.

forming, a resource that did not exist before and is necessary to the development of any discipline. In the past, even as recently as the early 1970s,²²¹ the principal professional interest of most of the persons writing on psychology and law was elsewhere. Authors tended to be recognized authorities in traditional areas of legal or psychological scholarship who forayed into this interdisciplinary area as a collateral or one time undertaking. None of the scholars cited in the historical overview can be said to have achieved this professional distinction in psycholegal research. The four books of this Review are representative of current trends not only in terms of their content but also of their authorship. They are all by younger scholars who are now establishing their reputations — and establishing them principally in law and psychology. They should be joined increasingly by others who have dual credentials (graduates of the various recently formed programs) or are otherwise sufficiently informed in the methods of both disciplines, and who are also likely to identify themselves with this professional specialty. With more full-time workers expected in the vineyard, a more bounteous harvest may be reaped in the future.

Finally, the nature of psycholegal research is undergoing change. In the past, the research consisted mainly of combining available psychological information with a legal problem. In the early writings on witness testimony or on the behavioral premises of evidence rules, for example, psychologists and lawyers would search through the inventory of psychology to see what could be pulled out and generalized in the legal context. The limitation on this approach was that psychology did not then, and does not now, possess a corpus of reliable information that can be directly transferred to particular legal issues. The research literature is written and organized not to address applications but to test theories. Moreover, even though some basic research might have implications for a legal problem, the applicability might not be immediately obvious.²²² The present trend is not merely to extrapolate from existing knowledge, but to

221. Saks, *supra* note 2, at 897-98, noted that most of the contributors to a 1971 symposium issue on psycholegal research were established or emeriti scholars, who represented "the accomplishments that have been, and less those that are."

222. A good example is given by Kalven, *supra* note 175, at 62. In research that led to *The American Jury* (see H. KALVEN & H. ZEISEL, *supra* note 163), Kalven and Zeisel were familiar with classic experiments on social conformity but did not initially sense their applicability to the problem of hung juries. These experiments had found that a subject was more likely to resist majority influence if he had at least one other ally who disagreed with the majority. It was not until they had done research directly on the legal problem, finding that juries initially split 11 to 1 would not hang but those split 10-2 would, that they realized there was congruence between their jury data and the previously reported studies on conformity.

engage afresh in research specifically tailored to given issues, as exemplified by the jury size studies. The coming of age signals a change in the approach to psycholegal research — from one of collating “psychology *and* law” to an emphasis on *de novo* research on the “psychology *of* law.”