



Psychology and Law: A Cautious Alliance

1

A defendant stands accused of a terrible crime. Lawyers make opening statements, witnesses are called, motives are questioned, secrets are revealed. In their closing arguments, lawyers make impassioned pleas to the men and women of the jury. Jurors struggle to find the truth. In a hushed courtroom, thick with tension, the jury foreperson announces the verdict: “We find the defendant . . .”

The courtroom trial is a staple of great and trashy literature, of distinguished films and lousy television. This is so because the trial is a compelling psychological drama. There is the question of motivation—was it love, hate, fear, greed, or jealousy that caused the behavior of a criminal? There is persuasion—lawyers and witnesses attempt to influence a judge or jury and, during deliberations, jurors attempt to influence each other. Perceptual and cognitive processes come into play—eyewitnesses must remember and report what they saw, jurors must sift through evidence to reach conclusions. Finally, there is decision-making: The goal is to reach a decision, a verdict. And, if the verdict is guilty, there is a choice about what punishment the defendant deserves.

The trial is the most visible piece of our justice system. But it is only a small piece. When we look beyond the trial, we find that the legal system is saturated with psychological concerns. Every area of psychology (e.g., developmental, social, clinical, cognitive) is relevant to some aspect of law. Here are a few examples:

Developmental psychology—Following a divorce, which kind of custody arrangement will promote healthy development of the child? Can a child who commits a murder fully appreciate the nature and consequences of his or her crime?

Social psychology—How do police interrogators make use of principles of coercion and persuasion to induce suspects to confess to a crime? Do the group dynamics of juries influence their verdict decisions?

Clinical psychology—How can we decide whether or not a mentally ill person is competent to stand trial? Is it possible to predict whether a mentally ill person will become violent in the future?

Cognitive psychology—How accurate is the testimony of eyewitnesses? Under what conditions are eyewitnesses able to remember what they saw? Do jurors understand jury instructions in the way that lawyers and judges intend the instructions to be understood?

A Brief History of
Psychology and Law

A Clash of Cultures

Roles Played by
Psychologists
Interested in Law

Five Pathways for
Influencing
the Legal System

Has Psychology
Influenced the Courts?

In Conclusion

In the abstract, psychology and law seem like perfect partners. Both focus on human behavior, both strive to reveal the truth, and both attempt to solve human problems and improve the human condition. However, in practice, the relationship between psychology and law has not always been smooth or satisfying.

A Brief History of Psychology and Law

Scholarly disciplines seldom have clear starting points. It is only in retrospect that we can look back and identify the small streams that eventually converge to form a strong intellectual current. What is clear is that a full appreciation of the possible applications of psychology to the legal system began to emerge in the early years of the twentieth century. In 1906, Sigmund Freud gave a speech in which he cautioned Austrian judges that their decisions were influenced by unconscious processes (Freud, 1906). He also noted that insights from his theory could be used to understand criminal behavior and to improve the legal system. However, it was two events in 1908 that triggered a broad recognition among psychologists that their ideas might be used to transform the legal system. The first event was the publication of a book entitled *On the Witness Stand*. The author was an experimental psychologist named Hugo Munsterberg. He had been a student of Wilhelm Wundt (the person generally regarded as the founder of modern psychology) and he left Germany to direct the Psychological Laboratory at Harvard.

Munsterberg wrote *On the Witness Stand* with the purpose of “turning the attention of serious men to an absurdly neglected field which demands the full attention of the social community” (Munsterberg, 1908, p. 12). His book succeeded in getting the attention of the legal community, although it was not the kind of attention he had hoped for. In 1909, a leading legal scholar published a savagely satirical critique of what he considered to be Munsterberg’s exaggerated claims for psychology. In the article, Munsterberg was put on trial for libel, cross-examined, and found guilty (Wigmore, 1909). Not only did *On the Witness Stand* receive an icy reception from legal scholars, it failed to mobilize research psychologists. Despite his achievements, Munsterberg is only begrudgingly acknowledged as the founding father of psychology and law.

There was a second important event in 1908: In the case of *Muller v. Oregon*, the Supreme Court ruled that the workday of any woman employed in a laundry or factory could be limited to 10 hours. Lawyer Louis Brandeis (who later became a Supreme Court justice) filed his famous **Brandeis Brief** in that case. His basic argument was as follows:

When the health of women has been injured by long hours, not only is the working efficiency of the community impaired, but the deterioration is handed down to succeeding generations. Infant

mortality rises, while the children of married working-women, who survive, are injured by inevitable neglect. The overwork of future mothers thus directly attacks the welfare of the nation (Muller v. Oregon, 1908).

The *Muller* decision was a major victory for the progressive movement, which sought to reduce work hours, improve wages, and restrict child labor. Most important for psychology, Brandeis’s brief opened the door for the use of social scientific evidence by U.S. courts. Ironically, the “social science” cited by Brandeis would not be considered valid science by modern standards—it was little more than unsystematic observations and the casual use of medical and labor statistics. But the important point is that, later, far more rigorous research would enter through the door pushed open by Brandeis.

During the two decades following the Brandeis Brief, the legal system showed little interest in social science. Then, in the late 1920s and into the 1930s, the **legal realism** movement reenergized the dormant field of social science and law. Legal realists reacted against the established order represented by “natural law.” According to proponents of natural law, judicial decisions were thought to reflect principles found in nature. The task of judges was to deduce—through careful logic—the single correct decision in a particular case. In contrast, the realists believed that judges actively constructed the law through their interpretations of evidence and precedent. Further, these constructions of the law served particular social policy goals. In one of the first critiques of classical jurisprudence, Oliver Wendell Holmes wrote that the law,

. . . cannot be dealt with as if it contained only the axioms and corollaries of a book of mathematics The very considerations which judges most rarely mention, and always with an apology, are the secret root from which the law draws all the juices of life. I mean, of course, considerations of what is expedient for the community concerned. Every important principle which is developed by litigation is in fact and at bottom the result of more or less definitely understood views of public policy. (Holmes, 1881, p. 2–3)

These were revolutionary ideas at the time. Holmes and other legal scholars argued that law was not merely rules and precedents—it was the means through which policy ends were achieved. The legal realists argued that the social context and social effects of laws were as important as the mechanical application of logic. Realist scholars sought to look beneath “legal fictions” and formalisms to examine the actual behavior of lawyers and judges.

In 1927, the dean of Yale Law School appointed a psychologist to the faculty in an effort to, “. . . make clear the part of the law in the prediction and control of behavior” (Schlegel, 1979, p. 493). Optimism about the potential for a fruitful partnership between psychology and law was widespread in the writings of the time. In 1930, the American Bar Association (ABA) journal proclaimed that, “The time has arrived when the grim hard facts of modern psychological inquiry must be recognized by our lawmakers despite the havoc they may create in the established institutions” (Cantor, 1930, p. 386).

Hugo Munsterberg and Karl Llewellyn.



Courtesy of the Harvard University Department of Psychology



Harvard Law School Library-Harvard Archive

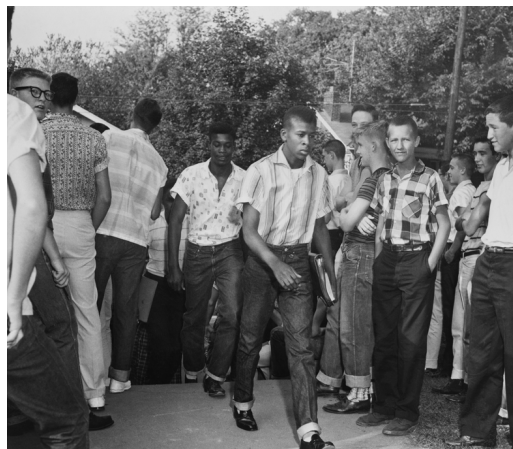
The realist movement was an early example of the influence of psychology on the law. The two towering psychologist–philosophers of the time—William James and John Dewey—had already championed the ideas of pragmatism, induction, and scientific approaches to the study of social issues (James, 1907; Dewey, 1929). Legal realists embraced the idea that the law needed to promote the common good pragmatically and make use of social scientific research. By 1931, Karl Llewellyn, a leader of the realist movement enumerated several core principles: (1) because society is always in flux faster than the law, laws must be continually reexamined to make sure they serve society well; (2) law is “a means to social ends and not an end in itself,” and (3) law must be evaluated in terms of its effects (Llewellyn, 1931, p. 72). Realism’s reconceptualization of the law was an enormous success. Llewellyn’s fundamental principles now enjoy almost universal acceptance among the legal community.

Although the realists set in motion a revolution in how people thought about the functions of law, the movement was much less successful in promoting the use of research findings. Curiously, few of the legal realists had collaborated with psychologists or other social scientists. The enthusiasm of the legal realists was based on rather naive assumptions about the nature of psychological science. Following the 1930s, disillusionment about the utility of social science set in. Finding the answers to psychological questions proved to be more complicated and arduous than the realists had supposed. Even worse, the answers provided by social scientists tended to be complex, and predictions about behavior tended to be probabilistic (that is, expressed in terms of the increased likelihood of an event occurring rather than as a certainty). Disenchantment and disengagement seemed to settle in for more than a decade.

In May of 1954, in the case of *Brown v. Board of Education*, the U.S. Supreme Court voted unanimously that keeping black and white children segregated in separate schools was a violation of the Fourteenth Amendment’s guarantee of “equal protection under the law.” That historic decision—widely regarded as one of the most important Supreme Court rulings of the twentieth century—was a milestone in the slowly maturing relationship between social science and the law. The ruling was not only monumental in its impact on American society; it was the first to make explicit use of research provided by social scientists. The legal briefs submitted to the Court included a document entitled, *The Effect of Segregation and the Consequences of Desegregation: A Social Science Statement*. It was signed by 32 prominent social scientists. Many of the sources provided in that statement were cited in footnote 11 of the Court’s decision, and a few key passages from *Brown* echo the arguments made in the statement. Chief Justice Earl Warren wrote:

...the policy of separating the races is usually interpreted as denoting the inferiority of the Negro group. A sense of inferiority affects the motivation of a child to learn. Segregation with the sanction of law, therefore, has a tendency to

Black children being escorted into school after *Brown v. Board of Education* decision.



Everett Collection

retard the educational and mental development of Negro children and to deprive them of some of the benefits they would receive in a racially integrated school system. (*Brown v. Board of Education*, 1954)

The Court further concluded that separating black children merely because of their race, “. . . generates a feeling of inferiority as to their status in the community that may affect their hearts and minds in a way unlikely to ever be undone” (*Brown v. Board of Education*, 1954, p. 488). Although the true impact of social science in the *Brown* decision has been questioned, there is little doubt that it raised the hopes of social scientists (Hafemeister & Melton, 1987). *Brown* held out the promise that the highest court in the land would be receptive to social scientific research.

The social and intellectual climate of the late 1960s nurtured the fledgling field of psychology and law. In 1966, Harry Kalven (a lawyer) and Hans Zeisel (a sociologist) published an influential book entitled *The American Jury*. This seminal work (discussed more fully in Chapter 13) summarized a multiyear study of how juries and judges reach their decisions. Karl Menninger’s book, *The Crime of Punishment*, also published in 1966, advocated much greater use of therapeutic methods to rehabilitate criminals. These books gave psychology and law a much needed boost. There was great enthusiasm about psychology’s potential for improving the legal system.

Within the broader psychological community, there was a growing eagerness to find ways of applying theory and research to areas such as law. In his 1969 presidential address to the American Psychological Association (APA), George Miller (a distinguished cognitive psychologist who had spent virtually all of his career conducting basic research in the laboratory) called for “giving psychology away”—that is, for using psychological knowledge to solve pressing social problems (Miller, 1969). In the same year, Donald Campbell called for much more extensive use of the research methods he and other scientists had pioneered. The opening sentence of his 1969 article neatly sums up his approach and conveys the optimism of the time:

The United States and other modern nations should be ready for an experimental approach to social reform, an approach in which we try out new programs designed to cure specific social problems, in which we learn whether or not these programs are effective, and in which we retain, imitate, modify, or discard them on the basis of apparent effectiveness on the multiple imperfect criteria available. (Campbell, 1969, p. 409)

Psychologists interested in the legal system were also feeling optimistic about psychology’s possibilities. In 1969, they established the *American Psychology-Law Society (APLS)* proclaiming that, “. . . there are few interdisciplinary areas with so much potential for improving the human condition” (Grisso, 1991).

The intermittent flirtations between psychology and law did not mature into a steady relationship until the late 1970s. The first issue of the APLS’s major journal—*Law and Human Behavior*—appeared in 1977. Since then, several other journals that feature psycholegal research and theory have appeared (e.g., *Behavioral Sciences and the Law*; *Criminal Justice and Behavior*; *Law and Society*

Hot Topic The Reemergence of Social Science Research in Law Schools

The perceived importance of social science research in law school education, legal analysis, and legal scholarship has waxed and waned over time. This is not surprising given the widely held stereotype that people going to law school are not particularly science-minded and that lawyers are generally, “smart people who do not like math” (Saks, 1989). The legal realist movement of the early twentieth century first introduced the applicability of scientific data collection to legal questions and, in the 1960s and 1970s, social science again assumed a prominent role in legal discussions. Through much of the twentieth century, however, social science played a minor role in mainstream legal analysis and scholarship. Yet, in the early years of the twenty-first century, a new social science-based **empirical legal studies** (ELS) movement has again emerged in law schools. ELS makes use of data collection and analysis to understand and improve the legal system. Several top-tier law schools (e.g., the University of Chicago; Northwestern University; Harvard University; University of Wisconsin; Cornell University; University of California, Los Angeles; and University of Illinois) now boast programs in ELS, and more than 20 law schools now offer courses in social scientific research methods.

Law schools are hiring more professors who hold both a Ph.D. and a J.D. to bolster empirical research within the law school. Additionally, some journals have emerged that specialize in social science-based legal articles. For example, in 2004, the *Journal of Empirical Legal Studies (JELS)* was launched at Cornell Law School. Unlike law review articles, which are edited by law students, articles in *JELS* are peer-reviewed by other researchers and edited by law professors with training in psychology, economics, or other social science disciplines. Further cementing the importance of the empirical legal studies movement, William Hines, the president of the Association of American Law Schools (AALS) chose as the theme of the 2006 AALS conference “Empirical Scholarship: What Should We Study and How Should We Study It?” Rankings of empirical legal studies programs at law schools are available (George, 2007) and there is now a blog devoted to empirical legal studies news (www.elsblog.org). It remains to be seen whether social science research and scholarship will have staying power within legal education but, for now, social science is again resurgent.

Review; and Psychology, Public Policy, and Law). Scientific organizations other than APLS (e.g., the *Law and Society Association*, the *American Board of Forensic Psychology*) have law and social science as their main concern. There are even a handful of “double doctorate” programs that award a Ph.D. in psychology and J.D. in law, and between 50% and 60% of university psychology departments now offer an undergraduate course in psychology and law (Bersoff et al., 1997; Greene & Drew, 2008). The relationship between the two disciplines has expanded and deepened over the past 40 years. This is clearly a boom time for the field. The future is uncertain, but there is reason for optimism.

A Clash of Cultures

Many scholars have found it useful to think of psychology and law as fundamentally different cultures (Bersoff, 1999; Carroll, 1980; Goldberg, 1994). This section explores the nature and consequences of these cultural differences. The concept of **culture** has been defined in a variety of ways. One pioneer in cross-cultural psychology wrote that, “Culture is reflected in shared cognitions, standard operating procedures, and unexamined assumptions” (Triandis, 1996, p. 407). Culture has also been defined as, “. . . the set of attitudes, values, beliefs, and behaviors shared by a group of people, and communicated from one generation to the next” (Matsumoto & Juang, 2008, p. 7). People from a particular culture tend to share basic assumptions about the relative importance of competing goals, how disputes should be resolved, and what procedures to follow in striving for goals.

When anthropologists and psychologists contrast different cultures, they focus on the relative prominence of beliefs and behaviors. Different cultures do not fit neatly into discrete categories; they fall along different points on a continuum. By comparing the cultural tendencies of law and psychology, we can understand why psychology and law have sometimes become frustrated with each other and we can see how the two disciplines might work together more productively. Many of the difficulties in the interactions between psychology and law can be traced to underlying differences in goals, methods, and styles of inquiry.

Goals: Approximate Truth versus Approximate Justice

One basic source of tension between psychology and law is that, “psychology is descriptive and law is prescriptive” (Haney, 1981). That is, psychology tells us how people actually behave, and the law tells us how people ought to behave. The primary goal of psychological science is to provide a full and accurate explanation of human behavior. The primary goal of the law is to regulate human behavior. And, if someone behaves in a way that the law forbids, the law provides for punishment. Put somewhat idealistically, psychological science is mainly interested in finding truth, and the legal system is mainly interested in rendering justice. Although neither absolute truth nor perfect justice is fully attainable, scientists must strive for an approximation of truth and courts must strive for an approximation of justice.

In his classic study of cultural differences, Geert Hofstede found that cultures could be usefully differentiated on the dimension of “uncertainty avoidance” (Hofstede, 1991). Cultures high on this dimension develop elaborate rules and rituals in an effort to promote clarity and stability. Legal culture ranks high on uncertainty avoidance. Because people expect the courts to resolve disputes, the legal system must assimilate the ambiguities of a case and render a final, unambiguous decision. Putting an end to a dispute requires a clear, binding ruling. People are found guilty or set free, companies are forced to pay damages, child custody is decided, and criminals are sent to prison. While it is true that an investigation or a courtroom trial can be characterized as a search for the truth, that search is conducted in service of a judgment: guilty or not guilty, liable or not liable. And, if a defendant is found culpable, the judgment becomes one of consequences: How much money should the defendant pay in damages? What kind of probation should be imposed? How long should the prison sentence be? To resolve a conflict, a conclusion must be reached. Because the legal system can never achieve perfect justice, it must settle for approximate justice in the form of conflict resolution. And, in a democracy, it is crucial that disputes are resolved in a way that *appears* fair and promotes social stability. Although citizens may disagree with many specific decisions of the courts, they must have faith in the overall fairness of the system.

In contrast, uncertainty is intrinsic to the scientific process. No single research study is ever conclusive, and no finding is truly definitive. Over time, uncertainty is reduced, but all conclusions can be revised or reversed by contrary data. The scientific process emphasizes the use of testable hypotheses, valid and reliable

measures, statistical standards for accepting a conclusion, and replications of findings over time. The ultimate “truth” of a particular explanation of human behavior may be unknowable but, over time and multiple investigations, theories are revised and psychologists are able to construct increasingly useful explanations of human behavior. Judgments made by scientists are not dichotomous (like guilty or not guilty); they are probabilistic. That is, scientific conclusions are stated in terms of probabilities. Indeed, the tendency for scientists to talk in terms of likelihoods and to couch their conclusions in caveats and qualifiers is something the courts (and the general public) find frustrating. In science, no conclusion is final and current understandings are tentative and subject to revision.

Another implication of the differing goals of psychological science and the legal system is that psychology emphasizes the characteristics of groups, while the law emphasizes individual cases (Goldberg, 1994). Psychological scientists conduct research to uncover general principles of human behavior. Because individuals are idiosyncratic, knowing how one person behaves does not necessarily tell us how everyone else behaves in the same situation. The reverse is also true—knowing how people behave in general does not necessarily tell us why a specific defendant behaved in a particular way. This often creates problems. If a 10-year-old boy walks into his fourth-grade classroom with a loaded gun and shoots one of his classmates, a psychologist might be called to testify. A developmental psychologist might testify about the cognitive abilities and moral reasoning of 10-year-olds. A social psychologist might summarize the results of research about how children are affected by watching violence on television or in video games. But, in court, the essential questions must be: “Why did *this boy* kill another child?” and “What should happen to reform or punish *this boy*?”

A related point is that, “the law emphasizes the application of abstract principles to specific cases” (Carroll, 1980). Lawyers, plaintiffs, and defendants cannot bring an idea to court and ask the court for a ruling. They must bring a specific case with particular characteristics. A ruling by a judge may set an important new precedent, but the immediate goal is to make a decision about a specific case. Consequently, the law evolves one case at a time. The law’s emphasis on the individual defendant or plaintiff explains why courts have been more receptive to clinical psychologists than to other types of psychologists. Clinicians examine and draw conclusions about a particular person. Like lawyers, they are oriented toward the individual case.

Methods: Rulings versus Data

The law is based on authority; psychology is based on empiricism (Goldberg, 1994). Whereas law advances through the accumulation of rulings produced by courts, psychology advances through the accumulation of data produced by scientists.

Because cultures differ in the amount of deference and obedience given to people in positions of authority, this dimension (sometimes called “power distance”) is often used to differentiate cultures. The legal system is explicitly hierarchical (i.e., it would rank high on power distance). If a court of appeals overrules the decision of a lower court, the lower court must accept the ruling.

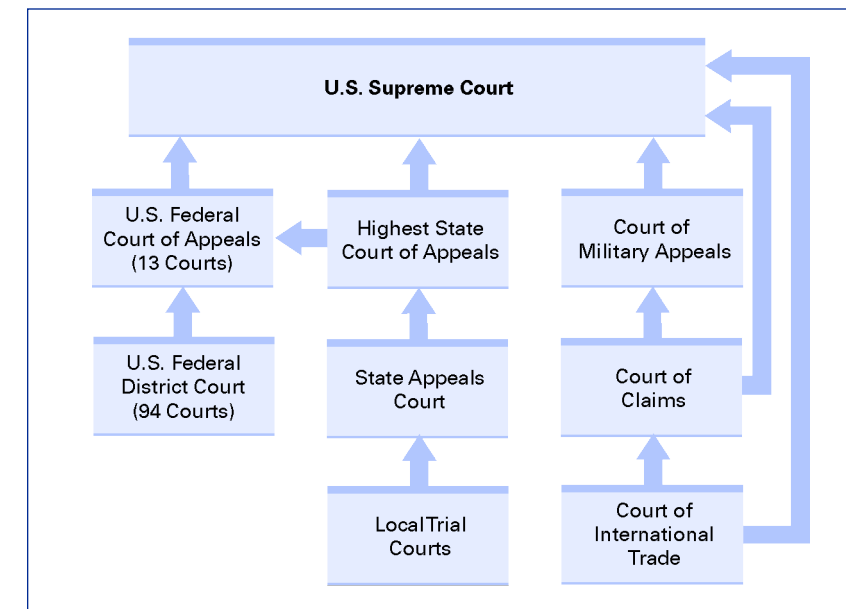


FIGURE 1.1

Basic structure of the U.S. court system.

Higher courts simply have more authority. And if the Supreme Court issues a ruling, the matter is settled—at least until the high court agrees to take up the issue again (Figure 1.1 shows the hierarchical structure of the U.S. court system). In comparison, psychology is much more egalitarian. Although there are power relations within scientific communities (e.g., editors of prestigious journals and directors of funding agencies hold considerable power), the structure is far more democratic. Any researcher, even a low-status one, can conduct a study that challenges a prevailing theory of human behavior. If the data are compelling, the theory must be modified.

Part of the method of law involves deference for past rulings. All cultures are shaped by history, but they differ in how much value they place on history. In some cultures people make offerings to the spirits of their ancestors and believe that those ancestors actively intervene in the affairs of the living. Although lawyers and judges don’t pray to their ancestors for guidance, the past is an active force in their professional lives. As Oliver Wendell Holmes observed, “Law is the government of the living by the dead” (Holmes, 1897, p. 469). Attorneys and judges are obliged to place current facts in the context of past rulings. They must link the present to the past. When lawyers argue in front of judges, they cite **precedents**: past decisions on legal issues in cases that are as similar as possible to the current case. The persuasiveness of a legal argument rests to a substantial extent on whether the argument can be tied to existing precedents. In making their rulings, judges are strongly constrained by the doctrine of **stare decisis** or “let the decision stand.” The idea is not to move too far from established precedent. Each precedent is, “. . . a statement simultaneously of how a court *has* held, and how future courts *ought* to hold” (Llewellyn, 1931, p. 72).

In contrast, psychological scientists live in a more future-oriented culture. They believe that our current understanding of human behavior can and should be continually revised in light of new and more extensive data. Scientific theories are made to be broken. New techniques, better measures, and more inclusive sampling of participants continually force psychologists to modify their explanations of human behavior. Change and progress may be slow at times, but, as long as research continues, it is inevitable.

Style of Inquiry: Advocacy versus Objectivity

In the U.S. legal system, a judge or jury makes the decision of guilt or liability after hearing evidence and arguments. Lawyers acting as adversaries attempt to reveal evidence in the context of the **adversarial system**. A fundamental assumption of the U.S. system is that truth will emerge from a contest between opposing sides. Lawyers advocate for a particular version of events and a particular interpretation of evidence. They actively promote a one-sided view of the facts. Attorneys make opening statements and closing arguments to advance their version of the evidence, they call witnesses who will support that version, they challenge the assertions of witnesses called by the opposing side, they raise objections, and they try to rattle witnesses and undermine their credibility. Lawyers even do a bit of acting at times—for example, feigning disbelief or outrage at the testimony of a witness who challenges their version of events.

Indeed, attorneys *must* be advocates for their clients. The American Bar Association (ABA) **Code of Professional Responsibility** requires that lawyers “represent their clients zealously within the bounds of the law.” Some lawyers put it even more bluntly:

Lawyers make claims not because they believe them to be true, but because they believe them to be legally efficacious. If they happen to be true, then all the better; but the lawyer who is concerned primarily with the truth value of the statements he makes on behalf of clients is soon going to find himself unable to fulfill his professional obligation to zealously represent those clients. Another way of putting this is to say that inauthenticity is essential to authentic legal thought. (Campos, 1998)

There are ethical limits on zealousness. Lawyers cannot knowingly permit witnesses to lie under oath (this is called “**suborning perjury**”). But the fact that lawyers are sometimes required to vigorously defend people or corporations that have done terrible things is one reason that lawyers, as a group, are not held in high esteem among members of the general public.

In contrast, scientists must strive for objectivity. Of course, humans are not capable of perfect objectivity. It is not uncommon for researchers to disagree about the correct interpretation of data or to zealously defend a theoretical point of view. In this sense, scientists sometimes behave as advocates. It is also true that values infiltrate the research process—values influence which topics scientists choose to investigate, how they interpret their data, where they publish their findings, and whether they attempt to apply their findings. Science is a human process shaped by human choices. Whenever choices are made, values

and biases inevitably come into play. However, even if a particular researcher strays from an objective reading of his or her data, others who view the data will be more dispassionate (or at least biased in a different direction). And, if a researcher collects data using biased methods, the findings are unlikely to be published or taken seriously by others in the scientific community.

Objectivity is an ideal that resides not only in the individual researcher but, more importantly, in the scientific community as a whole. Individual researchers strive for an objective reading of their data. And, although a particular scientist may be too invested in a particular theory to be fully objective, science is an ongoing, public, self-correcting process. Research findings are published as articles or presented at conferences and subjected to criticism by other scientists. Scientists’ confidence in the validity of a conclusion rests on the findings of multiple researchers using different research methods. It is only over time, through the sustained, collective efforts of many scientists, that the ideal of objectivity is achieved.

The Importance of Bridging the Two Cultures

Given the fundamental differences in the cultures of psychology and law and the difficulty of changing the legal system, why bother trying? After all, many psychologists have the luxury of choosing which topics to investigate. Research questions are often guided by the curiosities of the individual researcher. And, other areas of applied research—for example, business and education—are often more welcoming to the insights and techniques of psychologists. So why take on the burden of trying to influence the legal system?

There are good reasons. First, law is important. The law shapes our lives from womb to tomb. It dictates how our births, marriages, and deaths are recorded. It regulates our social interactions at school, at work, and at home. The legal system has the authority to impose fines, to forbid certain behaviors, to send people to prison, and even to kill people in the execution chamber. It employs millions of people and consumes billions of dollars. Second, many issues confronted by the legal system are inescapably psychological. Questions about what people consider fair, why people commit crimes, and how the behavior of criminals can be changed are all essentially psychological questions. They are also largely empirical questions—questions that can be answered by conducting research and analyzing data. Because the legal system is so pervasive and powerful, many social scientists believe that we are ethically obliged to help ensure that the consequential decisions meted out by the courts are based on the best available scientific knowledge. Although the two cultures of psychology and law continue to clash at times, there are now many examples of fruitful interaction.

Roles Played by Psychologists Interested in Law

Given the fundamental differences in the cultures of law and psychology, how should the two interact? If both cultures can be enriched through contact, how might this contact occur? Three broad forms of interaction are possible. Though conceptually distinct, the three roles are complementary rather than exclusive. Each highlights a different means by which psychological science makes contact with the legal system.

A field of study is perhaps best defined by the activities of people working in that field. Given the three roles described below, our working definition of **forensic psychology** will be, “the use of psychological knowledge or research methods to advise, evaluate, or reform the legal system.”

Psychologists as Advisors

Sometimes lawyers and judges welcome the perspectives of psychologists through testimony in court. Lawyers simply hire a psychologist to testify on some aspect of a case. For example, clinical psychologists have testified about whether a particular defendant meets the legal definition of insanity, whether a defendant is competent to stand trial, and whether a defendant is likely to be dangerous in the future. This type of relationship is easy because it requires no major accommodations from the legal system: The nature and boundaries of the relationship are predefined by the legal system. Psychologists simply fill the role they have been asked to fill.

Psychologists acting as **trial consultants** also serve as advisors to the legal system. In this capacity, psychologists are hired by attorneys to help with jury selection, witness preparation, or trial strategy. In general, trial consultants use psychological knowledge to attempt to shape the trial process in ways that produce favorable outcomes for paying clients. Like psychological experts who are hired to testify at trial, trial consultants are hired to provide expertise in the service of litigants. For example, if a company that manufactures household appliances is being sued for making toaster ovens that tend to explode and cause fires, the company might hire trial consultants to identify jurors who will be sympathetic to the company's case. The effectiveness and ethical implications of trial consulting are covered in Chapter 6.

If a case is appealed to a higher court, it is possible for psychologists to contribute to written arguments (called **briefs**) submitted to the court. Such briefs might summarize the findings and conclusions of research conducted by psychologists. These briefs can be excellent vehicles for major professional organizations, for example, the Association for Psychological Science (APS) or the American Psychological Association (APA) to provide well-considered, data-based conclusions to the courts. As such, they are valuable opportunities for influence. Yet, here as well, the law defines how and on what terms psychological research will be used.

Psychologists as Evaluators

More than a century ago, Oliver Wendell Holmes asked the pointed question: “What have we better than a blind guess to show that the criminal law in its present form does more good than harm? Does punishment deter? Do we deal with criminals on proper principles?” (Holmes, 1897, p. 469).

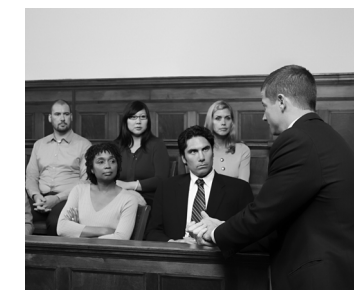
The basic proposition of **evaluation research** is that any social program ought to be evaluated as to its effectiveness. Programs are put in place to achieve social goals, and it is only fair (some would say it is ethically necessary) to ask if those goals are being achieved. For example, if a community puts in place a program where police officers attempt to reduce drug use by talking to

elementary school students about the dangers of drugs, it is fair to ask whether students exposed to the program are less likely to use drugs than students who are not exposed to the program. If we decide to send juvenile offenders to military-style boot camps or to make them work on chain gangs, it is important to ask whether those offenders are less likely to continue a life of crime than juveniles who are placed on probation or sent to a juvenile detention facility. If the instructions given to jurors are intended to help jurors understand and follow the law, it is crucial to determine if jurors understand the instructions as intended. Psychologists and other social scientists have collected and analyzed data to answer such questions. Their research findings will be discussed in the chapters that follow.

Most evaluation research asks questions about a specific legal practice or policy. For example, Do executions deter potential murderers? Do drug treatment programs reduce rates of drug addiction? Usually, the research conducted to answer these types of questions is initiated by social scientists. Although it is essential to ask, “Does it work?” the question is more complex than it first appears. A particular part of the legal system may have multiple goals, and some of these goals may be in conflict. Consider prisons. When we send a criminal to prison, we may have multiple goals—to remove the criminal from civilized society; to punish the criminal for the pain he caused to others; to rehabilitate the criminal so that when he returns to society, he will not revert to a life of crime. While abusive, unpleasant prisons may serve the goal of punishment, they may militate against the goal of rehabilitation and even make criminals more dangerous. Should the goal of punishment or the goal of rehabilitation take priority? Also, as noted earlier, one of the goals of the legal system is to inspire confidence in the public. This raises another question: What if an ineffective or harmful practice enjoys broad public support? Should that practice be retained or abandoned?

Evaluators distinguish between formative and summative evaluations (Donaldson & Scriven, 2003). Formative evaluations provide ongoing information about the effectiveness of a program so that adjustments can be made. The information gathered from formative evaluations is used to guide program development and help the program become successful. In contrast, summative evaluations attempt to sum up how well a program has met its goals. Often, summative evaluations judge overall effectiveness and recommend whether a program should be continued or abandoned. In the legal system, the approach

How might research tell us whether parts of the legal system work as intended?



is usually formative—the issue is not whether to continue or abandon a practice, but how a practice can be improved or fine-tuned. Hence, evaluation researchers not only try to discover *if* a program works, but *how* a program works. Making wise decisions about which components of a program need to be modified presupposes a clear understanding of how that program works.

Some researchers take a more expansive view of the legal system and attempt to critically evaluate law as a system embedded within the larger society. This more encompassing perspective allows for the asking of big, fundamental questions: Why are some acts defined as criminal while other injurious behaviors are not? Why are some types of crimes aggressively prosecuted while other types are not? How do legal procedures come to be viewed as legitimate or illegitimate by citizens in a given culture? Whose interests are served by the legal system? Which outcomes are just? There are both disciplinary and methodological reasons why sociologists, criminologists, and anthropologists have been more likely than psychologists to address such questions. First, psychologists generally take the individual or the small group as their level of analysis. They tend not to look at large systems or whole societies. Second, psychology still tends to be a science that places high value on controlled experimentation and careful measurement. Larger questions are often regarded as messier and less amenable to controlled, systematic research.

Psychologists as Reformers

If we use psychological theory and research to find out which aspects of the legal system need to be improved, the next step is to improve them. Evaluation and understanding without any attempt at reform is an empty exercise. Still, many psychologists are uncomfortable playing the role of reformer. Many researchers are trained in a “basic” or “pure” science model. This means that they ask questions to satisfy their own curiosity or to test the propositions of a theory. The practical application of whatever knowledge is generated is left to others. To actively promote change in the legal system, the psychologist must step away from the role of objective scientist. And, the farther the scientist moves from that role, the more uncomfortable he or she is likely to become.

There is also the issue of *when* psychologists have sufficient confidence in their findings to advocate a particular change in the legal system. Of course, scientists are fallible and what we believe is true today might not be regarded as true tomorrow. Still, if we wait for absolute certainty before communicating our findings or arguing for a position, we will wait forever. Even though psychological science can only provide incomplete answers, the procedures and practices of the legal system ought to be based on the best information currently available (Faigman, 2005). It is important to remember that much legal practice is based on little more than tradition, convenience, and the untested intuition of legislators and judges. The real question is not whether our research findings are final or infallible; it is whether the current state of knowledge based on carefully conducted research can be used to improve current practice in the legal system.

Five Pathways for Influencing the Legal System

Knowledge generated by social scientists enters the law through several routes. The next section describes some pathways used by social scientists to make contact with the legal system.

Expert Testimony

Jurors, judges, and legislators cannot be expected to know everything. Therefore, people who have acquired specialized knowledge through education and experience—**experts**—are called upon to testify in courts or in front of legislative bodies. In courts, the process usually works like this: An attorney representing one side or the other in a trial proposes that a particular expert be allowed to testify and the presiding judge decides whether or not to allow the testimony. The lawyer believes that the expert will strengthen his or her case. The judge has other concerns. He or she must decide if hearing the expert testify will help juries discover the true facts in a particular case. Juries are the **triers of fact**. That is, in a jury trial, it is the jury that must listen to the evidence and decide on a verdict based on the facts presented at trial. If a judge decides that ordinary jurors already know what the expert has to say, or decides that the proposed testimony would only confuse jurors, or decides that the expert testimony would have too much impact on the jurors, that judge can refuse to allow the testimony. Rule 702 of the *Federal Rules of Evidence* sets the legal standard for permitting expert testimony in federal cases:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise.

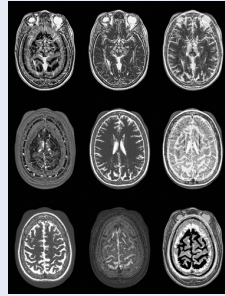
In practice, this standard gives enormous discretion to judges in deciding whether or not to allow expert testimony.

In the case of *Daubert v. Merrell Dow Pharmaceuticals, Inc.* (1993), the Supreme Court held that judges must serve as **gatekeepers** for scientific testimony. In effect, judges were told to assess the scientific validity of potential testimony before allowing the purportedly scientific evidence to be heard at trial. To assist judges, the Court listed four criteria that should be used when deciding if scientific testimony should be admitted: the testability or “falsifiability” of the theory or technique (whether the technique can be proven false through data collection); whether the scientific findings have been subjected to peer review (generally through publication in a peer-reviewed journal); whether there is a known rate of error (how often a test or technique produces incorrect results); and whether the conclusions are generally accepted in the relevant scientific community. Unfortunately, the Court did not provide full and clear explanations of these criteria. Some scholars have noted that, “. . . the Court’s treatment of validity was at best generic and superficial, and at worst, specious and uninformed” (McAuliff & Groscup, 2009, p. 29). Further, the criteria leave plenty of room for disagreement and discretion. If two judges are

SCIENTIFIC AMERICAN MIND

Brain Scans Go Legal

Scott T. Grafton, Walter P. Sinnott-Armstrong, Suzanne I. Gazzaniga, and Michael S. Gazzaniga



Don Fairall/Digital Vision/Getty Images

Imagine that you are a judge presiding over the trial of a man named Bill, accused of a grisly murder. The physical evidence is overwhelming, and witnesses have yielded damning testimony. There seems to be no reasonable doubt that Bill committed the murder. Suddenly, the defense asks if it can present images of Bill's brain, produced by magnetic resonance imaging (MRI). Bill's attorneys want to introduce the pictures as evidence that their client has a brain abnormality. They will argue that the abnormality justifies either a verdict of not guilty (because Bill lacked the intent to kill or premeditation to commit murder), or a verdict of not guilty by reason of insanity (because Bill lacked control over his actions), or, at least, a conviction on a lesser offense (because Bill is not fully responsible or possibly just because jurors should feel sorry for people with brain disorders). The prosecution argues that you should not admit the scans, because pictures of Bill's brain and testimony by revered scientists might influence the jury much more than such evidence warrants. Would you, as judge, allow the brain scans to be exhibited? How would you assess such evidence?

Naive faith in the latest imaging technology is misguided at this time. To understand why, consider the questions one must navigate to decide whether this evidence could be truly informative in a criminal trial. First, if a brain scan indicates an abnormality, then the brain really has an abnormality, right? Wrong. This simple inference overlooks a crucial problem:

Almost every biomedical test, from MRI to the prostate-specific antigen (PSA) test, can suggest that a condition is present when in actuality it is not. Such cases are called false positives.

This problem is not too serious for common medical ailments, such as prostate cancer, when doctors can independently confirm the diagnosis using other tests. The kinds of brain abnormalities that might cause grisly murders, however, are very rare and hard to confirm. When a condition is rare, even a low rate of false positives leaves a relatively large number of errors—not a very reliable means for establishing that the person being scanned has a condition that provokes violence. Even if Bill's scan suggests a brain anomaly, it might be very unlikely that he has any deficit at all.

That is not the only problem. Suppose for the sake of argument that we are absolutely certain that Bill has an abnormality. We still do not know whether that condition caused Bill's criminal behavior. Some people with this kind of irregularity might not be violent at all, whereas others could become violent on a regular basis. With this much variability, even if we assume that Bill does have an abnormality of the right size in the right place, we cannot know that his condition had anything to do with the alleged illegal behavior. Furthermore, even if Bill's condition does cause him to be violent in some way, it still might not cause the particular kind of attack in question: ugly premeditated murder.

To be confident that an abnormality such as Bill's plays a causal role in a particular murder, researchers would have to have studied many more murderers than anyone has ever studied. The best an expert witness in a courtroom could do is to establish a weak correlation between brain injury and criminal behavior. But without additional information, no scientist could be justified in claiming that Bill's abnormality caused him to become a murderer or prevented him from making a decision to kill on the day in question.

faced with the identical expert testimony, one might decide the testimony is admissible and the other might decide that it does not meet the *Daubert* standard of admissibility.

Along with *Daubert*, two later Supreme Court decisions—*General Electric Co. v. Joiner* (1997) and *Kumho Tire Ltd. v. Carmichael* (1999)—have come to be collectively known as the **Daubert trilogy**. This trilogy of decisions expanded the gatekeeping role of trial judges. Whereas *Daubert* made judges responsible for evaluating the research methods and statistics that provide the basis for an expert's testimony, *Joiner* held that appellate courts should not second-guess a trial judge's decision to exclude expert testimony. Instead, they should defer to the trial judge's ruling on whether scientific testimony should be admitted into evidence. In *Kumho*, the Court made a further clarification: ". . . that a court's gate-

The defense might argue that the brain scan is just one piece of evidence that when combined with psychological or psychiatric assessments, paints a better picture of Bill's mental state at the time of the crime. Yet we do not know what the relation is between the scan and the other assessments. What percentage of people with a certain psychiatric diagnosis will test positive for this abnormality? What percentage of those who test positive for this abnormality will receive that psychiatric diagnosis? Without such information, we cannot say in the least whether the brain scan supports the diagnosis. In this setting, the behavioral findings must stand on their own.

Is Bill Responsible? Even if most people with a given abnormality engage in unusual criminal activities, that abnormality by itself does not indicate that these individuals do not commit their crimes intentionally and deliberately. They are still capable of premeditating or planning their acts carefully. This means they have the ability to "form malice aforethought"—the *mens rea* that is a necessary element of the crime of murder—and therefore should not be exculpated during the guilt phase of a trial. Moreover, if the trial is one based on a plea of not guilty by reason of insanity and the evidence is presented in the sanity phase of the trial, such abnormalities would not justify a verdict of not guilty, because these individuals do not necessarily suffer from a compulsion or delusion—they might well be able to control themselves and make decisions easily.

To show that Bill is not responsible, a brain scan would have to indicate not only that Bill has an urge and is likely to commit the crime but also that Bill is unable to control his urge. Brain scans show only what is, however, not what could be. They cannot show that Bill could not have stopped himself from committing the murder. Because responsibility depends on such abilities, brain scans cannot show that Bill is not responsible for what he did.

These stringent standards might seem unsympathetic. Shouldn't we feel compassion for people with brain disorders and help them get better? Of course, we should. But if we allow the defense to use brain scans to dismiss guilt, then should prosecutors not also be allowed to use brain scans to indicate guilt? If a brain scan of a defendant reveals an abnormality and some people with that aberration become violent, then a prosecutor might use that brain scan to convince a jury that a given defendant is guilty. Yet innocent people who suffer from known brain disorders will be even more likely to test positive and be wrongly convicted. Or they might be involuntarily committed to mental institutions if the brain scan is taken as evidence that they are dangerous to society. Anyone who has sympathy for these folks should find this new form of evidence disconcerting.

Who Bears the Burden of Proof? Questions of where to place the burden of proof, which evidence to allow, and which disabilities are severe enough to preclude punishment are all considerations for society. And these decisions must indeed be made by society, not by neuroscientists. Data about an individual's brain alone cannot settle whether that person should be held responsible. Responsibility is a social construct, determined by a social group, not by a medical or scientific test result. If society chooses to use forms of brain testing as evidence to assess responsibility, then it needs to make these decisions in light of complete and accurate information about the pitfalls of the various methods being proposed.

We cannot predict the future. Better information, techniques, and equipment might come along that will someday make brain scans reliable enough to determine the legal implications of a brain abnormality. The problems might be solved with time, but we are nowhere close today. Brain scans of this kind are, after all, only 15 years old. Neuroscientists need much more basic research, experience, and thought about imaging before it invades our courts. Until then, brain scans have too little predictive value to be applied in criminal trials.

keeping responsibilities extended to all expert opinion, not just the scientific variety" (Faigman & Monahan, 2009, p. 7). In sum, the trial judge has the authority and the responsibility to evaluate the validity and relevance of any proposed expert testimony.

Not everyone agrees that judges are well-equipped to play the role of gatekeeper. As the minority opinion in *Daubert* disapprovingly observed, the decision obliged judges to become "amateur scientists"—a role beyond their training and expertise. Indeed, research demonstrates that judges are not especially skilled at distinguishing between high-quality and low-quality research. For example, in one study, 144 circuit court judges were asked to evaluate psychological evidence in a sexual harassment case (Kovera & McAuliff, 2000). Although the researchers systematically varied the methodological quality of the

research presented to judges, methodological quality did not influence the judges' evaluations of quality or their decision to admit the evidence. Both weak and strong research was admitted at the same low rate (17% of judges admitted the research), indicating a lack of scientific sophistication among judges (and perhaps a bias against psychological research). Other research supports this general finding (Dahir et al., 2005). Although a survey of 400 state court judges found that 91% supported the "gatekeeping" role established by *Daubert*, the vast majority could not adequately define *Daubert's* four guidelines for admissibility (testability, peer review, error rate, and general acceptance). Two of the guidelines were reasonably well understood by judges and two were poorly understood. Seventy-one percent of the judges understood the scientific peer review process and 82% also demonstrated a clear understanding of general acceptance. However, only 6% understood the meaning of testability and only 4% clearly understood the concept of "error rate" (Gatowski et al., 2001). Judges' limited understanding of scientific methods is troubling. Clearly, if judges are to serve as effective gatekeepers, they need to assume responsibility for learning about scientific methods.

The *Daubert* trilogy has had a clear impact on trial courts. Lawyers now file more motions to limit or exclude the expert testimony proposed by lawyers on the other side of the case (Dixon & Gill, 2002). In addition, judges are now more likely to exclude expert testimony, even if based on valid science (Vickers, 2005). Interestingly, instead of relying on the specific criteria mentioned in *Daubert*, judges appear to be basing their admissibility decisions on characteristics of the expert such as education, experience, skill, and knowledge of the subject matter (Merlino, Murray, & Richardson, 2008).

Ideally, expert witnesses educate the jury—they summarize research findings in a clear, impartial manner. One of the ethical dilemmas posed by expert testimony is that psychologists can occasionally be swept into the currents of the adversarial system. It is important for experts to remember that, in contrast to the role of objective expert witness, lawyers "... are expected (indeed, professionally and ethically obligated) to conduct a biased search for facts. Their job is to build the best case they can for their client, not to find facts helpful to the other side" (Saks & Lanyon, 2007, p. 280). This basic truth is crucial because experts are not supplied to lawyers, they are almost always chosen by lawyers representing a particular side in a specific case. Naturally, in their role as adversaries, lawyers often "shop around" to find an expert who will support their side. They turn to experts who have done well for them in prior cases, they e-mail other lawyers and ask for the names of experts who might provide favorable testimony, and they may have telephone conversations with a few potential experts to get a sense of who might provide the strongest testimony.

Once a suitable expert is found, he or she may be "prepared" for trial. During this preparation, insufficiently cautious experts may be seduced into thinking of themselves as part of an adversarial team. It is in the interest of lawyers to create this mindset. Sometimes subtly and sometimes bluntly, lawyers may let their experts know that they are working on behalf of a just cause and that the opposing team is misguided or untrustworthy. Once an expert is hired, lawyers often try

to find the strongest form of testimony the expert is willing to give. Because lawyers act as advocates for their client's interests, they tend to prefer experts who will make unambiguous statements and reach clear conclusions in support of their side of the case.

In a seminal article on expert witnesses, Michael J. Saks described three roles that might be assumed by expert witnesses. The *conduit-educator* strives to present a full and accurate picture of the current state of psychological knowledge. He or she realizes that, "To do this may be to be a mere technocrat, rather than a human being concerned with the moral implications of what I say and with the greater good of society. The central difficulty of this role is whether it is all right for me to contribute hard-won knowledge to causes I would just as soon see lose" (Saks, 1990, p. 295). In this role, the expert faithfully represents a field of knowledge. In the second type of role, the *philosopher-advocate*, the expert makes concessions to the adversarial climate of the courtroom and allows personal values to shape testimony. He or she might say, "There is a greater good at stake in this case, and that is (fill in the blank: desegregating schools, seeing to it that this child goes to the right home, keeping people from being executed, seeing to it that people are executed, etc.). I must advocate for those outcomes, and that obviously means giving testimony that involves clever editing, selecting, shading, exaggerating, or glossing over" (p. 296). In the final role, that of *hired gun*, the expert essentially "sells out" and capitulates to the adversarial demands of the courtroom. A hired gun intentionally shapes his or her testimony to help the side of the hiring attorney.

Many commentators have excoriated experts who are willing to assume the role of hired gun. Margaret Hagen, an experimental psychologist, wrote a scorching indictment of biased mental health professionals who have testified in court as experts. In her book (provocatively titled, *Whores of the Court*) she cites several cases in which psychotherapists, social workers, and psychiatrists have made unequivocal statements that have no research support (e.g., it is possible to tell if a particular young child is lying, if a particular memory is accurate, or if someone is faking posttraumatic stress syndrome). She argues that these "self-styled psychoexperts" are often motivated by the money they receive for their testimony or by a missionary-like zeal to promote a particular cause (Hagen, 1997).

It is rare for an expert witness who shades or misrepresents research findings to be prosecuted for misconduct. Perjury requires lying about verifiable facts. Experts are called to offer expert opinions. And because opinions are neither true nor false, even highly unusual opinions cannot be described as lies. An expert may be biased, or ignorant about relevant research, or even incompetent, but that is not the same as being a liar. As one state supreme court put it, "It is virtually impossible to prosecute an expert witness for perjury" (*Sears v. Rutishauser*, 1984, p. 212).

While it is true that unscrupulous "experts" have sometimes testified in court, the ethical guidelines established by psychologists conform rather closely to the *conduit-educator* role. Here are a few quotes from the guidelines (Roesch, Hart, & Ogloff, 1999):

- . . . psychologists must realize that their public role as “expert to the court” or as “expert representing the profession” confers upon them a special responsibility for fairness and accuracy in their public statements (p. 434).
- Psychologists must not, “. . . participate in partisan attempts to avoid, deny, or subvert the presentation of evidence contrary to their own position (p. 434).
- When “. . . their own personal values, moral beliefs, or personal relationships with parties to a legal proceeding interfere with their ability to practice competently, . . . they are obliged to decline participation or limit their assistance in a manner consistent with professional obligations (p. 427).

Clearly, psychologists’ primary loyalty must be to their discipline. They must strive to report the current state of scientific knowledge accurately.

Cross-Disciplinary Training

One way to increase the use of social science by the legal system is through education. It is during postgraduate training (graduate school or law school) that students fully dedicate themselves to careers in psychology or law. The impact of a solid introduction to the law (for graduate students in psychology) or a solid introduction to social science (for law students) may be felt long after school has ended. Exposure to psychological science is likely to make lawyers and judges more receptive to strong scientific testimony. It is also likely to make judges and lawyers appropriately less receptive to testimony based on shoddy science or testimony lacking a solid scientific foundation. Conversely, exposing psychologists to legal training is also likely to have beneficial effects. Psychologists with a sophisticated understanding of law are better equipped to ask questions and seek answers that are useful to the legal system. They may also be more likely to communicate their findings to legal professionals.

The best arrangement for obtaining dual training in the disciplines of psychology and law is a matter of some controversy. Some have argued for double doctorate programs that lead to both a J.D. in law and a Ph.D. in psychology. Unfortunately, such programs generally require about seven years of graduate study. Also, to earn a J.D. students must take a full complement of law classes, some of which (e.g., Corporations, Tax, Wills and Trusts, Property) have limited relevance to the study of psychology and law. One former director of a double doctorate program reached the conclusion that, “Having both degrees is unnecessary for making a contribution to psycholegal studies. Indeed, expertise in one discipline with a basic knowledge in the other is probably sufficient” (Melton, 1987, p. 492). Ph.D. programs that offer specialization in psychology and law often include substantial training in areas of criminal and civil law that are of interest to psychologists.

A final training model involves encouraging psychologists who already have their Ph.D. to earn a master’s degree in legal studies in only one year. Unfortunately, few law schools offer such programs. In contrast, lawyers with an interest in enhancing their knowledge of psychology can select from scores of master’s programs in psychology offered at universities across the country. However, because many lawyers lack the requisite background in statistics and research

Table 1.1 Graduate Training Programs in Legal and Forensic Psychology

Nonclinical Doctoral Programs

Arizona State University	Law & Psychology J.D./Ph.D. program
Cornell University	Ph.D. with a concentration in Law, Psychology and Human Development
Florida International University	Ph.D. in Psychology with an emphasis in Legal Psychology
Georgetown University	Ph.D. in Psychology with concentration in Human Development and Public Policy
John Jay College of Criminal Justice-CUNY	Ph.D. in Psychology
Simon Fraser University	Ph.D. in Psychology in the Psychology and Law program
University of Arizona	Ph.D. and/or J.D.
University of California-Irvine	Ph.D. in Criminology, Law, and Society or in Psychology and Social Behavior.
University of Florida	J.D./Ph.D.
University of Illinois at Chicago	Ph.D. with concentration in Psychology and Law
University of Minnesota	Ph.D. in Social Psychology with a research concentration in Social Psychology and Law
University of Nebraska	Joint J.D./Ph.D. or joint J.D./M.A.
University of Nevada–Reno	Ph.D. in Social Psychology with concentration in Psychology and Law
University of Texas at El Paso	Ph.D. in Applied Psychology with the Legal Psychology Group
University of Wyoming	Social or Developmental Ph.D. with concentration in Psychology and Law

Clinically Oriented Doctoral Programs

Alliant International University	Ph.D. or Psy.D. in Forensic Psychology
Arizona State University	Law & Psychology J.D./Ph.D. Program.
California State University, Fresno and the University of California-Davis	Joint Ph.D. in Forensic and Behavioral Sciences
Carlos Albizu University in Miami	Psy.D in Clinical with a concentration in Forensic Psychology
Chicago School of Professional Psychology	Psy.D. in Clinical Psychology with a concentration in Forensic Psychology
Drexel University	J.D./Ph.D. or Ph.D. with a concentration in Forensic Psychology
Forest Institute of Professional Psychology	Psy.D. in Clinical Psychology
Fordham University	Clinical Ph.D. with concentration in Forensic Psychology

continued on next page

Illinois School of Professional Psychology	Psy.D. with concentration in Forensic Psychology
John Jay College of Criminal Justice-CUNY	Ph.D.
Massachusetts School of Professional Psychology	Psy.D. with Forensic Psychology Concentration
Nova Southeastern University	Psy.D. with concentration in Clinical Forensic Psychology
Pacific Graduate School of Psychology	joint Ph.D./J.D. (with Golden Gate University School of Law)
Pacific University	Psy.D. with an emphasis in Forensic Psychology
Sam Houston State University	Ph.D. in Clinical Psychology with an emphasis in Forensic
Simon Fraser University	Ph.D. in Clinical-Forensic Psychology
University of Alabama	Ph.D. in Clinical with Psychology-Law concentration
University of Arizona	Ph.D. in Clinical with a Forensic Interest
University of Illinois at Chicago	Ph.D. in Clinical Psychology with Minor in Psychology and Law
University of Nebraska	Joint J.D. and Ph.D. or joint J.D. and M.A. in Psychology
West Virginia University	Ph.D. in Clinical with emphasis in Forensic
Widener University	J.D./Psy.D. joint degree

Master's Programs

American International College
 Chicago School of Professional Psychology
 John Jay College of Criminal Justice
 Marymount University
 Roger Williams University
 The Sage Colleges
 University of Denver—Graduate School of Professional Psychology
 University of Leicester

SOURCE: American Psychology-Law Society/Hall, T. A., Cook, N. E., and Berman, G. L. (2010). Navigating the expanding field of law and psychology: A comprehensive guide to graduate education. *Journal of Forensic Psychology Practice*, 10, 69–90.

methods, significant remedial work may be necessary. An understanding of the social scientific approach to generating valid knowledge is critical for applying psychology to the legal system.

There is now some assistance for judges who want to develop their scientific judgment. In response to the Supreme Court's ruling in *Daubert*, the Federal Judicial Center (the research arm of the federal courts) established several training

programs to help judges fill their expanded role as gatekeepers responsibly. Some states and a few universities (e.g., the National Judicial College in Reno, Nevada, and the Adjudication Center at Duke University) offer judges workshops on scientific evidence. These workshops are designed to teach judges how to evaluate the validity of the science behind various types of expert testimony. Judges without the time or inclination to attend classes can turn to a reference book—*Modern Scientific Evidence*—that strives to make scientific testimony accessible to judges (Faigman, Kaye, Saks, Sanders, and Cheng, 2006).

Amicus Curiae Briefs

The *amicus curiae* (“friend of the court”) brief has proven to be a useful tool for educating judges about relevant psychological research. The “friends” are interested and knowledgeable parties that do not have direct involvement in the case. The goal of such briefs is to summarize the relevant body of research and to clarify the overall meaning of a set of findings. The American Psychological Association, through its Committee on Legal Issues (COLI), has filed *amicus* briefs in a wide range of cases dealing with issues as diverse as jury size, the death penalty, gay rights, abortion, the prediction of dangerousness, rights of mentally ill patients, the effects of employment discrimination, sexual behavior, and the courtroom testimony of child witnesses. The contents of several of these briefs will be discussed later in this book.

The involvement of scientists in *amicus* briefs can be controversial. Here, as in other areas, some believe that scientists too easily slip into becoming advocates when presenting research via *amicus* briefs. Some scholars describe briefs as ranging along a continuum with “science translation” at one pole and “advocacy” at the other. That is, we can either dispassionately report and clarify the meaning of relevant research findings (translation), or we can take a strong position based on the available psychological knowledge (advocacy) (Melton & Saks, 1990). But even a science translation brief might advocate a position. This is because the accumulated research often supports a particular judicial decision. A group of psychologists who have extensive experience in developing *amicus* briefs offered the following guidance:

It is possible to be scientific without being neutral, to be objective yet form an opinion about the implications of the research. If the data warrant a particular conclusion, then it may be reasonable for brief writers to advocate for a legal decision that would reflect the knowledge gained from the research (Roesch, Golding, Hans, & Reppucci, 1991, p. 12).

An interesting example of an *amicus* brief was submitted to the Supreme Court in the 1999 case of *Kumho Tire Co. Ltd. v. Carmichael* mentioned earlier in this chapter. The case involved eight members of the Carmichael family who were riding in their minivan. When a tire blew out, the minivan crashed, killing one member of the Carmichael family and injuring seven others. In support of their case against Kumho Tires, the Carmichaels had hoped to have the testimony of a “tire failure expert” admitted at trial. The trial judge excluded that testimony. In a unanimous decision, the Supreme Court ruled

in favor of the tire company, holding that federal court judges have broad discretion in exercising their responsibilities as gatekeepers for expert scientific testimony.

The *amicus* brief had nothing to do with minivans or tire failure. It addressed the issue of how juries respond to expert testimony. Tire company attorneys had submitted documents asserting that juries “. . . give great (and sometimes undue) deference to expert testimony,” that “. . . an expert frequently ends up confusing jurors and effectively takes the jury’s place if they believe him,” and that “. . . jurors often abdicate their fact-finding obligation and simply adopt the expert’s opinion” (Vidmar et al., 2000, p. 385). The *amicus* brief submitted by a group of 18 social scientists reviewed the evidence on jury decision-making and reached a contrary conclusion: “The great weight of evidence challenges the view that jurors abdicate their responsibilities as fact finders when faced with expert evidence or that they are pro-plaintiff, anti-defendant, or anti-business. . . . the data tend to indicate that jurors are often skeptical of plaintiff claims. . . .” and that jurors do not, “suspend critical reasoning skills whenever experts testify at trial” (p. 388).

Briefs offer some advantages over expert testimony: They are typically written by a team of researchers, they are often reviewed by a professional organization (although this review may be rushed), and the research studies that form the basis for the brief are listed in a reference section. Sometimes scholars must point out that research findings are inconclusive or that definitive answers are not yet available. Other times, a body of research allows clear conclusions and recommendations. However, even when the research supports a strong position, an *amicus* brief is only one small factor influencing a judicial decision.

Broad Dissemination of Research Findings

Much of the impact of social science may come through an indirect route—if research findings are widely disseminated through the popular media, those findings eventually influence the thinking of legal professionals. Judges, lawyers, and jurors do not live in caves set off from the larger world. They are part of the larger culture and receive most of their information about social science informally, through Web sites, newspapers, magazines, and television. Indeed, studies show that judges are far more likely to read *Psychology Today* than law or social science journals. As one researcher put it, “. . . the mention of findings of a particular study or group of studies in *Time* magazine may have a substantially greater impact on the law than publication in a prestigious social science journal will” (Melton, 1987, p. 492).

Face-to-face dissemination is also possible through “continuing education” (CE) programs. Each year, judges and lawyers are required to complete several CE courses as a way to stay up-to-date with new developments in the law. Many scholars have urged psychologists to participate in CE programs. For example:

Psychologists should become involved as presenters in federal and state continuing education meetings for judges and lawyers. Their presentations offer the potential to educate the judiciary and the lawyers who practice before them about what constitutes science and what are accepted methods and data ana-

lytic techniques in science, as well as provide broad surveys of the current state of knowledge in various substantive areas of psychology and the limitations of that knowledge. (Sales & Shuman, 2007, p. 28)

Many psychological scientists actively disseminate the results of research to decision-makers in the legal system with the realistic recognition that the impact of their efforts is seldom swift or certain. Of course, efforts to communicate research findings should not only be directed at lawyers and judges. In a democratic society, it is ultimately the public that must place their trust in the legal system. If scientists want the public to understand psychological knowledge, we must also intensify our efforts to make scientific findings accessible to the public.

Influencing Legislatures and Public Policy

Much of the effort to bring psychology to the legal system has focused on the courts. However, legislatures also make law. Sometimes, psychologists try to influence the thinking of legislators on a specific issue. For example, over the past 30 years, hundreds of studies have explored the conditions under which eyewitnesses are likely to provide accurate reports about crimes they have observed (see Chapter 7). Many psychologists serving as expert witnesses have summarized these findings for judges and juries in individual cases. Such testimony is an effective means of educating jurors and judges about factors influencing the accuracy of eyewitness identifications. However, expert testimony comes after an identification has already been made. Research findings would have a greater impact on the legal system if they were taken into account as identifications were being made. In 1998, a team of psychologists translated the voluminous research on eyewitness testimony into a series of recommendations for use by police, lawyers, and judges (Wells et al., 1998). Working with the National Institute of Justice, the psychologists formulated several specific, research-based procedures for gathering eyewitness evidence. Use of these procedures dramatically improves the accuracy of identifications by eyewitnesses, and there has been considerable progress in persuading police departments to adopt the guidelines (Kolata & Peterson, 2001).

Finally, psychologists and other social scientists make direct attempts to influence legislatures through the lobbying efforts of their professional associations (e.g., the American Psychological Association and the Association for Psychological Science). These lobbying efforts are generally aimed at obtaining better funding for initiatives of special interest to psychologists—for example, graduate training and basic research, promotion of mental health, prevention and treatment of violent behavior, improvement of childhood education and services for children, or the development of fair and effective testing practices in school and work settings. In addition to lobbying for particular funding priorities, psychologists frequently testify before the U.S. Congress, and sometimes advise senators and representatives while serving on legislative staffs.

Has Psychology Influenced the Legal System?

Psychology’s attempts to influence the legal system have produced mixed results. In some cases, it appears that there has been a substantial impact. For example, an examination of the impact of *amicus* briefs submitted by the APA

found that the Supreme Court's opinion often mirrored the reasoning and language of the briefs (Tremper, 1997). Other times, it seems that judges have made use of social scientific evidence only when it was supportive of the ruling a judge wanted to make anyway. And, sometimes, the courts have ignored, dismissed, or misrepresented the findings of social scientific research.

On balance, it appears that the presentation of social science evidence raises the consciousness of judges and forces them to take research evidence seriously. One common perspective is that presenting research evidence to the courts "keeps judges honest" by forcing them to articulate clearly the basis for their decisions even when they rule in a way that contradicts that evidence. Some scholars have argued that,

Psychology's input may compel judges to act like judges, stating clearly the fundamental values and normative premises on which their decisions are grounded, rather than hiding behind empirical errors or uncertainties. In this sense, we can regard psychology's recent efforts as successes. (Grisso & Saks, 1991, p. 396)

Judges may be reluctant to embrace the findings of social scientific research for both intellectual and personal reasons (Faigman, 2008). Intellectually, judges know little about empirical research and are unable (or perhaps unwilling) to make sense of it. Indeed, as noted earlier, legal and social scientific views of the world are often in conflict. But the resistance is not only intellectual. There are also personal reasons behind the reluctance of judges. Judges tend to be self-confident, politically conservative, and protective of their prestige and power. When confronted with empirical research, they are likely to feel that they do not need help from social scientists; they are likely to suspect that social scientists are politically liberal, and they may view social science as undermining their power (Tanford, 1990). Efforts to increase the receptivity of courts may need to target both intellectual and personal forms of resistance.

In Conclusion

This opening chapter was an attempt to show you the big picture—a sort of aerial view of the field. Each chapter that follows will focus on a specific region of the legal landscape. However, not all areas of the legal system have received equal attention from social scientists. Some areas (e.g., eyewitness identification) have received intense scientific scrutiny, while other areas (e.g., antitrust law, product liability) have been largely ignored. This should not be surprising. Just as film and literature tend to focus on the most dramatic aspects of the law—for example, police investigations or the courtroom trial—psychologists tend to focus on topics that are psychologically rich and interesting. Our map of psychological processes in the legal system is incomplete. Some territories have been well mapped by researchers, some areas have barely been explored, and some territories are still uncharted.

Discussion and Critical Thinking Questions

1. Are judges qualified to evaluate scientific evidence? Can you think of alternatives to using judges as gatekeepers?

2. Could the legal system be improved by taking psychological methods and principles into account? How?
3. What obstacles prevent an easy interplay between psychology and law?
4. Under what conditions should expert psychological testimony be considered relevant? When should it be excluded?
5. What are the distinctions among advising, evaluating, and reforming?
6. What new guidelines were created by the *Daubert* Trilogy and what effects have these cases had on lawyers and judges?

Key Terms

adversarial system, 10	Daubert trilogy, 16	legal realism, 3
<i>amicus curiae</i> brief, 22	empirical legal studies, 6	precedent, 9
Brandeis Brief, 2	evaluation research, 12	<i>stare decisis</i> , 9
Code of Professional Responsibility, 10	experts, 15	suborning perjury, 10
culture, 6	forensic psychology, 12	trial consultants, 12
	gatekeeping role of judges, 15	trier of fact, 15

Readings to Supplement This Chapter

Articles

- Darley, J. M. (2001). Citizens' sense of justice and the legal system. *Current Directions in Psychological Science*, 10, 10–13.
- Hall, T. A., Cook, N. E., and Berman, G. L. (2010). Navigating the expanding field of law and psychology: A comprehensive guide to graduate education. *Journal of Forensic Psychology Practice*, 10, 69–90.
- Ogloff, J. R. P. (2000). Two steps forward and one step backward: The law and psychology movement(s) in the 20th century. *Law and Human Behavior*, 24, 457–484.

Books

- Costanzo, M., Krauss, D., & Pezdek, K. (Eds.) (2007). *Expert Psychological Testimony for the Courts*. Mahwah, NJ: Erlbaum.
- Skeem, J. L., Douglas, K. S., & Lilienfeld, S. O. (Eds.) (2009). *Psychological Science in the Courtroom*. New York: Guilford Press.



BLANK PAGE 28

