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JUDICIAL DEFERENCE TO NONLEGAL DECISIONMAKERS: IMPOSING SIMPLISTIC SOLUTIONS ON PROBLEMS OF COGNITIVE COMPLEXITY IN MENTAL DISABILITY LAW*

*Donald N. Bersoff***

IF, as the cliché goes, consistency is the hobgoblin of little minds,¹ most members of the Supreme Court are in no danger of being judged as mind-size deficient. Beginning in 1979 and continuing through 1991, the Court has shown a decided preference for professional, rather than judicial, decisionmaking in cases concerning the evaluation and treatment of those designated as mentally disabled. But this preference for professional judgment is incongruent with the Court's even more longstanding skepticism about the ability of psychiatrists and psychologists to make sound clinical judgments. This skepticism arose when empirical studies questioned the ability of mental health professionals to make accurate diagnostic and treatment decisions. Critical literature and the new generation of social science evidence clearly support the Court's apprehension. By implication, however, they cast considerable doubt on the Court's reliance on mental health professionals and administrators to make essentially unreviewable decisions that determine the constitutional and statutory rights of mentally ill and

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1. The cliché is a paraphrase of Ralph Waldo Emerson's lesser known but accurate aphorism: "A foolish consistency is the hobgoblin of little minds adored by little statesmen and philosophers and divines." JOHN BARTLETT, *FAMILIAR QUOTATIONS* 606 (Emily Morison Beck ed., 14th ed. 1968) (1855).

mentally retarded persons.²

This Article explores the tension between a preference for decisionmaking by mental health professionals on issues of mental disability law and those professionals' capacity for making accurate judgments. The primary vehicle for this exploration is social science research generated by cognitive and social psychologists. Part I reviews relevant Supreme Court decisions, their application by lower courts concerning professional judgments, and the increasing preference for informal, nonjudicial fora in which such judgments will be exercised. Part II, the core of this Article, reviews expanding, revealing research of cognitive psychologists regarding human decisionmaking generally, and clinical and forensic decisionmaking particularly. Part III, relying heavily on the work of social psychologists examining procedural justice, argues that a preference for informal procedures is likely to exacerbate decisional errors by mental health professionals and, as a result, is antagonistic to the core adjudicatory values of fairness and accuracy. In Part

2. The conflict between judicial and quasi-judicial decisionmaking has preoccupied the legal system for a long time and is not new to mental disability law. See, e.g., JERRY L. MASHAW, *DUE PROCESS IN THE ADMINISTRATIVE STATE* (1985). In 1927, Carrie Buck's counsel argued that the Supreme Court's approval of Virginia's compulsory sterilization law, under which the initial decision to sterilize was made by a special board of directors of the state hospital where the mentally retarded person resided, would establish a "reign of doctors . . . and the worst forms of tyranny practiced." *Buck v. Bell*, 274 U.S. 200, 202 (1927). See also *Washington v. Harper*, 494 U.S. 210 (1990) (upholding a state law allowing, under certain circumstances, antipsychotic drug treatment of inmates against their will).

A similar debate took place in criminal law. In 1930, one writer predicted that "[w]e shall ultimately come to admit society has been unfortunate in handing over criminals to lawyers and judges. . . . A hundred years ago we allowed lawyers and judges to have the same control of the insane classes as they still exert over criminal groups, but we now recognize that insanity is a highly diversified and complex medical problem which we entrust to properly trained experts" HARRY ELMER BARNES, *THE STORY OF PUNISHMENT* 266 (1930). A few years later, a social scientist proposed that the sentencing of criminal defendants be lodged in a panel comprised of a judge, a mental health professional, and a sociologist or educator. SHELDON GLUECK, *CRIME AND JUSTICE* 225-26 (1936); cf. Lawrence Kubie, *Provisions for the Care of Children of Divorced Parents: A New Legal Instrument*, 73 *YALE L.J.* 1197, 1198 (1964) (recommendation by psychiatrist that custody matters be subjected to binding arbitration by a panel consisting of pediatrician, child psychiatrist, educator, and lawyer or clergyperson).

Although recognizing that the "insights of others who study human behavior" would be helpful to sentencing judges, Judge Marvin Frankel concluded that sentencing was best left to the judiciary. MARVIN E. FRANKEL, *CRIMINAL SENTENCES* 74-75 (1972). Presaging the substantive and procedural arguments in this Article, he argued that "much would be lost in the way of habitual acceptance and compliance if the rendering of judgment were transferred wholly from the judicial to some more clinical office," and questioned "whether there are other professions genuinely more 'expert' to whom the ultimate responsibility would be better assigned." *Id.* at 55. Appraising human behavior was difficult, but the complexity of the task was overrated as was "the extent of effective knowledge possessed by psychiatrists and psychologists." *Id.* at 56. This judgment is still largely correct today. At bottom, criminal responsibility and penalties, he argued, "are judgments that must turn . . . upon the weighing of values, interests, and choices in the everyday province of legal rather than psychiatric study." *Id.* Though sentencing decisions may be informed by social science and mental health data, the ultimate decision remains within the sound discretion of the trial judge. See the Sentencing Reform Act of 1984, 18 U.S.C. §§ 3551-3586 (1988), 28 U.S.C. §§ 991-998 (1988) (establishing a Sentencing Commission and statutorily-mandated *Sentencing Guidelines*). The Commission's work, however, has not been without its critics and the *Sentencing Guidelines* themselves have been the subject of considerable litigation. See, e.g., *Williams v. United States*, 112 S. Ct. 1112 (1992); *Mistretta v. United States*, 488 U.S. 361 (1989).

IV, the Article concludes that the human decisionmaking and procedural justice literature is incompatible with a preference for nonlegal decisionmaking in cases involving the rights of the mentally disabled.

I. REEMERGENCE OF THE PREFERENCE FOR ADMINISTRATIVE ADJUDICATION AND ACQUIESCENCE TO PROFESSIONAL JUDGMENT

The Supreme Court's approval of using nonjudicial means in order to decide procedural and substantive rights of the mentally disabled and the attenuation of liability for mistaken professional judgments concerning those rights began to take shape in *Parham v. J.R.*³ *Parham* involved the application of procedural due process to the admission of children to mental hospitals. The Court rejected the use of an adversary hearing presided over by a judge in which nonconsenting minors would be represented by counsel and permitted to present and cross-examine witnesses in favor of "informal, traditional medical investigative techniques" controlled by psychiatrists.⁴ "Due process," the Court said, "has never been thought to require that the neutral and detached trier of fact be law trained or a judicial or administrative officer,"⁵ particularly when "the questions are essentially medical in character: whether the child is mentally or emotionally ill and whether he can benefit from the treatment that is provided by the state."⁶ In such cases, the Court concluded, "the supposed protections of an adversary proceeding to determine the appropriateness of medical decisions for the commitment and treatment of mental and emotional illness may well be more illusory than real."⁷

In *Youngberg v. Romeo*,⁸ the Court extended its reliance on professional decisionmaking to substantive rights. In deciding whether mental health experts could be held liable for failure to provide treatment, the Court severely limited judicial review of professional decisionmaking. The Court held that it would be inappropriate "for the courts to specify which of several professionally accepted choices should have been made."⁹ Rather, "liability may be imposed only when the decision by the professional is such a substantial departure from accepted professional judgment, practice, or standards as to demonstrate that the person responsible actually did not base the decision on

3. 442 U.S. 584 (1979).

4. *Id.* at 607.

5. *Id.*

6. *Id.* at 609.

7. *Id.* This statement is re-examined in Part IV. The Court's conclusion has been severely criticized. See, e.g., Michael L. Perlin, *An Invitation to the Dance: An Empirical Response to Chief Justice Warren Burger's "Time-Consuming Procedural Minuets" Theory in Parham v. J.R.*, 9 BULL. AM. ACAD. PSYCHIATRY & L. 149 (1981); Gail Perry & Gary Melton, *Precedential Value of Judicial Notice of Social Facts: Parham as an Example*, 22 J. FAM. L. 633 (1983-84). See also John Ensminger & Thomas Liquori, *The Therapeutic Significance of the Civil Commitment Hearing: An Unexplored Potential*, 6 J. PSYCHIATRY & L. 5 (1978).

8. 457 U.S. 307 (1982).

9. *Id.* at 321.

such a judgment."¹⁰

Most recently, in *Washington v. Harper*,¹¹ the Court extended *Parham* and *Youngberg* to a situation involving compelled administration of psychotropic drugs to competent but mentally ill prisoners. The Court concluded "that an inmate's interests are adequately protected, and perhaps better served, by allowing the decision to medicate to be made by medical professionals rather than a judge."¹² Viewing judicial hearings as "chimerical,"¹³ ineffective, and superficial, the Court held that due process requires no more than an "administrative review using medical decisionmakers" to override an inmate's refusal to consent.¹⁴

In the last decade, appellate courts have had many opportunities to apply,

10. *Id.* at 323.

11. 494 U.S. 210 (1990).

12. *Id.* at 231.

13. *Id.* at 234 n.13.

14. *Id.* at 233. "These cases place direct responsibility for evaluating and safe-guarding fundamental liberty interests into the hands of health care professionals, creating, in effect, a new class of 'defacto magistrates.'" Douglas B. Marlowe, *The Defacto Magistrate: Psycholegal Decision-Making in the General Hospital*, in *THE PRACTICE OF FORENSIC PSYCHIATRY AND PSYCHOLOGY IN THE GENERAL HOSPITAL* 6 (Harvey Bluestone et al. eds., forthcoming) [hereinafter Marlowe; page citations are to manuscript]. Other authors have viewed the Court's opinions as signaling a shift from legal due process to "medical due process." Saleem A. Shah, *Legal and Mental Health System Interactions*, 4 INT'L J. L. & PSYCHIATRY 219, 228 (1981) [hereinafter Shah] (quoting Alexander D. Brooks, *The Impact of Law on Psychiatric Hospitalization: Onslaught or Imperative Reform?*, in *COPING WITH THE LEGAL ONSLAUGHT* 13, 24 (Seymour L. Halleck ed., 1979)).

In my view, the Court's decisions of the past 15 years, narrowing the substantive and procedural rights of the mentally disabled, are not revolutionary but simply reflect a reemergence of judicial attitudes toward this population that preceded the patients' rights movement begun 25 years ago. "Until the late 1960s most state commitment processes were medical rather than judicial [P]atients could be hospitalized on the statement of two physicians, without advice of counsel, a hearing, or any recourse other than a writ of habeas corpus." Eric Turkheimer & Charles D.H. Parry, *Why the Gap? Practice and Policy in Civil Commitment Hearings*, 47 AM. PSYCHOLOGIST 646, 646 (1992) [hereinafter *Why the Gap?*]. In 1971, it was reported that 33 jurisdictions still permitted involuntary commitment by medical certification or administrative tribunal. SAMUEL J. BRAKEL & RONALD S. ROCK, *THE MENTALLY DISABLED AND THE LAW* 55-59 (1971).

[But,] [i]n the 1960's and early 1970's, public opinion shifted abruptly from wide-spread support of extensive civil commitment to support of significant limits on the state's commitment authority. . . . "Medical" models of civil commitment, which conferred broad authority on mental health experts to hospitalize coercively persons they deemed mentally ill and in need of hospitalization, were changed drastically in favor of "legal" models of commitment. Under a "medical" model a medical specialist, such as a psychiatrist, has broad authority under law to evaluate and hospitalize a patient he finds mentally ill and in need of treatment. Under a "legal" model, significant substantive and procedural safeguards limit the authority of medical specialists to commit persons deemed mentally ill.

Mary L. Durham & John Q. La Fond, *The Empirical Consequences and Policy Implications of Broadening the Statutory Criteria for Civil Commitment*, 3 YALE L. & POL'Y REV. 395, 397 (1985) [hereinafter Durham & La Fond]. See generally MICHAEL L. PERLIN, 1 MENTAL DISABILITY LAW § 2.04; 2 MENTAL DISABILITY LAW §§ 4.02-4.04; 2 MENTAL DISABILITY LAW § 5.03 (1989).

For other cases supporting administrative and professional decisionmaking, see *DeShaney v. Winnebago County Dep't of Social Serv.*, 489 U.S. 189 (1989); *Mills v. Rogers*, 457 U.S. 291 (1982); *Rhodes v. Chapman*, 452 U.S. 337 (1981); *Vitek v. Jones*, 445 U.S. 480 (1980); *Bell v.*

if not interpret, the professional judgment rule developed in *Youngberg*.¹⁵ It is now clear that mentally disabled plaintiffs complaining of inappropriate professional decisionmaking will have to meet an inordinately high evidentiary burden to prevail. Proof of negligence, consonant with a malpractice standard, will not suffice. As the Third Circuit recently held, "[p]rofessional judgment is a relatively deferential standard," requiring "only that a state actor exercise professional judgment in choosing the appropriate course of action."¹⁶ The appellate courts view the *Youngberg* rule as requiring something akin to recklessness or fault, closer to deliberate indifference than simple negligence. Essentially, plaintiffs will have to prove that the professional judgment exercised was arbitrary before the court will find state-employed mental health professionals liable for their decisions, even if those decisions deprive mentally disabled persons of their constitutional rights.¹⁷

In such cases, expert judgment is extremely constricted. In perhaps the fullest discussion of the issue, the Second Circuit maintained that "the role

Wolfish, 441 U.S. 520 (1979); Board of Curators of the Univ. of Mo. v. Horowitz, 435 U.S. 78 (1978); Mathews v. Eldridge, 424 U.S. 319 (1976); Morrissey v. Brewer, 408 U.S. 471 (1972).

The preference for informal decisionmaking and reliance on mental health professionals to decide cases concerning mentally disabled persons is grounded in the Supreme Court's fundamentally flawed assumption that the issues in these cases are primarily medical or psychiatric ones. Rather, the ultimate issues in these cases concern liberty, autonomy, and dignity, and thus "the ultimate question in mental health law is always social, moral, political, and legal." Stephen J. Morse, *Treating Crazy People Less Specially*, 90 W. VA. L. REV. 353, 359 (1987) [hereinafter *Treating Crazy People*]. See also *id.* at 380-85 (discussing procedural policies).

The only case that may be seen as opposing the trend is *Zinnermon v. Burch*, 494 U.S. 113 (1990). The psychiatrists who admitted Mr. Burch as a voluntary patient failed, however, to make a professional judgment as to his capacity to consent to hospitalization and to afford him his statutory right under state law to a judicial hearing to challenge a determination that he met the standards for involuntary commitment. The Court saw the professionals' failures as an "abuse of their broadly delegated, uncircumscribed power to effect the deprivation at issue." 494 U.S. at 136. In *Foucha v. Louisiana*, 112 S. Ct. 1780 (1992), the Court held that an involuntarily institutionalized insanity acquittee who was no longer mentally ill was entitled to a statutorily-prescribed hearing in order to determine grounds for continued confinement. But the Court noted that no professional at the hearing was willing to offer a definitive judgment that Foucha "would be a danger to the community." *Id.* at 1786. Therefore, continued confinement was a Constitutional violation. *Id.* Similarly, although Justice Thomas' dissent accused the majority in *Riggins v. Nevada*, 112 S. Ct. 1810, 1823-25 (1992) of adopting stricter standards than in *Harper* for reviewing the compelled administration of antipsychotic medication to pretrial detainees, the majority explicitly denied that accusation. *Id.* at 1815.

15. 457 U.S. 307 (1982).

16. *Shaw by Strain v. Strackhouse*, 920 F.2d 1135, 1146 (3d Cir. 1990).

17. *Id.* at 1146-47; *Brown v. Borough of Chambersburg*, 903 F.2d 274 (3d Cir. 1990); *United States v. Charters*, 863 F.2d 302 (4th Cir. 1988) (en banc); *Estate of Conners by Meredith v. O'Connor*, 846 F.2d 1205 (9th Cir. 1988); *Santana v. Collazo*, 793 F.2d 41 (1st Cir. 1986); *Wells v. Franzen*, 777 F.2d 1258 (7th Cir. 1985); *Rennie v. Klein*, 720 F.2d 266 (3d Cir. 1983).

On occasion, plaintiffs have won despite the rule. See, e.g., *Clark v. Cohen*, 794 F.2d 79, 87 (3d Cir. 1986) (continued confinement in state institution for mentally retarded persons deprived plaintiff of substantive right to liberty in face of "unanimous professional opinion" that plaintiff could live in less restrictive environment); *Thomas S. v. Morrow*, 781 F.2d 367, 375 (4th Cir. 1986) (placement of incompetent adult in short term detoxification treatment center violated substantive due process since no professional agreed such placement was compatible with prescribed treatment). Although in these cases the courts ruled against the state, the question arises whether plaintiffs can prevail in such cases only if they show that unanimity of professional judgment is consistent with their position or that the state failed to follow the recommendations and opinions of professionals concerned with their care.

of the experts is only to assist the court in ascertaining what the minimum professional standard is"¹⁸ and whether "professional judgment *in fact* was exercised."¹⁹ Even if every expert testified that other placements for mentally retarded plaintiffs were better than the one recommended by the treating professionals, "the federal courts may only decide whether the treatment or residence setting that actually was selected was a 'substantial departure' from prevailing standards of practice."²⁰ The Fourth Circuit's *en banc* opinion in *United States v. Charters*,²¹ applying *Youngberg*, held that the only relevant question that expert witnesses could permissibly answer was whether the treatment decision was "reached by a process so completely out of professional bounds as to make it explicable only as an arbitrary, non-professional one."²²

This heavy reliance by the Supreme Court on the judgment of mental health professionals does not comport with its longstanding disparagement of the judgment of psychiatrists and psychologists and its concern about their ability to make reliable and valid decisions. As Chief Justice Burger noted in his concurring opinion in *O'Connor v. Donaldson*,²³ "[t]here can be little responsible debate regarding the 'uncertainty of diagnosis in this field and the tentativeness of professional judgment.'"²⁴ The majority, as well, acknowledged the "uncertainties of psychiatric diagnosis and therapy, and [that] the reported cases are replete with evidence of the divergence of medical opinion in this vexing area."²⁵ The Court has also described medical and psychiatric diagnosis as fallible²⁶ and based on impressions drawn from sub-

18. *Society for Good Will to Retarded Children v. Cuomo*, 902 F.2d 1085, 1089 (2d Cir. 1990) [hereinafter *Good Will II*], quoting *Society for Good Will to Retarded Children v. Cuomo*, 737 F.2d 1239, 1248 (2d Cir. 1984) [hereinafter *Goodwill I*].

19. *Good Will I*, 737 F.2d at 1248 (quoting *Youngberg*, 457 U.S. at 321).

20. *Id.* at 1248-49 (citation omitted).

21. 863 F.2d 302, 313 (4th Cir. 1988).

22. *Id.* For similar views, see *S. H. v. Edwards*, 860 F.2d 1045 (11th Cir. 1988); *Lelsz v. Kavanagh*, 807 F.2d 1243 (5th Cir. 1987). For a trenchant critique of the court's application of *Youngberg* in *Charters*, see Michael L. Perlin, *Are Courts Competent to Decide Competency Questions?: Stripping the Facade from United States v. Charters*, 38 KAN. L. REV. 957, 965-66, 975-81, 993 (1990) [hereinafter *Are Courts Competent?*]. "There is simply no lesser standard of judicial review than that articulated in *Youngberg*. The professional's decision must be so illogical, arbitrary or vague as to, in effect, constitute no decision at all . . ." Marlowe, *supra* note 14 at 7. Another issue deserving separate analysis is whether this limited role for experts is at odds with the Supreme Court's reliance on competing professionals to determine the potential for dangerous behavior by defendants facing the death penalty or deprivations of other interests protected by the Constitution. See *infra* notes 164-73 and accompanying text; *Barefoot v. Estelle*, 463 U.S. 880 (1983).

23. 422 U.S. 563 (1975).

24. *Id.* at 584 (quoting *Greenwood v. United States*, 350 U.S. 360, 375 (1956)) (Burger, C.J., concurring).

25. *Id.* at 579.

26. *Parham*, 442 U.S. at 609. "Even under the best of circumstances psychiatric diagnosis and therapy decisions are fraught with uncertainties." *Id.* at 628. (Brennan, J., dissenting). "Professionals . . . disagree strongly on the question whether effective training of all severely or profoundly retarded individuals is even possible" and whether a general prevailing professional practice exists. *Youngberg v. Romeo*, 457 U.S. 307, 316 n.20 (1982). See also *Youngberg*, 457 U.S. at 331 (Burger, C.J., concurring in judgment); *Washington v. Harper*, 494 U.S. 210, 231-32 (1990) (difficulty in assessing mental patients' intentions).

jective analysis.²⁷ The criticism continues unabated into the present decade.²⁸ In this light, it is incongruous that the Court's serious concern about the indeterminacy, inexactitude, and instability of judgments by mental health professionals coexists with their elevation by the Court to the position of ultimate decision-maker.

II. COGNITIVE PSYCHOLOGY'S CONTRIBUTIONS TO HUMAN DECISIONMAKING

"Cognitive science is an umbrella term encompassing research that focuses on understanding the mind. . . . In cognitive psychology . . . researchers examine the mind from the 'top down,' by considering what is already known about human mental activity and behavior, and then exploring what internal processes could possibly explain those phenomena."²⁹

27. *Addington v. Texas*, 441 U.S. 418, 430 (1979). In fact, the inaccuracy of professional diagnostic judgments was one of the major factors that led the Court to adopt a clear and convincing standard of proof, rather than a higher standard, in civil commitment proceedings. "Given the lack of certainty and the fallibility of psychiatric diagnosis, there is a serious question as to whether a state could ever prove beyond a reasonable doubt that an individual is both mentally ill and likely to be dangerous." *Id.* at 429.

28. *See, e.g., Foucha*, 112 S. Ct. at 1783, n.3 (acknowledging probable validity to view that "psychiatry is not an exact science and psychiatrists widely disagree on what constitutes mental illness"); *id.* at 1801 (Thomas, J., dissenting) ("it is unwise . . . to suggest that a determination that a person has 'regained sanity' is precise. Psychiatry is not . . . an exact science" (internal citations omitted)); *Riggins*, 112 S. Ct. at 181, (Kennedy, J., concurring in judgment) (doubtful that experts can establish "baseline of normality" for any particular defendant); *Washington v. Harper*, 494 U.S. 210, 231 (1990) (difficulty in assessing mental patients' intentions); *Schall v. Martin*, 467 U.S. 253, 293-94 (1984) (Marshall, J., dissenting) (evidence "overwhelming" in support of conclusion that available diagnostic tools cannot reliably predict whether minors will act violently); *Jones v. United States*, 463 U.S. 354, 365 n.13 (quoting *Greenwood*); *Youngberg v. Romeo*, 457 U.S. 307, 316 n.20 (1982) ("Professionals . . . disagree strongly on the question whether effective training of all severely or profoundly retarded individuals is even possible."); *Id.* at 331 (Burger, C.J., concurring in judgment) (doubtful that "generally accepted or prevailing professional practice" exists). Perhaps the most comprehensive summary appears in *Ake v. Oklahoma*, 470 U.S. 68, 81 (1985): "Psychiatry is not . . . an exact science, and psychiatrists disagree widely and frequently on what constitutes mental illness, on the appropriate diagnosis to be attached to given behavior and symptoms, on cure and treatment, and on the likelihood of future dangerousness." *Id.* at 81.

This forty year record of denigration of expertise by mental health professionals has been expressed by most members of the Court regardless of political ideology and their views on constitutional jurisprudence. "A number of Supreme Court Justices . . . have written on the incertitude of mental health clinician testimony." Edmund V. Ludwig, *The Mentally Ill Homeless: Evolving Involuntary Commitment Issues*, 36 VILL. L. REV. 1085, 1100 (1991). In contrast, the medicalization of due process has reemerged only in the last 15 years, reflecting the increasingly conservative membership of the Court and its preference for decreased involvement by the judiciary in adjudicating the rights of mentally disabled persons. *See supra* note 14.

29. Rebecca Dresser, *Review Essay/Making Up Our Minds: Can Law Survive Cognitive Science?*, 10(1) CRIM. JUST. ETHICS 27, 28 (1991). The critical study of judgment may be said to have begun 40 years ago with the work of Ward Edwards, *The Theory of Decision Making*, 51 PSYCHOL. BULL. 380 (1954) and PAUL E. MEEHL, CLINICAL VERSUS STATISTICAL PREDICTION (1954). "Research on clinical judgment and decision making has been active for about 20 years." Arthur S. Elstein, *Cognitive Processes in Clinical Inference and Decision Making*, in REASONING, INFERENCE, & JUDGMENT IN CLINICAL PSYCHOLOGY 17, 17 (Dennis C. Turk & Peter Salovey eds., 1988) [hereinafter TURK & SALOVEY]. "Psychological research on decision making describes and analyzes the cognitive processes and principles employed in decision making under uncertainty. It is concerned with what people actually do,

A. THEORY AND RESEARCH ON THE VAGARIES OF HUMAN JUDGMENT AND THEIR APPLICATION TO CLINICAL DETERMINATION

The Supreme Court's doubt about, if not criticism of, the reliability and validity of decisionmaking by mental health professionals though not supported in its opinions by data is, however, buttressed by social science research.³⁰ Unlike its general preference for professional rather than judicial decisionmaking, the Court's doubt of mental health professional reliability has considerable merit. The support comes from the flourishing interdisciplinary study of the "psychology of judgment and decision-making."³¹

not with what they should do; the normative theory serves as the standard of comparison." *Id.* at 31. For a brief history of the developments in cognitive and social psychology that stimulated research on human decision-making, see RICHARD E. NISBETT & LEE ROSS, *HUMAN INFERENCE: STRATEGIES AND SHORTCOMINGS OF SOCIAL JUDGMENT* 4-6 (1980) [hereinafter *HUMAN INFERENCE*].

30. This research goes beyond studies cited in older law review articles that question the accuracy of diagnostic decisions by mental health professionals. *E.g.*, Bruce J. Ennis & Thomas R. Litwack, *Psychiatry and the Presumption of Expertise: Flipping Coins in the Courtroom*, 62 CAL. L. REV. 693 (1974); Ronald S. Gass, Comment, *The Psychologist as Expert Witness: Science in the Courtroom?*, 38 MD. L. REV. 539 (1979). For a controversial but valuable compilation of the literature challenging the accuracy of mental health professionals' diagnostic and treatment decisions and the psychometric soundness of the assessment devices upon which these decisions depend, see JAY ZISKIN & DAVID FAUST, *COPING WITH PSYCHIATRIC AND PSYCHOLOGICAL TESTIMONY* 1-3 (4th ed. 1988). The work cited in this Article has been generated primarily by cognitive psychologists studying human judgment in a variety of contexts.

31. Reid Hastie, *A Review from a High Place: The Field of Judgment and Decision-making as Revealed in Current Textbooks*, 2 PSYCHOL. SCI. 135, 135 (1991). "The 'cognitive sciences' connotes an interdisciplinary effort that cuts across neuroscience, psychology, linguistics, anthropology, artificial intelligence, and philosophy." Steven L. Winter, *Transcendental Nonsense, Metaphoric Reasoning, and the Cognitive Stakes for Law*, 137 U. PA. L. REV. 1105, 1109 n.7 (1989).

In the past decade a number of influential texts and articles have appeared in the literature, supporting Hastie's conclusion. *E.g.*, ROBYN DAWES, *RATIONAL CHOICE IN AN UNCERTAIN WORLD* (1988); THOMAS GILOVITCH, *HOW WE KNOW WHAT ISN'T SO: THE FALLIBILITY OF HUMAN REASONING IN EVERYDAY LIFE* (1991); *JUDGMENT AND DECISION MAKING* (Hal R. Arkes & Kenneth R. Hammond eds., 1986); *JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIASES* (Daniel Kahneman et al. eds., 1982); ARTHUR NEZU & CHRISTINE NEZU, *CLINICAL DECISION MAKING IN BEHAVIOR THERAPY* (1989) [hereinafter *NEZU & NEZU*]; *HUMAN INFERENCE*, *supra* note 29; John W. Payne et al., *Behavioral Decision Research: A Constructive Processing Approach*, in 43 ANNUAL REVIEW OF PSYCHOLOGY 88 (Mark R. Rozenzweig & Lyman W. Porter eds. 1992) [hereinafter *Payne et al.*]; HOWARD RACHLIN, *JUDGMENT, DECISION, AND CHOICE: A COGNITIVE/BEHAVIORAL SYNTHESIS* (1989); TURK & SALOVEY, *supra* note 29; J. FRANK YATES, *JUDGMENT AND DECISION-MAKING* (1990); Hal R. Arkes, *Principles in Judgment/Decision-making Research Pertinent to Legal Proceedings*, 7 BEHAV. SCI. & L. 429 (1989) [hereinafter *Arkes*]; Jean C. Beckham et al., *Decision Making and Examiner Bias in Forensic Expert Recommendations for Not Guilty by Reason of Insanity*, 13 L. & HUM. BEHAV. 79 (1989) [hereinafter *Beckham et al.*]; David Faust, *Research on Human Judgment and its Application to Clinical Practice*, 17 PROF. PSYCHOL. 420 (1986) [hereinafter *Faust*]; Benjamin Kleinmuntz, *The Scientific Study of Clinical Judgment in Psychology and Medicine*, 4 CLINICAL PSYCHOL. REV. 111 (1984); Michael J. Saks & Robert F. Kidd, *Human Information Processing and Adjudication: Trial by Heuristics*, 15 L. & SOC'Y REV. 123 (1981) [hereinafter *Saks & Kidd*]. See also PAUL E. MEEHL, *CLINICAL VERSUS STATISTICAL PREDICTION: A THEORETICAL ANALYSIS AND A REVIEW OF THE EVIDENCE* (1954); Daniel Kahneman & Amos Tversky, *On the Psychology of Prediction*, 80 PSYCHOL. REV. 237 (1973) [hereinafter *Psychology of Prediction*].

Some of this research is beginning to make its way into the mainstream legal literature. See, *e.g.*, Ward Edwards & Detlof von Winterfeldt, *Cognitive Illusions and their Implications for the*

The burgeoning literature on human judgment, inference, and information processing discusses proven barriers to accurate judgment that negatively impinge upon the reliability and validity of human decisionmaking generally and clinicians' decisionmaking particularly.³² In addition, this literature suggests that the judgments of experienced clinicians are in many cases more susceptible to error than those of trainees and sometimes even lay decisionmakers.³³

Information processing and decisionmaking are by no means uniquely professional tasks. "Judgment and choice are pervasive activities,"³⁴ and

Law, 59 S. CAL. L. REV. 225 (1986) [hereinafter *Cognitive Illusions*]; David L. Faigman & A.J. Baglioni, Jr., *Bayes' Theorem in the Trial Process*, 12 L. & HUM. BEHAV. 1 (1988); Steve Fuller, *Playing Without a Full Deck: Scientific Realism and the Cognitive Limits of Legal Theory*, 97 YALE L.J. 549 (1988); Thomas M. Horner & Melvin J. Guyer, *Prediction, Prevention, and Clinical Expertise in Child Custody Cases in Which Allegations of Child Sexual Abuse Have Been Made: I. Predictable Rates of Diagnostic Error in Relation to Various Clinical Decision-making Strategies*, 25 FAM. L.Q. 217 (1991) [hereinafter Horner & Guyer]; Elizabeth F. Loftus & Willem Wagenaar, *Lawyers' Predictions of Success*, 28 JURIMETRICS J. 437 (1988); Peter Margulies, "Who Are You to Tell Me That?": *Attorney-Client Deliberation Regarding Nonlegal Issues and the Interests of Nonclients*, 68 N.C. L. REV. 213, 231-39 (1990); Albert J. Moore, *Trial by Schema: Cognitive Filters in the Courtroom*, 37 UCLA L. REV. 273 (1989) [hereinafter Moore]; Roger G. Noll & James E. Krier, *Some Implications of Cognitive Psychology for Risk Regulation*, 19 J. LEGAL STUD. 747 (1990); Michael L. Perlin, *Psychodynamics and the Insanity Defense: "Ordinary Common Sense" and Heuristic Reasoning*, 69 NEB. L. REV. 3 (1990) [hereinafter *Psychodynamics*]; David Wexler & Robert Schopp, *How and When to Correct for Juror Hindsight Bias in Mental Health Malpractice Litigation: Some Preliminary Observations*, 7 BEHAV. SCI. & L. 485 (1989).

32. "Subjective cognitive operations, whether called attribution, thinking, information processing, inference, or clinical judgment, occupy a great part of the practicing psychologist's time—as well as that of most physicians, including but by no means limited to psychiatrists—and that of many other human service professionals." Robert R. Holt, *Judgment, Inference, and Reasoning in Clinical Perspective*, in TURK & SALOVEY, *supra* note 29, at 233, 234. Throughout the period of exposure to the patient, practitioners gather data, hypothesize, and make judgments. The information is not self-evident and must be interpreted. The enormous amounts of data can only be processed a little at a time. Dennis C. Turk et al., *Psychotherapy: An Information-Processing Perspective*, in TURK & SALOVEY, *supra* note 29, at 1, 2.

Clinicians classify, infer, and predict. Classification involves assigning clients to diagnostic categories based on either an explicit or an implicit measurement of one or more attributes.

* * *

[T]he clinician must mentally untangle various attributes, sorting the relevant from the irrelevant, in order to identify properties that bear on the sorts of judgments that need to be made.

The problem of mentally untangling attributes is essentially a problem of selective attention. . . .

Albert F. Smith, *Perceiving the Client*, in TURK & SALOVEY, *supra* note 29, at 73, 76-77.

Studies are undertaken from three theoretical perspectives: information processing, social judgment, and behavioral decision theory. Daniel L. Rock et al., *The Study of Clinical Judgment: An Ecological Approach*, 7 CLINICAL PSYCHOL. REV. 645, 647 (1987) [hereinafter Rock et al.]. Information processing researchers focus on descriptive rather than normative models of judgment. See, e.g., *infra* text accompanying notes 37-42. Social judgment researchers emphasize statistical regression models and are more interested in prediction than description. See, e.g., *infra* text accompanying notes 71-84. Behavioral decision researchers are prescriptive, developing and evaluating methods for improving the accuracy and efficiency of clinical judgments. See, e.g., *infra* text accompanying notes 65-68, 163-67. See Rock et al. *supra*, at 647 (collecting references and examples).

33. See *infra* notes 34-41, 105-06 and accompanying text.

34. ROBIN HOGARTH, JUDGEMENT AND CHOICE: THE PSYCHOLOGY OF DECISION 1 (2d ed. 1987) [hereinafter HOGARTH].

"an inevitable aspect of living."³⁵ When faced with data and the need to make judgments derived from that data, all humans may be characterized as "intuitive scientists."³⁶ Information is processed through beliefs, theories, propositions, and schemas.³⁷ These knowledge structures enable us to label and categorize objects rapidly and, in most cases, correctly. However, humans have limited capabilities to collect and interpret large amounts of information at any one time. This barrier to accurate decisionmaking is called "bounded rationality."³⁸ "Some beliefs, theories, and schemas are relatively poor and inaccurate representations of the external world. More dangerous, objects and events are not always labeled accurately and sometimes are processed through entirely inappropriate knowledge structures."³⁹

Given the difficulty in processing large amounts of information at any one time and such inherent problems as limited short term memory, the decision outcome is very likely to be flawed.⁴⁰ The problems are compounded by the use of a variety of decisionmaking strategies to help deal with what otherwise would be a "blooming, buzzing confusion."⁴¹ As a result, clinicians and lay people tend to focus on what they perceive to be the more important pieces of information, to consider information serially rather than in parallel

35. *Id.*

36. HUMAN INFERENCE, *supra* note 29, at 6-8.

37. *See id.*, at 28-41; NEZU & NEZU, *supra* note 31, at 21.

Schemas are cognitive structures that provide organized representations of various classes of information or rules. They are derived from the rich store of general knowledge of objects, people, events, and the characteristic relationships people develop throughout their lives. Examples include how one behaves at a convention of one's peers and what paranoid schizophrenics are like. Unfortunately, some schemas are based on faulty data and lead to bad judgments.

Decisionmaking, however, is not only a cognitive activity. There is ample research showing the effect of affect (emotion) on mental health professionals' judgments. *See* Peter Salovey & Dennis C. Turk, *Some Effects of Mood on Clinicians' Memory*, in TURK & SALOVEY, *supra* note 29, at 107. "Nearly every serious decision a clinician makes—to hospitalize a patient, to ask a particular question, to refer a client elsewhere—involves an assessment of risk. This appraisal process seems vulnerable to influence by a clinician's ongoing mood state." *Id.* at 114. Clinicians who are happy use more intuitive and potentially error-prone strategies and are more likely to choose simple decisionmaking strategies. *Id.* at 115-16; Alice M. Isen & Kimberly A. Daubman, *The Influence of Affect on Categorization*, 97 J. PERSONALITY & SOC. PSYCHOL. 1206 (1984).

38. The term, as originally coined by ALLEN NEWELL & HERBERT A. SIMON, HUMAN PROBLEM SOLVING 55 (1972), was known as "limited rationality." It is now better known in the literature as bounded rationality. Hogarth, *supra* note 34, at 63-66. It has also been labeled as "selective attention." WENDELL GARNER, THE PROCESSING OF INFORMATION AND STRUCTURE (1974).

39. HUMAN INFERENCE, *supra* note 29, at 7. *See* Turk, *supra* note 32, at 5:

One result of information processing guided by knowledge structures like . . . schemas . . . is the tendency to seek information that confirms prior hypotheses. Based on theoretical orientation, training, and experience, clinicians develop schemas about clients according to diagnostic categories. In observing behavior in the clinical setting, clinicians are more likely to: (a) observe what they expect to observe (which, in most cases, is pathology); (b) selectively seek theory-confirming information; and (c) respond in ways that foster this confirming behavior. Ambiguous information is particularly vulnerable to this bias.

Id. (citations omitted).

40. *See* NEZU & NEZU, *supra* note 31, at 17-18.

41. WILLIAM JAMES, PRINCIPLES OF PSYCHOLOGY 488 (New York, H. Holt & Co. 1890).

or configurally, and to represent reality in highly parsimonious terms. The paradox is that these very strategies (or heuristics, as they are called in the literature) often lead to a myriad of inferential errors.⁴²

"Heuristics are information processing strategies which reduce complex judgmental tasks to a set of simpler operations. These strategies appear to be innate, automatic processes operating without an act of volition and, presumably, outside of conscious awareness."⁴³ "When assessing the probability of uncertain empirical facts, people often deviate from the probability predicted by mathematical and statistical theorems. This discrepancy between individual assessments of probability and statistically predicted probability is often attributable to the use of simplifying strategies called 'heuristics.'"⁴⁴ The strategies that expert clinicians, novices, and lay people use in arriving at decisions are more similar than different.⁴⁵ Although these heuristics lead to erroneous decisions in many cases, the use of these strategies in everyday life produces predominantly more correct decisions than incorrect ones and with great speed and little effort.⁴⁶

Perhaps the most well known delineation of judgmental errors comes from the work of Amos Tversky and Daniel Kahneman.⁴⁷ They identified

42. HUMAN INFERENCE, *supra* note 29, at 7. "Errors can occur in both acquiring and interpreting data." Elstein, *supra* note 29, at 29. "Rational decision making should obey the axioms of statistical decision theory Yet, there is considerable evidence that certain heuristic principles widely used in human decision making, which seem intuitively reasonable and sensible to many people, may be inconsistent with normative theory." *Id.* at 21 (citation omitted).

43. Steven D. Hollon & Margaret R. Kriss, *Cognitive Factors in Clinical Research and Practice*, 4 CLINICAL PSYCHOL. REV. 35, 41 (1984).

44. Moore, *supra* note 31, at 284.

45. Elstein, *supra* note 29, at 22-24.

46. See HUMAN INFERENCE, *supra* note 29, at 18.

47. See, e.g., Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, 5 COGNITIVE PSYCHOL. 207 (1973) [hereinafter *Availability*]; Amos Tversky & Daniel Kahneman, *Belief in the Law of Small Numbers*, 76 PSYCHOL. BULL. 105 (1971); Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics & Biases*, 185 SCIENCE 1124 (1974) [hereinafter *Judgment Under Uncertainty*]; *Psychology of Prediction*, *supra* note 31; Daniel Kahneman & Amos Tversky, *Subjective Probability: A Judgment of Representativeness*, 3 COGNITIVE PSYCHOL. 430 (1972).

Recently, some critics have questioned the universality and generalizability of heuristic strategies by showing that some cognitive biases disappear when the form of the question is changed or the options are modified to yield frequencies rather than probabilities.

I will argue that most so-called errors or cognitive illusions are . . . in fact, *not* violations of probability theory. In their normative claims, Tversky and Kahneman, and social psychologists following in their footsteps, have neglected conceptual distinctions that are fundamental to probability and statistics. Secondly, I will show that if we pay attention to these conceptual distinctions, we can make apparently stable "cognitive illusions" disappear, reappear, or even invert.

Gerd Gigerenzer, *How to Make Cognitive Illusions Disappear: Beyond "Heuristics and Biases"*, in 2 EUROPEAN REVIEW OF SOCIAL PSYCHOLOGY 83, 86 (Wolfgang Stoebe & Miles Hewstone eds., 1991). The most recent review of the decisionmaking literature acknowledged that decisions are not procedurally invariant and can change as the result of different representations of the same choice problem. See Payne et al., *supra* note 31, at 91-98. Nevertheless, "the question is no longer whether biases exist, but under what conditions relevant information will or will not be used to construct a response to a probability judgment task." *Id.* at 103. The conflict between the work of Kahneman and Tversky and such critics as Gigerenzer is more generally one between the Bayesians, represented by the former, and frequentists, represented

three strategic principles that humans, including mental health clinicians, commonly use to simplify complex decisionmaking tasks. They are known as the availability, representativeness, and anchoring heuristics.

The availability heuristic biases estimates of the frequency of a class or the probability of an event by the ease with which instances of that class or event can be recalled.⁴⁸ "For example, one may assess the divorce rate in a given community by recalling divorces among one's acquaintances; . . . and one may estimate the probability that a violent person will 'see' beasts of prey in a Rorschach card by assessing the strength of association between violence and beasts of prey."⁴⁹

To the extent that one's use of the availability heuristic matches objective reality, it can lead to quick and accurate judgments; but when that match is faulty, it can lead to erroneous diagnostic and treatment formulations. "Categories that have been employed recently and/or frequently show enhanced cognitive accessibility and have increased probability of being employed in subsequent categorization and judgment."⁵⁰ For example, a patient complaining of sadness is more likely to be assessed as a suicide risk if the clinician had a recent case involving a patient who actually committed suicide but had been evaluated initially as a low risk for self-destruction. Similarly, a therapist may institute a particular treatment with a patient experiencing a panic disorder because that treatment worked with a prior anxious patient. Likewise, a diagnostic or treatment decision may result from particular categories that are familiar and chronically accessible. For example, specific types of clinical practices tend to be characterized by clients suffering from particular forms of psychopathology. Thus, if clinicians are repeatedly exposed to a particular type of disorder, that diagnostic category may show a

by the latter. Bayesians think in terms of probabilities; frequentists think in terms of relative frequencies. "Bayesian and frequentistic approaches lead to quite different conclusions about the rules for statistical inference, and statisticians of these persuasions have engaged in running arguments since the early 1960's." *Cognitive Illusions, supra* note 31, at 228. For a brief discussion of Bayesian approaches to decisionmaking, see *infra* notes 65-68 and accompanying text.

48. NEZU & NEZU, *supra* note 31, at 19.

49. *Availability, supra* note 47, at 208.

[I]f one had to judge the chances of a discharged mental patient being dangerous, one might only access dramatic memories of particular discharged patients (e.g., memories of their violent behavior (sic)) presumably because such memories are more available. If so, then one would judge a particular patient as having a greatly inflated chance of being dangerous, ignoring data which suggest, in general, that discharged mental patients are most likely to be docile and non-violent.

Ben Harris & John H. Harvey, *Attribution Theory: From Phenomenal Causality to the Intuitive Social Scientist and Beyond*, in *THE PSYCHOLOGY OF ORDINARY EXPLANATIONS OF SOCIAL BEHAVIOR* 57, 83 (Charles Antaki ed., 1981). Similarly, "people believe that psychotic individuals are prone to extreme violence simply because they can recall more easily an example of a violent psychotic (e.g., Charles Manson . . .), even though the prevalence of violent behavior by emotionally disturbed individuals is actually quite low." Turk, *supra* note 32, at 1, 6. A current review suggests that there may be a consistent, though modest, positive relationship between mental disorders and the occurrence of violence. See John Monahan, *Mental Disorder and Violent Behavior: Perceptions and Evidence*, 47 *AM. PSYCHOLOGIST* 511 (1992).

50. Mark Snyder & Cynthia J. Thomsen, *Interactions between Therapists and Clients: Hypothesis Testing and Behavioral Confirmation*, in *TURK & SALOVEY, supra* note 29, at 133.

relatively permanent increase in availability.⁵¹

A number of factors can contribute erroneously to the availability of information. Two of the more well studied factors are vividness and illusory correlation. "Vivid information is more likely to be stored and remembered than pallid information is. Information that is easily remembered is by definition more likely to be retrieved at some later date and therefore to affect later inferences."⁵² For example, in one study mock jurors heard arguments concerning the fitness of a mother to be awarded custody of her seven-year-old son. Half of the jurors heard evidence with all favorable arguments presented in vivid form and all unfavorable arguments in non-vivid form. The other half heard the arguments in reverse. Jurors remembered more vivid than non-vivid arguments, and those who heard the favorable arguments in vivid form judged the mother to be a more fit parent than did jurors who heard the unfavorable arguments in vivid form. The vividness effect held true under conditions of both immediate and delayed (by 48 hours) judgment.⁵³

Perhaps more relevant is the influence of preconceived notions or expectancies, usually labeled in the decisionmaking literature as illusory correlation,⁵⁴ which is defined as "a report by an observer of a correlation between two classes of events which in reality (a) are not correlated, (b) are correlated to a lesser extent than reported, or (c) are correlated in the opposite

51. *Id.* See Tony E. Higgins et al., *Individual Construct Accessibility and Subjective Impressions and Recall*, 43 J. PERSONALITY & SOC. PSYCHOL. 35 (1982). "[A] clinician who works in a state mental hospital might overestimate the number of paranoid schizophrenics in the clinical population and be more likely to overdiagnose paranoid schizophrenia simply because specific paranoid schizophrenics are so easily called to mind in that setting." Turk, *supra* note 32, at 6. "Furthermore, since theoretical orientations differ in the extent to which they emphasize particular forms of pathology, clinicians with different theoretical perspectives may systematically differ in the types of diagnostic categories that are chronically most accessible to them." Snyder & Thomsen, *supra* note 50, at 133.

52. HUMAN INFERENCE, *supra* note 29, at 45 (emphasis deleted).

53. Jonathan Shedler & Melvin Manis, *Can the Availability Heuristic Explain Vividness Effects?*, 51 J. PERSONALITY & SOC. PSYCHOL. 26 (1986). See also Robert M. Reyes et al., *Judgmental Biases Resulting from Differing Availabilities of Arguments*, 39 J. PERSONALITY & SOC. PSYCHOL. 2 (1980) (mock jurors who read prosecution arguments in vivid form and defense arguments in non-vivid form judged defendant charged with drunk driving more harshly than those in contrasting experimental group, though only in the delayed recall condition). However, "[s]ince most juries render a verdict long after the evidence has been presented, the findings from the delayed rating of guilt would seem to be most applicable to normal legal proceedings." Arkes, *supra* note 31, at 434-35. *Contra* Shelley E. Taylor & Suzanne C. Thompson, *Stalking the Elusive "Vividness" Effect*, 89 PSYCHOL. REV. 155 (1982) (there is little support for the proposition that vividly presented information is more persuasive than non-vividly presented information).

An experienced advocate knowledgeable about the availability heuristic can use this information in preparing and examining experts:

Expert witnesses reporting scientific and/or statistical data are likely to have less impact on a fact finder than does a person who reports a case study, relates a compelling personal experience, or offers anecdotal evidence. That which is more concrete, vivid, emotion arousing, and otherwise more salient will be more accessible when a fact finder ponders the decision to be made.

Saks & Kidd, *supra* note 31, at 137.

54. Arkes, *supra* note 31, at 434.

direction of that which is reported."⁵⁵ In the seminal studies,⁵⁶ naive lay subjects and experienced clinicians were provided with psychiatric diagnoses and test responses from figure drawings or Rorschach cards. The subjects were asked to estimate the correlations between certain diagnoses and test responses, for example, emphasis of paranoid patients on eyes in the drawings or perceptions by gay men of feminine clothing in Rorschach ink blots. Although the pairings of diagnoses and test responses were done randomly, both naive and clinical subjects significantly overestimated the co-occurrence between stereotypical but invalid signs on the tests and diagnostic characteristics of patients. In effect, decisionmakers "perceived" these stereotypical correlations even though no evidence for them existed. In fact, these illusory correlations were so persistent that they were evoked even when the popular but invalid sign was paired randomly with a symptom or was actually correlated negatively with it and the unpopular but valid sign was paired 100% of the time with the same symptom.⁵⁷ The phenomenon occurred more often as the information confronting the decisionmaker increased,⁵⁸ and the influence of these preconceived notions appeared resistant to training specifically designed to reduce illusory correlation.⁵⁹

The representativeness heuristic is used by decisionmakers to determine the probability that an individual is a member of a particular group, (for example whether Patient X can be classified within a certain diagnostic entity) or that an individual is likely to engage in a particular behavior (for example, whether Defendant Y will commit acts that constitute a continuing danger to society).⁶⁰ In such cases, decisionmakers select outcomes based on

55. Saks & Kidd, *supra* note 31, at 139; *Judgment Under Uncertainty*, *supra* note 47, at 1128.

56. Loren J. Chapman & Jean P. Chapman, *Genesis of Popular but Erroneous Psychodiagnostic Observations*, 72 J. ABNORMAL PSYCHOL. 193 (1967) [hereinafter *Genesis*]; Loren J. Chapman & Jean P. Chapman, *Illusory Correlation as an Obstacle to the Use of Valid Psychodiagnostic Signs*, 74 J. ABNORMAL PSYCHOL. 271 (1969) [hereinafter *Illusory Correlation*]; Loren J. Chapman, *Illusory Correlation in Observational Report*, 6 J. VERBAL LEARNING & VERBAL BEHAV. 151 (1967).

57. See *Illusory Correlation*, *supra* note 56, at 271; *Genesis*, *supra* note 56, at 193.

58. Robert J. Lueger & Thomas P. Petzel, *Illusory Correlation in Clinical Judgment: Effect of Amount of Information to be Processed*, 47 J. CONSULTING & CLINICAL PSYCHOL. 1120 (1979).

59. See Richard M. Kurtz & Sol L. Garfield, *Illusory Correlation: A Further Exploration of Chapman's Paradigm*, 46 J. CONSULTING & CLINICAL PSYCHOL. 1009 (1978). "One technique that has proven to be absolutely worthless is telling people what a particular bias is and then telling them not to be influenced by it." Hal R. Arkes, *Impediments to Accurate Clinical Judgment and Possible Ways to Minimize Their Impact*, 49 J. CONSULTING & CLINICAL PSYCHOL. 323, 326 (1981) (citation omitted) [hereinafter *Impediments*]; accord Baruch Fischhoff, *Perceived Informativeness of Facts*, 3 J. EXPERIMENTAL PSYCHOL.: HUMAN PERCEPTION & PERFORMANCE 349 (1977); Jerry S. Wiggins, *Clinical and Statistical Prediction: Where We Are and Where Do We Want to Go?*, 1 CLINICAL PSYCHOL. REV. 3, 16 (1981) ("Explaining a bias to judges and then telling them not to be influenced by it, is absolutely worthless as a training technique"). The presence of illusory correlation in clinical decision-making has been replicated and judged to be robust. Stephen L. Golding & Leonard G. Rorer, *Illusory Correlation and Subjective Judgment*, 80 J. ABNORMAL PSYCHOL. 249 (1972); B. James Starr & Edward S. Katkin, *The Clinician as an Aberrant Actuary: Illusory Correlation and the Incomplete Sentences Blank*, 74 J. ABNORMAL PSYCHOL. 670 (1969).

60. See TEX. CODE CRIM. PROC. ANN. art. 37.071(b)(2) (Vernon 1981) (mandating jury should consider the threat to society in sentencing stage); *Jurek v. Texas*, 428 U.S. 262, 267-73

the essential features of the evidence.⁶¹ Thus, those judging "assess the degree to which the salient features of the object are representative of, or similar to, the features presumed to be characteristic of the category."⁶²

Representativeness may be useful when in reality a particular characteristic truly resembles a larger category or schema (for example, a suspicious, guarded, and grandiose person is diagnosed as having paranoid symptoms). Certain factors exist, however, such as ignorance or misuse of base rates, the illusion of validity, and the failure to consider statistical regression, which affect the likelihood of outcomes but not their representativeness.⁶³ When these factors are ignored, they lead to erroneous judgments or predictions, as when an acutely psychotic person presented for civil commitment is predicted to be violent.⁶⁴

Perhaps the best known factor that does not affect representativeness, but which should affect predictions of probability, is base rates, that is, frequencies of things to be identified or predicted or prior probabilities of outcomes. For example, if a psychiatrist were told that a patient was a major risk taker and asked to guess whether the patient was a professional sky diver or a lawyer, the representativeness heuristic would lead the clinician to conclude the patient was a sky diver. However, given the fact that there are a great many more lawyers than sky divers, insensitivity to base rates may interfere with arriving at the proper judgment.⁶⁵ To comport with the findings of

(1976) (discussing the jury's task of determining whether defendant would commit violence constituting a threat to society and of imposing the death penalty based on such a prediction).

61. *Psychology of Prediction*, *supra* note 31, at 237-38. "The representative heuristic involves an assessment of the probability of an event by judging the degree to which that event corresponds to an appropriate mental model such as a sample and a population, an instance and a category, or an act or an actor." Payne et al., *supra* note 31, at 103.

62. HUMAN INFERENCE, *supra* note 29, at 24. "[T]he representative heuristic . . . holds that the likelihood that event *A* belongs to class *X* is equal to the degree to which *A* resembles or is similar to *X*." Moore, *supra* note 31, at 284-85.

63. *Judgment Under Uncertainty*, *supra* note 47, at 1124-27.

64. See Daniel Kahneman & Amos Tversky, *Subjective Probability: A Judgment of Representativeness*, 3 COGNITIVE PSYCHOL. 430 (1972) (discussing the use of subjective probabilities and representativeness); Saks & Kidd, *supra* note 31, at 133 (discussing the danger of erroneous predictions).

Presumed familiarity with a particular clinical problem, patient type, or procedure, may . . . lead to increasingly scripted thinking and behavior by the clinician. . . . While scripted behavior in many ways may be more efficient, it also may be more subject to inaccuracy. . . . [O]nce faulty causal attributions (or diagnostic labels) are made, contradictory (accurate) information may be discounted; self-fulfilling prophecies may then confirm the faulty diagnosis, and treatment may proceed inappropriately.

John S. Jordan et al., *Attributional Biases in Clinical Decision Making*, in TURK & SALOVEY, *supra* note 29, at 90, 99.

65. The classic example involves judging the probability that a blue cab rather than a green cab was the cause of a hit-and-run accident at night when it is known that 85% of the cabs in the city are green and 15% blue, and a witness who identified the cab as blue, when tested with a sample of equal number of green and blue cabs under appropriate visibility conditions, made the correct identification 80% of the time. The typical subject judged the probability of the true perpetrator to be the blue cab 80% of the time. Given the base rate information (prior probabilities) and the specific case data (posterior odds), the correct probability is 41%. See Amos Tversky & Daniel Kahneman, *Causal Schemes in Judgments*

cognitive psychology, the clinician who wishes to arrive at the most probable diagnosis must know:

(a) the frequency of occurrence of a diagnostic sign and (b) a disorder in the population being observed (i.e., the "base rates"), as well as (c) the probability that someone with the disorder in question will or will not exhibit the sign, and (d) the probability that normal individuals will also exhibit the sign.⁶⁶

The basic problem with making probability judgments on the basis of representative characteristics is that the schema accessed may in fact be *less* probable, given the characteristic, than one not accessed, the reason being that the schema not accessed has a much greater *extent* in the world than the accessed one.⁶⁷

Unfortunately, only when no additional information is given other than base rates, will decisionmakers rely on that information, but when additional clinical data are introduced, even if worthless, the base rate is seemingly disregarded and the representativeness heuristic again controls the judgment.⁶⁸

Under Uncertainty, in PROGRESS IN SOCIAL PSYCHOLOGY 49 (Martin Fishbein ed., 1980) (calculating probabilities and discussing the neglect of base rates).

For the technical details of how such calculations are made, see HOGARTH, *supra* note 34, at 235-41. Such calculations are based on the use of Bayes' Theorem or Bayesian analysis. See THOMAS BAYES, AN ESSAY TOWARDS SOLVING A PROBLEM IN THE DOCTRINE OF CHANCES (1763). "Bayes's theorem specifies that proper inferences from fallible evidence should combine that evidence with prior probabilities, that is, the opinions held by the person making the inference before the new evidence becomes available." *Cognitive Illusions, supra* note 31, at 232. *Impediments, supra* note 59, at 327-29; NEZU & NEZU, *supra* note 31, at 15-16; Lyn D. Pankoff & Harry V. Roberts, *Bayesian Synthesis of Clinical and Statistical Prediction*, 70 PSYCHOL. BULL. 762 (1968) [hereinafter *Bayesian Synthesis*]; William B. Schwartz et al., *Decision Analysis and Clinical Judgment*, 55 AM. J. MED. 459 (1973).

66. Elstein, *supra* note 29, at 32. See JERRY S. WIGGINS, PERSONALITY AND PREDICTION: PRINCIPLES OF PERSONALITY ASSESSMENT (1988). For example, consider a new diagnostic instrument that is 95% positive for known depressed males and 33% positive for non-depressed males, creating a true positive hit rate about three times the false positive rate. Assuming the general prevalence of clinical depression for males is 5%, if the instrument is given to a randomly selected man and the results are positive, clinicians may be asked what the probability is that the patient is actually depressed. A majority of clinicians gauge the probability value to be 65% or greater. But, with the proper calculation of base rates and case specific information, the true probability is only 13%. See NEZU & NEZU, *supra* note 31, at 14-15.

67. Robyn M. Dawes, *Representative Thinking in Clinical Judgment*, 6 CLINICAL PSYCHOL. REV. 425, 429 (1986). See David Faust, *What If We Had Really Listened? Present Reflections on Altered Pasts, in* 1 THINKING CLEARLY ABOUT PSYCHOLOGY 185 (Dante Cicchetti & William M. Gove eds., 1990):

For example, compared to predictions founded on the base rates, a sign (or set of signs) that achieves 75% accuracy will exceed base-rate predictions if the event of interest occurs 65% of the time (and thus one achieved 65% accuracy by always guessing "yea"). However, the sign will fall below base-rate accuracy if the event occurs 85% of the time (and one could thereby achieve 85% accuracy by always guessing "yea").

Id. at 186. Thus, simply using a valid assessment instrument or a set of valid diagnostic signs is not enough. The use of these valid indicators "could still *decrease* accuracy relative to that achieved by base-rate predictions. The sign(s) must also exceed base-rate accuracy." *Id.*

68. *Judgment Under Uncertainty, supra* note 47, at 1124-25; Arkes, *supra* note 31, at 430-32; Saks & Kidd, *supra* note 31, at 133-34. "[B]ase rates are often neglected in favor of individualizing information, presumably because unique case material is more vivid and memorable." Elstein, *supra* note 29, at 33. See Richard E. Nisbet et al., *Popular Induction: Information is*

The illusion of validity occurs when decisionmakers make stereotypical predictions,⁶⁹ and the evidence on which they make their predictions "is scanty, unreliable, or outdated."⁷⁰ For example, psychiatrists and human resources managers responsible for selecting or promoting employees rely heavily on their own interviews and express great confidence in their judgments even when they recognize that "interviews are notoriously fallible."⁷¹

One of the major determinants of a decisionmaker's confidence in prediction is the internal consistency of the data. "[P]aradoxically, characteristics of information that inspire confidence are often inversely related to the predictive accuracy of that information."⁷² For example, clinicians using tests that are highly correlated with each other are likely to express more confidence in their predictions about the test taker's behavior than when they use uncorrelated tests, even if they are told that both sets of tests are equally predictive of the outcome.⁷³ If the data used in drawing a conclusion are highly correlated, the decisionmaker's confidence in the stereotype's accuracy is greatly heightened. Unfortunately, this pattern of consistency will often be the result of redundant information, rather than additional information.⁷⁴ "[A]n elementary result in the statistics of correlation asserts that, given input variables of stated validity, a prediction based on several such inputs can achieve higher accuracy when they are independent of each other than when they are redundant or correlated."⁷⁵ Thus, decisionmakers often express great confidence in their judgments although they rely on data that decrease accuracy.⁷⁶

Not Always Informative, in COGNITION AND SOCIAL BEHAVIOR 113 (John Carroll & J. Payne eds., 1976). However, "base rates are sometimes taken into account: when the link between base rate and target event is causal, when base rates appear relevant, when the base rates relate to individuating information, and when both diagnostic and base rate information are essentially statistical." *Cognitive Illusions*, *supra* note 31, at 233. "[S]ophisticated awareness and use of base rates is a key element of what we call expertise." *Id.* at 234.

69. Saks & Kidd, *supra* note 31, at 135.

70. *Judgment Under Uncertainty*, *supra* note 47, at 1126. "The unwarranted confidence which is produced by a good fit between the predicted outcome and the input information may be called the illusion of validity." *Id.*

71. *Psychology of Prediction*, *supra* note 31, at 249. Thus, the "illusion persists even when the judge is aware of the factors that limit the accuracy of his prediction. . . . The continued reliance on the clinical interview . . . despite repeated demonstrations of its inadequacy, amply attests to the strength of this effect." *Judgment Under Uncertainty*, *supra* note 47, at 1126. For a discussion of psychiatrists, see *Barefoot v. Estelle*, 463 U.S. 880 (1983) (allowing testimony of psychiatrists despite the chance such testimony could be unreliable); James Wyda & Bert Black, *Psychiatric Predictions and the Death Penalty: An Unconstitutional Sword for the Prosecution but a Constitutional Shield for the Defense*, 7 BEHAV. SCI. & L. 505 (1989) (discussing testimony of mental health professionals in capital cases) [hereinafter Wyda & Black]. For its application to employee selection, see *Watson v. Fort Worth Bank & Trust*, 487 U.S. 977 (1988) (discussing the use of subjective judgment of employees rather than formal selection criteria); Donald N. Bersoff, *Should Subjective Employment Devices be Scrutinized? It's Elementary My Dear Ms. Watson*, 43 AM. PSYCHOLOGIST 1016 (1988) (discussing the use of interviews and other "subjective evaluation devices" in the job context).

72. Hogarth, *supra* note 34, at 39.

73. *Psychology of Prediction*, *supra* note 31, at 249.

74. HUMAN INFERENCE, *supra* note 29, at 160; Saks & Kidd, *supra* note 31, at 136.

75. *Judgment Under Uncertainty*, *supra* note 47, at 1126.

76. For other research on confidence of judgments in lay and clinical settings, see Hillel J. Einhorn & Robin M. Hogarth, *Confidence in Judgment: Persistence of the Illusion of Validity*,

When decisionmakers have to predict future performance from some existing data, they often make errors because they failed to understand regression to the mean, another variable influencing the use of representative thinking. The principle of regression to the mean states that:

Events that are extreme on some dimensions will, on the average, be less extreme when they recur, when they are reassessed, or when they are assessed on any other dimension. Events or objects that appear to be extreme on some dimension on the basis of preliminary information or on the basis of a limited sample of evidence, will, on the average, prove to be less extreme when all of the relevant evidence becomes available.⁷⁷

Examples abound in everyday life—very intelligent parents have less intelligent children; rookie “phenoms” have sophomore slumps; students who score well below average on a mid-term examination score more closely to the average on the final; law school graduates near the top of their class are not as outstanding in their professional lives. Regression is incompatible with the representative heuristic because the heuristic implies that a predicted outcome is maximally representative of the data that went into the prediction. However, “regression effects typically violate the intuition that the predicted outcome should be maximally representative of the input information.”⁷⁸

In the absence of other data, the best prediction is the average or mean because it is the point in a distribution that is closest to the largest number of observations.⁷⁹ The average is the base line from which decisionmakers should deviate only to the extent that the risks of such deviations are likely to be compensated by the diagnosticity of the other information one has

85 PSYCHOL. REV. 395 (1978); James Q. Holsopple & John G. Phelan, *The Skills of Clinicians in Analysis of Projective Tests*, 10 J. CLINICAL PSYCHOL. 307 (1954); Asher Koriat et al., *Reasons for Confidence*, 6 J. EXPERIMENTAL PSYCHOL.: HUM. LEARNING AND MEMORY 107 (1980); Stuart Oskamp, *Overconfidence in Case-Study Judgments*, 29 J. CONSULTING PSYCHOL. 261 (1965) (volume of patient information does not significantly improve accuracy in predicting and describing behavior). For a brief review, see Robyn M. Dawes et al., *Clinical Versus Actuarial Judgment*, 243 SCIENCE 1668, 1672 (1989) [hereinafter Dawes et al.]. “When the clinician misinterprets contrary evidence as indicative of judgmental accuracy, confidence will obviously be inflated. Research shows that judges are typically more confident than their accuracy warrants. In one study . . . most clinicians were quite confident in their diagnosis although not one was correct.” *Id.* Given the complexity of mental health decisionmaking, most relevant is the finding that “people are much less likely to be overconfident about easy probability judgments than about difficult ones.” *Cognitive Illusions*, *supra* note 31, at 239.

77. HUMAN INFERENCE, *supra* note 29, at 160.

78. *Psychology of Prediction*, *supra* note 31, at 250; *Judgment Under Uncertainty*, *supra* note 47, at 1126-27.

79. “Sampling theory in inferential statistics suggests that, the larger the sample size from which a piece of data is generated, the more generalizable that information is to the entire relevant population.” NEZU & NEZU, *supra* note 31, at 22. “This fundamental notion of statistics is evidently not part of people’s repertoire of intuitions.” *Judgment Under Uncertainty*, *supra* note 47, at 1125. For a classic example, see *Williams v. Florida*, 399 U.S. 78, 102 (1970) in which the Supreme Court concluded there would only be a “negligible” difference in the number of viewpoints represented in six and twelve member juries. But, if jurors are randomly selected from a venire composed of 90% of one group and 10% of the other, 72% of twelve-person juries would include at least one minority member but only 47% of six-person juries would include one such member. “In this example, the ‘negligible’ difference is 25 percent.” Saks & Kidd, *supra* note 31, at 135; see Amos Tversky & Daniel Kahneman, *Belief in the Law of Small Numbers*, 76 PSYCHOL. BULL. 105 (1971).

about the patient.⁸⁰ But if clinicians base a prediction about future performance on one test or on the basis of faulty data,⁸¹ they are likely to conclude that future performance will be highly correlated with past performance, an outcome that violates the principle of regression to the mean. Given "that substantial research has documented the tendency of mental health professionals, regardless of their level of experience or theoretical orientation, to form clinical impressions *very* quickly,"⁸² such errors are made with relatively high frequency, particularly because initial clinical impressions are highly resistant to change.⁸³ Similar effects occur in therapy. For example, exceptionally good performance may be rewarded or reinforced by a behavior therapist with the expectation that the reward will continue to lead to high performance. The principle of regression to the mean, however, should lead the therapist to expect less effective performance on the next trial. The failure to understand this phenomenon may lead the therapist to abandon the use of the reward.⁸⁴ Thus, insensitivity to sample size and ignorance of regression can lead therapists to make errors concerning prognosis and the efficacy of a particular treatment.⁸⁵

The phenomenon discussed above is closely related to the final heuristic of anchoring, "a shortcut method of estimation or prediction involving situations in which final decisions are based more on initial impressions than on

80. "The tendency to be insufficiently regressive in number prediction [e.g., what are the chances of a patient becoming violent?] closely corresponds, logically, to the tendency to ignore base rates in category prediction [e.g., what is the likelihood that Patient A is a sociopath?]." HUMAN INFERENCE, *supra* note 29, at 151.

81. Reliance on tests with a great deal of unreliability, i.e., where repeated administrations yield scores that fluctuate widely, will lead to particularly bad predictions. "In general, unreliable sources exhibit more extreme values than reliable sources. Thus, in these circumstances, a judgmental strategy that matches predictions to inputs such as test scores is particularly vulnerable to bias due to the presence of regression effects." HOGARTH, *supra* note 34, at 28.

82. Snyder & Thomsen, *supra* note 50, at 131. See Eugene F. Gauron & John K. Dickinson, *The Influence of Seeing the Patient First on Diagnostic Decision Making in Psychiatry*, 126 AM. J. PSYCHIATRY 199 (1969) (initial diagnostic impressions made within the first 30-60 seconds of observing the patient); Myron G. Sandifer et al., *The Psychiatric Interview: The Impact of the First Three Minutes*, 126 AM. J. PSYCHIATRY 968, 968 (1970) (first three minutes of observation are important and may have a decisive impact upon the final diagnostic decision).

83. "[I]nitial evaluative impressions of the client tend to persist." Snyder & Thomsen, *supra* note 50, at 140. See Arthur C. Houts & Mercedes Galante, *The Impact of Evaluative Disposition and Subsequent Information on Clinical Impressions*, 3 J. SOC. & CLINICAL PSYCHOL. 201 (1985); Paul E. Meehl, *The Cognitive Activity of the Clinician*, 15 AM. PSYCHOLOGIST 19 (1960) (therapists' impressions formed by the fourth session not significantly different from those at the 24th session).

84. "As in other cases of repeated performance, an improvement will usually follow poor performance and a deterioration will usually follow an outstanding performance." *Judgment Under Uncertainty*, *supra* note 47, at 1127.

85. Just as diagnosticians form impressions quickly, so do therapists who are quick to classify patients "good" or "bad" after very few contacts. See, e.g., Franklyn N. Arnhoff, *Some Factors Influencing the Unreliability of Clinical Judgments*, 10 J. CLINICAL PSYCHOL. 272 (1954); Snyder & Thomsen, *supra* note 50, at 139-40. The phenomenon may lead to particularly pernicious decisions as when poor initial progress in psychotherapy may lead to the prediction that verbal or behavioral forms of intervention are not valid for a particular patient, causing the psychiatrist to prescribe psychotropic medication on the basis of insufficient data.

subsequent information."⁸⁶ The initial value from which decisionmakers begin is highly determinative of the final answer. This initial value may be suggested by the formulation of the problem, may be given to the decisionmaker, or may be the result of a hurried, incomplete computation.⁸⁷

Theoretically, in the clinical context, new information leads to revisions and refinements. Unfortunately, in practice, the initial decisions often are not corrected by new information.⁸⁸ For example, estimates of pathology may vary as a result of the initial information the clinician receives,⁸⁹ or

"[c]linicians may fail to see improvement in a client's condition because they are *anchored* to an initial judgment of the client's mental state. Alternatively, clinicians might overvalue information revealed about a client during the intake process (at which point exposure to the client is minimal) and ignore subsequent information revealed during therapy (by which time, knowledge of the client is more extensive and reliable).⁹⁰

Subsumed under the anchoring heuristic is the bias caused by incorrectly

86. NEZU & NEZU, *supra* note 31, at 23.

87. See *Judgment Under Uncertainty*, *supra* note 47, at 1128. The classic illustration of anchoring bias resulting from partial computation is when subjects are asked to estimate in five seconds the product of either of these two sequences of numbers: $8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1$ or the reverse— 1×2 , etc. Subjects' median estimate for the ascending sequence was 512; for the descending sequence, 2250—in each case, a gross underestimate. The correct answer is 40,320 for both. *Id.* This is known as insufficient adjustment from the initial anchor. See Paul Slovic & Sarah Lichtenstein, *Comparison of Bayesian and Regression Approaches to the Study of Information Processing in Judgment*, 6 *ORG. BEHAV. & HUM. PERFORMANCE* 649 (1971). "Anchoring and adjustment is a general judgment process in which an initially generated or given response serves as an anchor and other information is used to adjust to that response. It is generally assumed that the adjustment is insufficient." Payne et al., *supra* note 31, at 103.

88. Turk, *supra* note 32, at 9.

89. See James Bieri et al., *Anchoring Effects in Sequential Clinical Judgments*, 67 *J. ABNORMAL & SOC. PSYCHOL.* 616 (1963) (significant differences in estimates of pathology found in identical cases as a function of order of presentation of clinical information); Myrna L. Friedlander & Susan J. Stockman, *Anchoring and Publicity Effects in Clinical Judgment*, 39 *J. CLINICAL PSYCHOL.* 637 (1983) (robust anchoring bias among psychologists, psychiatrists, and social workers in their estimates of pathology and prognosis of hypothetical patients).

90. Turk, *supra* note 32, at 7. See, e.g., Gary E. Swan & Marian L. MacDonald, *Behavior Therapy in Practice: A National Survey of Behavior Therapists*, 9 *BEHAV. THERAPY* 799 (1978) (two-thirds of over 300 behavior therapists said that only one-to-two sessions needed to conceptualize clients' problems). See also *supra* notes 82-83, 85.

A phenomenon related to anchoring bias is known as convergence bias. "Early convergence [of data] can decrease judgment accuracy when a therapist confirms a hypothesis early in treatment and is unwilling to modify this hypothesis when faced with contradictory data." Rock et al., *supra* note 32, at 649. See also Philip A. Hirsch & Gerald L. Stone, *Cognitive Strategies and the Client Conceptualization Hypothesis*, 30 *J. COUNSELING PSYCHOL.* 566 (1983) (early convergence more frequent in highly experienced therapists); Steven D. Hollon & Margaret R. Kriss, *Cognitive Factors in Clinical Research and Practice*, 4 *CLINICAL PSYCHOL. REV.* 35, 40 (1984):

When an individual is presented with novel environmental information that is discrepant with an existing schema, one of two outcomes may occur. On the one hand, the stimulus may be altered or assimilated such that it becomes consistent with the preexisting schema. Conversely, the schema itself may be modified so as to accommodate the discrepant information. . . . Most of the literature in cognitive psychology seems to suggest that the process of assimilation occurs more frequently than accommodation. Assimilation is particularly likely to lead to inaccurate [or] nonnormative cognitive products, since incoming information

evaluating the probability of conjunctive and disjunctive events.⁹¹ The phenomenon can be illustrated by the following example: Professor X was an excellent student in law school, though somewhat withdrawn and suspicious. After clerking, he was hired as an assistant professor at a respected law school that placed a great deal of emphasis on scholarship. Professor X experienced significant pressure in meeting his teaching obligations, began to believe that his faculty colleagues were saying negative things about his inability to complete a first draft of a law review article, and became increasingly reclusive. He started outpatient psychotherapy, but when he started to hear voices telling him that his dean was purposely blocking his writing efforts, he was hospitalized during the school's summer recess and placed on antipsychotic medication.

One can ask what is the probability that Professor X is: (a) highly intelligent; (b) a highly intelligent paranoid schizophrenic; and (c) a highly intelligent paranoid schizophrenic who will not attain tenure at his law school.⁹² If readers are similar to most respondents to these kinds of problems, they will have ascribed greater probability to (c) than to (a) or to (a) and (b) combined,⁹³ because decisionmakers "tend to overestimate the probability of the occurrence of conjunctive events and to underestimate the probability of disjunctive events."⁹⁴

This failure to adjust from the initial anchoring probability results from a violation of an elementary law of probability: "the probability of a conjunction (A & B) cannot exceed the probability of its constituents."⁹⁵ In other words, "compound events cannot be more likely than the least probable of the simpler events that constitute the compound."⁹⁶ Yet, clinicians, as well as other decisionmakers, tend to overpredict outcomes in scenarios, such as the example presented herein, when they include both a possible cause and

is likely to be selectively processed in a fashion which favors consistency with internal beliefs over fidelity to external realities.

Id. (citations omitted)

91. Some authors view the conjunctive/disjunctive bias as an example of the representative heuristic. See *Judgment Under Uncertainty*, *supra* note 47, at 1128-29. See, e.g., HUMAN INFERENCE, *supra* note 29, at 146; Hogarth, *supra* note 34, at 47-51. The originators of the concept of anchoring place it within that heuristic.

92. This example is suggested by similar problems developed by Robyn M. Dawes, *Representative Thinking in Clinical Judgment*, 6 CLINICAL PSYCHOL. REV. 425, 426 (1986); see also HOGARTH, *supra* note 34, at 38, 47; Amos Tversky & Daniel Kahneman, *Extensional versus Intuitive Reasoning: The Conjunction Fallacy in Probability Judgment*, 90 PSYCHOL. REV. 293, 297 (1983).

93. See, e.g., Paul Slovic et al., *Cognitive Processes and Societal Risk Taking*, in COGNITIVE AND SOCIAL BEHAVIOR 165 (John Carroll & John Payne eds., 1976). In their study using a similar scenario, subjects estimated the probability of event (a) as .21, the probability of (a) and (b) as .39, and the probability of (a), (b), and (c) as .42.

94. Saks & Kidd, *supra* note 31, at 142. The original experiment from which this finding was derived comes from Maya Bar-Hillel, *On the Subjective Probability of Compound Events*, 9 ORGAN. BEHAV. & HUM. PERFORMANCE 396 (1973).

95. Arkes, *supra* note 31, at 443.

96. HUMAN INFERENCE, *supra* note 29, at 146. "[J]oint probability of two events cannot exceed the smaller of the probabilities associated with two events. Moreover, this restriction holds whether or not the events are statistically independent." HOGARTH, *supra* note 34, at 47.

an outcome, than when the scenarios involve the outcome alone.⁹⁷ The use of additional clinical information may lead the decisionmaker to make more confident and probable estimates of outcomes (such as suicide or violence to others) than is warranted because there appears to be a causal coherence to the series of derived information.⁹⁸

In sum, "[a]bundant evidence from psychological research . . . suggests that in many contexts decision makers' intuitive, common-sense judgments depart markedly and lawfully (in the scientific sense) from the actual probabilities."⁹⁹ These incorrect intuitive judgments result from the use of simplifying heuristic strategies in all situations where decisionmakers' cognitive capacities cannot otherwise efficiently process information. As the research illustrates, judgmental errors are not limited to lay decisionmakers but have been observed in the work of mental health professionals arriving at diagnoses, formulating treatment regimens, and predicting behavior.¹⁰⁰

Reviews of research by a variety of scholars of the efficacy of clinical decisionmaking come to the same general conclusion: "The results of studies in which level of performance on clinical judgment tasks was examined have been not only disappointing but often alarming."¹⁰¹ For example, one study

97. See Amos Tversky & Daniel Kahneman, *Extensional versus Intuitive Reasoning: The Conjunction Fallacy in Probability Judgment*, 90 PSYCHOL. REV. 293 (1983); HOGARTH, *supra* note 34, at 48-50.

98. HOGARTH, *supra* note 34, at 49. "Thus the outcomes of long, detailed, and coherent scenarios may often be judged as more likely than an assessment of the components of such scenarios would warrant." *Id.*

99. Saks & Kidd, *supra* note 31, at 127.

100. "The reliance on heuristics and the prevalence of biases are not restricted to laymen." *Judgment Under Uncertainty*, *supra* note 47, at 1130. To paraphrase a summary of the clinical literature: (a) Clinicians are probably no better or worse than lay people in forecasting outcomes; (b) there is nothing special about clinicians' judgmental processes, and they suffer from the same shortcomings as other professional decisionmakers like physicians and intelligence analysts; and (c) all decisionmakers' abilities to make judgments that comport with the formal rules of scientific inference is below average ("C-"). Jerry S. Wiggins, *Clinical and Statistical Prediction: Where We Are and Where Do We Go from Here?*, 1 CLINICAL PSYCHOL. REV. 3, 14 (1981). Even this rather lengthy exegesis on heuristics does not do justice to the extensive findings from the judgment, information processing, and decisionmaking literature. Readers are urged to refer to the references cited herein, particularly those listed in note 31.

101. Faust, *supra* note 31, at 420. "[R]eviews of clinical judgment research frequently conclude that clinical and counseling psychologists often are inaccurate in making instrumental judgments (e.g., diagnosis, formulation, prognosis, assessment of outcome)." Rock et al., *supra* note 32, at 646. Similar results have been found for psychologists who work in schools. See Paul A. McDermott, *Sources of Error in the Psychoeducational Diagnosis of Handicapped Children*, 19 J. SCHOOL PSYCHOL. 31 (1981). "In view of the importance of these judgmental activities, it is very disturbing that the experimental literature indicates that performance in interviewing and judgmental tasks tends to be poor. . . . [T]here are many studies . . . suggesting that the clinical judgment of psychologists is no better than that of, say, physical scientists; and that psychologists with clinical training have no better judgment than those without it." Fraser N. Watts, *Clinical Judgment and Clinical Training*, 53 BRIT. J. MED. PSYCHOL. 95, 95 (1980). This negative evaluation is by no means restricted to clinical psychologists. The judgmental ability of psychiatrists is as poor, or worse, than psychologists. See, e.g., Hans Ueli Fisch et al., *On Evaluating the Severity of Depression: An Experimental Study of Psychiatrists*, 140 BRIT. J. PSYCHIATRY 378 (1982); William M. Grove et al., *Reliability Studies of Psychiatric Diagnosis*, 38 ARCHIVES GEN. PSYCHIATRY 408 (1981); Joel Yager, *Psychiatric Eclecticism: A Cognitive View*, 134 AM. J. PSYCHIATRY 736 (1977). See also David L. Bazelon, *Psychiatrists and the Adversary Process*, 230 SCI. AM. 18 (1974).

examined a subject's capabilities of distinguishing patients with and without brain injury based on results from a popular instrument used to detect organicity.¹⁰² Secretaries fared better than psychologists, and the performance level of all subjects barely exceeded chance levels.¹⁰³ In another study, a variety of judges studied the case history of a real patient. When answering 25 multiple choice questions concerning responses that would be indicative of the patients' personality, the judges' accuracy did not increase significantly with increasing information, and they were overconfident in their judgment. Experienced clinical psychologists did no better than graduate or undergraduate students, and, on the whole, judges did little better than chance.¹⁰⁴ These results are typical. Almost no evidence exists showing that experts are better qualified to diagnose a situation than "regulars" or relative beginners.¹⁰⁵ Hence, "there is little empirical evidence that justifies the granting of 'expert' status to the clinician on the basis of his training, experience, or information-processing ability."¹⁰⁶

B. CLINICAL DECISIONMAKING IN THE COURTROOM

Most relevant to the topic of this Article, of course, is research on decisionmaking by mental health professionals in forensic contexts. This research is newer and not nearly as extensive as that related to decisionmaking generally or in nonforensic clinical settings. There is emerging, however, cumulative evidence that forensic decisionmaking is just as flawed as typical clinical judgment.¹⁰⁷ The existing research examines such typical areas as the evaluation of insanity, the competency to stand trial, the prediction of

102. See Lewis R. Goldberg, *The Effectiveness of Clinicians' Judgments: The Diagnosis of Organic Brain Damage from the Bender-Gestalt Test*, 23 J. CONSULTING PSYCHOL. 25 (1959). "[D]iagnostic accuracy . . . does not depend on experience or training in psychology." *Id.* at 32. For a more up-to-date compilation of research challenging the accuracy of psychologists to make useful assessments of brain injury, see DAVID FAUST & JAY ZISKIN, 1-2 BRAIN DAMAGE CLAIMS: COPING WITH NEUROPSYCHOLOGICAL EVIDENCE (1991).

103. Goldberg, *supra* note 102, at 32.

104. Stuart Oskamp, *Overconfidence in Case-Study Judgments*, 29 J. CONSULTING PSYCHOL. 261 (1965).

105. Faust, *supra* note 31, at 420. "It is clear that experience does not necessarily improve judgment." Payne et al., *supra* note 31, at 106. "[T]he results on validity generally fail to support the value of experience in mental health fields." Howard N. Garb, *Clinical Judgment, Clinical Training and Professional Experience*, 105 PSYCHOL. BULL. 387, 391 (1989).

106. JERRY S. WIGGINS, PERSONALITY AND PREDICTION: PRINCIPLES OF PERSONALITY ASSESSMENT 131 (1973). This statement "seems to hold equally today." Faust, *supra* note 31, at 420.

107. David Faust & Jay Ziskin, *The Expert Witness in Psychology and Psychiatry*, 241 SCIENCE 31, 32 (1988) [hereinafter Faust & Ziskin]. "[S]tudies examining the accuracy of judgments directly pertinent to forensic assessment, such as the ability to detect the simulation of disorder (that is, malingering) or to predict violence, have shown particularly high rates of error among clinicians." *Id.* For an earlier debate on the admissibility of testimony by mental health professionals, compare Stephen J. Morse, *Crazy Behavior, Morals, and Science: An Analysis of Mental Health Law*, 51 S. CAL. L. REV. 527 (1978) to Richard J. Bonnie & Christopher Slobogin, *The Role of Mental Health Professionals in the Criminal Process: The Case for Informed Speculation*, 66 VA. L. REV. 427 (1980). Bonnie and Slobogin favor such testimony but concede that "few clinical opinions can be stated with a high degree of certainty." *Id.* at 461.

violence, and malingering (feigning illness).¹⁰⁸

With regard to insanity, one series of surveys investigated whether the ideological attitudes of psychiatrists and psychologists toward the insanity defense affected their response to two particular cases, one hypothetical in which a defendant has killed two fellow employees and then makes an unsuccessful suicide attempt, and one real (John Hinckley).¹⁰⁹ In Survey 1, comprising mental health professionals in Michigan, psychiatrists had significantly more sympathetic attitudes toward the insanity defense than psychologists.¹¹⁰ Survey 2 determined that the Michigan mental health professionals' "judgments of insanity in a particular [hypothetical] case were directly related to their opinion of the insanity defense itself."¹¹¹ Survey 3 studied a national sample of 115 psychiatrists and 147 psychologists randomly given one of three versions of the hypothetical case—a neutral version, a version sympathetic toward use of the insanity defense, and a version unsympathetic toward its use. As before, psychiatrists were more favorable toward the insanity defense. Professionals who testified more frequently for the defense thought the hypothetical defendant was genuinely insane, while those who testified more frequently for the prosecution were less likely to view the defendant as insane.¹¹² Again, the central finding was that those with more favorable attitudes toward the insanity defense were significantly more likely to view the defendant as insane.¹¹³ The authors concluded that 34% of the variance in professional opinion about insanity could "be accounted for by variables that are relevant to the expert rather than the (hy-

108. The outcome of forensic decisionmaking may be more damaging than routine clinical decisionmaking. "People are being very seriously affected by psychological and psychiatric testimony. Consequences involve loss of children, jail, and sometimes even death." Robyn M. Dawes, *Experience and Validity of Clinical Judgment: The Illusory Correlation*, 7 BEHAV. SCI. & L. 457, 466 (1989).

The results of forensic mental health examinations can have profound effects on the destinies of persons charged with or convicted of crimes. Such examinations involve determinations of competency to stand trial, judgments about mental illness, insanity, responsibility for crime, predictions for future dangerousness, recommendations for disposition after criminal conviction, and other psycholegal issues.

Ingo Keilitz, *A Model Process for Forensic Mental Health Screening and Evaluation*, 8 L. & HUM. BEHAV. 355, 355 (1984). See also Wyda & Black, *supra* note 71.

109. Robert J. Homant & Daniel B. Kennedy, *Subjective Factors in Clinicians' Judgments of Insanity: Comparison of a Hypothetical Case and an Actual Case*, 18 PROF. PSYCHOL.: RESEARCH AND PRACTICE 439 (1987)[hereinafter Homant & Kennedy].

110. *Id.* at 440. "Fifty-eight percent of the psychiatrists, in comparison with 26% of the psychologists, rated themselves above the midpoint of the scale." *Id.* This difference would occur less than 1 in a 1000 by chance.

111. *Id.* at 441. In addition, psychiatrists again were found more likely than psychologists to favor the insanity defense, although only to a statistically nonsignificant extent.

112. Another study of "appointment bias" using clinical psychology graduate students also found that those who believed they were appointed for the defense were more likely to view a hypothetical defendant as insane than those who believed they were appointed by the prosecution. See Randy Otto, *Bias and Expert Testimony of Mental Health Professionals*, 7 BEH. SCI. & L. 267 (1989). A brief description of the study in its original form as the author's doctoral dissertation is reported in Beckham et al., *supra* note 31, at 80.

113. Homant & Kennedy, *supra* note 109, at 442. The correlation between attitude and a determination of whether the hypothetical defendant was insane was so high that it would occur less than 1 time in 1000 by chance. *Id.*

pothetical) defendant.”¹¹⁴ Finally, in Survey 4, 46 of the professionals who responded to Survey 3 were asked to make similar determinations from a brief description of the Hinckley case. Consistent with prior findings, ideological attitude toward the insanity defense was a significant predictor of whether experts judged Hinckley as insane or guilty.¹¹⁵ In all, this study lends support to the idea that there is “a large element of subjectivity in judgments of insanity.”¹¹⁶

One study of 110 highly experienced forensic psychiatrists and psychologists sought to further investigate appointment bias and uncover factors that mental health professionals use to determine whether a defendant is insane.¹¹⁷ The subjects were presented with a hypothetical and ambiguous (neutral) case that included information about a female defendant’s personal, social, and employment history, family relationships, arrest behavior, and current mental state, as well as the results on a wide variety of instruments, including an intelligence scale, a paper-and-pencil personality test, a projective personality technique (Rorschach inkblots), and achievement tests. They were then instructed to determine whether the defendant met the insanity test in Florida.¹¹⁸ Although the researchers found no appointment bias, there was no consensus among subjects as to whether the defendant was insane at the time of the crime. Overall, 30.3% of the subjects found her guilty and 64.2% found her not guilty by reason of insanity.¹¹⁹ Those who found her guilty based their opinion on different information than those who found her insane, the former considering statements by others and jail observations as more important than the interview and certain test scores (predominantly on cognitive measures). Psychiatrists tended to perceive the defendant as less mentally ill than did psychologists and were more likely to depend on such relatively unreliable data as the defendant’s version of the alleged offense and the interview with the defendant than did the psychologists who tended to rely more on external sources.¹²⁰

114. *Id.* at 443.

115. *Id.* at 444.

116. *Id.* at 445.

117. Beckham et al., *supra* note 31, at 79.

118. Florida uses the *M’Naghten* test. See *M’Naghten’s Case*, 10 Cl. & F. 200, 8 Eng. Rep. 718 (H.L. 1843).

119. Beckham et al., *supra* note 31, at 83. The remaining 5.5% offered no opinion. Of course, the absence of consensus can be partially explained by the fact that the authors deliberately chose an ambiguous case. But as the following text and note 120 explain, the study’s relevance in this Article is to demonstrate how the cognitive biases of psychologists and psychiatrists contribute to a lack of consensus.

120. *Id.* at 83-87. The authors view this study as showing that experienced forensic examiners are not biased in the same way as those surveyed in the Homant & Kennedy and Otto studies and that their findings “support the continued utility and fairness of pretrial assessments.” *Id.* at 87. However, the results are more troubling than the authors believe. For example, despite purposeful ambiguity, “[n]o responding examiner . . . returned the questionnaire stating that there was not enough information to make a judgment,” *id.* at 86, illustrating the phenomenon that, in the face of ambiguity, clinicians are more likely to make decisions than to defer them. In addition, as the authors themselves admit, “differences between examiners [were related to] variation in how defendants are rated and data are integrated,” *id.*, reinforcing the criticism that much clinical decisionmaking is idiosyncratic. Finally, very experienced clinicians interpreting precisely the same data came to highly divergent conclusions

Although there have been a number of attempts to design instruments to evaluate competency to stand trial,¹²¹ there is very little, if any, evaluation of their validity.¹²² Existing research within the framework of decision theory or information processing is scanty at best. "Several studies have found that interrater agreement on competency to stand trial is quite high, usually over 90%."¹²³ These results, however, do not indicate that mental health professionals are more accurate than lay people. In fact, lay evaluators with minimal training using a structured interview have been found to produce decisions that agree with forensic clinicians in 90% of cases.¹²⁴ However,

with regard to the defendant's mental state at the time of the crime. As for the usefulness of experience itself, "[v]irtually every available study shows that amount of clinical training and experience are unrelated to judgmental accuracy." Faust & Ziskin, *supra* note 107, at 32. For supporting reviews, see Robyn M. Dawes, *Experience and the Validity of Clinical Judgments: The Illusory Correlation*, 7 BEHAV. SCI. & L. 457 (1989); Howard N. Garb, *Clinical Judgment, Clinical Training, and Professional Experience*, 105 PSYCHOL. BULL. 387 (1989); Lewis R. Goldberg, *Simple Models or Simple Processes? Some Research on Clinical Judgments*, 23 AM. PSYCHOLOGIST 483 (1968).

121. See, e.g., Thomas Grisso & Sandra K. Seigel, *Assessment of Competency to Stand Trial*, in FORENSIC PSYCHIATRY & PSYCHOL. 145 (William J. Curran et al. eds., 1986); Paul D. Lipsitt et al., *Competency for Trial: A Screening Instrument*, 128 AM. J. PSYCHIATRY 105 (1971); Stephen L. Golding et al., *Assessment and Conceptualization of Competency to Stand Trial: Preliminary Data on the Interdisciplinary Fitness Interview*, 8 L. & HUM. BEHAV. 321 (1984) [hereinafter Golding et al.]. See generally THOMAS GRISSO, EVALUATING COMPETENCIES: FORENSIC ASSESSMENTS AND INSTRUMENTS 62 (1986); RONALD ROESCH & STEPHEN L. GOLDING, COMPETENCY TO STAND TRIAL (1980) [hereinafter ROESCH & GOLDING]. These instruments either have a high false-positive rate or simply show promise of real world usefulness but are better classified as "research instrument[s]." Golding et al., *supra* note 121, at 332; see Edgar J. Nottingham & Robert E. Mattson, *A Validation Study of the Competency Screening Test*, 5 L. & HUM. BEHAV. 329, 334 (1981). For an example of a promising set of research instruments designed to measure the competency of mental patients to consent to be medicated, see Thomas Grisso & Paul S. Appelbaum, *Mentally Ill and Non-Mentally-Ill Patients' Abilities to Understand Informed Consent Disclosures for Medication*, 15 L. & HUM. BEHAV. 377 (1991). The authors acknowledge that their scale, Measuring Understanding of Disclosure, "is intended currently as a research instrument, and its utility and validity for clinical use is not known." *Id.* at 379 n.3.

Of course, competency is a concept that is not limited to a determination of whether a defendant can stand trial. Mental health professionals are also asked to make decisions concerning whether a defendant is competent to confess, to waive counsel, to be executed, to testify, to waive a jury trial, and to resist imposition of the insanity defense. In the civil context, questions may arise, e.g., as to whether a party is competent to make a will, to contract, or to consent to treatment. See *Are Courts Competent?*, *supra* note 22, at 967.

122. Golding et al., *supra* note 121, at 332. "The ultimate validity study would be difficult to implement. . . . Such a study would involve allowing defendants judged to be incompetent to have a trial anyway, despite their possible incompetency. These defendants could be assessed and observed during the judicial proceedings to determine if in fact they were unable to participate properly in their defense." *Id.* Such research would probably be unethical. See American Psychological Association, *Ethical Principles of Psychologists*, 45 AM. PSYCHOLOGIST 390, 394-95 (1990), and would almost assuredly be unconstitutional. See *Riggins v. Nevada*, 112 S. Ct. 1810 (1992); *Drope v. Missouri*, 420 U.S. 162 (1975); *Pate v. Robinson*, 383 U.S. 375 (1966).

123. RALPH REISNER & CHRISTOPHER SLOBOGIN, LAW AND THE MENTAL HEALTH SYSTEM 442-43 (2d ed. 1990). For representative studies, see ROESCH & GOLDING, *supra* note 121, at 188-91; Norman G. Poythress & Harley V. Stock, *Competency to Stand Trial: A Historical Review and Some New Data*, 8 J. PSYCHIATRY & L. 131 (1980).

124. ROESCH & GOLDING, *supra* note 121, at 188-91. See Margaret Windsor Jackson, *Psychiatric Decision-Making for the Courts: Judges, Psychiatrists, Lay People?*, 9 INT'L J. L. & PSYCHIATRY 507 (1986). "Judges and psychiatrists appeared to make decisions in a similar manner to laypeople; while they assigned more weight to psychiatric information, it was not

"because unfitness is a relatively rare event, occurring in less than . . . 2% of all criminal defendants,"¹²⁵ these high rates of agreement may be the result not of any particular acumen by both professional and lay decisionmakers but because of the high base rate for competency of those evaluated. Thus, a second rater could simply agree with a first rater all of the time without even looking at assessment data and produce a very high rate of concordance.¹²⁶

Furthermore, ward observations, psychological tests, and other data gathered while hospitalized have little effect on the determination of incompetency.¹²⁷ One study found that the number of previous hospitalizations "was the most powerful determinant of psychiatric decisions involving fitness."¹²⁸ Other important factors include the patient's educational level and history of violent offenses.¹²⁹

In contrast to the relative dearth of studies assessing the accuracy of competency to stand trial decisions, there has been a plethora of research on predictions of violence¹³⁰ that supports the conclusion that professional predictions of violence are more likely to be wrong than correct.¹³¹ *Pre-Barefoot v. Estelle* studies bear out the Court's conclusions. For example, in one study, previously institutionalized patients, some of whom were predicted to be dangerous and some of whom were predicted to be non-dangerous, were followed for three years.¹³² During this period, 41% of those predicted to be dangerous were rearrested for violent crimes, but 31% of those predicted not to be dangerous were also rearrested for violent crimes.¹³³ Even more discouraging, in a second study, psychiatrists assessed the dangerousness of felony defendants found not competent to stand trial.¹³⁴ After a three year period, no differences in assaultive behavior were found between subjects predicted to be dangerous and those predicted to be non-dangerous.¹³⁵ All of the clinical studies yielded "high false-positive rates, ranging from 65% to 86%. Other clinical studies not cited have shown even higher false-positive rates."¹³⁶

clear that the professionals primarily used their specialized knowledge. Therefore it can not be said that they either made decisions different from the layperson or that specialized knowledge . . . was responsible for the decision outcome." *Id.* at 516-17.

125. Golding et al., *supra* note 121, at 131.

126. *See supra* note 67.

127. ROESCH & GOLDING, *supra* note 121, at 190.

128. Robert J. Menzies et al., *The Nature and Consequences of Forensic Psychiatric Decision-Making*, 27 CAN. J. PSYCHIATRY 463, 465 (1982) [hereinafter Menzies et al.].

129. *Id.* at 465-66. Those more highly educated were found less fit than those less educated, and those with a history of violent criminal conduct were more likely to be found fit. *Id.*

130. *See Barefoot v. Estelle*, 463 U.S. 880, 900 n.9, 920-22 (1983) (summarizing research existing as of 1983).

131. *Id.* at 921 (Blackmun, J., dissenting).

132. Henry J. Steadman, *A New Look at Recidivism Among Patuxent Inmates*, 5 BULL. AM. ACAD. PSYCHIATRY & L. 200, 209 (1977).

133. *Id.*

134. Joseph J. Cocozza & Henry J. Steadman, *The Failure of Psychiatric Predictions of Dangerousness: Clear and Convincing Evidence*, 29 RUTGERS L. REV. 1084 (1976).

135. *Id.* at 1097.

136. Deidre Klassen & William A. O'Connor, *A Prospective Study of Predictors of Violence in Adult Male Mental Health Admissions*, 12 L. & HUM. BEHAV. 143, 144 (1988) [hereinafter Klassen & O'Connor]. At least one study found a false positive rate as high as 92%. Ernst A.

Later research using more sophisticated predictive models has been more promising. In one study, a two-year follow-up of forensic cases yielded a false-positive rate of only 44%.¹³⁷ Another study reported a 41% false-positive rate.¹³⁸ These results may exhibit more accuracy relative to older studies, but they do not inspire much confidence that mental health professionals can predict violent behavior very precisely.¹³⁹

One study illustrates how the representative heuristic operates in clinical predictions of dangerousness.¹⁴⁰ In assessing forensic patients, psychiatrists were most likely to conclude that the patient was dangerous if he had a history of violence, had been previously incarcerated, and faced a charge of violence at the time of assessment.¹⁴¹ These data, however, are redundant and interdependent, creating a stereotypic picture of a potentially dangerous individual.¹⁴²

Wenk & Robert L. Emrich, *Assaultive Youth: An Exploratory Study of the Assaultive Experience and Assaultive Potential of California Youth Authority Wards*, 9 J. RES. CRIME & DELINQ. 171 (1972). See generally JOHN MONAHAN, *THE CLINICAL PREDICTION OF VIOLENT BEHAVIOR* (1981). Some of these early studies have been criticized on methodological grounds. See, e.g., Klassen & O'Connor, *supra* at 153-54; George E. Dix, *Clinical Evaluation of the "Dangerousness" of "Normal" Criminal Defendants*, 66 VA. L. REV. 523, 529-35 (1980); Thomas Grisso & Paul S. Appelbaum, *Is It Unethical to Offer Predictions of Future Violence?*, 16 L. & HUM. BEHAV. (forthcoming 1992) [hereinafter Grisso & Appelbaum]; Thomas R. Litwack & Louis B. Schlesinger, *Assessing and Predicting Violence: Research, Law, and Applications*, in HANDBOOK OF FORENSIC PSYCHOLOGY 205 (Irving B. Weiner & Allen K. Hess eds., 1987).

137. Diana Sepejak et al., *Clinical Predictions of Dangerousness: Two-Year Follow-up of 408 Pre-Trial Cases*, 11 BULL. AM. ACAD. PSYCHIATRY & L. 171 (1983).

138. Klassen & O'Connor, *supra* note 136. However, this study used actuarial variables such as arrest records, age of patient, demographic data, and situational factors, not clinical judgment. Thus, as the authors acknowledge, "[t]he present results may be partly attributable to the study design, which used actuarial measures, short-term treatment, a short-term follow-up period, and similar contexts of prediction as recommended by Monahan." *Id.* at 153. See generally John Monahan, *The Prediction of Violent Behavior: Toward a Second Generation of Theory and Policy*, 141 AM. J. PSYCHIATRY 10 (1984). For a brief discussion of actuarial versus clinical prediction, see *infra* notes 164-167 and accompanying text.

139. This statement should not be taken to mean that predictions of violence or any other expert testimony should be admitted in legal proceedings unless it can be presented with absolute confidence. As the Supreme Court in *Barefoot* already acknowledged, significantly less than perfect evidence on future violence is admissible and may comport with the applicable rules of evidence. *Barefoot*, 463 U.S. at 901. See also *Foucha v. Louisiana*, 112 S. Ct. 1780 (1992) (psychiatric opinion "reliable enough to permit the courts to base civil commitments on clear and convincing medical evidence that a person is mentally ill and dangerous"); *Schall v. Martin*, 467 U.S. 253, 278 (1984) ("[F]rom a legal point of view, there is nothing inherently unreliable about a prediction of future criminal conduct."). But see *id.* at 293-94 (Marshall, J., dissenting) (arguing that evidence is "overwhelming" that there are no diagnostic tools "to predict reliably which juveniles will engage in violent crime").

140. Menzies et al., *supra* note 128.

141. *Id.*

142. *Id.* at 465.

Therefore, a young, single male accused, currently unemployed, with a past history of offenses, presents a uniform picture for evaluators: a loser. As a result, the offense is more easily thought to be representative of that characterization. The fallacy is that many of these factors are not mutually independent, and a false sense of consistency is created, consistent with a stereotypic vision of forensic patients.

Id. at 469.

This and other studies of forensic decisionmaking also support findings from studies of

In one of the few other studies using decision theory to evaluate clinical predictions of violence, fifteen psychologists and fifteen psychiatrists with significant clinical experience were asked to evaluate case materials of forty male psychiatric inpatients.¹⁴³ These subjects were asked to make a prediction that the patient would act violently within just seven days of admission based on eighteen variables derived from a psychiatric rating scale and whether a violent act had been a factor in admission.¹⁴⁴ “[O]n the whole, the judges were successful in identifying approximately two out of every five patients who would become violent.”¹⁴⁵ On the other hand, “on the average about one in four patients who did not become assaultive during the study period were labeled as violent.”¹⁴⁶ Consistent with the decisionmaking literature, “judges tended to give inordinate weight to cues that were in fact unrelated to imminent violence . . . and to give lesser weight to cues that were more strongly related to the criterion.”¹⁴⁷ The study concluded that little empirical justification supports using psychologists and psychiatrists to assess patients’ dangerousness:

Composite predictions were not significantly related to patients’ actual violence, and few individual judges’ accuracy levels were statistically significant. . . . This finding of low accuracy was obtained despite our effort to limit prediction to a highly circumscribed time frame and to a setting with which participating clinical judges had considerable familiarity. . . . [T]he present results demonstrate little more accuracy in clinicians’ forecasts of imminent violence than has been found in analyses on predictions of long-term dangerousness.¹⁴⁸

clinical decisionmaking generally. David Faust, *Data Integration in Legal Evaluations: Can Clinicians Deliver on Their Promises*, 7 BEHAV. SCI. & L. 469, 473 (1989). “Although clinicians often believe they have considered and combined numerous variables in reaching conclusions, objective indicators consistently show that their decisions can be accounted for, in large part, by reliance on just a few factors or pieces of information.” *Id.*

143. Paul D. Werner et al., *Reliability, Accuracy, and Decision-Making Strategy in Clinical Predictions of Imminent Dangerousness*, 51 J. CONSULTING & CLINICAL PSYCHOL. 815 (1983).

144. *Id.*

145. *Id.* at 819. The average “hit rate” (true positive) was .39 for all judges, with a range of .17 to .67. *Id.*

146. *Id.* The average “false alarm” rate (false positive) was .27, with a range of .07 to .43. *Id.*

147. *Id.* at 820. As with other studies, the researchers found “little association between experience and accuracy of judgment.” *Id.* at 822.

148. *Id.* A review of research performed in the 1980s concluded that “[t]he most striking characteristics of recent risk assessment research . . . is that the research is so inconsistent. For every study that reports increases in predictive accuracy, there is another that finds clinical risk assessments no better than chance.” John Monahan, *Risk Assessment of Violence Among the Mentally Disordered: Generating Useful Knowledge*, 11 INT’L J.L. & PSYCHIATRY 249, 251 (1988). See also Christopher Slobogin, *Dangerousness and Expertise*, 133 U. PA. L. REV. 97 (1984).

Apparently, there has been some rethinking about the issue in the 1990’s. Some very recent articles support the use of expert testimony by mental health professionals in criminal and civil cases under carefully prescribed conditions and argue that offering predictions about future violent behavior can comport with social science research, rules of evidence, and the ethical values of organizational psychology and psychiatry. See, e.g., Grisso & Appelbaum, *supra* note 136; John Monahan, *Limiting Therapist Exposure to Tarasoff Liability: Guidelines for Risk Containment*, AM. PSYCHOLOGIST (forthcoming) (“[G]iven my view that violence was virtually impossible to assess, I was retained solely by defense attorneys. Later, as I came to

Finally, evaluation of malingering permeates all of forensic decisionmaking. "Questions involving malingering and deception include such issues as the mental state of the defendant, or the defendant's competency to participate in the civil or criminal justice system [and] may have serious implications for the judicial disposition of the defendant."¹⁴⁹

Most of the studies in this area have looked at the psychometric accuracy of the evaluation instrument, not the accuracy of the decision by the clinician. For example, the consensus with regard to unstructured clinical interviews, the technique most widely used for assessment, particularly by psychiatrists, is that they are "often haphazard in their evaluation of malingering and defensiveness with an over-reliance on invalidated or poorly validated devices."¹⁵⁰ Psychologists' use of their traditional storehouse of psychometric measures has not yielded significantly better judgments of malingering. For example, reliance on IQ scores or patterns of responses from subtests gleaned from intelligence tests has met with only very cautious optimism.¹⁵¹ With regard to paper-and-pencil personality tests such as the Minnesota Multiphasic Personality Inventory (MMPI), which has a scale designed to detect those who are "faking bad" and "faking good," reviewers have concluded that "even the MMPI has serious limitations to identify malingering and deception accurately."¹⁵² Projective techniques, like the Ror-

believe that risk assessment might be feasible and appropriate under some circumstances, referrals began to come equally from defense and plaintiff's attorneys.").

It may be entirely proper and ethical for mental health professionals to offer evidence about future violence. "The expert who provides reliable risk probability information (and clearly explains its limitations) to courts within [the applicable statute] engages in ethical practice . . . even if the legal outcome deprives the individual of liberty 'mistakenly.'" Grisso & Appelbaum, *supra* note 136, at 17. See also John Monahan & David B. Wexler, *A Definite Maybe: Proof and Probability in Civil Commitment*, 2 L. & HUM. BEHAV. 37, 40-41 (1978) (explaining that in jurisdictions requiring commitment when it is established beyond a reasonable doubt that it is more likely than not that a person in the near future will inflict serious bodily harm to another, mental health professionals may be able to testify that the person should be committed because the potential for future violence is a "definite maybe"). I do not necessarily disagree with these views. What I do argue for is that evidence about probable future violence be subjected to examination in proceedings that are formal and adversarial, and heard by judicial decisionmakers who are genuinely independent of the parties.

149. James R.P. Ogloff, *The Admissibility of Expert Testimony Regarding Malingering and Deception*, 8 BEHAV. SCI. & L. 27, 28 (1990) (parenthetical notes omitted). "To the extent that every clinical assessment involves some check for malingering, all mental health professionals should have some level of expertise in detecting deception among clients." *Id.* at 32.

150. Richard Rogers, *Structured Interviews and Dissimulations*, in CLINICAL ASSESSMENT OF MALINGERING AND DECEPTION 250 (Richard Rogers ed., 1988). "[G]iven the vast literature regarding the frequency with which errors occur in human judgments, . . . it may be safe to say that unstructured clinical interviews are not very efficacious in identifying malingering in defendants." Ogloff, *supra* note 149, at 32-33.

151. Ogloff, *supra* note 149, at 34. "[W]hile intelligence tests may eventually prove useful and accurate in identifying malingering and deception, it appears that extreme caution must be used when a clinician attempts to rely exclusively upon an intelligence test to identify malingerers." *Id.* Compare David J. Schretlen, *The Use of Psychological Tests to Identify Malingered Symptoms of Mental Disorder*, 8 CLINICAL PSYCHOL. REV. 451 (1988) (promising use of pattern analysis) with Robert K. Heaton et al., *Prospects for Faking Believable Deficits on Neuropsychological Testing*, 46 J. CONSULTING & CLINICAL PSYCHOL. 892 (1978) (no significant differences in total IQ between those with genuine disorders and those asked to malingering).

152. Ogloff, *supra* note 149, at 35. See Roger L. Greene, *Assessment of Malingering and Defensiveness by Objective Personality Inventories*, in CLINICAL ASSESSMENT OF MALINGER-

schach Inkblot Test, have also yielded poor results. In one of the few studies examining whether clinicians can detect simulated results, experienced clinicians often confused Rorschach protocols of psychotic patients with normal individuals feigning psychosis.¹⁵³

Because of the increasing involvement of clinical neuropsychologists in the forensic arena, to help assess the presence of brain injury in personal injury cases or to support an insanity defense for example,¹⁵⁴ some studies are emerging regarding their ability to detect malingering. Early research on the ability of these psychologists to detect malingering on intellectual and neuropsychological tests produced highly accurate results,¹⁵⁵ but these studies have been criticized on methodological grounds. For example, the decisionmakers were given the base rates for malingering; many of the cases involved judgments in patients with moderate or severe organic damage unlike actual disputed forensic cases where the injury is more subtle; and in one study the researcher had prior access to the actual cases on which he was tested.¹⁵⁶

Other, better designed, studies have not shown commensurate accuracy. For example, in a study closer to an actual clinical situation, ten neuropsychologists performed from chance levels to about 20% above chance levels in distinguishing results from a comprehensive neuropsychological test battery for actual and malingering head injuries.¹⁵⁷ In a second study, three adolescents were given an individually-administered intelligence test and a comprehensive neuropsychological test battery and told to do less well than they ordinarily would ("fake bad"). Their test protocols and that of an actual brain-injured adolescent were reviewed by 114 practicing neuropsychologists. Across the three cases, 78% of the decisionmakers judged the faked protocols as abnormal, with 96% of those judging the protocols to be that from brain-injured patients.¹⁵⁸ Then, an additional group of 125 neuropsychologists were sent two malingering and two actual head-injury cases and informed that 50% of the cases came from malingerers. Although

ING AND DECEPTION 123 (Richard Rogers ed., 1988); Roger L. Greene, *The Relative Efficacy of F-K and the Obvious and Subtle Scales to Detect Overreporting of Psychopathology on the MMPI*, 44 J. CLINICAL PSYCHOL. 152 (1988).

153. See Samuel Albert et al., *Faking Psychosis on the Rorschach: Can Expert Judges Detect Malingering?*, 44 J. PERSONALITY ASSESSMENT 115 (1980). "It seems clear that unstructured interviews and projective tests are the least effective techniques to identify malingerers." Ogloff, *supra* note 149, at 35.

154. See, e.g., Jeffrey T. Barth et al., *Forensic Aspects of Mild Head Trauma*, 1 J. HEAD TRAUMA REHABILITATION 63, 64 (1986). The neuropsychologist is "rapidly becoming an integral part of the physician-lawyer team." *Id.*

155. E.g., Rahn A. Bruhn & Max R. Reed, *Simulation of Brain Damage on the Bender-Gestalt Test by College Students*, 39 J. PERSONALITY ASSESSMENT 244 (1975) (about 90% hit rate); Ronald A. Goebel, *Detection of Faking on the Halstead-Reitan Neuropsychological Test Battery*, 39 J. CLINICAL PSYCHOL. 731 (1983) (94% to 97% hit rates).

156. Goebel, *supra* note 155.

157. This study has also been questioned on methodological grounds. See *id.* at 733; David Faust et al., *Pediatric Malingering: The Capacity of Children to Fake Believable Deficits on Neuropsychological Testing*, 56 J. CONSULTING & CLINICAL PSYCHOL. 578, 578 (1988) [hereinafter *Pediatric Malingering*].

158. David Faust et al., *Neuropsychologist's Capacity to Detect Adolescent Malingerers*, 19 PROF. PSYCHOL.: RES. AND PRAC. 508, 510-11 (1988) [hereinafter *Adolescent Malingerers*].

91% of the respondents correctly identified the actual cases (of which 90% attributed the results to brain damage), 57% of the respondents also judged the malingering cases to be cases of actual brain damage, a nonsignificant improvement over chance, *i.e.*, the 50% base rate.¹⁵⁹

A subsequent study examined the same phenomenon with three pre-adolescent children ages 9-12 who were told to perform poorly on the same scales used in the adolescent study.¹⁶⁰ Of the forty-two experienced clinical neuropsychologists responding, 93% judged the faked protocols as abnormal, with 87% attributing the abnormality to brain damage and the remainder to functional problems. None of the respondents concluded that the test protocols came from malingering subjects.¹⁶¹ These results "suggest that the detection of malingering is far more difficult than practitioners may believe and raise particular concern about courtroom assessments in which simulation of deficit is often a possibility."¹⁶²

This review of the literature of human, clinical, and forensic decisionmaking does not (and should not) evoke much confidence. Errors in judgment are common to both lay people and professional clinicians, including those involved in the assessment, diagnosis, and treatment of the mentally disabled. Many of the studies reviewed here show that mental health professionals are no more accurate than lay decisionmakers and that both professionals and lay people rely on the same judgment strategies and make the same errors. Many other studies show that a select group of experienced professionals or those specializing in a particular area of mental health make decisions no better than less experienced or general practitioners. Most relevant, erroneous decisionmaking is a common problem in courts and in forensic clinics where mental health professionals work.

Despite attempts to educate clinicians about heuristics, behavior decision theory, information processing,¹⁶³ and the availability of actuarial or

159. *Id.* at 512-13. These results are particularly discouraging because the adolescent malingerers were given only very minimal instruction about how to produce credible protocols. Plaintiffs who plan to portray themselves as suffering from organic injury are likely to produce more credibly faked test results by studying test manuals and relevant textbooks. In other cases, plaintiffs may have actually suffered head trauma but seek to feign or exaggerate their deficits. *Id.* at 513.

160. *Pediatric Malingering*, *supra* note 157.

161. *Id.* at 579-80.

162. *Adolescent Malingerers*, *supra* note 158, at 514. *See generally* FAUST & ZISKIN, *supra* note 102.

Only some recently developed and validated structured interview formats have shown signs of accurately distinguishing those simulating mental illness from actual patients. *See, e.g.*, CLINICAL ASSESSMENT OF MALINGERING AND DECEPTION (Richard Rogers ed., 1988); Richard Rogers & James L. Cavanaugh, Jr., *Application of the SADS [Schedule of Affective Disorders and Schizophrenia] Diagnostic Interview to Forensic Psychiatry*, 9 J. PSYCHIATRY & L. 329 (1981); Richard Rogers et al., *The SIRS [Structured Interview of Reporting Symptoms] as a Measure of Malingering: A Validation Study with Correctional Sample*, 8 BEHAV. SCI. & L. 85 (1990). "The SADS and the SIRS are two alternatives to traditional clinical interviewing which provide much promise for identifying malingerers. Future research on these techniques would be helpful in further demonstrating their efficacy" Ogloff, *supra* note 149, at 34.

163. *See, e.g.*, *Impediments*, *supra* note 59, at 326-29 (consider alternatives, think Bayesian, decrease reliance on memory); Faust, *supra* note 31, at 427-28 (search for disconfirming signs, consider alternatives, recognize predictive uncertainty, act cautiously rather than with confi-

mechanical methods that have been shown for decades to produce markedly more accurate and less biased clinical decisions,¹⁶⁴ the vast majority of clinicians persist, either in ignorance or with misplaced confidence, in using instruments of questionable validity and ignore relevant factors that contribute to more accurate decisionmaking.¹⁶⁵ Even those who are the strongest proponents of actuarial methods concede that although they surpass traditional clinical methods, "actuarial procedures are far from infallible, sometimes achieving only modest results,"¹⁶⁶ and do not yet directly concern the foren-

dence); Robyn M. Dawes, *Representative Thinking in Clinical Judgment*, 6 CLINICAL PSYCHOL. REV. 425, 440 (1986) (keep track of judgment outcomes, write down rules of probabilistic inference). See generally HUMAN INFERENCE, *supra* note 28 (concerning cognition and inference); HOGARTH, *supra* note 34 (concerning decision-making, judgment, and choice); Christine M. Nezu et al., *The Multiple Applications of Problem-Solving Principles in Clinical Practice*, in COGNITIVE THERAPY IN ACTION: EVOLVING INNOVATIVE PRACTICE (K. Kuehlwein and H. Rosen eds., forthcoming); Elstein, *supra* note 29, at 42-43; Jordan, *supra* note 64, at 100-01; Lynn H. Arnoult & Craig A. Anderson, *Identifying and Reducing Causal Reasoning Biases in Clinical Practice*, in TURK & SALOVEY, *supra* note 29, at 209, 222-28.

164. Dawes et al., *supra* note 76, at 1668. In contrast to the clinical method, where decision-makers process information in their heads, "[i]n the actuarial or statistical method the human judge is eliminated and conclusions rest solely on empirically established relations between data and the condition or event of interest." *Id.* "The clinical-statistical controversy in psychology is but one specific manifestation of the apparent conflict between two broad approaches to prediction: quantitative versus qualitative, mathematical versus nonmathematical, scientific versus intuitive, the formula versus the head, or computer versus man." *Bayesian Synthesis*, *supra* note 65, at 767. See also Barbara D. Underwood, *Law and the Crystal Ball: Predicting Behavior with Statistical Inference and Individualized Judgment*, 88 YALE L.J. 1408 (1979). The systematic comparison of these two methods of decision-making was stimulated by the seminal work, PAUL E. MEEHL, CLINICAL VERSUS STATISTICAL PREDICTION (1954), written almost 40 years ago. Meehl argued "that diagnoses and predictions made by psychologists tend to be less accurate than predictions in which the same information available to the psychologist is integrated by regression formula—that is, by a weighted average of predictors." Clark McCauley, *Selection of National Science Foundation Graduate Fellows: A Case Study of Psychologists Failing to Apply What They Know About Decision Making*, 46 AM. PSYCHOLOGIST 1287, 1289 (1991). Even unweighted, "linear" models of statistical prediction are more accurate than clinicians in detecting mental illness. See Robyn M. Dawes & Bernard Corrigan, *Linear Models in Decision Making*, 81 PSYCHOL. BULL. 95 (1974). Further, even when the clinician's own decisionmaking strategies are represented mathematically (known as "bootstrapping"), see Lewis R. Goldberg, *Man versus Models of Man: A Rationale, Plus Some Evidence for a Method of Improving Clinical Inference*, 73 PSYCHOL. BULL. 422 (1970), the mathematical model is more accurate because it eliminates inconsistency, idiosyncrasy, and the tendency to respond to selective cues. See E.H. Bowman, *Consistency and Optimality in Managerial Decision Making*, 9 MGMT. SCI. 310 (1963). In the most recent comprehensive review examining 100 studies comparing clinical and statistical prediction, the authors conclude that "[i]n virtually every one of these studies, the actuarial method has equaled or surpassed the clinical method, sometimes slightly and sometimes substantially." Dawes et al., *supra* note 76, at 1669. For an earlier, respected review, see Jack Sawyer, *Measurement and Prediction: Clinical and Statistical*, 66 PSYCHOL. BULL. 178 (1966) (examining 45 studies). The superiority of actuarial methods has been shown even in "studies that involved highly experienced clinicians, who were allowed access to preferred sources of information and who rendered judgments common to their everyday practices." David Faust, *Data Integration in Legal Evaluations: Can Clinicians Deliver on their Promises*, 7 BEHAV. SCI. & L. 469, 476 (1989). Despite all of the above, the "[r]esearch on clinical versus statistical judgment has had little impact on everyday decision making, particularly within its field of origin, clinical psychology." Dawes et al., *supra* note 76, at 1672.

165. For a somewhat sarcastic analysis of why clinicians continue to act in ways that lessen rather than improve the accuracy of decisionmaking, see Paul E. Meehl, *Causes and Effects of My Disturbing Little Book*, 50 J. PERSONALITY ASSESSMENT 370, 374-75 (1986).

166. Dawes et al., *supra* note 76, at 1673. Actuarial methods simply "reveal the upper

sic setting."¹⁶⁷

In light of all this, it is not too polemical to conclude that professional judgment is, in fact, not much better than arbitrary judgment. It is not commensurate with arbitrary judgment only to the extent that clinical decisionmakers attempt to account for all relevant variables gleaned from their assessment and to act in thoughtful good faith. But, in fact, professional judgment is simply judgment made by a professional, not a judgment that has any special aura of reliability or validity and is often no better than lay judgment. If, from the Supreme Court's perspective, the only questions are whether "professional judgment *in fact* was exercised,"¹⁶⁸ or whether the clinician "substantial[ly] depart[ed] from accepted professional judgment, practice, or standards,"¹⁶⁹ then mentally disabled persons will be vulnerable to erroneous decisions and unlikely to prevail if they seek to challenge those decisions.

It is risky enough to permit judges or jurors to rely on the interpretations, analyses, and conclusions of mental health experts in adversary proceedings. But to make mental health professionals the primary decisionmaker, subject only to very limited judicial review, in determinations of whether persons should be civilly committed or should be compelled to take possibly risky psychotropic medication, compounds the risk. The preference for "informal, traditional medical investigative techniques"¹⁷⁰ and reliance on an "administrative review using medical decisionmakers"¹⁷¹ will bar access to the adversary process, and hence bar the opportunity to challenge judgments of mental health professionals through competent cross-examination, the use of competing experts, and other devices that serve as correctives to often confident but mistaken judgments by psychiatrists and psychologists.¹⁷² When,

bounds in our current capacities to predict human behavior. An awareness of the modest results that are often achieved by even the best available methods can help to counter unrealistic faith in our predictive powers and our understanding of human behavior." *Id.* "Several studies suggest that the best role for people in judgement should be that of a 'measuring instrument' for data that are to be combined subsequently by mechanical means." HOGARTH, *supra* note 34, at 57.

167. Faust & Ziskin, *supra* note 107, at 34.

168. Youngberg v. Romeo, 457 U.S. 307, 321 (1982) (quoting the lower court's opinion, Youngberg v. Romeo, 644 F.2d 147, 178 (3d Cir. 1980) (emphasis added).

169. *Id.* at 323.

170. Parham v. J.R., 442 U.S. 584, 607 (1979).

171. Washington v. Harper, 494 U.S. 210, 233 (1990).

172. *Treating Crazy People*, *supra* note 14, at 383. "[A]n adversary system is premised on the assumption that the truth is best determined by a fully adversarial airing of the issues, and there is no reason to believe that the theory is less applicable in mental health cases." *Id.* Nevertheless, the enhanced truth-finding function of formal adversary proceedings in such cases depends, as it always does, on the sophistication of the judge and the advocates and their ability to apply the existing literature gleaned from the work of cognitive psychologists.

Few courts or lawyers probe the basis for experts' claimed expertise beyond examining their superficial and often-inflated resumes and curricula vitae, . . . but intense scrutiny of the foundation of claimed expertise ought to be standard. Certainly, the judiciary rarely has opportunity to take advantage of the large body of experimentally derived knowledge and theoretical understanding that pertains to clinical expertise. If it did, it would rigorously challenge experts to define and demonstrate the power and limitations of their expertise . . . by providing the court scientifically rigorous estimates of how likely they are to be

as in *Parham*, the decisionmaker's judgment is subject to review only by a colleague and fellow employee or, as in *Harper*, where the judgment of the psychiatrist recommending compelled administration of medication is reviewed only by other non-legal professionals, the context is provided for operation of all the biasing heuristics discussed herein.¹⁷³

The Supreme Court has viewed the adversarial process as the arena in which highly questionable evidence, such as predictions of future dangerousness, can be tested.¹⁷⁴ As the review of research has shown, predictions of future violence are as fraught with error as other decisions mental health professionals are asked to make. It is inconsistent with this literature for the Court to value the adversary system and perceive it as the setting in which to "separate the wheat from the chaff"¹⁷⁵ in cases involving predictions of violence but to abandon it in similar cases where predictions of future behavior, including danger to self or others, will determine whether a mentally disabled person will suffer deprivations of liberty, autonomy, or privacy.¹⁷⁶

III. COMPOUNDING THE ERRORS: IGNORING RESEARCH ON PROCEDURAL JUSTICE

The Supreme Court's developing preference for informal administrative determinations, the restricted use of expert witnesses in such proceedings,¹⁷⁷ and the very truncated scope of judicial review is also in conflict with the burgeoning research on procedural justice. The consequences of the *Youngberg-Parham-Harper* trilogy in the face of this research are that erroneous decisions will go largely unchecked but mentally disabled persons, left with perceptions of unfairness and of being unheard, will become more resistant to the treatment they are compelled to endure.

Procedural justice investigates the costs and benefits of various methods of dispute resolution. While the cognitive psychology literature would argue

correct in their judgments, and how the court may assess the expert's decision-making competence relative to that of ordinary persons.

Horner & Guyer, *supra* note 31, at 246.

173. Even those who argue that there is considerable accuracy to the diagnostic acumen of psychologists and psychiatrists and decry the attack on the ability of these professionals to make diagnostic judgments, such as made by Ziskin and Faust, *see supra* note 30, agree that the validity of a mental health professional's opinion should be judged "by assuring that the procedures of justice allow expert testimony to be challenged *at trial*." Steven K. Hoge & Thomas Grisso, *Accuracy and Expert Testimony*, 20 BULL. AM. ACAD. PSYCHIATRY & L. 67, 71 (1992) (emphasis added).

174. *See Barefoot v. Estelle*, 463 U.S. 880, 901 (1983). "We are unconvinced . . . that the adversary process cannot be trusted to sort out the reliable from the unreliable evidence and opinion about future dangerousness, particularly when the convicted felon has the opportunity to present his own side of the case." *Id.*

175. *Id.* at 899 n.7.

176. It could be argued that the Supreme Court's preference for traditional adversary procedures involving predictions of future violence was, and should be, limited to death penalty cases where the punishment is unique and final. But, liberty, autonomy, and privacy interests are values that are almost always at the heart of cases involving mentally disabled persons. The consequences of erroneously depriving such people of these rights "are the most serious that our legal system can produce." *Treating Crazy People*, *supra* note 14, at 383.

177. *See supra* text accompanying notes 15-18.

that the accuracy of decisions would be enhanced by subjecting expert decisionmaking to the formality of the adversary process rather than more informal mechanisms for dispute resolution, the focus of concern in procedural justice is not on the equity or accuracy of outcomes among various methods but with the fairness of the process, particularly as perceived by the participants. The classic work on procedural justice was the result of the collaboration between social psychologist John Thibaut and law professor Laurens Walker.¹⁷⁸

Thibaut and Walker differentiated between participants' control over the opportunity to present evidence, which they called process control, and their control over the final outcome, which they called decision control. Procedural justice is concerned with process control.¹⁷⁹ In a series of laboratory experiments, Thibaut and Walker showed that "disputants' judgments about procedural fairness have an effect on the satisfaction that transcends the outcome of disputes or the likelihood that particular procedures will be advantageous to individual disputants."¹⁸⁰ The major focus of comparison in the early studies was between adversarial and inquisitorial systems of adjudication.¹⁸¹

The results of research on the perceived fairness between adversarial and

178. See JOHN THIBAUT & LAURENS WALKER, *PROCEDURAL JUSTICE: A PSYCHOLOGICAL ANALYSIS* (1975) [hereinafter THIBAUT & WALKER]. The first use of the term "procedural justice" in this regard appeared the prior year. See John Thibaut et al., *Procedural Justice as Fairness*, 26 STAN. L. REV. 1271 (1974). Some of this early research was stimulated by Harvard Law School Professor Lon Fuller. See Lon L. Fuller, *The Adversary System, in TALKS ON AMERICAN LAW* 34 (Harold Berman ed., 1971) [hereinafter Fuller]. The first empirical examination in the legal scholarly literature appears to be John Thibaut et al., *Adversary Presentation and Bias in Legal Decision-making*, 86 HARV. L. REV. 386 (1972) [hereinafter *Adversary Presentation*]. For a history and summary of this early research, see E. ALLAN LIND & TOM R. TYLER, *THE SOCIAL PSYCHOLOGY OF PROCEDURAL JUSTICE* 7-40 (1988) [hereinafter LIND & TYLER]; Joseph E. Schumacher et al., *Procedural Justice Judgments of Alternative Procedures for Resolving Medical Malpractice Claims*, Paper Presented at American Psychological Association Annual Meeting (1991) [hereinafter Schumacher et al.].

179. For an alternative formulation of procedural justice, see Gerald S. Leventhal, *What Should be Done with Equity Theory? New Approaches to the Study of Fairness in Social Relationships*, in SOCIAL EXCHANGE: ADVANCES IN THEORY AND RESEARCH 27 (Kenneth J. Gergen et al. eds., 1980). Leventhal defined fairness not only in terms of representation and other components of process control, but also in terms of the dispute mechanism's ability to suppress bias, improve decision quality or accuracy, afford opportunity to correct unfair or inaccurate decisions, and the degree to which the decision-making process accords with general standards of morality. See Tom R. Tyler, *What is Procedural Justice? Criteria Used by Citizens to Assess the Fairness of Legal Procedures*, 22 L. & SOC'Y REV. 103, 104-05 (1988).

180. William M. O'Barr & John M. Conley, *Lay Expectations of the Civil Justice System*, 22 L. & SOC'Y REV. 137, 137 (1988).

181. "In a pure adversary system, openly biased advocates urge their clients' cases before a passive decision-maker. In a pure inquisitorial system . . . an expert decision-maker actively investigates the claims of unrepresented litigants." *Adversary Presentation*, *supra* note 178, at 388. There are hybrids between these two extremes. For example, in one hybrid a single investigator appointed by the adjudicating body accumulates evidence for both sides and presents his/her findings to the decision-making body; in another hybrid, two investigators, each appointed to the respective parties, perform these functions. See E. Allan Lind et al., *Reactions to Procedural Models for Adjudicative Conflict Resolution*, 22 J. CONFLICT RESOL. 318, 320-22 (1978).

inquisitorial procedures has been remarkably consistent¹⁸² and robust.¹⁸³

First, subjects express a clear preference for adversarial procedures over inquisitorial ones. Second, this preference is strongly influenced by subjective judgments of fairness; the adversarial process is perceived as more fair than the inquisitorial one. Perceptions of fairness are related to the degree of control that disputants have over the dispute resolution process. This dimension of "process control" may be important because of perceived or actual instrumental value (i.e., subjects believe they can influence the outcome of disputes) and because of its symbolic value regarding group membership (i.e., the opportunity to have a "voice" in the process accords persons status as full-fledged members of society).¹⁸⁴

Thibaut and Walker's findings have been buttressed by more recent and increasingly sophisticated research gleaned from a number of different contexts and cultures and led by psychologists Tom Tyler, E. Allan Lind, and others.¹⁸⁵

182. Blair H. Sheppard, *Justice is No Simple Matter: Case for Elaborating Our Model of Procedural Fairness*, 49 J. PERSONALITY & SOC. PSYCHOL. 953, 954 (1985).

183. Kwok Leung & E. Allan Lind, *Procedural Justice and Culture: Effects of Culture, Gender, and Investigator Status on Procedural Preferences*, 50 J. PERSONALITY & SOC. PSYCHOL. 1134, 1134 (1986).

184. Schumacher et al., *supra* note 178, at 2-3 (citations omitted). For supporting studies, see, e.g., LIND & TYLER, *supra* note 178; John Thibaut et al., *Procedural Justice as Fairness*, 26 STAN. L. REV. 1271 (1974); Thibaut & Walker, *supra* note 178; John Thibaut & Laurens Walker, *A Theory of Procedure*, 66 CAL. L. REV. 541 (1978). The term "voice" to mean representation and the opportunity to be heard originated in ALBERT O. HIRSCHMAN, EXIT, VOICE, AND LOYALTY: RESPONSES TO DECLINES IN FIRMS, ORGANIZATIONS, AND STATES (1970) and has since been borrowed and used as a variable in procedural justice studies by Folger and his colleagues. See, e.g., Robert Folger, *Distributive and Procedural Justice: Combined Impact of "Voice" and Improvement on Experienced Equity*, 35 J. PERSONALITY & SOC. PSYCHOL. 108 (1977).

[T]he social psychological literature on procedural justice . . . relates compliance with legal decisions to a litigant's perception of fairness in the process. How much "voice" has the litigant had? How much influence? How much support from others? The literature looks at both a litigant's process control and his or her outcome control.

David B. Wexler & Bruce J. Winick, *Therapeutic Jurisprudence as a New Approach to Mental Health Law Policy Analysis and Research*, 45 MIAMI L. REV. 979, 989 (1991) [hereinafter Wexler & Winick].

The Supreme Court has also recognized the symbolic and psychological value of fair procedures. In holding that procedural due process required a pretermination hearing when the government seeks to discontinue public assistance payments to welfare recipients, the Court recognized that such hearings furthered the government interest in reinforcing "the Nation's basic commitment . . . to foster the dignity and well-being of all persons within its borders." *Goldberg v. Kelly*, 397 U.S. 254, 264-65 (1970).

185. See, e.g., MICHAEL D. BAYLES, PROCEDURAL JUSTICE: ALLOCATING TO INDIVIDUALS (1990) [hereinafter BAYLES]; LIND & TYLER, *supra* note 178; TOM TYLER, WHY PEOPLE FOLLOW THE LAW: PROCEDURAL JUSTICE, LEGITIMACY AND COMPLIANCE (1990); Jonathan D. Casper et al., *Procedural Justice in Felony Cases*, 22 L. & SOC'Y. REV. 483 (1988); John H. Martin, *Justice and Efficiency Under a Model of Estate Settlement*, 66 VA. L. REV. 727 (1980); Gary Melton & E. Allan Lind, *Procedural Justice in Family Court: Does the Adversary Model Make Sense?*, in LEGAL REFORMS AFFECTING CHILDREN AND YOUTH SERVICES 65 (Gary Melton ed., 1982); William M. O'Barr & John M. Conley, *Lay Expectations of the Civil Justice System*, 22 L. & SOC'Y REV. 137 (1988) (small claims court); Tom R. Tyler, *What is Procedural Justice? Criteria Used by Citizens to Assess the Fairness of Legal Procedures*, 22 L. & SOC'Y REV. 103 (1988); Tom R. Tyler & Andrew Caine, *The Influence of*

Another benefit hypothesized to be derived from the adversary system, other than a sense of fairness or "process control," is that partisan advocacy and the competitive presentation of evidence diminishes the possibility that only a skewed set of facts will be heard, thereby counteracting decisionmaker bias. The adversary process will produce more facts and useful information, and each of the parties' evidence will be tested through vigorous cross-examination.¹⁸⁶ Professor Fuller presciently conjectured that the adversary system was the most valid means for combating the effects of heuristics that would otherwise befall legal decisionmakers:

What generally occurs in practice is that at some early point a familiar pattern will seem to emerge from the evidence; an accustomed label is waiting for the case and without awaiting further proofs, this label is promptly assigned to it. . . . But what starts as a preliminary diagnosis designed to direct the inquiry tends, quickly and imperceptibly, to become a fixed conclusion, as all that confirms that diagnosis makes a strong imprint on the mind, while all that runs counter to it is received with diverted attention.

An adversary presentation seems the only effective means for combating this natural human tendency to judge too swiftly in terms of the familiar that which is not yet fully known.¹⁸⁷

Empirical research appears to support Professor Fuller's thesis. Studies in which subjects have been deliberately biased, by receiving expectations that a case would yield a certain outcome (e.g., the defendant is guilty) show that such subjects, when offered evidence under an adversary system, make less extreme judgments than those under an inquisitorial system.¹⁸⁸ The inquisitorial system is less effective in forcing decisionmakers to confront their biases. "Thus, it is principally in the adversary mode of presentation that the biased decisionmaker feels compelled to struggle to suppress any behavioral evidence that would sustain an attribution of bias."¹⁸⁹

Outcomes and Procedures on Satisfaction with Formal Leaders, 41 J. PERSONALITY & SOC. PSYCHOL. 642 (1981); Tom R. Tyler & Robert Folger, *Distributional and Procedural Aspects of Satisfaction with Citizen-Police Encounters*, 1 BASIC & APPLIED PSYCHOL. 281 (1980). But see Kwok Leung & E. Allan Lind, *Procedural Justice and Culture: Effects of Culture, Gender and Investigator Status on Procedural Preferences*, 50 J. PERSONALITY & SOC. PSYCHOL. 1134 (1986) (American subjects preferred adversary model; Hong Kong Chinese preferred inquisitorial model). The MacArthur Foundation Research Network on Mental Health and the Law, a 12-member task force conducting and commissioning studies on mental health law, will be investigating the application of procedural justice literature to patients' perceptions of coercion. For a brief review of the work of the MacArthur Foundation Research Network, see Wexler & Winick, *supra* note 184, at 986-89 (1991).

186. See *Adversary Presentation*, *supra* note 178, at 390.

187. Fuller, *supra* note 178, at 43-44.

188. See, e.g., *Adversary Presentation*, *supra* note 178, at 395-401. "The associated determinations that adversary as compared with inquisitorial presentation produced an overall significant difference in final judgments and further that the significant part of that difference was produced at sessions with biased subjects permit the conclusion that Fuller's hypothesis has validity. . . ." *Id.* at 397. This finding appears to transcend cultures. See E. Allan Lind et al., *A Cross-Cultural Comparison of the Effect of Adversary and Inquisitorial Processes on Bias in Legal Decision-making*, 62 VA. L. REV. 271 (1976) (a study of bias in the adversary system using French subjects).

189. *Adversary Presentation*, *supra* note 178, at 401. But see Neil Vidmar & Nancy M. Laird, *Adversary Social Roles: Their Effects on Witnesses' Communication of Evidence and the*

In sum, a party to a dispute will judge an adjudicatory process to be fair, just, and unbiased to the extent that process control is shared equally among the disputants, that the disputants believe that the evidence they present is actually taken into account, and, most importantly, that decisionmakers are strictly neutral as they judge the conflicting claims of the disputants.¹⁹⁰ It is just these values that are present in formal adjudicatory proceedings before judges and missing in the kinds of decisional processes for which the Supreme Court has shown preference. In the kind of due process delineated in *Parham*, there is almost total absence of equal voice for the putative patient, and a non-legal decisionmaker employed by the institution decides whether or not compelled hospitalization is appropriate. In *Harper*, the decisionmakers are likely to share the heuristic biases of the psychiatrist seeking to compel administration of psychotropic medication, and the primary or only voice for the patient is a lay adviser who shares the values of the medical model.¹⁹¹

Finally, and only very briefly, one of the consistent findings in the procedural justice literature is that the sense of fairness that arises out of genuinely adversarial proceedings evokes greater satisfaction with the outcome and more acceptance of the verdict, even by the losing party.¹⁹² The failure to provide an adversarial forum, then, is likely to reduce compliance with the decision, producing increased temporal, financial, and administrative bur-

Assessments of Adjudicators, 44 J. PERSONALITY & SOC. PSYCHOL. 888 (1983); Blair H. Shepard & Neil Vidmar, *Adversarial Pretrial Procedures and Testimonial Evidence: Effects of Lawyer's Role and Machiavellianism*, 39 J. PERSONALITY & SOC. PSYCHOL. 320 (1980). These authors suggest that witnesses called by the party, as in the adversarial system, rather than by the court, as in the inquisitorial system, may produce more biased testimony. "[R]elative to nonadversary procedures, adversary procedures reduced certain types of cognitive bias in legal decision-making, sometimes introduced bias in the evidence presented to the decision maker, and resulted in perceptions on the part of the disputants that both the procedure and the outcome were more fair." Melton & Lind, *supra* note 185, at 67 (citations omitted); LIND & TYLER, *supra* note 178. These works, however, do not reveal whether the outcomes are biased. Thus, further research is needed on this issue. *But see* Barefoot v. Estelle, 463 U.S. 880, 901 (1983) (adversary process can be trusted to sort out reliable from unreliable evidence); *see also* Addington v. Texas, 441 U.S. 418, 425 ("function of legal process is to minimize the risk of erroneous decisions").

190. *See* Ronald L. Cohen, *Procedural Justice and Participation*, 38 HUM. REL. 643, 646 (1985) [hereinafter Cohen]. "Biased and interested decisionmakers are less likely to reach correct decisions." Bayles, *supra* note 185, at 135.

191. In *Harper*, the defendant was assisted by a nurse practitioner. *Washington v. Harper*, 494 U.S. 210, 256 n.30 (Stevens, J. dissenting) (1990). Further infirmities of the informal administrative procedure used in *Harper* arise from the fact that there is only truncated judicial review, reducing the possibility that errors will be corrected. More importantly, there is the opportunity for *ex parte* communication prior to the hearing between the state and the tribunal. *Id.* at 235-36. "If one party communicates to the decision-maker without the other party present, then there is an appearance of partiality; the decision-maker appears to have a special relationship to the communicating party." Bayles, *supra* note 185, at 35. And, of course, the neutrality of the decisionmakers is questionable. "The independence of decisionmakers involves two elements: not being subject to the control of a party or group with an interest at stake and not mixing decision making with incompatible functions." *Id.* at 29. Both these elements are violated in *Harper*-like procedures.

192. *See* Cohen, *supra* note 190, at 645; Stephen LaTour, *Determinants of Participant and Observer Satisfaction with Adversary and Inquisitorial Modes of Adjudication*, 36 J. PERSONALITY & SOC. PSYCHOL. 1531 (1978); Laurens Walker et al., *Reactions of Participants and Observers to Modes of Adjudication*, 4 J. APPLIED SOC. PSYCHOL. 295 (1974).

dens on the institutions and professionals who participate in proceedings perceived as unfair, biased, and unjust.¹⁹³ Thus, in addition to the infirmities of the *Parham-Harper* forms of adjudication already considered herein, a legal system that prefers informal, non-legal decisionmakers may be countertherapeutic, thereby redounding to the detriment of the population of mentally disabled persons.¹⁹⁴

IV. CONCLUSION

The Supreme Court has asserted that "[c]ommon human experience and scholarly opinions suggest that the supposed protections of an adversary proceeding to determine the appropriateness of medical decisions for the commitment and treatment of mental and emotional illness may be more illusory than real."¹⁹⁵ This Article exposes the serious fallacies in that statement.

The literature summarized in Part II should disabuse members of the Court and readers of the infirmity of relying on "common human experi-

193. Thus, "time-consuming procedural minuets" may, in the long run, save time and trouble. *Parham v. J.R.*, 442 U.S. 584, 605 (1979). Even if decreased formality and less adversarial procedures cut time and cost, they would do so "only at the counteracting cost of substantially increasing the risk of prejudice toward disfavored minorities. The integrity of legal decision-making and the welfare of the disordered require that mental health cases should be decided by judges or other neutral legal decisionmakers." *Treating Crazy People*, *supra* note 14, at 384. But it is also not accepted universally that stringent formal procedural safeguards necessarily produce inordinate delay, as asserted by the en banc court in *United States v. Charters*, 863 F.2d 302, 309 n.5 (4th Cir. 1988), *cert. denied*, 494 U.S. 1017 (1990) and Chief Justice Burger in *Parham*. See, e.g., *Are Courts Competent?*, *supra* note 22, at 986 ("fear of time-consuming 'battles of experts' is . . . unfounded"); Francine Courmos et al., *A Comparison of Clinical Procedures for Reviewing Requests for Involuntary Medication in New York*, 39 HOSP. & COMMUNITY PSYCHIATRY, 851, 855 (1988) [hereinafter Courmos et al.] (Stringent legal procedures in psychotropic medication refusal cases "did not delay or diminish requests for or approval of involuntary treatment.").

194. The Supreme Court has impliedly acknowledged the therapeutic value of fair procedures in holding that parolees have a right to a probable cause preliminary hearing before their paroles may be revoked. *Morrissey v. Brewer*, 408 U.S. 471, 484 (1972). "Society has a further interest in treating the parolee with basic fairness: fair treatment in parole revocations will enhance the chance of rehabilitation by avoiding reactions to arbitrariness." *Id.* In fact, there is now a developing legal and psychological literature that examines how the legal system may act more therapeutically. See, e.g., DAVID B. WEXLER, *THERAPEUTIC JURISPRUDENCE: THE LAW AS A THERAPEUTIC AGENT* (1990); *ESSAYS IN THERAPEUTIC JURISPRUDENCE* (David B. Wexler & Bruce J. Winick eds., 1991).

"Although Chief Justice Burger [in *Parham*] defended his judgment based on concerns that a hearing would burden the family relationship and be detrimental to the therapeutic goals of hospitalization, others have questioned these assumptions and suggested that there is a therapeutic value in holding commitment hearings." Wexler & Winick, *supra* note 185, at 985. A relevant empirical study demonstrates that providing rigorous procedural protections for mental patients refusing psychotropic medication offered these patients, "considerably greater representation and participation," gave them "the opportunity to hear a detailed discussion of their physician's reasoning and to present their own views," and, as a result, enabled them to "gain a better understanding of the need for treatment through a process that offers this degree of patient involvement." Courmos et al., *supra* note 193, at 855. In general, a "modest body of literature developed over the past decade suggests that involuntary civil commitment hearings have a therapeutic potential." *Are Courts Competent?*, *supra* note 22, at 985.

195. *Parham v. J.R.*, 442 U.S. 584, 609 (1979).

ence" as a decisionmaking tool.¹⁹⁶ Notwithstanding the "scholarly opinion" upon which the Court has relied, Parts II and III offer research that demonstrates that the Court's increasing preference for informal decisionmaking in fora controlled by nonlegal professionals and administrators is contrary to a whole universe of sound, consensual, and intersecting social science evidence. At the very least, that literature reveals that clinical decisionmaking in general and forensic decisionmaking in particular are subject to a variety of serious distortions and errors that are very likely to go undiscovered and uncorrected in the absence of formal adversarial proceedings presided over by a neutral, judicial decisionmaker.

Admittedly, judges are subject to the same heuristic biases and decision-making foibles that lead to erroneous judgments by clinicians and laypeople.¹⁹⁷ There has been a shameful tendency for judges and counsel for the mentally disabled to accede too easily to professional discretion.¹⁹⁸ However, a judicially-based adversary system permits the parties to present competing hypotheses and data, which serve as checks and correctives to decisional errors. It is hoped that this Article may lead to more sophisticated examination by attorneys of mental health professionals and more judicial skepticism of their judgment and expertise.

As for the alleged deceptive benefits of a full measure of due process, it was Judge Frankel who remarked, "[W]e have allowed ourselves too often to sacrifice truth to other values that are inferior, or even illusory."¹⁹⁹ Such values include temporal and financial economy and the putatively wasteful allocation of scarce professional resources that judicial decisionmaking in an

196. For further criticism of common sense decisionmaking in mental disability law, see *Psychodynamics*, *supra* note 31, at 22-39. See also Mark Kelman, *Interpretive Construction in the Substantive Criminal Law*, 33 STAN. L. REV. 591, 671-72 (1981) ("dominant legal thought is nothing but some more or less plausible common-wisdom banalities, superficialities, and generalities"); cf. Disraeli's comment that "[a] practical man is a man who practices the errors of his forefathers," cited in APHORISMS 255 (W.H. Auden & Louis Kronenberger eds., reissue 1981).

197. "Judges can also conflate medical and legal issues, but they are best situated by training, experience and role definition to be neutral decisionmakers who recognize the moral and political nature of their legal tasks." *Treating Crazy People*, *supra* note 14 at 383-84.

198. "Many researchers have commented on the rapidity of commitment hearings and the tendency of judges to discourage careful inquiry and cross-examination by the respondent's attorney . . ." Paul S. Appelbaum, *Civil Commitment from a Systems Perspective*, 16 L. & HUM. BEHAV. 61, 66 (1992) [hereinafter Appelbaum]. "Attorneys for both parties, but particularly for respondents, have been chastised repeatedly in the legal literature for playing their roles in a perfunctory manner." *Id.* Accord Michael L. Perlin, *On "Sanism"*, 46 SMU L. REV. 373 (1992); *Why the Gap?*, *supra* note 14, at 647 (citations omitted).

In many instances, judges discourage attorneys from taking an active part in commitment hearings or they take over the role of questioning respondents and witnesses. Proceedings are often extremely informal, and judges frequently fail to advise respondents of some or all of their rights. Moreover, judges, like attorneys, often defer to clinical recommendations in the determination of mental illness and dangerousness.

Id. For empirical support that even procedurally rigorous statutes can still result in less than fully realized adversarial procedural safeguards, see Serena D. Stier & Kurt J. Stoebe, Project, *Involuntary Hospitalization of the Mentally Ill in Iowa: The Failure of the 1975 Legislation*, 64 IOWA L. REV. 1284 (1978). But, "when attorneys do assume an adversarial role . . . there is a significant reduction in the number of respondents involuntarily committed." *Id.*

199. MARVIN E. FRANKEL, *PARTISAN JUSTICE* 12 (1980).

adversarial setting would require. Thus, there is a certain surface appeal to unfettered professional discretion, decisionmaking by administrative tribunal, or even a more enlightened hybrid in which a panoply of procedural safeguards would be embedded in an adversarial, but administrative, forum.²⁰⁰ Yet, any savings of time and scarce professional resources are illusory.²⁰¹

Even if professional judgment were sufficiently accurate to be relied on to determine the rights of mentally disabled persons, there are countervailing values that offset any alleged temporal or financial benefits of administrative fora. The Supreme Court's pronouncements notwithstanding, the consensus of scholarly opinion perceives decisions such as whether to compel competent mental patients to be medicated, or to involuntarily commit disturbed persons to mental hospitals or execution, as transcending medical or psychological judgments.²⁰² Until the Supreme Court began to remedialize

200. For a very recent description of such a model, based on *Parham, Vitek, and Harper*, see Appelbaum, *supra* note 198.

201. See *supra* note 193 and accompanying text. Accepting for the sake of argument that there would be some time savings if hearings were held before psychologists and psychiatrists rather than judges, a system that used mental health professionals as primary decisionmakers would require that they not only attend and preside at hearings but deliberate and eventually write opinions that contained findings of fact and comported with existing law.

202. Perhaps the most articulate scholar in this regard has been Professor Stephen Morse. He has argued, persuasively I think, that the preference for informal decisionmaking and reliance on mental health professionals to decide cases concerning mentally disabled persons is grounded in the Supreme Court's fundamentally flawed assumption that the issues in these cases are primarily medical or psychiatric ones. The ultimate issues in these cases, he asserts, concern liberty, autonomy, and dignity and thus "the ultimate question in mental health law is always social, moral, political, and legal." *Treating Crazy People, supra* note 14, at 359, 380-85.

See Durham & La Fond, *supra* note 14, at 436 ("the decision to commit a person to a mental health facility is ultimately a legal decision and not solely a medical one"). Although Durham & La Fond limit their analysis to involuntary civil commitment, their conceptualization captures the conflict more generally. "The debate [over civil commitment] has raged with special intensity because it implicates competing political ideologies, moral values, decision-making models, and claims of expertise." *Id.* at 396. "[W]hile greater reliability and somewhat better accuracy could well be developed in the future by . . . [mental health] professionals, in the final analysis the ultimate decisions regarding dangerousness should be based on legal and public policy judgments." Shah, *supra* note 14, at 239.

Ultimate issues concerning the rights of the mentally disabled "require moral, legal, and public policy—not psychiatric, psychological, or scientific judgments." *Id.* at 250 (emphasis in original). "De novo judicial review of governance decisions to initiate or terminate medication will curb . . . excesses. The judiciary can at its best discern common interests through the haze of cognitive politics." Peter Margulies, *The Cognitive Politics of Professional Conflict: Law Reform, Mental Health Treatment Technology, and Citizen Self-Governance*, 5 HARV. J.L. & TECH. 25, 56-60 (1992).

There are some . . . who say that we should leave these delicate questions of state intervention to the behavioral experts. But I would remind those who suggest this—both outside and within the legal profession—that state intervention involves compromise of individual right and hence a difficult balancing of power between the state and the individual, where the stakes are highest for human and personal rights. Courts have traditionally been the protector of individual rights against state power, and there is no reason why the particularly difficult problems in the area of state intervention are any different. We cannot delegate this responsibility to the medical professions.

David L. Bazelon, *Institutionalization, Deinstitutionalization and the Adversary Process*, 75 COLUM. L. REV. 897, 910-11 (1975).

mental health law, a variety of lower courts expressed similar views.²⁰³

The fact that mental health professionals are universally admitted as experts on issues within their areas of competence does not ineluctably lead to the conclusion that they make accurate professional judgments or are preferred decisionmakers.²⁰⁴ Mental health professionals are of greatest service as data gatherers, not "as substitutes for judicial decisionmakers."²⁰⁵ The psychiatric and psychological components of decisions affecting the rights of mentally disabled persons are not so proportionately great nor is the ability of mental health professionals to arrive at accurate judgments so demonstrable, that their expertise should dominate all other considerations. They may be expert enough to offer their professional observations, data, and judgments, but they lack knowledge of the legal, moral, and social values to balance all of the interests at stake. Society has placed that role in the hands of the judges.

The psychological values inherent in fully realized adversarial proceedings lead disputants, even the losing party, to view such proceedings as more just and objective than hearings conducted by administrative tribunals. Thus, mentally disabled litigants will take away from judicial proceedings the feeling that they have been dealt with fairly, and that they, like all citizens, are

203. See, e.g., *United States v. Makris*, 535 F.2d 899, 908 (5th Cir. 1976). "Especially where the medical expert applies legal standards to arrive at a competency conclusion, he is performing a task at which only a judge is truly expert. In the final analysis, the determination of competency is a legal conclusion . . ." *Id.* at 908. *Washington v. United States*, 390 F.2d 444, 453-54 (D.C. Cir. 1967).

[T]he jury must decide . . . whether or not the defendant is blameworthy. Undoubtedly, the decision is often painfully difficult, and perhaps its very difficulty accounts for the readiness with which we have encouraged the expert to decide the question. But our society has chosen not to give this decision to psychiatrists or to any other professional elite . . .

Id. at 453-54. "The determination of dangerousness involves a delicate balancing of Society's interest in protection from harmful conduct against the individual's interest in personal liberty and autonomy. This decision, while requiring the court to make use of the assistance which medical testimony may provide, is ultimately a legal one, not a medical one." *State v. Krol*, 344 A.2d 289, 302 (N.J. 1975). Even the Supreme Court in the not too distant past recognized this point.

We recognize that the inquiry involved in determining whether or not to transfer an inmate to a mental hospital for treatment involves a question that is essentially medical. . . . The medical nature of the inquiry, however, does not justify dispensing with due process requirements. It is precisely "[t]he subtleties and nuances of psychiatric diagnoses" that justify the requirement of adversary hearings.

Vitek v. Jones, 445 U.S. 480, 495 (1980) (citation omitted).

204. As the Court acknowledged in *Barefoot*, the rules of evidence require very little in the way of reliability of professional judgment for expert opinions to be admissible. See *supra* note 139 and accompanying text.

205. *Menzies et al.*, *supra* note 128, at 464. "[E]xperts should serve as guides to behavior. . . . [T]he expert may focus the court's attention on relevant behavior that would not be noticed by laypersons." Stephen J. Morse, *Crazy Behavior, Morals, and Science: An Analysis of Mental Health Law*, 51 S. CAL. L. REV. 527, 615 (1978). "Medical testimony is certainly relevant to the decision [to commit a person to a mental health facility], but it is not to be substituted for the legal determination." *Durham & La Fond*, *supra* note 14, at 436. See David Bazelon, *Veils, Values and Social Responsibility*, 37 AM. PSYCHOLOGIST 115, 115 (1982) (asserting that courts should "open the courthouse doors" to mental health professionals but "never hand over the keys").

not to be treated as “invisible” persons,²⁰⁶ but with the right to a full measure of voice and respect.

206. RALPH ELLISON, *INVISIBLE MAN* (1947).