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## ARTICLES

### When the Environment is Other People: An Essay on Science, Culture, and the Authoritative Allocation of Values

*Barry Sullivan\**

[The High Court judge] listened carefully to the counsel's submissions about various articles of the Constitution, but there was no argument about facts or truth, guilt or innocence. In the end he was not the legal arbiter, because there were so few legal issues at stake. Most of the issues raised in the case were moral: the right of an ethos to prevail over the right of an individual. Basically, he was being asked to decide how life should be conducted in a small town. He smiled to himself at the thought and shook his head . . . .

If he were another person he could write the [opposite] judgment, but as eleven o'clock grew near he knew that the verdict he had written out on his foolscap pages was the one he would deliver, and it would be viewed by his colleagues as eminently sensible and well reasoned. But he was still unhappy about the case because he had been asked to interpret more than the law, and he was not equipped to be a moral arbiter. He was not certain about right and wrong, and he realized that this was something he would have to keep hidden from the [courtroom].<sup>1</sup>

Colm Tóibín

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\* Member of the Massachusetts and Illinois bars. Partner, Jenner & Block, Chicago, Illinois. Adjunct Professor of Law, Northwestern University School of Law. A great deal of the work on this essay was accomplished during the 1992-93 academic year, when the author was Visiting Professor of Law at Northwestern, and he is grateful for having had the opportunity during that year to present an earlier version in faculty workshops at Northwestern and at Duke University School of Law. The author also is grateful to Partners of the Americas for inviting him to speak on AIDS and North American law at the Third International Conference on AIDS in the Workplace in Sao Paulo, Brazil, in December 1992, which provided a welcome opportunity to reconsider a number of fundamental issues. Carolyn Crink and Diane Katz provided indispensable research assistance. The author is grateful to the participants in the Duke and Northwestern faculty workshops, and to Lawrence Baxter, Harlon L. Dalton, Patricia A. Davidson, Robert L. Graham, S. Randall Humm, Laura Lin, S. Michelle Malinowski, Bernard D. Meltzer, Thomas W. Merrill, Thaddeus J. Nodzenski, Stephen Paffrath, H. Jefferson Powell, Leonard Rubinowitz, Marshall S. Shapo, Winnifred Fallers Sullivan, and Oliver E. Williamson, all of whom provided challenging comments on an earlier draft. The views expressed, and any remaining errors, are solely those of the author.

1 COLM TÓIBÍN, *THE HEATHER BLAZING* 90-92 (1992).

I said: 'It's certain there is no fine thing  
 Since Adam's fall but needs much labouring . . . .'<sup>2</sup>  
 W.B. Yeats

## I. INTRODUCTION

Section 504 of the Rehabilitation Act of 1973,<sup>3</sup> and other more recent statutory enactments aimed at securing the rights of the disabled,<sup>4</sup> afford statutory protection against discrimination to persons who are disabled by virtue of having a contagious disease, or who have a contagious disease in addition to some other disability, so long as their presence or activities would not constitute a "significant risk" to the health or safety of others. That test was laid down by the Supreme Court in *School Bd. of Nassau County v. Arline*<sup>5</sup> in 1987; it was subsequently ratified by Congress;<sup>6</sup> and it has provided the governing principle in many cases.<sup>7</sup> Indeed, in a series of early cases arising out of the AIDS epidemic,<sup>8</sup> where

2 W.B. YEATS, *Adam's Curse*, in THE COLLECTED POEMS OF W.B. YEATS 78 (1956 ed.).

3 29 U.S.C. § 794 (1988 & Supp. IV 1992).

4 See, e.g., Americans with Disabilities Act of 1990, 42 U.S.C. § 12101-213 (Supp. III 1991).

5 480 U.S. 273, 287 n.16 (1987).

6 See, e.g., 29 U.S.C. § 706(8)(D) (Supp. IV 1992); 42 U.S.C. §§ 12111(3), 12113(a) & (d)(3) (Supp. III 1991).

7 See, e.g., *Pandazides v. Virginia Bd. of Educ.*, 946 F.2d 345, 349 (4th Cir. 1991) (teacher with learning disabilities), *appeal after remand*, 804 F. Supp. 794 (1992), *rev'd*, 13 F.3d 823 (4th Cir. 1994); *Doe v. Attorney Gen. of the United States*, 941 F.2d 780, 798 (9th Cir. 1991) (physician with AIDS); *Harris v. Thigpen*, 941 F.2d 1495, 1521-27 (11th Cir. 1991) (prison inmates with HIV); *Kohl v. Woodhaven Learning Ctr.*, 865 F.2d 930, 936 (8th Cir. 1989) (handicapped individual with Hepatitis B); *Casey v. Lewis*, 773 F. Supp. 1365, 1370-71 (D. Ariz. 1991) (prison inmates with HIV), *rev'd*, 4 F.3d 1516 (9th Cir. 1993); *Glanz v. Vernick*, 756 F. Supp. 632, 638 (D. Mass. 1991) (patient with HIV); *Serrapica v. City of New York*, 708 F. Supp. 64, 73 (S.D.N.Y. 1989) (sanitation worker with diabetes mellitus). See *infra* pp. 612-18.

8 AIDS is the term generally used to describe the most advanced stage of HIV disease. The course of HIV disease, which proceeds more or less as a continuum over time, is generally divided into four stages: (1) seroconversion; (2) HIV asymptomatic; (3) HIV symptomatic; and (4) "full-blown" AIDS. Seroconversion literally means that the blood now has the HIV antibody and is thus susceptible to detection. During seroconversion, both the virus and the immune system are active; the virus plants itself within the walls of the white blood cells, and the immune system produces antibodies. In this stage, a person may experience flu-like symptoms including a fever, swollen lymph glands, and a sore throat; others may have mononucleosis for a few weeks. During the second stage, a person may feel well, but the virus is not dormant. The virus continues to reproduce (at lower levels than during seroconversion) and attacks the CD4+ T-lymphocytes, which are a critical part of the body's immune system. The third phase is characterized by the presence of certain illnesses, including thrush, swollen lymph glands, anemia, low platelets (which are needed for blood clotting), kidney failure, pelvic inflam-

courts thought that the risk of transmitting the HIV virus could fairly be characterized as "merely theoretical" or so small as to warrant being called "trivial" or "virtually non-existent," the courts seemingly gave effect to the *Arline* test and held that persons with HIV should not be treated differently from others.<sup>9</sup> In some recent cases, however, the question of risk has arisen in contexts in which courts have not felt comfortable characterizing it in such absolute terms. In that later series of cases, courts actually have applied a more stringent test, effectively affording statutory protection to persons with HIV only if they can demonstrate that their presence or activities would engender no risk at all, not simply the absence of a "significant" risk.<sup>10</sup>

Some commentators have criticized these recent cases on the ground that they misapply the "significant risk" test, and thus reflect prejudice, poor reasoning, or judicial recalcitrance in the face of a legal standard with which some judges happen to dis-

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matory disease in women, fevers, and night sweats. In its most severe form, this stage previously was called AIDS-related complex or ARC. Finally, a person in the fourth stage is said to have AIDS. During the early years of the AIDS epidemic, AIDS was thought to be characterized by the presence of an opportunistic infection such as *pneumocystis carinii* pneumonia (PCP) or Kaposi's sarcoma, and was defined in those terms. In 1987, the Centers for Disease Control (CDC) expanded its definition to include HIV-related dementia or wasting. Recently, however, scientists and others have begun to question the propriety of these definitions, which grew out of studies of HIV disease in gay males. Those studies did not consider whether the disease progressed similarly in women and intravenous drug users, nor whether the CDC's existing definition was appropriate for the latter groups. Most recently, the CDC has proposed the use of a laboratory (rather than clinical) definition of AIDS: a CD4+ T-lymphocyte count of less than 200. This new definition expands the range of patients who fall into the "AIDS" category, so as to include not only those who are dying, but also those who may have no clinical manifestations, despite a severely compromised immune system. Helena Brett-Smith & Gerald H. Friedland, *Transmission and Treatment, in AIDS LAW TODAY: A NEW GUIDE FOR THE PUBLIC* 21-23, 31-38 (Scott Burris et al. eds., 1993). See also *1993 Revised Classification System for HIV Infection and Expanded Surveillance Case Definition for AIDS Among Adolescents and Adults*, 40 MORBIDITY AND MORTALITY WEEKLY REPORT (No. RR-17) 1 (Dec. 18, 1992) (describing the laboratory definition of AIDS as: CD4+ T-lymphocyte count of less than 200; CD4+ T-lymphocytes as a percentage of total lymphocytes less than 14; further describing the clinical definition to include pulmonary tuberculosis, recurrent pneumonia, or invasive cervical cancer).

9 See *infra* pp. 628-34.

10 See *infra* pp. 634-39. Under the Americans with Disabilities Act, the presence of a significant risk is an affirmative defense, with the burden resting on the party denying the benefit to the person with HIV. 42 U.S.C. § 12113 (Supp. III 1991); see also 29 C.F.R. § 1630.15 (1992).

agree.<sup>11</sup> Such criticism is not entirely unwarranted. It would be a mistake to discount these factors altogether, especially the chronic effect of prejudice,<sup>12</sup> but the explanatory power of these factors is limited. For example, there has been prejudice against persons affected by HIV since the beginning of the AIDS epidemic,<sup>13</sup> but prejudice did not cause the appellate courts in the early cases to equate the existence of "any" risk with the existence of a "significant" risk; courts seemingly inquired into the "significance" of the risk presented by persons with HIV in the early cases. Thus, these inappropriate factors might serve in the abstract to explain unwarranted outcomes, but not the doctrinal shift which actually has produced those outcomes here. If the later decisions could be explained by those factors alone, the case law would have been consistent from the start.

The aim of this essay is to explore the possibility of an alternative explanation, namely, that the uneven quality of the case law stems from the nature of the test itself, and from the inherent difficulty of applying it in the context of *nisi prius* adjudication, in any but the simplest and most straightforward cases. The test re-

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11 See, e.g., Sean C. Doyle, Note, *HIV-Positive, Equal Protection Negative*, 81 GEO. L.J. 375, 389-93 (1992) (discussing *Severino v. North Fort Myers Fire Control Dist.*, 935 F.2d 1179 (11th Cir. 1991), and *Leckelt v. Board of Comm'rs. of Hosp. Dist. No. 1*, 909 F.2d 820 (5th Cir. 1990)).

12 During oral argument in *Benjamin R. v. Orkin Exterminating Co.*, 390 S.E.2d 814 (W. Va. 1990), for example, the Chief Justice of West Virginia reportedly stated: "I wouldn't work within 500 yards of anyone who tested positive for HIV. I have a wife and children." *West Virginia Supreme Court Rules State's Rights Act Protects HIV-Positive*, 55 Daily Labor Report (BNA) (Mar. 21, 1990), at A-8. See also *Recruitment ad touts "dumbest judge," THE WASHINGTON TIMES*, Apr. 25, 1991, at B8; *Job With Nation's "Dumbest Judge" Goes Begging*, THE NAT'L L.J., May 6, 1991, at 39. In *Leckelt v. Board of Comm'rs. of Hosp. Dist. No. 1*, 909 F.2d 820 (5th Cir. 1990), the court effectively approved a hospital's differential treatment of two nurses who, it was thought, had been exposed to the HIV virus. The hospital would not schedule Leckelt (whom the administrators thought to be a homosexual) for duty, but continued to schedule a female nurse who thought she had been exposed to infected blood, which came, ironically, from Leckelt's roommate. The court justified this inconsistency on the ground that Leckelt already had undergone HIV testing, while the other nurse only recently had gone for testing and would therefore have to wait longer for her results. It is beyond dispute, however, that transmission can occur before one's seropositivity is detectable or known. Thus, if the hospital were truly interested in minimizing the risk to its patients, differential treatment could not be justified. In no sense was the risk any smaller or less real simply because the female nurse did not know her HIV status. *Id.* at 826-27. See also David A. Richards, *Human Rights, Public Health, and the Idea of Moral Plague*, 55 SOC. RES. 491 (1988).

13 See, e.g., Thomas R. Mendicino, Note, *Characterization and Disease: Homosexuals and the Threat of AIDS*, 66 N.C. L. REV. 226 (1987) ("As the metaphors surrounding AIDS become more entrenched, it becomes increasingly difficult to prevent society's attitude towards homosexuality from permeating its response to AIDS.").

quires courts not only to determine whether any risk exists, but also to appraise the "significance" of any such risk. The test treats both questions as if they were straightforward factual questions. For that reason, the test provides the lower courts with no further guidance or criteria for determining the existence or evaluating the significance of any particular risk. It may well be this lack of guidance – and the lack of any readily available and authoritative substitute for it – that has given rise to the shift in the case law. The aim of this essay is not to suggest that courts are inherently incapable of applying such a test, but that the constellation of circumstances in which courts must act in these cases makes it unlikely that courts will be able, on their own, to develop a coherent and effective body of case law.<sup>14</sup>

The approach embodied in *Artline* is flawed for several reasons. First, the question whether a risk is "significant" is not simply a factual question. To ask whether a risk is "significant" is at least in part to ask whether the risk is "acceptable," and "the issue of acceptable risk lies," as Mary Douglas has noted, not simply within the realm of facts, but "with the principles of valuation itself, that is, with culture."<sup>15</sup> In actuality, the test requires courts to make determinations which are both normative and inherently controversial. Second, because the question whether a risk is "significant" is preeminently a normative or policy question, the normative implications inherent in any answer to that question cannot be avoided. Whenever a judge must decide whether a particular risk is or is not "significant," she is called upon to make a normative or evaluative, rather than a factual, determination; that is true even if the legislative branch has pretended that the question is not normative, and has thus failed to provide the judge with any standards for making the determination. If the legislature has not supplied the criteria, the judge must supply them herself, whether

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14 See MICHAEL OAKESHOTT, *ON HISTORY AND OTHER ESSAYS* 144 (1983) ("Laws are unavoidably indeterminate prescriptions of general adverbial obligations. They subsist in advance and in necessary ignorance of the future contingent situations to which they may be found to relate. And even if these prescriptions were 'certain' (that is, as free as may be from ambiguity and conflict with one another) they could not themselves declare their meaning in respect of any circumstantial situation.").

15 MARY DOUGLAS, *RISK ACCEPTABILITY ACCORDING TO THE SOCIAL SCIENCES* 14-15 (1985) [hereinafter DOUGLAS, *RISK ACCEPTABILITY*].

consciously or not.<sup>16</sup>

Third, it is no response to these points to say that the void may be filled by expert testimony. Within the limits of their technique, experts can give estimates as to the size of a particular risk, and they can compare various kinds of risk. They can rank different kinds of risk. They can even give their admittedly well-informed views as to the "significance" or "acceptability" of a particular risk. But those views, however well-informed, cannot be deemed decisive; their assertion cannot transform a normative question into a factual question. They cannot obviate the need for judgment. Moreover, our society typically greets claims of authority grounded in professional knowledge with grave scepticism and "deep[] questioning of the professionals' claim to extraordinary knowledge in matters of human importance."<sup>17</sup>

Fourth, it is not surprising that the courts in the later cases should have taken the existence of any tangible risk to satisfy the "significant risk" test. The context in which judges typically are required to make these determinations necessarily is conducive to conservative or underenforced results. Decisions in this area typically are made by chancellors, who often must make prompt decisions on requests for emergency interim relief, without the assis-

16 Lawrence Rosen has written: "If . . . it is self-evident that a very wide range of factors goes into the exercise of judicial decision making it is no less obvious that, even where discretion appears most unbounded, it is likely to possess qualities that are at once distinctive to and characteristic of the time, the culture, the circumstances, and the background of those who exercise such judgment. Like so many other areas of nature and of human society, the problem is not in determining whether there are regularities to systems of law and aspects of judicial independence but how best to probe for and interpret these regularities." LAWRENCE ROSEN, *THE ANTHROPOLOGY OF JUSTICE: LAW AS CULTURE IN ISLAMIC SOCIETY* 2-3 (1989). See also Owen M. Fiss, *Objectivity and Interpretation*, 34 STAN. L. REV. 739, 755 (1982) ("The judiciary's [authority] is largely founded on its special competence to interpret a text such as the Constitution, . . . that competence stems not from the personal qualities of those who are judges—judges are not assumed to have the wisdom of philosopher-kings—but rather from the procedures that limit the exercise of their power.").

17 DONALD A. SCHÖN, *THE REFLECTIVE PRACTITIONER: HOW PROFESSIONALS THINK IN ACTION* 4-5 (1983). Professor Schön suggests several possible explanations for this widespread disenchantment with professional knowledge, including the historical misuse of positions of trust by lawyers and physicians whose motivations were venal in the extreme. More important, however, may be the perceived failures of professional undertakings: "[W]e are also encountering visible failures of professional action. Professionally designed solutions to public problems have had unanticipated consequences, sometimes worse than the problems they were designed to solve. Newly invented technologies, professionally conceived and evaluated, have turned out to produce unintended side effects unacceptable to large segments of our society. A professionally conceived and managed war has been widely perceived as a national disaster." *Id.* at 4.

tance of a jury, based on a scant record, in circumstances where the inherent provisionality of scientific knowledge may seem greatly exaggerated, and with the understanding that a judicial underestimation of risk may result in the otherwise wholly avoidable infection and death of a specific, known person or group of persons.<sup>18</sup> It is no wonder that judges required to decide cases in such circumstances have tended to view the existence of "any" risk as satisfying the "significant" risk test.

From this perspective, the divergence in outcomes between the early and later AIDS cases may indicate something more systematically meaningful than simple anomalies attributable to prejudice, poor reasoning, or judicial recalcitrance. In this view, the "significant risk" test has been ineffectual because it saddles the courts with a mandate they find uncongenial. It requires them to evaluate scientific evidence and argument at the frontiers of scientific knowledge, but also to serve as front-line decisionmakers concerning sensitive and controversial matters of policy, while pretending that only factual determinations are required. It also requires the courts to make such decisions largely unaided, and without the kind of expert guidance which could be provided by greater legislative specificity, a developed body of case law, or relevant administrative standards. The "significant risk" test is by no means unique, of course, either insofar as it requires the courts to make policy determinations which might better be left to the popular branches of government, or to the extent that it does so without any pretense to candor. That approach, however, is particularly inefficacious here for several reasons.<sup>19</sup> Those include

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18 On the other hand, the denial of interim relief may effectively and finally preclude the granting of any relief to a person with AIDS. Assessing the "irreparable injury" prong of the test for a preliminary injunction, the *Chalk* court wrote: "Presently Chalk is fully qualified and able to return to work; but his ability to do so will surely be affected in time. A delay, even if only a few months, pending trial represents precious, productive time irretrievably lost to him." *Chalk v. United States Dist. Ct. Cent. Dist. of Cal.*, 840 F.2d 701, 710 (9th Cir. 1988). The *Dolton Elementary* court cited the same passage from *Chalk* and continued: "Given a child's need to interact socially with other children and adults as part of his or her emotional development, the *Chalk* rationale is magnified with respect to Student #9387. That the Student who has contracted AIDS will likely die does not detract from the importance of this need." *Doe v. Dolton Elementary Sch. Dist. No. 148*, 694 F. Supp. 440, 447 (N.D. Ill. 1988).

19 As a general matter, we tend to think that courts are not competent to make fundamental policy decisions, and that they should do so only as a matter of last resort. In reality, of course, common law courts often have affected the development of public policy, although perhaps incrementally and according to the constraints of their own culture. "Especially during the period before the Civil War, . . . common law judges



regularly brought about the sort of far-reaching changes that would have been regarded earlier as entirely within the powers of the legislature . . . . [T]hey were led to frame general doctrines based on self-conscious consideration of social and economic policies." MORTON J. HORWITZ, *THE TRANSFORMATION OF AMERICAN LAW 1780-1860* 2 (1977). See also Stanley N. Katz et al., *Legal Change and Legal Autonomy: Charitable Trusts in New York, 1777 - 1893*, 3 *LAW AND HIST. REV.* 51, 54 (1985) ("In the law of charity . . . pressures for novel legal results to achieve non-legal social ends—the facilitation of private trusts to sustain libraries, for instance—are quickly noted."); *Brown v. Kendall*, 60 Mass. (6 Cush.) 292 (1850) (Shaw, C.J.) (no liability without fault); *MacPherson v. Buick Motor Co.*, 111 N.E. 1050 (N.Y. 1916) (strict liability for products); *Hentz v. Long Island R.R. Co.*, 13 Barb. 646 (N.Y. 1852) ("adjusting nuisance law to accommodate the greatest improvements of modern times"); *Wood v. Lucy, Lady Duff-Gordon*, 118 N.E. 214 (N.Y. 1917) (Cardozo, J.) (implied mutuality and consideration); WILLIAM E. NELSON, *THE ROOTS OF AMERICAN BUREAUCRACY 1830-1900* 31-32 (1982). Notwithstanding the increased role of legislation in our times, courts continue to play an important role in public policy development. See, e.g., George L. Priest, *The New Legal Structure of Risk Control*, 119 *DAEDALUS* 207 (Fall 1990).

In constitutional adjudication, courts similarly must give effect to "the broad standards of fairness written into the Constitution," giving answers to questions which "by their very nature, allow a relatively wide play for individual legal judgment." *United States v. Lovett*, 328 U.S. 303, 321 (1946) (Frankfurter, J., concurring). See also *Antoine v. Byers & Anderson, Inc.*, 113 S. Ct. 2167, 2169 n.4 (1993) ("the official seeking absolute immunity bears the burden of showing [the legislative fact] that such immunity is justified for the function in question . . . ."). In such circumstances, as Judge Learned Hand once suggested, "everything turns upon the spirit in which [the judge] approaches the questions [presented]." Learned Hand, *Sources of Tolerance*, 79 U. PA. L. REV. 1, 12 (1930). Circumspection is required in constitutional cases, however, because constitutional decisions cannot be set aside by mere legislation, and courts must also be careful not to "shut down the legislative process of bargaining, education, and persuasion" with respect to important questions of public policy. MARY ANN GLENDON, *ABORTION AND DIVORCE IN WESTERN LAW* 2, 45 (1987).

We also generally expect statutes to be drawn more narrowly. It would be unrealistic, in the extreme, however, to suppose that the legislature can enact laws which require no discretion in construction or application. At the very least, "[a]ll new laws, though penned with the greatest technical skill, and passed on the fullest and most mature deliberation, are considered as more or less obscure and equivocal, until their meaning be liquidated and ascertained by a series of particular discussions and applications." THE FEDERALIST NO. 37 (James Madison). In Karl Llewellyn's view, a statute should not be enacted until social experience has been acquired and "the merits of various partial solutions" have been tested through case law development. KARL N. LLEWELLYN, *THE CASE LAW SYSTEM IN AMERICA* 67 (Paul Gewirtz ed. & Michael Ansaldi trans., 1989). "Once a statute is adopted, though, there is room *again* for the case law method, for only through it can legislative insight be elaborated, corrected, and perfected in light of the subsequent, unforeseen cases. Optimally, a statute will create a new goal and a new means to achieve it, but never the ultimate particularized solution which is finally achieved—knowingly or unknowingly, admitted or kept under wraps—only through judicial decision." *Id.* An alternative view of legislation would encourage the legislature to act when the general nature of the problem has been synthesized, and then allow administrative or judicial officials to provide the detail. A realistic aim may be to minimize the number of central issues left open in any statute. See, e.g., Wade H. McCree, Jr., *Bureaucratic Justice: An Early Warning*, 129 U. PA. L. REV. 777, 794-97 (1981). Practical as well as theoretical reasons support the view that: "In a case law system, typically, it takes a very long time and many test cases before legal rules acquire a *fixed*, invariant formulation

the primal nature of the values at stake; the perceived need not only for prompt resolution of individual cases in this area, but also for the fairly prompt development of general principles for structuring decisions; the relatively small number of reported decisions available for the development of principle; the relatively broad range of factual contexts over which that small number of cases is spread; and the fact that decisions in particular cases tend in this area to be forward-looking rather than backward-looking, in the sense that the requested relief tends to be a mandatory or prohibitory injunction, rather than damages.

The conditions necessary for the law to develop effectively through the unaided actions of courts do not seem to be present here. It does not seem likely that common law development will lead to the creation of principles with the degree of promptness that the urgency of the AIDS epidemic requires. Moreover, the AIDS epidemic is not likely to remain unique in this sense. The resurgence of tuberculosis and other deadly diseases that were thought to be extinct,<sup>20</sup> as well as the discovery of new diseases, may well result in the creation of analogous legal issues and similarly unsatisfactory case law. Other possibilities must therefore be considered. In analogous areas, including regulation of the environment and occupational safety, courts play a more limited role. In those areas, scientific and policy decisions are not made in the first instance by courts alone, but with the aid of presumably expert and politically accountable administrative agencies, the role of the courts often being substantially limited to the jurisdictional and procedural inquiries traditionally associated with judicial review of administrative action.<sup>21</sup> That analogy is instructive because

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resembling the language of statute." Llewellyn, *supra* at 3. When that degree of "fixedness" finally is reached, however, the statute doubtlessly has ceased to address any relevant, live social issue. Nonetheless, avoidable statutory uncertainty not only pushes issues from the legislative to the judicial branch, but it also squanders one of the greatest practical benefits of legislation—the promptness with which society may respond in a more or less definitive way to a perceived social problem.

20 See, e.g., Allan M. Brandt, *AIDS and Metaphor: Toward the Social Meaning of Epidemic Disease*, 55 SOC. RES. 413 (1988); FRANK RYAN, *THE FORGOTTEN PLAGUE: HOW THE BATTLE AGAINST TUBERCULOSIS WAS WON—AND LOST* 387-417 (1992).

21 See, e.g., *Chevron U.S.A. v. Natural Resources Defense Council*, 467 U.S. 837 (1984) (where Congress is silent, a reviewing court engaged in statutory construction must defer to an agency's reasonable interpretation); *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519 (1978) (a reviewing court may not impose upon an agency additional rulemaking procedures; the agency need follow only those procedures contained on the face of the enabling statute or required by the Administrative Procedure Act), *aff'd on reh'g sub nom. Baltimore Gas & Elec. v. Natural*

it suggests that the basic problem here may be a problem of models, that is, that the problem of determining "significant risk" might be more amenable to resolution if some greater role were accorded to the administrative process. This is not to say that the problem should be turned over to the administrative process (which clearly would not be satisfactory because of the nature of the interests at stake), but that some means must be found for taking advantage of the strengths of the administrative model and for permitting the work of courts to be better aided by administrative expertise.<sup>22</sup>

To consider these issues, this essay will first examine the origins and nature of the "significant risk" test and then review two groups of lower court decisions which show how the test has been applied in the AIDS context. In the early cases, the meaning of the test was not seriously challenged or explored because the risk of transmission was perceived to be "merely theoretical" or so small as to be "trivial" or "virtually non-existent." In the second group of cases, the test also seems to have had little effect on the outcome, but for the very different reason that the risk was not thought susceptible to the extreme characterization that such risks had received in the early cases. The existence of "some" tangible risk was deemed sufficient to satisfy the requirement that the risk be "significant." Thereafter, the problem of "significant risk" will be considered from the perspective of philosophy of science, to see whether that viewpoint has anything to contribute to our understanding of the problem. It will be seen that the concept of risk is far richer than the case law admits, and, most important for our purposes, that the concept of "significant risk" contains both

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Resources Defense Council, 462 U.S. 87 (1983); *Darby v. Cisneros*, 113 S. Ct. 2539 (1993) (exhaustion of available administrative remedies may be required by the courts only where exhaustion is specifically mandated by statute or agency rule; the Administrative Procedure Act contains no general authorization to require exhaustion); Kenneth W. Starr, *Judicial Review in the Post-Chevron Era*, 3 YALE J. ON REG. 283, 306 (1986) (*Chevron* weakened the "supervisory paradigm" and strengthened the "checking and balancing paradigm").

<sup>22</sup> In this context, references to administrative action should be understood to mean agency rulemaking or policymaking, rather than adjudication. Although agency adjudication in particular cases is a logical possibility, it is not a practical possibility here. The delays caused by exhaustion would not be tolerable in these kinds of cases. In addition, a model is envisioned where the administrative agency will provide its wisdom and expertise to the judicial system, but will not necessarily have the last word. On the other hand, rulemaking would permit courts to have expert guidance in moving from the unhelpful abstractness and generality of the statute to the concreteness and particularity of the factual situation which the court necessarily must confront. See *infra* pp. 670-81.

factual and normative elements—a fact which the case law does not acknowledge. Finally, because the “significant risk” test is freighted with value choices which the courts seem unlikely to resolve, let alone likely to resolve with the authority or promptness that the AIDS epidemic requires, this essay will conclude that courts are not well-suited to make such determinations, without additional guidance, in the first instance. Congress must either refine the test and provide more meaningful guidance to the courts, which seems unlikely,<sup>23</sup> or some means must be created for securing guidance from some other decisionmaker which has both the scientific expertise and the perceived institutional competence to provide it. We need a mechanism which not only weighs the objective and normative elements of the inquiry, but also permits a degree of public participation and accountability appropriate to the authoritative resolution of important policy questions in a democratic society. At the same time, we must ensure that the courts are not stymied in fulfilling their traditional role as protectors of individual rights—a particularly important consideration in this area, which has been rife with bias, prejudice, and discrimination. At the very least, however, courts must refine the “significant risk” test so that

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23 Judge Breyer has argued in favor of broad delegation, observing that “Congress does not write statutes that direct the battle movements of individual Army tank corps, nor could the Army win battles if it did so.” STEPHEN G. BREYER, *BREAKING THE VICIOUS CIRCLE: TOWARD EFFECTIVE RISK REGULATION* 73 (1993). In any event, it is clear that Congress could not attend to very many of the myriad of problems which face our society if it were required to legislate with the degree of particularity which recent proponents of the nondelegation doctrine have identified as constitutionally required. *See, e.g., Industrial Union Dep’t v. American Petroleum Inst.*, 448 U.S. 607, 687 (1980) (Rehnquist, J. concurring) (“If we are ever to reshoulder the burden of ensuring that Congress itself make the critical policy decisions, these are surely the cases in which to do it. It is difficult to imagine a more obvious example of Congress simply avoiding a choice which was both fundamental for purposes of the statute and yet politically so divisive that the necessary decision or compromise was difficult, if not impossible, to hammer out in the legislative forge.”); *Peretz v. United States*, 111 S. Ct. 2661, 2680 (1991) (“But the Constitution guarantees not merely that no Branch will be forced by one of the *other* Branches to let someone else exercise its assigned powers—but that none of the Branches will *itself* alienate its assigned powers. Otherwise, the doctrine of unconstitutional delegation of legislative power (which delegation cannot plausibly be compelled by one of the other Branches) is a dead letter . . . .”) (emphasis in original) (Scalia, J., dissenting). To hold Congress to an inordinately high standard of specificity in legislation may well constitute the ultimate form of “judicial activism.” On the other hand, the present argument is limited to the circumstances addressed here, and is grounded on prudential rather than constitutional grounds.

they frankly admit the nature of the inquiry and the true character of their determinations.<sup>24</sup>

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24 In some circumstances, tort and insurance law principles may impact upon the problems which concern us here. For example, the ability of a surgeon with HIV (or another contagious disease) to continue to practice may ultimately depend upon the availability and pricing of medical malpractice insurance, rather than on any medical staff privileges decision that might be rendered by the surgeon's hospital. As a factual matter, however, the withdrawal of malpractice insurance (either directly or through increased premiums) has not been a major issue. Based on statistical claims experience, underwriters apparently have not thought it necessary to limit the availability of malpractice insurance in this way. See, e.g., Bill Clements, *No Rate Hike for HIV Claims, But Insurers Urge Caution*, AM. MED. NEWS, Oct. 12, 1992, at 18. Similarly, one could imagine that tort suits might be brought in various situations, such as the rare case in which a patient has been infected by her health care provider. The only documented cases of transmission from health care provider to patient, in which Dr. David Acer, a Florida dentist, presumably was responsible for the infection of six of his patients, did indeed lead to such litigation. At least five of those patients filed lawsuits against Dr. Acer's estate, his malpractice carrier, or the dental health plan through which he provided dental treatment to some of the patients. At least three of the patients received substantial amounts in settlement of their claims. See, e.g., *\$1 Million is Awarded to Patient with AIDS*, N.Y. TIMES, Jan. 23, 1991, at A14; *Patient Whose AIDS Was Tied to Dentist Will Get \$1 Million*, N.Y. TIMES, Jan. 24, 1991, at D22; *AIDS Case Settlement*, NEWSDAY, Mar. 30, 1991, at 9; Christine Woolsey, *Insurers Face Claims by Patient of Dentist Who Contracted AIDS*, BUS. INS., Feb. 25, 1991, at 22; *Aids Settlements Drain Dentist's Estate*, THE WASHINGTON TIMES, Aug. 20, 1991, at A2; Russell A. Jackson, *CIGNA Settles Third and Final Lawsuit Over Plan Dentist Who Had Virus That Causes AIDS*, 4 MANAGED CARE LAW OUTLOOK, Feb. 18, 1992; *Dental Patient's Suit Denied*, ST. PETERSBURG TIMES, Oct. 29, 1992, at 4B. If the ultimate goal of public policy in this area is prophylactic, rather than simply reparative, and the risk presented truly is "significant," the immediate, minimum objective presumably should be to secure disclosure of the health care provider's serostatus. Given the very small risk of transmission, however, the possibility of such suits is itself extremely remote and thus would not seem likely to provide any very strong impetus to disclosure, particularly in view of the heavy costs (such as stigma, loss of work, insurance benefits, and so forth) which might well result from disclosure.

Absent transmission, one might be left to rely on some other tort theory, such as negligent or intentional infliction of emotional distress. See generally Robert A. Bohrer, *Fear and Trembling in the Twentieth Century: Technological Risk, Uncertainty and Emotional Distress*, 1984 WIS. L. REV. 83 (arguing for availability of emotional distress damages in various responses to risk). Only a small number of such lawsuits appear to have been brought, however, in circumstances in which medical practitioners have failed to disclose their seropositivity, but transmission of the virus has not occurred. See, e.g., Jennifer Hertz, Comment, *Physicians with AIDS: A Proposal For Efficient Disclosure*, 59 U. CHI. L. REV. 749, 767-69 (1992); Hugh Bronstein, *Parents Sue Hospital in Wake of HIV Revelation*, UNITED PRESS INTERNATIONAL, June 26, 1991. In the first decision to be rendered on the viability of such a theory by a state court of last resort, the Maryland Court of Appeals recently reversed a trial court's dismissal of such an action at the pleading stage, holding that Maryland law recognized a cause of action for emotional distress in such circumstances, but also holding that damages would be limited in such cases to the "window of anxiety—the period between which they learned of [Dr.] Almaraz's illness and received their HIV-negative results." *Faya v. Almaraz*, 620 A.2d 327, 337 (Md. 1993). See also *Kerins v. Hartley*, 21 Cal. Rptr. 2d 621 (1993) (physician performing operation just prior to receiving notice of seropositivity), *transferred, vacated*, 1994 Cal. LEXIS 811 (Cal. 1994). Given

## II. THE EVOLUTION AND MEANING OF THE "SIGNIFICANT RISK" TEST

Recent years have seen a dramatic change in American public values and attitudes concerning persons with disabilities. The law has afforded new recognition to the needs of the disabled, and to society's interest in ensuring that persons with disabilities be permitted and encouraged to contribute, according to the best of their abilities, and without regard to irrelevant disabilities, to their well-being and that of society.<sup>25</sup> Recent years have also witnessed

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the broad discretion of juries to determine the amount of damage awards, the practical effect of this limitation remains to be seen. Finally, the important issues of mandatory testing and the possibility (and feasibility) of identifying persons with non-obvious contagious diseases, such as HIV, will not be addressed here. *See* Barry Sullivan, *Among Schoolchildren: AIDS, The Law, And The Public Schools*, in CHILD, PARENT AND STATE: LAW AND POLICY READER (S. Randall Humm et al. eds. 1994) [hereinafter Sullivan, *Among Schoolchildren*].

25 *See, e.g.*, 42 U.S.C. § 12101(a)(9) (Supp. III 1991) ("the continuing existence of unfair and unnecessary discrimination and prejudice denies people with disabilities the opportunity to compete on an equal basis and to pursue those opportunities for which our free society is justifiably famous, and costs the United States billions of dollars in unnecessary expenses resulting from dependency and nonproductivity."); House Comm. on Education and Labor, H.R. DOC. NO. 102-A, 101st Cong., 2nd Sess. 114 (1990) (systematic discrimination against the disabled relegates those individuals to a life of welfare receipts that costs the taxpayers billions of dollars) (testimony of Sandy Parrino, Chairperson of the National Council on Disability). Moreover, as the post-war generation ages, and the supply of labor thereby decreases, services to be provided by persons with disabilities will become increasingly important to the progress of one society. *Id.* at 115 (statement of President Bush).

Many states also have extended the scope of their anti-discrimination laws to include discrimination based on disability. *See, e.g.*, ALA. CODE § 21-7-1 (1990); ALASKA STAT. § 47.80.010 (1990); ARIZ. REV. STAT. ANN. §§ 41-1463; 41-1492.01 to .02; 41-1491.15, .17, .19 (1956 & 1992 Supp.); ARK. CODE ANN. §§ 20-14-301 to 20-14-306 (Michie 1991); CAL. CIV. CODE §§ 51-52; 54 to 55.1 (West 1982 & 1994 Supp.); COLO. REV. STAT. §§ 24-34-401 to 406; 24-34-501 to 510; 24-34-601 to 605; 24-34-701 to 707; 24-34-801 (1988 & 1992 Supp.); CONN. CONST. art. I, § 20; CONN. GEN. STAT. §§ 46a-60; 46a-64 (West 1986 & 1993 Supp.); DEL. CODE ANN. tit. 9 § 2903 (1989); DEL. CODE ANN. tit. 19 §§ 720-714 (1992 Supp.); FLA. CONST. art. I § 2; FLA. STAT. §§ 760.01, .07, .10, .23, .50, .60 (1986 & 1993 Supp.); IDAHO CODE § 67-5909 (1989); ILL. CONST. art. I § 9; 775 ILCS 5/1-102 (Michie 1993); IOWA CODE ANN. §§ 216.2, .6, .7, .8, .8A, .9; 216A.71 to 72; 216C.1 to .11 (West Supp. 1993); KY. REV. STAT. ANN. §§ 344.010, .020, .025, .030, .040, .050, .060, .070, .080, .100, .140, .360, .367, .370 (Michie/Bobbs Merrill 1993); MICH. COMP. LAWS §§ 37.1101 - 37.1607 (West 1985 and 1993 Supp.); MISS. CODE ANN. §§ 25-9-149 (1991) and § 43-44-723 (1992 Supp.); N.Y. EXEC. LAW § 296 (McKinney 1993); 24 PA. CONS. STAT. §§ 5002, 5004, 5006-5010 (1992 and 1993 Supp.); 43 PA. CONS. STAT. §§ 951-963 (1991 and 1993 Supp.); R.I. CONST. art. I § 2; R.I. GEN. LAWS §§ 28-5-1 - 39 (1986 and 1992 Supp.); R.I. GEN. LAWS §§ 34-37-2; 34-37-4 (1984 & 1992 Supp.); R.I. GEN. LAWS §§ 42-87-1 to 42-87-4 (1988); TEX. HUM. RES. CODE ANN. § 121.001 - .010 (1990); TEX. REV. CIV. STAT. ANN. arts. 1f and 5221k (West 1987 & 1993 Supp.); WASH. REV. CODE §

a renewed, and perhaps unparalleled, public concern with the risks and possible consequences of exposure to contagious diseases—a concern which has been given singular relevance and amplitude by the onset of the AIDS epidemic.<sup>26</sup> While history has harnessed together these two phenomena, they seldom pull in the same direction. Moreover, in keeping with the prevailing public values and rhetoric of our times, these two phenomena necessarily find their readiest characterization in terms of “rights,” which

48.30.300 (West 1984); WASH. REV. CODE. §§ 49.60.010, .030, .172, .174, .175, .176, .178, .180, .190, .200, .215, .222, .223, .224 (West 1990 & 1993 Supp.); W. VA. CODE §§ 5-11-2 to 19; 452.23 (West 1988 & 1992 Supp.); WIS. STAT. §§ 101.22; 111.31 - .395; 452.23 (West 1988 & 1992 Supp.).

26 To be sure, this concern with exposure to contagious diseases is in part the result of their recent and unexpected resurgence in the industrialized nations, which followed a period in which many people believed that modern medicine had conquered such diseases once and for all. *See, e.g.*, Allan M. Brandt, *AIDS and Metaphor: Toward the Social Meaning of Epidemic Disease*, 55 SOC. RES. 413, 425-26 (1988). *See generally*, FRANK RYAN, *THE FORGOTTEN PLAGUE: HOW THE BATTLE AGAINST TUBERCULOSIS WAS WON—AND LOST* 389-417 (1993); U.S. CONG. OFFICE OF TECHNOLOGY ASSESSMENT, *THE CONTINUING CHALLENGE OF TUBERCULOSIS* 1-26 (1993). In many instances, of course, even the diseases that were thought to have been close to elimination remained very much in evidence in the non-industrialized countries. *See, e.g.*, Leslie Berkman, *Health Official Battle Sharp Rise in TB Cases*, L.A. TIMES, Feb. 2, 1993, at B1; Barbara Crossette, *Study Sees Rise in Child Death Rates*, N.Y. TIMES, May 9, 1992, at A4; John Noble Wilford, *Tuberculosis Found to Be Old Disease in New World*, N.Y. TIMES, March 15, 1994, at C1; Richard Woodman, *A Question of Life and Death in a Hot Climate*, THE GUARDIAN, Jan. 3, 1992, at 26. In one sense, public concern with risks of contracting contagious diseases can be traced to the resurgence of diseases such as tuberculosis and measles in the industrialized nations. *See, e.g.*, *Alamar Biosciences to Present New Method for Testing Drug-Resistant Tuberculosis at ASM Convention*, PR NEWSWIRE, May 18, 1993; *AIDS Epidemic Tied to Spread of Tuberculosis* (National Public Radio, Morning Edition, July 22, 1992); Lyng-Hou Ramirez, *Health: AIDS Linked to Tuberculosis Comeback*, INTER PRESS SERVICE, Dec. 12, 1991; Jonathan Freedman, *A Killer is Back: The Scarcity of Vaccine, Outreach Has Measles Running Wild*, L.A. TIMES, June 4, 1990, at B5. In a larger sense, however, this concern with contagious diseases is but a particular manifestation of a more general preoccupation with risk. Thus, Mary Douglas has observed that by 1977, when she began working in this country, “[t]he topic of public perception of danger had burst upon everybody’s awareness.” MARY DOUGLAS, *RISK AND BLAME: ESSAYS IN CULTURAL THEORY* 10 (1992) [hereinafter DOUGLAS, *RISK AND BLAME*]. “The forensic uses of risk were everywhere to be seen. On the one hand, it was an open attack on industry callous towards workers’ injuries, an attack on government for not curbing industry, a defense of natural resources, of the environment, and of human rights. On the other hand, calculations of risk were being made by the accused, to defuse anger, to show that the public were exaggerating, that the public did not realize what risks they were incurring every day, when they crossed the road, when they drank a bottle of Coke, or just sat in the sun.” *Id.* Judith Shklar has examined the problem from a different perspective: “[W]e must recognize that the line of separation between injustice and misfortune is a political choice, not a simple rule that can be taken as a given. The question is . . . not whether to draw a line between them at all, but where to do so in order both to enhance responsibility and to avoid random retaliation.” JUDITH N. SHKLAR, *THE FACES OF INJUSTICE* 5 (1990).

often are deemed to be absolute and incapable of mediation, just as they conflict and compete for attention.<sup>27</sup> The "significant risk" test is located at the heart of this conflict and competition.

In 1987, the United States Supreme Court was required to decide for the first time whether the statutory protections afforded to handicapped persons by Section 504 of the Rehabilitation Act of 1973<sup>28</sup> extended not only to persons with such physical disabilities as diminished sight, hearing, or mobility, or with chronic impairments of the major body systems, but also to persons who were infected with a contagious disease. Because the then-controlling text of the Rehabilitation Act contained no mention of contagious diseases, the Court was required to decide whether Congress had intended to exclude persons with contagious diseases from the statute's admittedly broad coverage. Were persons with contagious diseases categorically precluded from suing under Section 504, or were the courts required to evaluate the claims of such

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27 See, e.g., Theodore J. Lowi, *Risks and Rights in the History of American Governments*, 119 DAEDALUS 17, 19 (Fall 1990) ("Recent policies reallocating risk and the responsibilities and costs of risks have been framed in such a way as to convey rights to the beneficiaries. Thus, where once the distribution of risk was a political question—whether in the hands of governments or private institutions—these questions have been increasingly taken out of the political process."); CASS R. SUNSTEIN, *AFTER THE RIGHTS REVOLUTION: RECONCEIVING THE REGULATORY STATE* 90 (1990) ("[T]he conception of regulatory interests as rights to be vindicated rather than risks to be socially managed was common in the 1970s . . . . Congress sometimes appears to have assumed that noncompliance with (for example) environmental requirements is systematically a consequence of intransigence on the part of the agency or the industry."). See generally THOMAS L. PANGLE, *THE ENNOBLING OF DEMOCRACY. THE CHALLENGE OF THE POSTMODERN ERA* 91-102 (1992).

Mary Douglas has suggested that the concept of risk, with its "universalizing terminology," "abstractness," "power of condensation," "scientificity," "connection with objective analysis," and "forensic uses," is perfectly suited to building a culture that supports a modern industrial society. Thus, "[o]f the different types of blaming system that we can find in tribal society, the one we are in now is almost ready to treat every death as chargeable to someone's account, every accident as caused by someone's criminal negligence, every sickness a threatened prosecution. Whose fault? is the first question. Then, what action? Which means, what damages? what compensation? what restitution? and the preventive action is to improve the coding of risk in the domain which has turned out to be inadequately covered." DOUGLAS, *RISK AND BLAME*, *supra* note 26, at 15-16. Similarly, Albert Borgmann has observed: "[C]ommon expectations of redress and compensation go much further. In fact, they go all the way: one expects to be compensated for any burden, no matter how it was incurred or suffered." ALBERT BORGMANN, *CROSSING THE POSTMODERN DIVIDE* 11 (1992) (footnote omitted). See also George L. Priest, *The New Legal Structure of Risk Control*, 119 DAEDALUS 207, 219 (Fall 1990) ("The notion of liability for breach of a duty with which it was impossible to comply seems to strain the most basic notions of responsibility. But responsibility in a regime of risk control has a very unusual meaning.").

28 29 U.S.C. § 794 (1988 & Supp. IV 1992).



persons on a case-by-case basis, to determine whether they were "otherwise qualified" for the positions or benefits from which they had been excluded?<sup>29</sup>

In *School Board of Nassau County v. Arline*,<sup>30</sup> the Supreme Court articulated the problem as striking a balance so that Section 504 could "achieve its goal of protecting handicapped individuals from deprivations based on prejudice, stereotypes, or unfounded fear, while giving appropriate weight to such legitimate concerns . . . as exposing others to significant health and safety risks."<sup>31</sup> The Court purported to strike that balance by construing the Rehabilitation Act in a way that did not categorically exclude individuals with a contagious disease from its coverage, but protected them on the same terms that it protected all others, that is, so long as the individual was both a "handicapped person" and "otherwise qualified" to hold the relevant position or participate in the contemplated program or activity.<sup>32</sup> By relying on the "otherwise qualified" concept as the centerpiece of its decision, the

29 Under Section 504 of the Rehabilitation Act, "individual with handicaps" was then defined to mean "any person who (i) has a physical or mental impairment which substantially limits one or more of such person's major life activities, (ii) has a record of such an impairment, or (iii) is regarded as having such an impairment." 29 U.S.C. § 706(8)(B) (Supp. V 1987) (current version Supp. IV 1992). Although the statute made no explicit reference to persons with contagious diseases, it did, for certain purposes, exclude from coverage "any individual who is an alcoholic or drug abuser whose current use of alcohol or drugs prevents such individual from performing the duties of the job in question or whose employment, by reason of such current alcohol or drug abuse, would constitute a direct threat to property or the safety of others." *Id.* (emphasis added). Thus, the "direct threat" concept appeared in the original version of the statute, but its application was initially limited to the narrow and particular context of persons with drug or alcohol abuse problems. See *infra* note 40.

Section 504 at that time provided, in relevant part, that: "No otherwise qualified individual with handicaps in the United States, as defined in section 706(8) of this title, shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive agency . . . ." 29 U.S.C. § 794 (Supp. V 1987). In 1979, the Supreme Court had narrowly construed the term "otherwise qualified," holding that a person could not be deemed "otherwise qualified" unless she were "able to meet all of a program's requirements in spite of [a] handicap." *Southeastern Community College v. Davis*, 442 U.S. 397, 406 (1979).

30 480 U.S. 273 (1987).

31 *Id.* at 287 (footnote omitted).

32 The Court in *Arline* did not consider the plaintiff, a teacher with tuberculosis, to be a "handicapped individual" (and thus protected by the statute if "otherwise qualified"), based solely on the contagiousness of her disease. As Justice Brennan noted, *Arline's* handicapping condition, tuberculosis, gave rise both to contagiousness and to a physical impairment. *Id.* at 282 n.7. See *infra* note 75.

Court seemingly grounded its newly articulated principle in the language chosen by Congress. By itself, however, this language could not provide a sufficient basis for deciding the question presented. Because Congress had not dealt expressly with the problem of contagiousness, it obviously had not settled on the precise meaning to be attributed to the phrase "otherwise qualified" in the context of contagious diseases. Neither would the Court.

To determine whether a person is "otherwise qualified," the *Artine* Court suggested, the district court would be required in most instances "to conduct an individualized inquiry and make appropriate findings of fact," so that Section 504 can give effect both to the claims to fair treatment made by the handicapped and "to such legitimate concerns . . . as exposing others to significant health and safety risks."<sup>33</sup> The Court was able to reach into the language of the Rehabilitation Act for the concept of "otherwise qualified," but that was not the case with respect to "significant risk." Although subsequent cases and commentators have treated the concept of "significant risk" as the statutory benchmark, the words are not to be found in the statute itself. The concept was simply supplied by the Court, which found its inclusion essential in light of the Court's overall understanding of the statutory scheme.<sup>34</sup> Indeed, once the statute was seen to cover persons with

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33 *Id.* at 287 (footnote omitted).

34 The concept of "significant risk" presumably was borrowed from the occupational safety and health field, where the Supreme Court already had construed Section 3(8) of the Occupational Safety and Health Act of 1970, 29 U.S.C. § 652(8) (1988), to "require[] the Secretary to find, as a threshold matter, that the toxic substance in question poses a significant health risk in the workplace and that a new, lower standard is therefore 'reasonably necessary or appropriate to provide safe or healthful employment and places of employment.'" *Industrial Union Dep't, AFL-CIO v. American Petroleum Inst.*, 448 U.S. 607, 614-15 (1980). The purpose of the Occupational Safety and Health Act, the Court said, was not "to eliminate . . . any risk of serious harm," but "to require the elimination, as far as feasible, of *significant* risks of harm." *Id.* at 641 (emphasis added). See *Ethyl Corp. v. Environmental Protection Agency*, 541 F.2d 1, 12 (D.C. Cir. 1976) (en banc) (rejecting industry's view that "the 'will endanger' standard requires a high quantum of factual proof, proof of actual harm rather than of a 'significant risk of harm'"), *cert. denied*, 426 U.S. 941 (1976); *Hanly v. Kleindienst*, 471 F.2d 823 (2d Cir. 1972) (construing the National Environmental Policy Act and the "significantly affecting the quality of the human environment" standard), *cert. denied*, 412 U.S. 908 (1973). See also SUNSTEIN, *supra* note 27, at 194-97 (discussing the Supreme Court's creation of the "significant risk" test, noting that it "cannot be found in the statute, at least in any ordinary sense"). Once it has been determined that the statute requires the Secretary to make such a threshold finding, further questions necessarily are presented, both as to the precise burden that the Secretary must carry in making that finding, and as to the standard of review that must be applied in determining whether the Secretary actually has carried her burden in a particular case. Those questions also are pertinent here.

a contagious disease, the adoption of the concept of "significant risk," or some other concept thought capable of performing a similar function, was essential. Without assistance from a term such as "significant risk," the phrase "otherwise qualified" would not provide the necessary content or guidance, as applied to persons with contagious diseases. Nonetheless, the Court did not purport to define, at least in any classical sense, the elements or essence of a "significant risk," but simply explained that "[a] person who poses a significant risk of communicating an infectious disease to others in the workplace will not be otherwise qualified for his or her job if reasonable accommodation will not eliminate that risk."<sup>35</sup>

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35 *Arline*, 480 U.S. at 287 n.16. Two points should be made about the Court's formulation of the test. First, the test requires that attention be given to the question of "reasonable accommodations." It is not enough that a person presents a "significant risk" to the health or safety of others. To justify differential treatment, or the exclusion of the disabled person from an otherwise available program or activity, it must also be shown that the "significant risk" cannot be remedied even if "reasonable accommodations" are made. See *infra* note 38. Second, the Court's formulation of the test provides that a person will not be deemed to be "otherwise qualified" if the risk presented will not be "eliminate[d]" by the making of a "reasonable accommodation." It is not clear from the Court's language, however, whether the Court meant that any such risk must be eliminated in its entirety, or, alternatively, that the level of the risk must simply be reduced to the point at which it can no longer be considered "significant." Although the Court's language seems consistent with the first alternative, that alternative really makes no sense in terms of the overall structure of the Court's approach. One cannot imagine any good reason why a person who initially presents a risk that is not significant should be treated differently from a person who initially presents a risk that is "significant," but one that can be lowered to the level of "insignificance" when reasonable accommodation is made. At all events, as we shall see, the courts seem to have given little attention to the efficacy of "reasonable accommodations" once a risk has been found to exist.

The contagious disease involved in *Arline* was tuberculosis, rather than HIV, but HIV and the AIDS epidemic were very much on the minds of the Court and the parties. See *Arline*, 480 U.S. at 282 n.7. Prior to the decision in *Arline*, the Department of Justice had taken the position that persons with asymptomatic HIV disease were not protected by Section 504 because they were not "handicapped" within the meaning of the statute. The Department stated: "[A] person who is discriminated against because he is (or is regarded as) seropositive [is not handicapped and thus] has no claim under Section 504. Nor can he challenge the reasonableness of the defendant's judgment about the risk that he will spread the disease; defendants are not prohibited by Section 504 from making incorrect, and even irrational, decisions as long as their decisions are not based on handicap." *Memo from Assistant Attorney General Cooper on Application of Section 504 of the Rehabilitation Act to Persons With AIDS*, Daily Labor Report (BNA) No. 122, at D-10 (June 25, 1986). The Department took the same position in the *Arline* case, but subsequently changed course in late 1988, when it finally expressed the view that Section 504 should be construed to protect persons with HIV, whether asymptomatic or not. *Justice Department Memorandum on Application of Rehabilitation Act's Section 504 to HIV-Infected Persons*, Daily Labor Report (BNA) No. 195, at D-1 (Oct. 7, 1988). Professor Lawson has strongly criticized the decision in *Arline*, as well as the Department's change in position, but even he has conceded that the Department's current view will likely prevail, if and when the Supreme

Asserting that "the basic factors to be considered in conducting this inquiry are well established,"<sup>36</sup> the Court drew upon the amicus curiae brief of the American Medical Association for further elaboration of the essential components of the inquiry. Thus, the district courts would be required to make findings of fact "based on reasonable medical judgments given the state of medical knowledge, about (a) the nature of the risk (how the disease is transmitted), (b) the duration of the risk (how long is the carrier infectious), (c) the severity of the risk (what is the potential harm to third parties) and (d) the probabilities the disease will be transmitted and will cause varying degrees of harm."<sup>37</sup> In making these findings, the Court directed that trial courts should normally defer to the "reasonable medical judgments of public health officials."<sup>38</sup> To give effect to its understanding of Congress's intent with respect to the inclusion of persons with contagious diseases within the statute's definition of "handicapped individual," the Court was therefore required to engraft an admittedly open-ended concept, and an equally open-ended inquiry, onto the statutory

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Court should decide the issue. Gary Lawson, *AIDS, Astrology, and Arline: Towards A Causal Interpretation of Section 504*, 17 HOFSTRA L. REV. 237, 298-99 (1989). Other commentators have supported the decision in *Arline*. See, e.g., Arthur Leonard, *AIDS, Employment and Unemployment*, 49 OHIO ST. L.J. 929, 931-39 (1989).

36 *Arline*, 480 U.S. at 287.

37 *Id.* at 288 (quoting language from Brief for American Medical Association as *Amicus Curiae* 19).

38 *Id.* at 288. The Court added: "This case does not present, and we do not address, the question whether courts should also defer to the reasonable medical judgments of private physicians on which an employer has relied." *Id.* at 288 n.18. Given the seeming inevitability that a trial of such issues will culminate in a battle of experts, the Court's statement as to the deference to be afforded medical testimony is somewhat less than helpful. At a more fundamental level, it seems clear that, in cases of scientific uncertainty, even radically opposed judgments may meet some minimum standard of "reasonableness." In such circumstances, the critical task is not to distinguish between the "reasonable" and the "unreasonable," but to select from among various "reasonable" judgments the particular "reasonable" judgment to be given official recognition. In his study of Islamic courts in Morocco, Professor Rosen has noted that "it is precisely the power of the law to make things so by declaring them so that is quite striking: when a judge says you are guilty, you *are* guilty regardless of any difficulties the judge may subsequently have in enforcing his decision or convincing others of its wisdom." LAWRENCE ROSEN, *THE ANTHROPOLOGY OF JUSTICE: LAW AS CULTURE IN ISLAMIC SOCIETY* 20 (1989) (emphasis in original). Perhaps in recognition of that power, the qadi, by "using multiple experts . . . , characteristically, draws upon local knowledge and spreads the risk of formulating an unacceptable result." *Id.* at 30-31.

language and scheme.<sup>39</sup>

Congress promptly signalled its approval of the Court's construction by amending the Rehabilitation Act to confirm that persons with a "contagious disease or infection" are not excluded from the coverage of the Act, so long as they do not pose "a direct threat to the health or safety of other individuals" which cannot be reduced by "reasonable accommodation."<sup>40</sup> Subsequent-

39 In *Arline* itself, the Supreme Court was not required to deal with the ramifications of the test which it had articulated; the factual record was not deemed sufficient to permit the Court to perform the required analysis. Arline was a public school teacher whose employment had been terminated because of her tuberculosis. However, the paucity of the district court's factual findings precluded the Supreme Court from determining whether she was "otherwise qualified." The district court had "made no findings as to the duration and severity of Arline's condition, nor as to the probability that she would transmit the disease." *Arline*, 480 U.S. at 288. "Nor did the [district] court determine whether Arline was contagious at the time she was discharged, or whether the school board could have reasonably accommodated her." *Id.* at 288-89. On remand, the district court found that the teacher was "otherwise qualified" prior to her discharge, and that she was entitled to reinstatement and backpay. *Arline v. School Bd. of Nassau County*, 692 F. Supp. 1286, 1291-92 (M.D. Fla. 1988).

40 Congress did so in a somewhat indirect way, however, when it provided in the Civil Rights Restoration Act that the term "individual with handicaps" should not, for certain purposes, be understood to "include an individual who has a currently contagious disease or infection and who, by reason of such disease or infection, would constitute a direct threat to the health or safety of other individuals or who, by reason of the currently contagious disease or infection, is unable to perform the duties of the job." 29 U.S.C. § 706(8)(D) (Supp. IV 1992). By relying on the "direct threat" language, Congress also effectively expanded a concept which previously had been limited to cases in which the individual was "an alcoholic or drug abuser." See *supra* note 29.

During the Senate debate on the Civil Rights Restoration Act, Senator Armstrong, who generally opposed the granting of protection to persons with contagious diseases, argued against codification of the *Arline* standard: "Who should decide about exposure to contagious diseases, and by what standards? Is the threat of serious contagious disease just another legal element that judges must weigh equally with all other elements? Is the 'reasonableness' of judges more reasonable than the 'reasonableness' of school boards, which, after all, have the duty to safeguard the health of their students and teachers? Are we quite sure that the correct legal standard for measuring the risk of contagious disease is 'no significant risk'? Are we willing to risk our children's lives for that standard? I do not think so." 134 CONG. REC. S254 (daily ed. Jan. 28, 1988) (statement of Sen. Armstrong).

Senator Wilson, speaking in support of the compromise bill, observed: "I would agree that this may not be perfect language . . . . I think that . . . [the] language will . . . require of the local employer . . . that they seek to get the best possible medical evidence. It is conceivable that under this language in different communities a different result may occur, but even in that, I hope, unlikely event as it begins to work its way up through judicial appeal at some point hopefully we will achieve not only a legal but a medical consensus, and it is obviously far preferable that we achieve the kind of medical consensus nationally that would impose a uniform national standard so that the application of the law will be the same in all communities all across the land." 134 CONG. REC. S255 (daily ed. Jan. 28, 1988) (statement of Sen. Wilson).

Mr. Edwards observed in the House: "[D]etermining risk of harm . . . [is a highly

ly, in 1990, Congress dramatically expanded the scope of federal protection for the disabled, which previously had been limited to regulating the activities of federal contractors and other recipients of federal funds, by enacting the Americans with Disabilities Act of 1990.<sup>41</sup> Like Title VII of the Civil Rights Act of 1964,<sup>42</sup> the Americans with Disabilities Act is designed to encompass the conduct of most employers and places of public accommodation with respect to their treatment of persons with disabilities. In the Americans with Disabilities Act, Congress again substantially ratified the test which the Court had first set forth in *Arline*, but also provided that the test should be applied to all persons with disabilities, and not simply to persons with a contagious disease. The new statute defines "direct threat" as a "significant risk to the health or safety of others that cannot be eliminated or reduced by reasonable accommodation."<sup>43</sup> The statute does not purport to define the elements or essence of a "significant risk," but the legislative history specifically looks to the language used by the Supreme Court in *Arline* to supply that omission, and seemingly places on the party favoring exclusion the burden of demonstrating the existence of a "significant risk."<sup>44</sup>

Given this account of the initial judicial articulation and subsequent legislative reiterations of the "significant risk" test, one might be pardoned for assuming that the law in this area is settled, and that the application of the "significant risk" test to persons with contagious diseases, such as HIV infection and AIDS, is now straightforward. That is far from the truth. Indeed, uncertainty exists at the most fundamental level, with leading commentators disagreeing even as to the literal meaning of the test. According

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fact-specific inquiry that] is well within the capacity of the courts." 134 CONG. REC. H584 (daily ed. Mar. 2, 1988) (statement of Rep. Edwards).

41 42 U.S.C. §§ 12101-22 (Supp. III 1991).

42 42 U.S.C. § 2000e (1988 & Supp. III 1991).

43 42 U.S.C. § 12111(3) (Supp. III 1991). See *supra* note 40.

44 See House Comm. on Education and Labor, H.R. Rep. No. 485, 101st Cong., 2nd Sess., pt. 2, at 56 (1990) ("The standard to be used in determining whether there is a direct threat is whether the person poses a significant risk to the safety of others or to property, not a speculative or remote risk, and that no reasonable accommodation is available that can remove the risk."); Senate Comm. on Labor and Human Resources, S. Rep. No. 116, 101st Cong., 1st Sess. 27 (1989) ("The employer must identify the specific risk that the individual with a disability would pose. The standard to be used in determining whether there is a direct threat is whether the person poses a significant risk to the safety of others or to property, not a speculative or remote risk, and that no reasonable accommodation is available that can remove the risk.").

to Larry Gostin, the "significant risk" test may be met by demonstrating even a very low risk of a high degree of harm.<sup>45</sup> In Chai Feldblum's view, however, a "significance" or "substantiality" test must be applied to each of the two factors independently, so that there must be proof, in other words, of "a *significant* probability of *substantial* harm."<sup>46</sup> As a theoretical matter, the outcome in a particular case might be entirely different, depending on whether one adopted the Gostin or the Feldblum articulation of the test.<sup>47</sup> If one went a step further, and argued that we have no common definition of "significant" or "substantial," the certainty provided by the test would appear even more illusory. Thus, it should come as no surprise that the case law is in disarray. Indeed, the confusion created by the "significant risk" test is more obvious today than it was a few years ago, when easier cases may have camouflaged the inherent limits of the test's doctrinal power. Harder cases have pressed the test to its limits on several counts.

## II. THE "SIGNIFICANT RISK" TEST IN THE COURTS

In this section, several decisions are reviewed in which the lower courts have applied the "significant risk" test. First, some early cases are reviewed, in which the courts had little difficulty deciding the risk issue. Then some later cases are examined where

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45 Larry Gostin, *The HIV-Infected Health Care Professional: Public Policy, Discrimination, and Patient Safety*, 18 LAW, MED. & HEALTH CARE 303, 308 (1990).

46 Chai R. Feldblum, *A Response to Gostin*, 19 LAW, MED. & HEALTH CARE 134, 138 (1991) (emphasis added).

47 See, e.g., *Bradley v. University of Texas M.D. Anderson Cancer Ctr.*, 3 F.3d 922 (5th Cir. 1993) (per curiam) (holding that a surgical technician with HIV was not "otherwise qualified," despite the smallness of the risk of transmission, because of the "catastrophic consequences of an accident"); *Estate of Behringer v. Medical Ctr. at Princeton*, 592 A.2d 1251 (N.J. Super. 1991) (upholding the entitlement of a hospital to require a surgeon with HIV to secure the informed consent of his surgical patients, on the ground that "any" risk of a harm as severe as death justifies a more conservative policy). See also *infra* pp. 634-39. Application of the test has not been without difficulty even in cases which do not involve contagious diseases. See, e.g., *Chiari v. City of League City*, 920 F.2d 311, 317 (5th Cir. 1991) ("an individual is not qualified for a job if there is a genuine substantial risk that he or she could be injured or could injure others, and the employer cannot modify the job to eliminate that risk"); *Mantoletto v. Bolger*, 767 F.2d 1416, 1424 (9th Cir. 1985) (case remanded for determination whether employment of plaintiff "would pose a reasonable probability of substantial harm"); *Strathie v. Department of Transp.*, 716 F.2d 227, 234 (3d Cir. 1983) ("the correct statement of the issue is whether there is a factual basis in the record reasonably demonstrating that accommodating a wearer of a stereo hearing aid would present an appreciable risk to the safety and control of school bus passengers"); *Doe v. New York Univ.*, 666 F.2d 761, 777 (2d Cir. 1981) (unreasonable to infer that Congress intended to force academic institutions to accept or readmit students who posed "any appreciable risk" of harm to themselves or others).

the issues were not so clear cut, and the proper application of the "significant risk" test proved elusive. Taken together, these two sets of cases suggest that the "significant risk" test works best in the most extreme case—where the risk can be described with some plausibility as merely theoretical or practically negligible. Once the existence of some non-negligible risk is acknowledged, however, the test seems to fail. No matter how small the risk, courts seem ready to deem it "significant." In addition, the cases reflect that little attention has generally been given to the further question whether the risk can be reduced by "reasonable accommodation."<sup>48</sup> Under the present scheme, therefore, it seems likely that the case-by-case analysis contemplated by *Arline* will give way to a general rule, and the interests of persons with AIDS and other contagious diseases categorically will be short-changed. For this reason alone, the efficacy of the present scheme warrants scrutiny.

Some general observations may be made with respect to the case law. First, many of the early AIDS cases involved circumstances in which the risk of transmission was thought—quite correctly, and by any standard—to be merely theoretical or at least exceedingly small.<sup>49</sup> Thus, for example, many of the early cases involved school settings, where the kinds of behaviors believed necessary for

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48 See *Doe v. Washington Univ.*, 780 F. Supp. 628, 634-35 (E.D. Mo. 1991) (court rejects the Centers for Disease Control's conclusion that the use of universal barrier precautions will reduce the risk of transmission, substituting its own judgment that reasonable accommodation is not available because the dentist's glove could still be punctured by a sharp instrument or human bite). See *infra* notes 110-13 and accompanying text.

49 See generally Helena Brett-Smith & Gerald H. Friedland, *Transmission and Treatment, in AIDS LAW TODAY: A NEW GUIDE FOR THE PUBLIC* 18, 29 (Scott Burris et al. eds., 1993). In any discussion of AIDS and HIV disease, it is perhaps appropriate to recall two facts which distinguish this contagious disease from others. First, currently available tests cannot identify all persons who have in fact been infected with the HIV virus and are capable of infecting others. That is because testing protocols are designed to detect antibodies, rather than the virus itself, and antibodies may not develop for several months after the subject has become infected and is capable of infecting others. Second, even if it were technologically possible to determine the presence of the HIV virus with certainty, the direct economic cost of doing so, at sufficiently short intervals to make the information relatively useful (notwithstanding its inherent limitations), would be prohibitive. See generally David E. Bloom & Sherry Glied, *Benefits and Costs of HIV Testing*, 252 *SCIENCE* 1798 (1991); Julie Gerberding, *Expected Costs of Implementing a Mandatory Immunodeficiency Virus and Hepatitis B Virus Testing and Restriction Program for Healthcare Workers Performing Invasive Procedures*, 12 *INFECTION CONTROL & HOSP. EPIDEMIOLOGY* 443 (1991). In the case of HIV disease, of course, there are also many indirect costs of testing due to the discrimination which may result from the disclosure of positive test results, whether the results are accurate or not. Indeed, the mere fact that someone has voluntarily decided to undergo HIV testing, presumably because of the presence of some risk factor in her lifestyle, may be sufficient to trigger discrimination.



transmission of the HIV virus were not likely to occur on any regular basis.<sup>50</sup> In addition, many of these cases involved general challenges to school attendance by children with HIV, rather than challenges to particular activities or behaviors. As a result of these historical fortuities, some hyperbole crept into the case law, and, because no real risk was thought to exist in the circumstances presented in those early cases, judicial opinions spoke of the "absence of risk," rather than the "absence of significant risk." That new phrase, which was initially used as a merely descriptive (and in that sense substantially accurate) term, eventually became a practical benchmark for applying the "significant risk" standard, and thus contributed greatly to the case law's subsequent change of course. In later cases, involving medical treatment and public safety, courts were reluctant to find that the new test had been met.

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50 That is not to say that the matter was undisputed, as the relatively large number of reported cases involving schoolchildren suggests. Some commentators took the view that children with HIV should be segregated or excluded from school, based upon the inherent limitations of scientific knowledge and our consequent inability to say with certainty how the virus is and is not transmitted. See, e.g., Carolyn J. Kasler, Note, *Reading, Writing, But No Biting: Isolating School Children With AIDS*, 37 CLEV. ST. L. REV. 337 (1989). Other commentators viewed such actions as unjustified, reasoning that the principles of medical science were perfectly reliable, the lack of transmission through "casual contact" had been clearly established, and the nature of social interactions in the school setting could properly (and categorically) be deemed "casual contact." See, e.g., Lisa J. Sotto, Comment, *Undoing a Lesson of Fear in the Classroom: The Legal Recourse of AIDS-Linked Children*, 135 U. PA. L. REV. 193 (1986); see also Sullivan, *Among Schoolchildren*, supra note 24. Whether all school-based conduct should automatically be classified as "casual conduct" is at least open to debate, but the fact that transmission does not result from conduct which truly can be characterized as casual contact appears settled. See, e.g., Gerald H. Friedland & Robert S. Klein, *Transmission of the Human Immunodeficiency Virus*, 317 NEW ENG. J. MED. 1125, 1132 (1987); Gerald H. Friedland et al., *Lack of Transmission of HTLV-III/LAV Infection to Household Contacts of Patients with AIDS or AIDS-Related Complex with Oral Candidiasis*, 314 NEW ENG. J. MED. 344 (1986). See also SHARON RENNERT, AIDS/HIV AND CONFIDENTIALITY, MODEL POLICY AND PROCEDURES 93 (1991) (conclusions as to absence of transmission through casual contact based on examination of various activities, "including sharing household items (such as eating utensils, drinking glasses, toothbrushes, towels), sharing household facilities (such as beds, bath/showers, toilets), washing items used by HIV-positive individuals (such as dishes and clothes), and interacting with HIV-positive individuals (such as hugging, kissing, helping someone to bathe or eat)"); Joseph E. Fitzgibbon et al., *Transmission from One Child to Another of Human Immunodeficiency Virus Type 1 with a Zidovudine-Resistance Mutation*, 329 NEW ENG. J. MED. 1835 (1993) (reporting on transmission from one young child to another, apparently in the home and probably through unrecognized exposure to blood), A. Brownstein et al., *HIV Transmission Between Two Adolescent Brothers with Hemophilia*, 42 MORBIDITY & MORTALITY WKLY. REP. 948 (Dec. 17, 1993) (reporting on transmission from one brother to another, most likely through blood contact).

Second, these cases were decided against a backdrop of public opinion which has shifted several times. In the earliest days of the AIDS epidemic, the disease was thought to affect only the "margins" of society—gay and bisexual men, intravenous drug users, and recent immigrants from Haiti.<sup>51</sup> Given existing stereotypes and prejudices, which were reinforced by ignorance or uncertainty as to the means by which HIV may be transmitted, members of those groups were not adequately protected.<sup>52</sup> Until July 1982, when the first cases attributable to blood transfusions were reported, most persons in the United States did not believe that they had anything to fear from AIDS.<sup>53</sup> With the safety of the blood supply in doubt, public attitudes changed dramatically. Suddenly, there was a great deal of concern that AIDS was something that could happen to anyone. In time, that perception also changed. As the safety of blood products and the blood supply was eventually secured, and fewer cases were attributable to transfusions, AIDS once more came to be perceived as a disease whose impact would be felt principally by "others."<sup>54</sup> Moreover, although public dis-

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51 David L. Kirp and Ronald Bayer have provided a succinct and useful history of AIDS in the United States. See Ronald Bayer & David L. Kirp, *The United States: At the Center of the Storm*, in *AIDS IN THE INDUSTRIALIZED DEMOCRACIES: PASSIONS, POLITICS AND POLICIES* 7 (David L. Kirp & Ronald Bayer eds., 1992).

52 See, e.g., Barry Sullivan, *AIDS: Law, Public Policy, and the Work of the American Bar Association*, 21 U. TOL. L. REV. 1, 4 (1989) ("[T]he fullest fury of the HIV epidemic has thus far been felt by communities which already are targets of distrust and discrimination.")

53 See *Pneumocystis carinii Pneumonia Among Persons With Hemophilia A*, 31 MORBIDITY & MORTALITY WKLY. REP. 365 (July 16, 1982).

54 In a recent report, which engendered great controversy among AIDS activists, the National Research Council observed: "If the current pattern of the epidemic holds, U.S. society at large will have been able to wait out the primary impact of the epidemic even though the crisis period will have stretched out over 15 years. HIV/AIDS will 'disappear,' not because, like smallpox, it has been eliminated, but because those who continue to be affected by it are socially invisible, beyond the sight and attention of the majority population." National Research Council, *THE SOCIAL IMPACT OF AIDS IN THE UNITED STATES* 9 (1993). Likewise, the National Commission on AIDS has observed that "racial inequality . . . is preeminent among the festering social problems that HIV highlights and upon which the epidemic feeds." NATIONAL COMM'N ON ACQUIRED IMMUNE DEFICIENCY SYNDROME, *THE CHALLENGE OF HIV/AIDS IN COMMUNITIES OF COLOR* 3 (1992). Indeed, the epidemiology of HIV disease cannot be understood without reference to "racism, homophobia, poverty, and unemployment"—that "web of associated social ills" which "foster the spread of the disease." NATIONAL COMM'N ON ACQUIRED IMMUNE DEFICIENCY SYNDROME, *AMERICA LIVING WITH AIDS: TRANSFORMING ANGER, FEAR AND INDIFFERENCE INTO ACTION: REPORT OF THE NATIONAL COMMISSION ON ACQUIRED IMMUNE DEFICIENCY SYNDROME* 13-14 (1991). See also Harlon L. Dalton, *AIDS in Blackface*, in *LIVING WITH AIDS* 237 (Stephen R. Graubard ed., 1990). The resurgence of tuberculosis and other infectious diseases in the industrialized nations also has been linked to social conditions: "Infectious agents are

course concerning AIDS has been characterized from the beginning by a great deal of fear and prejudice, the period of the early cases saw the development, at least among recognized opinion leaders, of acceptance and support for the view put forth by medical science as to the absence of any real danger of transmission in connection with casual contact and ordinary social interactions.<sup>55</sup> Even reports of possible new strains of the virus caused little more than temporary flurries of interest.<sup>56</sup>

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likely to proliferate in the future, and old scourges such as tuberculosis may continue to return in newly virulent forms as portions of some of our inner cities begin to resemble Third World countries." George J. Annas, *Control of Tuberculosis—The Law and The Public's Health*, 328 NEW ENG. J. MED. 585, 588 (1993) (footnote omitted). Given the relative ease with which tuberculosis is transmitted, however, it seems unlikely to remain entirely a disease of "the other." Finally, Susan Sontag has written: "That [AIDS] is a punishment for deviant behavior and that it threatens the innocent—these two notions about AIDS are hardly in contradiction. Such is the extraordinary potency and efficacy of the plague metaphor: it allows a disease to be regarded both as something incurred by vulnerable 'others' and as (potentially) everyone's disease." Susan Sontag, *AIDS AND ITS METAPHORS* 64 (1989).

55 See generally American Bar Association, *American Bar Association Policy on AIDS*, 21 U. TOL. L. REV. 9 (1989); NATIONAL EDUCATION ASSOCIATION, *THE FACTS ABOUT AIDS: A SPECIAL GUIDE FOR NEA MEMBERS* 5 (1987); American Academy of Pediatrics Committees on School Health and Infectious Diseases, *School Attendance of Children and Adolescents With Human T Lymphotropic Virus III/Lymphadenopathy - Associated Virus Infection*, 77 PEDIATRICS 430 (1986); NATIONAL SCHOOL BOARDS ASSOCIATION, *AIDS AND THE PUBLIC SCHOOLS* 3 (1986).

56 In April 1987, the New York Times reported that Luc Montagnier of L'Institut Pasteur had isolated HIV-2, a new strain of the virus which differed in genetic composition from HIV-1. Harold M. Schmeck, Jr., *AIDS May Be Activated By Infections*, N.Y. TIMES, Apr. 16, 1987, at B10. See also Lawrence K. Altman, *The Doctor's World: AIDS: Questions of Virulence*, N.Y. TIMES, May 12, 1987, at C3 (reporting on differing strengths of various strains of the virus, on the possibility that this variety of strains might be responsible for the variety of patient reactions to infection, and on the further possibility of mutations within the body). The first case of HIV-2 in the United States was reported in Newark, New Jersey in January 1988; four more cases were reported in New York City in June 1989. Because the ELISA and Western blot tests were developed to detect HIV-1 antibodies, HIV-2 antibodies sometimes escaped detection through the standard testing protocol, and questions were therefore raised anew as to the safety of the blood supply. See *First U.S. Case of HIV-2 Infection Diagnosed in New Jersey*, REUTERS, Jan. 28, 1988; Bruce Lambert, *Four Cases Found of Rare Strain of AIDS Virus*, N.Y. TIMES, June 27, 1989, at B1. See also Vivien Kellerman, *Blood Drives Halted After Protests By Students*, N.Y. TIMES, Apr. 21, 1991, at sect. 12 p.1 (In 1991, FDA expanded blood donor restrictions to prohibit blood donations by persons born in or coming from sub-Saharan Africa, until a HIV-2 antibody detection test is available). It was thought that the proliferation of strains might make research more difficult for scientists working on vaccines and treatment, and that predictions as to the spread of the disease also would become more difficult as a result of new strains. See *First U.S. Case of HIV-2 Infection Diagnosed in New Jersey*, REUTERS, Jan. 28, 1988 (statement of James Curran, CDC's Chief of AIDS research, to the AIDS Conference in Amsterdam); Susan Okie, *AIDS Researcher Reports New Virus. Predicts Others*, WASH. POST, June 2, 1987, at A1. See also Gina Kolata, *AIDS Expert Warns of Hazards of Research*, N.Y.

The situation changed dramatically in July 1990, when the Centers for Disease Control reported that a Florida dentist (later identified as Dr. David Acer) might have infected one of his patients (later identified as Kimberly Bergalis) during a dental procedure.<sup>57</sup> Eventually, the number of patients believed to have been infected by Dr. Acer grew to six.<sup>58</sup> No other cluster of cases has been reported, and the significance of the Acer cluster remains a mystery.<sup>59</sup> Indeed, the mystery deepened in early 1993, when the

TIMES, Feb. 16, 1990, at A19 (report of warning by AIDS researcher Robert Gallo that scientists working with the AIDS virus should be alert to the possibility that their experiments might produce new strains). Medical scientists recently have attributed the differences in global epidemiology of HIV-1 and HIV-2 to differences in their respective viral loads. Kevin M. DeCock et al., *Epidemiology and Transmission of HIV-2: Why There Is No HIV-2 Pandemic*, 270 JAMA 2083 (1993).

57 The Centers for Disease Control reported a possible instance of dentist-to-patient transmission, the first documented case of suspected transmission from health care worker to patient, on July 27, 1990. See *Possible Transmission of Human Immunodeficiency Virus to A Patient During An Invasive Dental Procedure*, 39 MORBIDITY & MORTALITY WKLY. REP. 489, 491 (July 27, 1990). The dentist, David Acer, had extracted two of Kimberly Bergalis's teeth approximately two years before her seropositivity was discovered. Bergalis apparently had no other risk factors. *Id.* at 489-90.

58 That Dr. Acer probably was responsible for infecting five additional patients was made known in a series of disclosures over a period of two and one-half years. See *Update: Investigations of Persons Treated by HIV-Infected Health-Care Workers*, 42 MORBIDITY & MORTALITY WKLY. REP. 329 (1993); *Update: Transmission of HIV Infection During An Invasive Dental Procedure—Florida*, 40 MORBIDITY & MORTALITY WKLY. REP. 21 (1991). Substantial public debate resulted from these disclosures. See generally, Mary Anne Bobinski, *Risk and Rationality: The Centers for Disease Control and The Regulation of HIV-Infected Health Care Workers*, 36 ST. LOUIS U. L.J. 213 (1992) [hereinafter Bobinski, *Risk and Rationality*]; Thaddeus J. Nodzinski, *HIV-Infected Health Care Professionals and Informed Consent*, 2 S. CAL. INTERDISC. L.J. 299 (1993). See also Marcia Angell, *A Dual Approach To The AIDS Epidemic*, 324 NEW ENG. J. MED. 1498 (1991); Ronald Bayer, *Public Health Policy and The AIDS Epidemic: An End To HIV Exceptionalism?*, 324 NEW ENG. J. MED. 1500 (1991); Sanford F. Kuvin, *A Proactive Public Health Policy for the Mandatory Testing of Health Care Workers and Patients Involved in Invasive Procedures*, 2 CTS., HEALTH SCI. & LAW 115 (1991); Barry Sullivan, *AIDS and The Medical Boards: Some Legal Issues*, 78 FED'N BULLETIN 266 (1991).

59 Despite numerous look-back studies involving surgeons who performed highly invasive procedures after they had become seropositive, there are no other confirmed cases of HIV transmission from healthcare worker to patient. See, e.g., Ban Mishu et al., *HIV-Infected Surgeons and Dentists: Looking Back and Looking Forward*, 269 JAMA 1843 (1993); NATIONAL COMM'N ON ACQUIRED IMMUNE DEFICIENCY SYNDROME, *PREVENTING HIV TRANSMISSION IN HEALTH CARE SETTINGS* 14-18 (1992). See also Gordon M. Dickinson et al., *Absence of HIV Transmission From an Infected Dentist to His Patients: An Epidemiologic and DNA Sequence Analysis*, 269 JAMA 1802 (1993); Audrey Smith Rogers et al., *Investigation of Potential HIV Transmission to the Patients of an HIV-Infected Surgeon*, 269 JAMA 1795 (1993); C. Fordham von Reyn et al., *Absence of HIV Transmission from an Infected Orthopedic Surgeon: A 13-Year Look-Back Study*, 269 JAMA 1807 (1993). In December 1993, Australian health officials reported that HIV had been transmitted from one patient to four others because of a break-down in standard infection control practices in a surgeon's office. See Lawrence K. Altman, *4 Australians Infected With H.I.V. in Surgery*, N.Y. TIMES, Dec. 16, 1993, at

sixth patient was identified. Unlike the other five patients in the Acer cluster, she had not undergone any invasive procedure, a fact which seemingly supported the view of those who suggested that these infections might be the result of Dr. Acer's intentional acts, rather than negligence.<sup>60</sup>

In any event, the Acer case suggested to many that there might well be some danger of transmission in the health care context, a possibility which previously had been discounted.<sup>61</sup> Moreover, this was a danger which might be felt, not simply by isolated or marginal communities of "others," but by the very mainstream of American society, that is, by anyone (ironically enough) having the resources or good fortune necessary to acquire access to medical treatment. The credibility of medical science was therefore called into question by many who previously had felt comfortable leaving such matters to the professionals, and the problem of HIV transmission was thus endowed with a renewed sense of urgency. This development obviously altered the context in which these issues were being debated, as did the renewed dissemination of reports about possible new strains of the virus<sup>62</sup> and possible linkages between the virus and new, drug-re-

A13. The risk of transmission from patient to healthcare worker seems to be substantially greater, although needlestick injuries (rather than highly invasive procedures) apparently account for the majority of such infections. See NATIONAL COMM'N ON ACQUIRED IMMUNE DEFICIENCY SYNDROME, PREVENTING HIV TRANSMISSION IN HEALTH CARE SETTINGS 6-7, 11 (1992).

60 See *Murder Theory Gains Credence in Dental AIDS Case*, CHICAGO TRIB., June 7, 1993, at N3. See also Dennis L. Breo, *The Dental AIDS Cases—Murder Or An Unsolvable Mystery*, 270 JAMA 2732 (1993).

61 A 1991 Gallup Poll, taken shortly after the second round of disclosures about the Acer case, see *supra* note 51, concluded that 60 percent of Americans believe that surgeons and dentists with HIV should be barred from practice, whereas 50 percent would prohibit all seropositive healthcare workers from rendering any patient care. See Barbara Kantrowitz et al., *Doctors And AIDS*, NEWSWEEK, July 1, 1991, at 49.

62 "[T]he unanticipated revelation . . . at the Ninth International AIDS conference in Amsterdam [in July 1992] of a small number of people with markedly depressed CD4+ T-lymphocyte counts, with or without opportunistic diseases, in the absence of any evidence of human immunodeficiency virus (HIV) infection or other recognizable cause of immunosuppression resulted in extraordinary media attention and hence great public concern." Anthony S. Fauci, *CD4+ T-Lymphocytopenia Without HIV Infection—No Lights, No Camera, Just Facts*, 328 NEW ENG. J. MED. 429 (1993). See also Lawrence K. Altman, *The Doctor's World: C.D.C. Is Embarrassed By Its Tardy Response To AIDS-Like Illness*, N.Y. TIMES, July 28, 1992, at B6. Based on his review of the studies, Dr. Fauci stated that "we can reasonably conclude that idiopathic CD4+ T-lymphocytopenia is a rare syndrome; is not new; is not caused by HIV-1, HIV-2, HTLV-I, or HTLV-II; is heterogeneous; is epidemiologically, clinically, and immunologically rather different from HIV infection; and does not appear to be caused by a transmissible agent." Fauci, *supra* at 430. In addition, "[t]he fact that approximately one third of the patients described had some risk factor

sistant strains of tuberculosis.<sup>63</sup>

Third, the character of AIDS litigation is closely related to the nature of the disease. Persons at risk for HIV often resist the idea of testing, either because of denial or for fear of discrimination.<sup>64</sup> In addition, women at risk for HIV also may be involved in abusive relationships or otherwise subject to violence, which may be exacerbated if information about their HIV status is disclosed, particularly to their sexual partners.<sup>65</sup> For similar reasons, persons with HIV may be reluctant to call attention to themselves by involk-

for HIV infection probably reflects the bias arising from the fact that physicians who take care of HIV-infected patients are more likely to order immunologic workups that reveal such abnormalities." *Id.* See generally Louis M. Aledort et al., *Low CD4+ Counts in a Study of Transfusion Safety*, 328 NEW ENG. J. MED. 441 (1993); Robert A. Duncan et al., *Idiopathic CD4+ T-Lymphocytopenia—Four Patients With Opportunistic Infections and No Evidence of HIV Infection*, 328 NEW ENG. J. MED. 393 (1993); David D. Ho et al., *Idiopathic CD4+ T-Lymphocytopenia—Immundeficiency Without Evidence of HIV Infection*, 328 NEW ENG. J. MED. 380 (1993); Dawn K. Smith et al., *Unexplained Opportunistic Infections and CD4+ T-Lymphocytopenia Without HIV Infection: An Investigation of Cases in the United States*, 328 NEW ENG. J. MED. 373 (1993); Thomas J. Spira et al., *Idiopathic CD4+ T-Lymphocytopenia—An Analysis of Five Patients With Unexplained Opportunistic Infections*, 328 NEW ENG. J. MED. 386 (1993); Sten H. Vermund et al., *CD4+ Counts in Seronegative Homosexual Men*, 328 NEW ENG. J. MED. 442 (1993). In February 1993, the Montreal Gazette reported that Dr. Myron Essex of the Harvard School of Public Health was predicting that we would soon see "new strains [of the virus] which are effective at infecting heterosexuals and which are produced by the constant evolution of the proteins on the virus's envelope." Robin McKie, *Experts Warn of New AIDS Virus*, MONTREAL GAZETTE, Feb. 17, 1993, at C6.

63 See, e.g., *Prevention and Control of Tuberculosis in U.S. Communities with At-Risk Minority Populations: Recommendations of the Advisory Council for the Elimination of Tuberculosis*, 41 MORBIDITY & MORTALITY WKLY. REP. (No. RR-5) 1 (1992); NATIONAL LEADERSHIP COALITION ON AIDS, *MANAGING TUBERCULOSIS AND HIV INFECTION IN TODAY'S GENERAL WORKPLACE* (1992); M. Miles Braun et al., *Trends in Death With Tuberculosis During the AIDS Era*, 269 JAMA 2865 (1993); Lawrence O. Gostin, *Controlling the Resurgent Tuberculosis Epidemic: A 50-State Survey of TB Statutes and Proposals for Reform*, 269 JAMA 255 (1993).

64 See David A.J. Richards, *Human Rights, Public Health, and the Idea of Moral Plague*, 55 SOC. RES. 491, 513-14 (1988) ("Sexually active male homosexuals are, of course, the group at highest risk for AIDS in the United States . . . . But homosexuals cannot reasonably be expected to undertake [HIV] tests if the results could be used, as they could in half of the United States, as evidence to convict them of criminal wrong, or could be used, as they could in most states, to justify forms of discrimination against them in access to housing, employment, and the like."); NATIONAL COMM'N ON ACQUIRED IMMUNE DEFICIENCY SYNDROME, *THE TWIN EPIDEMICS OF SUBSTANCE USE AND HIV 4* (1991) ("Yet, instead of responding to these epidemics [of substance use and HIV infection] with public health and treatment measures to deal with both, the federal government's primary response has been imprisonment and increased jail sentences, often ignoring drug/HIV relationships.").

65 See, e.g., Richard L. North & Karen H. Rothenberg, *Partner Notification and The Threat of Domestic Violence Against Women With HIV Infection*, 329 NEW ENG. J. MED. 1194 (1993).

ing the protection of the legal system,<sup>66</sup> and they may well have difficulty securing legal representation in any event.<sup>67</sup> Thus, when they finally come to invoke the protection of the legal system, their need for relief may well be acute in the sense that they have little time left. For that reason, they are likely to seek interim injunctive relief, and the decision with respect to that relief may effectively decide, once and for all, whether their grievances will be remedied. If preliminary relief is denied, the person affected by AIDS or HIV may have no further opportunity for seeking relief.<sup>68</sup>

These circumstances obviously present a substantial challenge for trial judges. In most areas, trial judges will have had little experience dealing with AIDS cases and are not likely to know very much about the subject. Judges are not likely to be very different from other groups of people, either in the degree of their knowledge or in the extent of their biases, prejudices, and fears. If they have had prior cases involving AIDS, there is no guarantee as to the quality of the information they received.<sup>69</sup> Nonetheless, they will be required to render a prompt decision in an expedited proceeding in which the time available for evidence, research, and deliberations probably will be limited. The sources of expert scientific evidence may vary greatly depending on the budgets of the parties and on the size and location of the community involved,

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66 Rule 10(a) of the Federal Rules of Civil Procedure provides that "the title of the action shall include the names of all the parties." However, because of the sensitive nature of the AIDS crisis and the HIV virus itself, many courts have allowed plaintiffs in those lawsuits to file a complaint under a fictitious name such as Doe or anonymously. See, e.g., *Doe v. Attorney Gen. of the United States*, 941 F.2d 780 (9th Cir. 1991); *Doe v. Dolton Elementary Sch. Dist. No. 148*, 694 F. Supp. 440 (N.D. Ill. 1988); *Anonymous Fireman v. City of Willoughby*, 779 F. Supp. 402 (N.D. Ohio 1991).

67 American Bar Association, *American Bar Association Policy on AIDS*, 21 U. TOL. L. REV. 9, 28-29 (1989) ("[T]he availability of effective and affordable representation is one of the most critical needs faced by people affected by HIV."); *Id.* at 29-30 n.18 ("There is no lawyer closer to Northern Virginia than me, 150 miles [away], that will even talk to a person with AIDS . . . . I have been referred clients from North Carolina, West Virginia, and Maryland, as well as throughout Virginia. There isn't anybody else to do it.") (testimony of a private practitioner before the American Bar Association Coordinating Committee on March 5, 1988).

68 In this area, it is perhaps inevitable that the duration of the litigation will often outlast the life of the plaintiff. Both the *Chalk* and *Dolton* courts recognized this possibility. See *supra* note 18. The captions on many appellate cases bear unhappy witness to that fact, the name of the original plaintiff having been replaced by his or her estate. See, e.g., *Estate of Behringer v. Medical Ctr. at Princeton*, 592 A.2d 1251 (N.J. Super. Ct. Law Div. 1991).

69 See, e.g., *Severino v. North Fort Myers Fire Control Dist.*, 935 F.2d 1179 (11th Cir. 1991).

and the necessarily provisional nature of scientific knowledge lends itself nicely to forensic attack in any event.<sup>70</sup> That inherent provisionality may seem heightened here. In addition, and because of all of these factors, there is only a small body of reported case law from which the chancellor can attempt to draw guidance. Those cases may deal with factual circumstances far different from those which now confront the court, and the quality of their reasoning may well reflect pressure on earlier courts to make quick decisions in similarly infelicitous circumstances.

Ultimately, the judge must make a decision. If she errs on one side, the result will be that a particular person has been denied some benefit to which he otherwise would have been entitled. In the circumstances in which that person finds himself, the value and significance of that benefit may seem very great, and may well come to symbolize his central claim to human dignity and respect. If the trial judge errs on the other side, the result may be that she has compelled a particular person or persons to associate with someone who may be capable of transmitting a fatal disease. Those are not circumstances that are conducive to good decisionmaking, particularly where the applicable legal test provides little real guidance to the decisionmaker.

### A. *The First Wave*

Among the early cases, there are four—*Chalk v. United States District Court, Central District of California*,<sup>71</sup> *Glover v. Eastern Nebraska Community Office of Retardation*,<sup>72</sup> *Martinez v. School Board of Hillsborough County, Florida*,<sup>73</sup> and *Doe v. Dolton Elementary School District No. 148*,<sup>74</sup>—which warrant attention here. In *Chalk*, a classroom teacher with AIDS, who taught hearing-impaired students,

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70 See, e.g., 134 CONG. REC. S255 (daily ed. Jan. 28, 1988) ("I think what [the significant risk] language will do is to require of the local employer . . . that they seek to get the best possible medical evidence. It is conceivable that under this language in different communities a different result may occur, but even in that, I hope, unlikely event as it begins to work its way up through judicial appeal at some point hopefully we will achieve not only a legal but a medical consensus.") (statement of Sen. Wilson on the Civil Rights Restoration Act). See generally *Daubert v. Merrell Dow Pharmaceuticals*, 113 S. Ct. 2786 (1993) (settling the controversy over which test should govern the admissibility of scientific testimony in a federal trial).

71 840 F.2d 701 (9th Cir. 1988).

72 686 F. Supp. 243 (D. Neb. 1988), *aff'd*, 867 F.2d 461 (8th Cir.), *cert. denied*, 492 U.S. 916 (1989).

73 861 F.2d 1502 (11th Cir. 1988).

74 694 F. Supp. 440 (N.D. Ill. 1988).



invoked the protection of Section 504 of the Rehabilitation Act, when his school district decided to remove him from the classroom and reassign him to an administrative position where he would have no contact with students. Chalk sought to prevent that change of assignment, but the district court denied his application for a preliminary injunction. On appeal, the Ninth Circuit held that Chalk was a handicapped person within the meaning of the Act, and that the district court had erred in holding that he was not "otherwise qualified" for continued employment as a classroom teacher.<sup>75</sup> The district court had denied relief to Chalk, notwithstanding the "overwhelming consensus of medical opinion," based solely on "speculation for which there was no credible support in

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75 One might well question the Ninth Circuit's reading of the Supreme Court's decision in *Arline*. In *Chalk*, the Ninth Circuit noted that "the Supreme Court recently held that section 504 is fully applicable to individuals who suffer from contagious diseases." *Chalk*, 840 F.2d at 704. A more precise statement of the holding in *Arline*, of course, would be that the Supreme Court held that a person who is handicapped within the meaning of the Rehabilitation Act—by virtue of having a physical or mental impairment which substantially limits one or more of that person's major life activities, having a record of having such an impairment, or being regarded as having such an impairment—is not automatically excluded from the coverage of the statute merely because of having a contagious disease. Indeed, Justice Brennan went to some lengths to explain that the Court had no need to rule (as the Government had urged the Court to do) on the statute's applicability to persons who were asymptomatic carriers of a disease such as HIV: "The argument is misplaced in this case, because the handicap here, tuberculosis, gave rise both to a physical impairment *and* to contagiousness." *Arline*, 480 U.S. at 282 n.7 (emphasis in original). The Ninth Circuit's lack of precision is not inconsequential because *Arline* met the statutory test, not due to her contagious disease, but due to the fact that the disease had impaired her respiratory system and interfered with one or more of her major life activities. On the other hand, the Ninth Circuit, thinking that the presence of a contagious disease was itself sufficient to make Chalk a "handicapped person," apparently made no inquiry into the question of whether he had a physical or mental impairment which substantially limited one or more of his major life activities, had a record of such an impairment, or was regarded as having such an impairment. The point is not academic because one can well imagine other contagious diseases which clearly would not meet the statutory test. To the extent that subsequent cases have not followed the *Chalk* court's holding, however, it must be emphasized that they have not pointed to that particular weakness in the court's reasoning. Moreover, the legislative history of the Americans with Disabilities Act concludes that asymptomatic persons with HIV should be included within the coverage of that statute, without any further showing of impairment being required. See, e.g., SENATE COMM. ON LABOR AND HUMAN RESOURCES, S. REP. NO. 116, 101st Cong., 1st Sess. 22 (1989), reprinted in 1 LEGISLATIVE HISTORY OF PUBLIC LAW 101-336 THE AMERICANS WITH DISABILITIES ACT 99, 120 (1990) ("The term [physical or mental impairment] includes . . . infection with the Human Immunodeficiency Virus"); HOUSE COMM. ON EDUCATION AND LABOR, H.R. REP. NO. 485 Part 2, 101st Cong., 2d Sess. (1990), reprinted in 1 LEGISLATIVE HISTORY, supra at 274, 324 (1990); HOUSE COMM. ON THE JUDICIARY, H.R. REP. NO. 485 Part 3, 101st Cong., 2d Sess. (1990), reprinted in 1 LEGISLATIVE HISTORY, supra at 441, 468 (1990).

the record.”<sup>76</sup> The district court had rejected the sufficiency of the medical evidence, stating:

It seems to me the problem is that we simply do not know enough about AIDS to be *completely certain*. The plaintiff has submitted massive documentation tending to show a minimal risk . . . . The likelihood is that the medical profession knows exactly what it's talking about. But I think it's too early to draw a definite conclusion, as far as this case is concerned, about the extent of the risk.<sup>77</sup>

The Ninth Circuit concluded that the district court had placed “an impossible burden of proof” on Chalk, and that the district court’s language simply misconceived the *Arline* decision, which allows an employee to be excluded “only if there ‘is a *significant* risk of communicating an infectious disease to others.’”<sup>78</sup> The court also observed: “Little in science can be proved with complete certainty, and section 504 does not require such a test.”<sup>79</sup>

In its application of the “significant risk” test, the *Chalk* court made clear, not only that evaluations of risk must be based on “fact,” rather than speculation or general misgivings about the nature of scientific knowledge, but also that the presence of *some* risk would not necessarily demonstrate the existence of a *significant* risk. It is important to recognize, however, that the determination to be made in *Chalk* was not difficult. Notwithstanding the *Chalk* court’s language, it simply was not the case that the evidence there affirmatively demonstrated the existence of *some* risk. The

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<sup>76</sup> *Chalk*, 840 F.2d at 708.

<sup>77</sup> *Id.* at 707 (emphasis by court of appeals).

<sup>78</sup> *Id.* at 707-08 (quoting *Arline*, 480 U.S. at 287 n.16) (emphasis by 9th Cir.).

<sup>79</sup> *Id.* at 707. In his concurring opinion, Judge Sneed made the same point in a succinct manner: “Confronted with some uncertainties about scientific truth, judges, perhaps above all others, should act on the basis of that which *is* known, or, where this is not possible, on the basis of that which those best qualified to speak *say* is known . . . . [W]e have no choice but to accept their version of the truth. We can neither await ultimate validation nor reject their version on the basis of our awareness that the truths of medical science are frequently revised in the light of new data.” *Id.* at 712 (Sneed, J., concurring) (emphasis in original). While some question was initially raised as to whether an asymptomatic person with HIV could be considered handicapped for purposes of Section 504, *see supra* note 8, it now seems settled that an asymptomatic person will be deemed to be one who “has a physical or mental impairment which substantially limits one or more of such person’s major life activities.” 29 U.S.C. § 706(8)(B)(i) (Supp. IV 1992). In addition, an asymptomatic person may qualify for protection as one who “is regarded as having such an impairment.” 29 U.S.C. § 706(8)(B)(iii) (Supp. IV 1992); *Doe v. Dolton Elementary Sch. Dist. No. 148*, 694 F. Supp. 440 (N.D. Ill. 1988). *See also, supra* note 29.

evidence did not affirmatively demonstrate the existence of *any* risk, but, at most, the (obviously palpable) possibility that science might not know all there is to know about the transmission of HIV.<sup>80</sup>

In *Glover*, the Eighth Circuit was required to evaluate the risks of HIV transmission in the somewhat different context of a Fourth Amendment claim. The Rehabilitation Act was not involved, and the "significant risk" test did not supply the governing legal standard. In a larger sense, however, substantially identical questions were raised. At issue in *Glover* was the constitutionality of three requirements which a state mental health agency had imposed upon certain of its employees,<sup>81</sup> who were responsible for the custody and care of severely retarded clients: (a) requiring that the employees submit to mandatory HIV testing; (b) requiring self-reporting by employees who know or suspect that they are seropositive; and (c) requiring disclosure with respect to any employees who has been hospitalized or is receiving treatment for the disease.<sup>82</sup> Failure to comply with these requirements would lead to disciplinary action, including possible job termination. The district court had enjoined enforcement of these requirements, holding that they were not reasonable in the circumstances, and therefore violated the Fourth Amendment:

[The agency's] justification for the testing is the pursuit of a safe work environment for all employees and a safe training and living environment for its clients. The medical evidence, however, demonstrates that even if staff members were infected with a chronic infectious disease, *the risk* to [the agency's] clients *is extremely low and approaches zero*. The medical evidence is

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80 The weight of the evidence in support of Chalk's position can only be characterized as crushing. In its *amicus curiae* brief in the case, the American Medical Association stated that "there is *no* evidence in the relevant medical literature that demonstrates any appreciable risk of transmitting the AIDS virus under the circumstances likely to occur in the ordinary school setting." *Chalk*, 840 F.2d at 707 (quoting *AMA Amicus Curiae* Brief at 28). The only evidence supporting the school district's position was the testimony of Dr. Steven Armentrout, who conceded that his opinion was not supported by any scientific evidence. *Id.*

81 Testing was required for all who held, or were seeking to hold, certain specified positions: home teacher, residential associate, residential assistant, vocational program manager, vocational production manager, registered nurse, and licensed practical nurse (LPN). *Glover*, 686 F. Supp. at 247. Persons holding all such positions had direct and "extensive contact with clients." *Id.* However, only the LPN tended to the medical care of patients. *Id.* at 247 n.12.

82 *Id.* at 244. The agency had imposed similar requirements concerning Hepatitis-B and tuberculosis (TB), but the TB rule was not challenged. *Id.* at 244.

overwhelming that the risk of transmission of the AIDS virus in [this] work place *is trivial to the point of non-existence*. Such a *theoretical risk* does not justify a policy which interferes with the constitutional rights of the staff members.<sup>83</sup>

The agency attempted to defend its policy principally by asserting the possibility that transmission could occur in the not inconceivable circumstances where staff members may be bitten, scratched, and subjected to other physical violence by clients.<sup>84</sup> In the district court's view, however, "[t]he risk of transmission of the disease from the staff to the clients . . . is minuscule, trivial, extremely low, . . . theoretical, and approaches zero."<sup>85</sup> Thus, the district court found no justification for the implementation of a program that was designed, "with little or erroneous medical knowledge," to "protect clients at all cost"<sup>86</sup> and thus trenched on the employees' constitutional rights.

Highlighting its "careful[] review" of the record, the Eighth Circuit concluded that the trial court's findings of fact were not clearly erroneous and led "unmistakably to the conclusion that [the agency's] blood testing policy is not reasonable at its inception under the applicable Fourth Amendment standards."<sup>87</sup> At the same time, the court of appeals saw fit to emphasize the fact-bound nature of its decision:

The district court did not take lightly, nor do we, the severe nature of the diseases at which [this] policy is aimed. By our decision we intend no broad-based rule with regard to testing public employees for any infectious disease, including AIDS. We hold only that under the facts established in this case, the

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83 *Glover*, 686 F. Supp. at 250 (emphasis added).

84 One staff member, who died from AIDS-related illnesses, had been involved "in numerous incidents where he was bitten, scratched, pinched, kicked, and hit by clients." *Id.* at 247-48. However, the agency did not follow up on the clients involved in any of these incidents, nor did it notify the clients, or their guardians that the clients were potentially at risk of contracting HIV by virtue of their contacts with the deceased staff member. *Id.* at 248. Of potentially greater significance, the court also noted the existence of "some evidence of sexual abuse of clients," including at least some reported incidents of staff-client sexual contacts. *Id.* For reasons that it apparently chose not to develop or explain in its opinion, the district court nonetheless concluded that there was not "a sexual abuse problem" at the facility. *Id.* The court of appeals made no mention of this evidence in its opinion. See *Glover v. Eastern Neb. Community Office of Retardation*, 867 F.2d 461, 463 (8th Cir. 1989).

85 *Glover*, 686 F. Supp. at 251.

86 *Id.* at 251.

87 *Glover*, 867 F.2d at 464.

district court properly enjoined [the agency's] policy as an unreasonable search and seizure under the fourth amendment.<sup>88</sup>

In *Martinez*, the Eleventh Circuit considered the "significant risk" issue in an educational context which required it to harmonize the requirements of Section 504 with those of the Individuals with Disabilities Education Act.<sup>89</sup> Relying on evidence suggesting a "remote theoretical possibility" of transmission of the AIDS virus through tears, saliva and urine," the trial court had found that the appropriate educational placement for the plaintiff student was for her to be taught, until she was toilet-trained and no longer placed her fingers in her mouth, in a separate classroom with a glass window and sound system to allow her to see and hear her fellow students.<sup>90</sup> According to the Eleventh Circuit, the district court erred because it failed to make the following inquiry:

Applying the standards under these two statutes to the facts of this case, the trial court first had to determine the most appropriate educational placement . . . under the [Individuals with Disabilities Education Act]. Next, it had to consider whether [she] was otherwise qualified to be educated in this setting. If the trial court found that [she] was not otherwise qualified, it then had to consider whether reasonable accommodations would make her so. If, after reasonable accommodations, a *significant risk* of transmission would still exist, [she] would not be otherwise qualified.<sup>91</sup>

Rather than making this inquiry, and thus determining whether exclusion was justified by the existence of some unalterable "significant risk," the trial court simply relied on evidence of a "remote theoretical possibility" of transmission. The case therefore required remand because the trial court had "made no findings with respect to the overall risk of transmission from all bodily substances, including blood in the saliva, to which other children might be exposed in [this particular] classroom."<sup>92</sup>

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88 *Id.*

89 20 U.S.C. §§ 1400-1485 (1988 & Supp. IV 1992) (as amended).

90 *Martinez*, 861 F.2d. at 1504.

91 *Id.* at 1506 (citation omitted) (emphasis added); *See also* Thomas v. Atascadero Unified Sch. Dist., 662 F. Supp. 376 (C.D. Cal. 1986).

92 *Martinez*, 861 F.2d at 1506. On remand, the district court found that "[t]he possibility of transmission with respect to tears, saliva, and urine is remote and theoretical and does not rise to the 'significant' risk level that is required to bar [the plaintiff student] from the regular Trainable Mentally Handicapped classroom." *Martinez v. School Bd. of Hillsborough County*, 711 F. Supp. 1066, 1072 (M.D. Fla. 1989). An expert witness testified that the plaintiff student was more likely to die from a virus contracted at school

Finally, the Northern District of Illinois held in *Dolton* that a student with AIDS had demonstrated that he was both protected by Section 504 and "otherwise qualified" to participate in an ordinary school education program because, "[i]n this case, . . . there is no significant risk of transmission"—a point on which the court found "the consensus of medical authority [to be] overwhelming."<sup>93</sup> The *Dolton* court relied extensively on *Chalk*, and seemed not to think that the case presented any particularly close question. At the end of its opinion, however, the court struck an almost apologetic note more characteristic of the cases to follow: "Any public misperception associated with this particular student's reentry into the classroom should be reduced, if not removed altogether, by the court's conscientious attempt to protect the interests of all concerned."<sup>94</sup> More significant, the court did not simply order the student to be readmitted, but also ordered that he not engage in any contact sports, that he be examined each month by his personal physician, that he be examined each week by the school nurse, and that his identity be disclosed to all faculty and staff.<sup>95</sup> The court cited no record evidence to support the need for such measures, and it gave no explanation for imposing them.

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than she was to infect another child with HIV. *Id.* Based on this testimony, the school district argued that the plaintiff should be excluded from classes because the risk she faced far outweighed any benefit she would receive from attending school with other children. *Id.* at 1071. The court rejected this argument, noting that other immune suppressed children were permitted to attend classes and that the plaintiff student risked contracting deadly infections from other venues available to her without restriction, such as visiting the park or the mall, or staying home. *Id.* Based on this finding, the court ordered the defendant school district to allow the student to attend school without confining her to a separate classroom. The court did reinstate its previous requirement that "if there is a question of the advisability of [the plaintiff student] being in the classroom on a certain day, the school nurse should be consulted for an evaluation of either [her], or another child, if the danger may be an infection from another child to [her]." *Id.* at 1072.

93 *Dolton*, 694 F. Supp. at 445-46.

94 *Id.* at 449.

95 *Id.* See also Committee on Sports Medicine and Fitness, *Human Immunodeficiency Virus [Acquired Immunodeficiency Syndrome (AIDS) Virus] in the Athletic Setting*, 88 PEDIATRICS 640 (1991) (recommendations of the American Academy of Pediatrics as to the participation of students affected by HIV in competitive athletics).

### B. *The Second Wave*

The second wave is exemplified by five cases—*Leckelt v. Board of Commissioners of Hospital District No. 1*,<sup>96</sup> *Severino v. North Fort Myers Fire Control District*,<sup>97</sup> *Estate of Behringer v. Medical Center at Princeton*,<sup>98</sup> *Doe v. Washington University*,<sup>99</sup> and *Bradley v. University of Texas M.D. Anderson Cancer Center*.<sup>100</sup> These cases, in somewhat different ways, all reflect a fundamentally different approach to the “significant risk” issue.

In *Leckelt*, for example, the Fifth Circuit upheld the dismissal of a licensed practical nurse<sup>101</sup> who had been asked, solely because of his employer’s knowledge with respect to the nurse’s sexual preference and the death of his roommate from AIDS-related illnesses, to disclose his HIV status to the hospital where he worked. The court found that the hospital had not violated Section 504 when it terminated Leckelt, because it did so based on his refusal to produce his HIV test results, not because he was a person with HIV, and thus had not discriminated against him solely because of his handicap.<sup>102</sup> In addition, the court affirmed the district court’s “finding of fact” that “because Leckelt ‘would not allow defendants to conduct the inquiry necessary to protect patients, co-workers and plaintiff himself from any possible risk he may pose because of his particular situation, defendants had a reasonable belief that plaintiff was not “otherwise qualified” for

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96 909 F.2d 820 (5th Cir. 1990).

97 935 F.2d 1179 (11th Cir. 1991).

98 592 A.2d 1251 (N.J. Super. Ct. Law Div. 1991).

99 780 F. Supp. 628 (E.D. Mo. 1991).

100 3 F.3d 922 (5th Cir. 1993).

101 The *Glover* court had struck down a state mental health agency’s mandatory HIV-testing provision aimed at seven positions, including the position of LPN, on Fourth Amendment grounds. See *supra* note 83 and accompanying text. To analyze the extent of the similarities between *Glover* and *Leckelt*, one would wish to know not just the name given to the two positions, but also the respective job duties. It is noteworthy, however, that the *Leckelt* court, despite the obvious factual similarities between the two cases, considered the *Glover* decision only in a footnote attached to the penultimate paragraph of its 14-page opinion. *Leckelt*, 909 F.2d at 833 n.23.

102 The court reached this conclusion based on evidence that the hospital’s board had “discussed the possibility of termination, among other alternatives, if Leckelt tested seropositive for HIV antibodies, [but] no decision was ever made as to what measures would be taken in such a case.” *Id.* at 826.

employment at [the hospital]."<sup>103</sup> Moreover, based on the assumption that Leckelt was in fact seropositive, and despite the absence of any dispute as to his customary use of universal precautions and the absence of any regular duties within the standard definition of "invasive procedures," the court effectively concluded that the "significant risk" standard had been met. The court observed: "Even though the probability that a health care worker will transmit HIV to a patient may be extremely low and can be further minimized through the use of universal precautions, there is no cure for HIV or AIDS at this time, and the potential harm of HIV infection is extremely high."<sup>104</sup>

In *Severino*, the Eleventh Circuit upheld the dismissal of a firefighter who voluntarily had disclosed his seropositivity. The firefighter was discharged after he refused to accept modified job duties that were imposed upon him because of a department medical opinion to the effect that "rescue work, which was 90 per cent of the on-line firefighters' duties, could not be performed . . . without a risk of transmission of the AIDS virus."<sup>105</sup> Recognizing

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103 *Id.* at 827. The court of appeals seemed to perceive no difference between the question whether Leckelt was in fact "otherwise qualified" for the position, on the one hand, and the question whether it was "reasonable" for the hospital to "believe" that he was not "otherwise qualified," on the other hand. The statute posits only the former question, not the latter. *Cf. Colaizzi v. Walker*, 655 F.2d 828, 831 (7th Cir. 1981) (truth defense in due process case depends on truth of charges, not on good faith belief in truth of charges), *appeal after remand*, 812 F.2d 304 (7th Cir. 1987). In addition, it seems odd, to say the least, that the court was able to conclude that the hospital did not presume Leckelt to be seropositive, and thus could not be said to have discriminated against him solely by reason of his handicap, *Leckelt*, 909 F.2d at 826, while also taking the position that the hospital was entirely justified in indulging in that very presumption, in connection with its determination as to whether Leckelt was "otherwise qualified" for the position. *Id.* at 827.

104 *Id.* at 829. As the Fifth Circuit acknowledged, the hospital had not acted in the same way with respect to a female nurse who was thought to have been exposed to the virus in an occupational setting. The possible danger to clients and co-workers obviously was not thought to be sufficiently serious in that case to warrant her removal from duty until testing had been completed. *Id.* at 826-27. Finally, it should be noted that the Office for Civil Rights of the Department of Health and Human Services, in its own investigation of the *Leckelt* case, reached conclusions contrary to those reached by the district court (and affirmed by the court of appeals) on virtually every relevant issue presented in the case. Arthur S. Leonard, *Administration Repudiates Court Decision on HIV Testing*, LESBIAN/GAY L. NOTES 7 (Feb. 1990). The Fifth Circuit mentioned the administrative report only in a footnote granting the hospital's motion to strike it. *Leckelt*, 909 F.2d at 825 n.10.

105 *Severino*, 935 F.2d at 1182. Severino was assigned to "light duty," which consisted of maintaining fire hydrants, dispatch duty, running errands, and going to the dump. Severino, who was found by the trial judge to be an "aggressive, distrustful and a 'lawsuit promoting' person," found this work demeaning. *Id.* at 1180-81.



that medical knowledge "may have progressed ahead of the parties' awareness," the court nonetheless found that the fire department acted "reasonably" in reassigning Severino, and that it was his recalcitrant behavior in the face of that reassignment, rather than his seropositivity, that was responsible for his termination.<sup>106</sup> Thus, the court affirmed the trial court's determination that Severino was not discriminated against solely because of his handicap.<sup>107</sup>

Similarly, *Behringer* involved a physician who was both a medical staff member and a patient at Princeton Medical Center. The hospital used information which it acquired through the physician's status as a patient to make decisions with respect to his status as a staff member. In addition, hospital staff members apparently retailed information concerning Dr. Behringer's medical condition in the community, thereby destroying the medical practice which he maintained outside the hospital.<sup>108</sup> The New Jersey

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106 *Id.* at 1182. At the same time, however, it should be recognized that a mandatory testing program for firefighters was upheld in *Anonymous Fireman v. Willoughby*, 779 F. Supp. 402, 416-17 (N.D. Ohio 1991), on the ground that "medical evidence demonstrates that the risk of HIV transmission in the performance of the duties of firefighter paramedic is high." In that case, however, the challenge was predicated entirely upon constitutional, rather than statutory, grounds. In *Doe v. District of Columbia*, 796 F. Supp. 559 (D.D.C. 1992), the district court held that the District of Columbia Fire Department had violated the Rehabilitation Act when it withdrew an offer of employment in the case of a seropositive applicant for the position of firefighter. Based on expert testimony showing that the risk of transmission was "extremely remote" in this occupational setting, the court found "no measurable risk" that the applicant would transmit the virus to other firefighters or to the public, and therefore rejected the Fire Department's initial determination that the applicant was unfit for duty. *Id.* at 569.

107 *Severino*, 935 F.2d at 1182. Judge Kravitch strongly dissented, asserting that the "solely by reason of her or his handicap" standard should not be taken to mean that there can be no claim under the statute so long as "the employer can articulate any reason for discriminatory behavior other than handicap." *Id.* at 1183. *But see* *St. Mary's Honor Ctr. v. Hicks*, 113 S. Ct. 2742 (1993) (In a Title VII case, even if the factfinder rejects the employer's proffered reasons for firing an employee, the employee is not entitled to judgment as a matter of law; rather, the employee's presumption drops out of consideration once the employer meets her burden of production. The burden of persuasion always rests with the employee.)

108 Dr. Behringer tested positive for HIV antibodies on June 17, 1987. The treating physician, who was a social friend of Dr. Behringer and his companion, conveyed that information to his own wife even before he told Dr. Behringer about the diagnosis. *Estate of Behringer v. Medical Ctr. at Princeton*, 592 A.2d 1251, 1256 (N.J. Super. Ct. Law Div. 1991) The diagnosis was, in any event, quickly and widely retailed thereafter. Within hours of his discharge from the Medical Center, Dr. Behringer received numerous phone calls from well-wishers indicating a concern for his welfare but also demonstrating an awareness of his illness. Most of these callers were also members of the medical staff at the Medical Center. Other calls were received from friends in the community. Within days, similar calls were received from patients. *Id.* at 1256-57.

state court upheld Dr. Behringer's privacy claim, based on his status as a patient, but rejected the claims he pressed in his capacity as a member of the medical staff, holding that the New Jersey human rights law did not preclude a hospital from requiring a medical staff member with AIDS (1) to secure written informed consent from *all* his surgical patients, advising them of his HIV status, and (2) to refrain from performing any procedure which creates *any* risk of transmission of the virus to others. In place of the "significant risk" test, the court substituted a "reasonable probability of substantial harm" standard and shifted the question of significance from the risk analysis to the harm analysis. The court observed: "[W]here the ultimate harm is death, even the presence of a low risk of transmission or exposure justifies the adoption of a policy which precludes invasive procedures when there is 'any' risk of transmission."<sup>109</sup>

The *Washington University* court reached essentially the same conclusion, holding that a dental student with HIV could not be

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109 *Id.* at 1283. Three additional points should be made about the *Behringer* case. First, the court acknowledged that, at the time of trial (as opposed to the time of the decision), there was no reported instance of transmission from health care worker to patient, and that the recognized statistical risk of transmission, while admittedly small, was based on a statistical analysis that was flawed in several respects. *Id.* at 1279. The court observed: "While the debate will rage long into the future as to the quantifiable risk of HIV transmission from doctor to patient, there is little disagreement that a risk of transmission, however small, does exist." *Id.* at 1280. The court's approach, as to the conclusion which should be drawn from the absence of evidence, is obviously very different from that which characterized the *Chalk* decision. See *supra* notes 75-80 and accompanying text. In addition, of course, it is difficult to compare the risks of various procedures, as performed by physicians with different levels of skill, when one begins with such gross estimates. With respect to physicians with HIV, the American Medical Association has recommended that practice restrictions be imposed only after local review panels have reviewed and monitored their clinical competence and adherence to universal precautions. American Medical Association, HOUSE OF DELEGATES PROCEEDINGS 90, 97 (June 21-25, 1992). Florida has enacted a legislative program to manage the problem of health care workers with HIV, which includes a practice evaluation by members of the practitioner's profession. Fla. Stat. § 458.3315 (1993). Second, it should be recognized that the court in *Behringer* relied heavily on the doctrine of informed consent to reach the result that it did. *Behringer*, at 1279-83. See generally Nodzinski, *supra* note 58. It did so by adopting Larry Gostin's approach to significant risk: low risk of substantial harm. *Behringer*, at 1279. See also *supra* notes 45-46 and accompanying text. Third, the court adopted the more conservative approach of the hospital's expert witness, an orthopaedic surgeon who had served on AIDS-related committees, and rejected the testimony of plaintiff's expert witness, an epidemiologist. *Behringer* at 1263-66. Part of the failure of the significant risk test can be ascribed to the *Arline* Court's failure to recognize the potential for such "battles of the experts" when it called for judicial deference "to the reasonable medical judgments of public health officials." *School Bd. of Nassau County v. Arline*, 480 U.S. 273, 288 (1987).

deemed "otherwise qualified" under Section 504 because of the existence of *some* risk of transmission. That court, noting that the dispute turned on assessing the probability that the virus would be transmitted to a patient during clinical training, observed:

This area is at the heart of this country's debate surrounding HIV infected individuals, as there has been only limited study of the risk of HIV transmission from infected health-care workers to patients. Although since the filing of this lawsuit *a number of cases* have been publicized that indicate the realistic possibility of transmission of HIV from an infected health care worker to a patient, there is no nationwide consensus on the precise probability that an HIV-infected dental student will transmit HIV to a patient.<sup>110</sup>

The court further noted that the parties were in substantial agreement that the risk of transmission was "a low but existent risk, not now capable of precise measure."<sup>111</sup> Although the student claimed that the use of proper barrier techniques could remove even that risk, the court argued that "[t]his absolute is refuted in light of the Bergalis tragedy in which a Florida dentist infected five of his patients with the same virus/strain of AIDS that caused the dentist's death."<sup>112</sup> The court acknowledged that the risk of transmission might well be minimal, but concluded that the student could not be deemed "otherwise qualified" because "there is still *some risk* of transmission."<sup>113</sup>

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110 *Doe v. Washington Univ.*, 780 F. Supp. at 628, 632 (E.D. Mo. 1991) (emphasis added).

111 *Id.* at 633. Given the agreement over the "low but existent risk" and a Supreme Court test that requires an inquiry into the *significance* of a risk, it may seem peculiar that the court would grant the defendant's motion for summary judgment; whether the existence of "some risk" rises to the level of "significant risk" would seem to be precisely the type of question that could lead a reasonable juror to decide either way. On the other hand, given the agreement over the low level of the risk, it might be argued that the plaintiff was entitled to summary judgment. See *Daubert v. Merrell Dow Pharmaceuticals*, 113 S. Ct. 2786, 2798 (1993) (Even in a case that turns on questions of scientific evidence, if a party does not put forth even a "scintilla of evidence" showing a significant risk, "the court remains free to direct a judgment . . . and likewise to grant summary judgment.").

112 *Washington Univ.*, 780 F. Supp. at 633.

113 *Id.* at 632-33 (emphasis added by the court). One would have to agree that dental students are distinguishable from other students in the sense that the virus actually has been transmitted through dental procedures. That fact, however, would seem to provide the starting point for analyzing the issue under the "significant risk" test, rather than the conclusion. When the *Washington University* court was writing in late 1991, Dr. Acer's patients were the only cluster of cases in which transmission from health care worker to patient had occurred. While the number of patients in that cluster has now

Finally, the Fifth Circuit in *Bradley* decided that a surgical technician with HIV was not "otherwise qualified" for the position he held because "[t]he nature of Bradley's work as a surgical technologist creates *some* risk."<sup>114</sup> Acknowledging that "the risk is small," the court nonetheless concluded that "it is not so low as to nullify the catastrophic consequences of an accident."<sup>115</sup> Thus, "[a] *cognizable* risk of permanent duration with lethal consequences suffices to make a surgical technician with Bradley's responsibilities not 'otherwise qualified.'"<sup>116</sup>

### C. *The Cases In Perspective*

In *Arline*, the Supreme Court articulated the problem as that of striking an appropriate balance, so that Section 504 could "achieve its goal of protecting handicapped individuals from deprivations based on prejudice, stereotypes, or unfounded fear, while giving appropriate weight to such legitimate concerns . . . as avoiding exposing others to significant health and safety risks."<sup>117</sup> As we have seen, that remains a pretty fair statement of the problem, as Congress and the Supreme Court have conceived it. Certainly, neither the Civil Rights Restoration Act nor the Americans with Disabilities Act of 1990 has redefined the problem at a lower,

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increased to six, no other clusters have yet been identified. Moreover, very little is actually known about Dr. Acer's infection control practices, and what is known has led most experts to believe that those practices were substandard at best. See NATIONAL COMM'N ON ACQUIRED IMMUNE DEFICIENCY SYNDROME, PREVENTING HIV TRANSMISSION IN HEALTH CARE SETTING 12 (1992). Certainly, there is no basis for asserting that the case of Dr. Acer demonstrates the insufficiency of "proper barrier techniques." Indeed, the *Washington University* court's conviction as to the power of its evidence is belied by the fact that its opinion relies on the Acer cluster on several different occasions, each time giving the impression that it is discussing yet another confirming case, rather than merely repeating the same example. *Washington Univ.*, 780 F. Supp. at 633 n.8, 634.

114 *Bradley v. University of Texas M.D. Anderson Cancer Ctr.*, 3 F.3d 922, 924 (5th Cir. 1993) (emphasis added). The court described the nature of Bradley's work:

He works in the sterile field within which surgery is performed, often coming within inches of open wounds and placing his hand in the body cavity roughly once a day. His duties include handing the handles of instruments to surgeons while he holds the sharp end, and he admits that accidents occur despite care. Bradley reports suffering five needle puncture wounds while on the job.

*Id.*

115 *Id.* at 924-25. The court collapsed the risks into one. It is appropriate, however, to note that the risk of an accident is low, and the risk that transmission will occur as a result of an accident is also low.

116 *Id.* (emphasis added).

117 *School Bd. of Nassau County, Florida v. Arline*, 480 U.S. 273, 287 (1987) (footnote omitted).

more useful level of detail; neither enactment contains any legislative guidance for transforming those factors into judicial decisions in particular cases. From the language of the Americans with Disabilities Act, for example, we know that someone will not be deemed "otherwise qualified" if she constitutes a "direct threat" to others, in the sense of presenting a "significant risk to the health or safety of others that cannot be eliminated by reasonable accommodation."<sup>118</sup> That is a fine statement of principle, but it provides questionable guidance to a judge who must decide, for example, whether a "significant risk" to the health or safety of others might be created if she were to order that a particular dental student with HIV be permitted to continue his clinical training. If a risk is created in that way, the judge doubtless will feel responsible for the consequences. That, of course, points to another problem: the manner in which scientific uncertainty is treated. Although scientific uncertainty is obviously an important consideration in these cases, it is simply bundled together with generic burdens of proof. There is no special default rule with respect to scientific uncertainty. Under the law expounded in these cases, there is no difference between a party's failure to produce scientific evidence which does not exist, on the one hand, and a party's failure to produce a witness within her control. In either case, an adverse inference will be drawn against the party who failed to sustain her burden.<sup>119</sup>

One might well have expected to see further elaboration of the "significant risk" test through common law development by the lower courts.<sup>120</sup> As we have seen, however, that is not the case.

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118 42 U.S.C. § 12111(3) (Supp. III 1991). See also 42 U.S.C. § 12113 (Supp. III 1991).

119 See generally Howard A. Latin, *The Feasibility of Occupational Health Standards: An Essay on Legal Decisionmaking Under Uncertainty*, 78 NW. U. L. REV. 583 (1983) [hereinafter, Latin, *The Feasibility of Occupational Health Standards*]. Latin argues that the type of uncertainty involved should drive the assignment of the burden of proof. Otherwise, the assignment of the burden will be grounded in general rules, and the courts will be ignoring: (1) Congress' hierarchy of goals under the relevant statute; (2) the nature of the facts and the specific type of uncertainty that arises under those facts; (3) the ability of the parties to be rid of some of the uncertainties; (4) the preferred legal outcome when the uncertainties cannot be answered; and (5) the consequences if an incorrect decision is made. *Id.* at 585, 603. In Latin's view, a purely procedural rule will suffice only when the court is engaged in a purely adjudicatory, as opposed to policymaking, proceeding. *Id.* at 590.

120 One might also have anticipated a refinement of the reasonable accommodation analysis, but that too has not occurred. For instance, the fire department offered Severino "light duty," and the court called this an accommodation. *Severino v. North Fort Myers Fire Control Dist.*, 935 F.2d 1179, 1182 (11th Cir. 1991) ("The modified du-

Instead of decisions exploring and clarifying the meaning of "significant risk" in various circumstances, we find decisions redefining and constricting the test, so that the benchmark has become the existence of *any* risk rather than the existence of a *significant* risk.<sup>121</sup> Thus, the *Dolton* court purported to follow *Chalk* and found that the student's presence in the classroom presented no "significant risk," but then proceeded, without any explanation (apart from a perceived need to avoid "public misperception"), to frame an equitable decree which imposed on the student conditions which had no obvious connection to that finding.<sup>122</sup> Moreover, while the courts have repeatedly invoked "significant risk" as the controlling test, they also have felt compelled to emphasize that the actual risk of transmission in a particular situation could be characterized, as a factual matter, as negligible, close to zero, or "trivial to the point of non-existence."<sup>123</sup> In this way, a mere factual circumstance seems to have been transformed into a necessary condition, and thus into a controlling legal standard. What was factually fortuitous has become legally decisive. Thus, the

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ties were assigned as an accommodation to Severino whose health status enabled him to continue working with some restrictions to reduce the risk to his safety and the safety of others."). This "accommodation" is problematic for two reasons. First, Severino always was physically capable of performing the duties of a firefighter. *Id.* at 1185 n.4 (Kravitch, J., dissenting) (testimony of the fire chief). Even the court recognized that the reassignment violated the federal regulations interpreting and enforcing the Rehabilitation Act because it segregated him based solely on his serostatus. *Id.* at 1181 n.2. Second, it was not an accommodation aimed at allowing Severino to continue as a firefighter, a position for which he was trained and qualified; rather, as the court conceded, it was an accommodation aimed at allowing him merely to continue working. However, the *Chalk* court, in striking down an "accommodation" that transformed a teacher into an administrator, noted that the reassignment was "'distasteful' to Chalk, involve[d] no student contact, and [did] not utilize his skills, training, or experience. Such non-monetary deprivation is a substantial injury which the court was required to consider." *Chalk v. United States Dist. Court Cent. Dist. of Cal.*, 840 F.2d 701, 709 (9th Cir. 1988). Surely this statement applies with equal force to Severino.

121 One interpretation would be to suggest that judges have modified the nature of the question because they are being asked to answer a value-laden and polycentric question through an adjudicatory proceeding, and they cannot change the rules of adjudication to accommodate the nature of the question. See generally Lon K. Fuller, *The Forms and Limits of Adjudication*, 92 HARV. L. REV. 353 (1978). But see *infra* note 133 and accompanying text.

122 See *supra* notes 94-95 and accompanying text.

123 See *Glover v. Eastern Neb. Community Office of Retardation*, 686 F. Supp. 243, 250 (D. Neb. 1988), *aff'd*, 867 F.2d 461 (8th Cir.), *cert. denied*, 493 U.S. 932 (1989); see also Charles D. Curran, Note, *Mandatory Testing of Public Employees for the Human Immunodeficiency Virus: The Fourth Amendment and Medical Reasonableness*, 90 COLUM. L. REV. 720, 752-55 (1990).

court concluded in *Washington University* that the plaintiff dental student was not "otherwise qualified" under Section 504 because there was "some risk of transmission."<sup>124</sup> In *Leckelt* and *Behringer*, differential treatment was upheld on the basis of an "extremely low" risk or the presence of "any" risk at all.<sup>125</sup>

This doctrinal shift is important. It seems obvious that "significant risk" and "some risk" should not mean the same thing. It also seems obvious that the two concepts are qualitatively, as well as quantitatively, different. To determine the existence of "some risk" would not seem to require the same kind of analysis that is required to determine the existence of a "significant risk." The latter operation does not simply require more precise calipers; it requires instrumentation of a different kind. At the most superficial level, the concept of "significant risk" seems to contain an evaluative or normative element, whereas the concept of "risk" appears to be more purely factual.<sup>126</sup>

On the one hand, the movement from "significant risk" to "some risk" may reflect a basic, but unachievable human desire to know with certainty and avoid risk categorically. On the other hand, it also reflects a fundamental judicial disquiet concerning

124 See *supra* note 113 and accompanying text.

125 In the various areas in which the use of risk assessments is required, the "no risk" standard is extremely unusual. For example, the courts have found that the Delaney Clause of the Food, Drug and Cosmetic Act requires the Commissioner to use a "no risk" standard, admitting of no *de minimis* exception. 21 U.S.C. § 348(c)(3)(A) (1988). See, e.g., *Public Citizen v. Young*, 831 F.2d 1108, 1109 (D.C. Cir. 1987), cert. denied, 485 U.S. 1006 (1988). See also Richard A. Merrill, *FDA's Implementation of the Delaney Clause: Repudiation of Congressional Choice or Reasoned Adaptation to Scientific Progress?*, 5 YALE J. ON REG. 1 (1988). Similarly, the Solid Waste Disposal Act mandates "no migration of hazardous constituents." 42 U.S.C. §6924(d)(1) (1988). See also Erik H. Corwin, Note, *Congressional Limits on Agency Discretion: A Case Study of the Hazardous and Solid Waste Amendments of 1984*, 29 HARV. J. ON LEGIS. 517, 534-36 (1992). However, the courts have given no similarly absolute construction to Section 6(b)(5) of the Occupational Health and Safety Act, 29 U.S.C. § 655(b)(5) (1988) which has language requiring the Secretary to issue a "standard which most adequately assures, to the extent feasible, on the basis of best available evidence, that no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure to the hazard dealt with by such standard for the period of his working life." *Id.* (emphasis added). See *Industrial Union Dep't, AFL-CIO v. American Petroleum Inst.*, 448 U.S. 607, 612 (1980) (quoting statutory language). See also SUNSTEIN, *supra* note 27, at 194-95. More generally, Sheila Jasanoff has characterized recent developments in American regulatory policy as "a many-sided retreat from the concept of zero risk." Sheila Jasanoff, *American Exceptionalism and the Political Acknowledgment of Risk*, 119 DAEDALUS 61, 71 (Fall 1990).

126 Some would take the position, of course, that even the question of risk itself, uncomplicated by any question of significance, requires something more than a completely factual inquiry. See *infra* notes 140-51 and accompanying text.

the meaning of "significant" or "acceptable" risk, and the means by which courts are meant to evaluate it. Courts apparently recognize that some fears of transmission may be more justifiable than others but are not comfortable with the means which they have for distinguishing among risks of transmission, and for determining which risks should be deemed acceptable and which should not. It is not surprising, therefore, that a reasonably responsible judge might choose, when confronted with this unstructured and open-ended mandate, acting as a chancellor in an emergency situation, and mindful of the practical consequences that might follow from an erroneous decision, to err on the side of underenforcing the rights which Congress presumably intended to create by enacting the statute.<sup>127</sup>

#### IV. THE NATURE OF RISKS AND SIGNIFICANT RISKS

One is tempted to seek an explanation for the present state of the case law in Justice Jackson's observation that there are certain kinds of cases "that a judge is likely to leave by the same door through which he enters."<sup>128</sup> But more is involved here than powerful preconceptions, whether acknowledged or not. At a more fundamental level, the case law demonstrates that the nature and quality of the answer one receives necessarily depends upon the nature and quality of the question one asks. The right answer does not often follow from the wrong question.<sup>129</sup> As a public policy matter, one certainly must understand the nature and char-

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127 Notwithstanding the usual difficulties of ascertaining congressional "intent," it seems permissible here to assert that Congress intended the creation of these "rights," particularly in view of Congress's repeated reenactments of the *Arline* test. See *supra* note 6. Certainly, Congress has evinced an intent that these issues should be resolved on a case-by-case basis, rather than through the type of categorical rule which the more recent cases evidence. Because Congress simply has not considered the issue which concerns us here, however, it also has not wrestled with the problem of formulating an appropriate default principle as to who should benefit from medical uncertainty.

128 See *Dalehite v. United States*, 346 U.S. 15, 49 (1953) (Jackson, J., dissenting). Justice Jackson continued the thought by quoting Justice Cardozo:

As we have been told by a master of our craft, "Some theory of liability, some philosophy of the end to be served by tightening or enlarging the circle of rights and remedies, is at the root of any decision in novel situations when analogies are equivocal and precedents are silent."

*Id.* (emphasis in original) (quoting BENJAMIN N. CARDOZO, *THE GROWTH OF THE LAW* 102 (1924)).

129 The framing doctrine offers the insight that an answer may be suggested by the form in which the question is presented. Clayton P. Gillette & James E. Krier, *Risk, Courts and Agencies*, 138 U. PA. L. REV. 1027, 1091-93 (1990).



acter of the question before one can begin to speculate about an appropriate methodology to be used in answering the question, let alone the qualifications one would like to see in an appropriate decisionmaker.

In this sense, the problem here may well stem either from asking the wrong question or from not understanding the nature of the question.<sup>130</sup> If courts have treated the "significant risk" test as raising only factual issues, it is not surprising that they have failed to achieve useful answers. One need not take a position on the question whether courts should (or can) avoid making policy decisions to acknowledge that courts are not likely to develop a coherent body of case law by making "factual" determinations in response to questions which involve fundamental issues of public policy. That point was made in a graphic way more than 70 years ago, when Gerard C. Henderson sought to explain the confusing state of railroad rate regulation in terms of the law's attempt to treat the central concept of "fair value" as a factual, rather than normative, concept.<sup>131</sup> The ultimate objective was to determine a "reasonable" rate of return, based on the "fair value" of the railroad's property.<sup>132</sup> Locating a fair or "reasonable" rate of return did not by itself present a problem for Henderson, because that "could easily be ascertained by reference to current rates of profit."<sup>133</sup> For Henderson, the problem consisted in ascertaining

130 GEORGE F. KENNAN, *AROUND THE CRAGGED HILL: A PERSONAL AND POLITICAL PHILOSOPHY* 45 n.4 (1993) ("I am reminded of General George Marshall's injunction to those of us who worked under him: 'Don't fight the problem.' By this he meant, I am sure; Identify those terms of the problem that are not 'given'—that are susceptible to being affected by your action; address your efforts to them and do not waste time or energy struggling against those that constitute the very structure of the problem."). See also Ronald A. Heifetz and Riley M. Sinder, *Political Leadership: Managing The Public's Problem Solving* 179, 197, in *THE POWER OF PUBLIC IDEAS* (Robert B. Reich ed., 1988) ("Ways to test the parameters of the situation must be developed and implemented. Problems have to be distinguished from conditions. . . . [P]roblems are those aspects of a situation that potentially can be resolved, while conditions are those aspects that are probably unchangeable").

131 Gerard C. Henderson, *Railway Valuation and The Courts*, 33 *HARV. L. REV.* 902 (1920). See also, MORTON J. HORWITZ, *THE TRANSFORMATION OF AMERICAN LAW 1870-1960: THE CRISIS OF LEGAL ORTHODOXY* 210 (1992) ("Twentieth-century American social thought has been preoccupied with finding a method that can either determine values objectively or avoid the value question entirely.").

132 Hendersen, *id.* at 908-10.

133 Henderson further wrote:

A court acting judicially ascertains facts, and applies to them rules derived by certain processes of reasoning from established principles or precedents. A public body with legislative powers ascertains facts, perhaps, but it applies to these facts

the "fair value" of the railroad. The law purported to treat the "fair value" of the railroad as "a pure question of fact," but failed to specify any rule of valuation, whether based on historical costs, reproduction costs, or some other criterion.<sup>134</sup> In the absence of such a rule, the determination which the courts were required to make could not be deemed purely factual. It was not something to be "scientifically ascertained by observation and induction," but "conceal[ed] a process of arbitrary decision based on consideration of policy . . . ."<sup>135</sup>

In Henderson's view, courts were doomed to failure when they attempted to ascertain "fair value" as a matter of fact. In the face of a complex question of public policy, courts could not succeed by holding to the view that "there is a fact which can be discovered, if we are only persistent enough in our search for it, and which, once it is found, will provide a mathematical solution of all rate-making problems . . . ."<sup>136</sup> The search for that dispositive fact was like the quest for the holy grail. The nature of the problem itself demanded a different mode of resolution. Thus, "the formulation of principles and weighing of policies should be entrusted to an administrative body, acting under general instructions from Congress, and frankly and honestly basing its conclusions upon considerations of public policy, rather than to a court, acting upon principles which bear a delusive semblance of juristic precision, but which from the nature of the case can be no more than inarticulate expressions of the political or economic views of

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its own sense of what is in the public interest. Now the word 'reasonable' carries with it a large suggestion of legislative discretion. No process of juristic reasoning can point with certainty to the precise limit beyond which a rate ceases to be reasonable.

*Id.* at 910. Of course, the process of adjudication is not quite so simple as Henderson envisioned it. *See, e.g.,* EDWARD H. LEVI, AN INTRODUCTION TO LEGAL REASONING 3 (1948) ("[I]t appears that the kind of reasoning involved in the legal process is one in which the classification changes as the classification is made. The rules change as the rules are applied."); Owen M. Fiss, *Foreword: The Forms of Justice*, 93 HARV. L. REV. 1, 2 (1979) ("The structural suit is one in which a judge, confronting a state bureaucracy over values of constitutional dimension, undertakes to restructure the organization to eliminate a threat to those values posed by the present institutional arrangements. The injunction is the means by which these reconstitutive directives are transmitted."). *See also* Owen M. Fiss, *The Social and Political Foundations of Adjudication*, 6 LAW & HUM. BEHAV. 121 (1982).

134 Henderson, *supra* note 131, at 910-11.

135 *Id.* at 1055.

136 *Id.* at 912.

the judges."<sup>137</sup>

The standard formulation of the "significant risk" test represents a similar attempt to fit normative pegs into factual holes, which is captured by Senator Hatch's plea during the foodhandlers portion of the debate on the Americans with Disabilities Act: "[L]et us believe in science, and let us let the best science tell us what is right and what is wrong."<sup>138</sup> Or, as Senator Hatch also put it, "Science rules."<sup>139</sup> As was the case with the "fair value" of railroads, the law also treats the concept of "significant risk" as if it involved only factual matters, capable of objective resolution. The aptness of that characterization in this context is debatable for at least two reasons. First, the supposed neutrality of science has been subject to sustained attack in recent years, and no attempt to deal with issues of "significant risk" can be wholly indifferent to that debate. Thus, some philosophers of science argue that claims to objectivity are exaggerated because the scientific process necessarily requires the making of value judgments,

137 *Id.* at 1056-1057. Another way of characterizing the problem, perhaps, is to say that the test exists at a level of generality wholly different from that at which the problem necessarily will be presented to the decisionmaker, who, in turn, has been provided with no articulated methodology or criteria for moving from one level to the other. Although Henderson's analysis of the problem seems timeless in its lucidity, his solution reflects assumptions about the administrative agency's claims to authority which are somewhat dated. See generally Richard B. Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1669 (1975) (arguing that the traditional justifications for administrative power, which call for agencies to be mere executors of a legislative mandate and thus of the popular will, do not carry the day because the agencies have failed to protect liberty and property interests in this era of overblown government; nor have they always implemented legislative directives in a way that protects the public interest). At the same time, Henderson's views of adjudication also are questionable. Courts have proved much more agile in dealing with policy questions than Henderson's model would allow. See, e.g., Abram Chayes, *The Role of the Judge in Public Law Litigation*, 89 HARV. L. REV. 1281 (1976); Fiss, *supra* note 133.

138 136 CONG. REC. S9538 (daily ed. July 11, 1990) (statement of Sen. Hatch). It is Senator Hatch's choice of words, rather than his views on the particular issue of foodhandlers, that is striking. Despite the absence of any documented scientific basis for concern, the "problem" of foodhandlers took on mythic proportions during the debate on the Americans with Disabilities Act. See 136 CONG. REC. H2478 (daily ed. May 17, 1990) (Chapman amendment introduced); *Id.* at H2478-2484 (House debate); 136 Cong. Rec. S7436-50 (daily ed. June 6, 1990) (Senate debate); 136 Cong. Rec. S9532-56 (daily ed. July 11, 1990) (Hatch amendment introduced and debated); 136 CONG. REC. H4619-30 (daily ed. July 12, 1990) (House debate). See 42 U.S.C. § 12113(d) (Supp. III 1991) (codifying the foodhandling provision).

139 136 CONG. REC. S9533 (daily ed. July 11, 1990) (statement of Sen. Hatch). Compare Jasanoff, *American Exceptionalism*, *supra* note 125, at 75 ("Because of scientific pluralism, the prescription to 'consult the experts and do as they say' has relatively little meaning in the context of American risk politics.").

and scientific conclusions necessarily remain hypotheses, subject to revision. In this sense, questions of risk cannot be seen as purely factual questions. There are limits to what we can know and say about risks. Whether we think that those limits are themselves significant depends on metaphysical and epistemological judgments which lay well beyond the scope of this essay.<sup>140</sup> Second, and more important, the question whether a risk is "significant" necessarily presents a normative, rather than a factual inquiry. Although the second point is dispositive for our purposes, both points warrant some attention here. In addition, we will consider some implications for decisionmaking which flow from the nature of the "significant risk" test.

### A. *Risks and Their Measurement*

The standard formulation of the "significant risk" test, which assumes that the identification of a "significant risk" involves nothing more than an exercise in fact-finding, is indebted to the philosophical position commonly called "naive positivism."<sup>141</sup> That pos-

140 Philip Kitcher has written:

Before the early 1960s, almost all philosophers took the rationality of science for granted. So prevalent was the notion that science is the epitome of human rationality that explicit announcement of allegiance to it was largely confined to popular lectures, introductory books, or preambles to more serious epistemological work. To account for this admirable feature of science it was presupposed that scientists tacitly know methodological rules (jointly comprising 'scientific method') which are used to appraise newly introduced hypotheses and theories . . . . [We now recognize that] rationality and justification are not simple matters of logical connection among beliefs . . . . Whether or not people are rational in their beliefs depends not simply on what beliefs they hold or how the propositions they believe are logically connected, but also on how their beliefs are *psychologically* connected.

PHILIP KITCHER, *THE ADVANCEMENT OF SCIENCE: SCIENCE WITHOUT LEGEND, OBJECTIVITY WITHOUT ILLUSIONS* 178, 183-84 (1993) (footnotes omitted) (emphasis in original).

141 The *ENCYCLOPEDIA OF PHILOSOPHY* contains a general, but useful account of positivism:

The characteristic theses of positivism are that science is the only valid knowledge and facts the only possible objects of knowledge; that philosophy does not possess a method different from science; and that the task of philosophy is to find the general principles common to all the sciences and to use these principles as guides to human conduct and as the basis of social organization. Positivism, consequently, denies the existence or intelligibility of forces or substances that go beyond facts and the laws ascertained by science. It opposes any kind of metaphysics and, in general, any procedure of investigation that is not reducible to scientific method.

Nicola Abbagnano, *Positivism*, in 6 *THE ENCYCLOPEDIA OF PHILOSOPHY* 414, 414 (Paul

its a dichotomy between facts and values, wherein facts are the only objects of knowledge, and knowledge claims must be empirically confirmable.<sup>142</sup> The "significant risk" test therefore assumes

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Edwards ed. & Nino Langiulli trans., 1967). This view presents the scientist, as Richard Rudner wrote 40 years ago, as "one who is cold-blooded, emotionless, impersonal, and passive, mirroring the world perfectly in the highly polished lenses of his steel-rimmed glasses . . ." Richard Rudner, *Remarks on Value Judgments in Scientific Validation*, 79 THE SCI. MONTHLY 151, 153 (1954). According to this view, one can ascertain "the facts" without recourse to value judgments, and "the facts," in turn, can dictate a proper course of action, again without the mediation of any value judgments or choices. Philip Kitcher has described this view as "Legend":

Variants of Legend often disagreed, sometimes passionately, on details of method, but all concurred on some essential points. There are objective canons of evaluation of scientific claims; by and large, scientists (at least since the seventeenth century) have been tacitly aware of these canons and have applied them in assessing novel or controversial ideas; methodologists should articulate the canons, thus helping to forestall possible misapplications and to extend the scope of scientific method into areas where human inquiry typically fathers; in short, science is a 'clearing of rationality in a jungle of muddle, prejudice, and superstition.'

KITCHER, *supra* note 140, at 3-4. In Kitcher's view, the extravagance of these claims are at least partially responsible for the equally extravagant, contrary claims associated with the sociological critique. *See id.* at 150-69. *See also* DOUGLAS, RISK AND BLAME, *supra* note 26, at 11:

Contemporary risk analysis started out by bundling the forensic uses of risk out of sight. When I tried to engage established risk analysts in conversation I soon gathered that to emphasize these dubious uses of risk is perverse, a dirty way of talking about a clean scientific subject . . . [T]hey do not wish to be politically biased: this is important for their clientele. To avoid the charge of bias, they exclude the whole subject of politics and morals.

142 K.S. Shrader-Frechette, *Reductionist Approaches to Risk*, in ACCEPTABLE EVIDENCE: SCIENCE AND VALUES IN RISK MANAGEMENT 218, 219, 245 n.2 (Deborah G. May & Rachelle D. Hollander eds., 1991) [hereinafter, Shrader-Frechette, *Reductionist Approaches to Risk*]. *See also* BERTRAND RUSSELL, RELIGION AND SCIENCE 238, 243 (1961) ("Since no way can even be imagined for deciding a difference as to values, the conclusion is forced upon us that the difference is one of tastes, not one as to any objective truth . . . [W]hile it is true that science cannot decide questions of value, that is because they cannot be intellectually decided at all, and lie outside the realm of truth and falsehood. Whatever knowledge is attainable, must be attained by scientific methods; and what science cannot discover, mankind cannot know."); ALBERT EINSTEIN, OUT OF MY LATER YEARS 12 (1950) ("I know that it is a hopeless undertaking to debate about fundamental value judgments. For instance, if someone approves, as a goal, the extirpation of the human race from the earth, one cannot refute such a viewpoint on rational grounds. But if there is agreement on certain goals and values, one can argue rationally about the means by which these objectives may be obtained.").

In Shrader-Frechette's view, the naive positivist's requirement of empirical confirmability would bring science to a halt because scientists would be unable to decide on criteria for choosing a theory, gathering and interpreting data, or rejecting hypotheses. "Such judgments could not be empirically confirmed because each of them relies on at least one categorical judgment of value, for example, an assumption about the prima facie importance of some criterion for choosing a theory or hypothesis." Shrader-

that risks can be identified, described, and quantified on objective grounds, without recourse to normative considerations or judgments. In other words, a scientist is capable, based on observations and induction, of reliably quantifying the risk of transmitting HIV and determining whether that risk is "significant." This "principle of complete neutrality" assumes that one can make and rank "risk estimates [which] . . . completely exclude normative (ethical and methodological) components."<sup>143</sup> As a practical matter, these claims to neutrality carry powerful implications; they tend to marginalize public opinion, indulging the assumption that "lay estimates of risk are mere 'perceptions' whereas expert analyses are 'objective.'"<sup>144</sup>

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Frechette, *Reductionist Approaches to Risk*, *supra*, at 233-34. The naive positivist view depends upon a belief in the fact-value dichotomy, the validity of which is open to question for several reasons, including its basic incompatibility "with the formulation of any scientific theory or analysis to explain causal connections among phenomena." *Id.* at 234.

143 K.S. SHRADER-FRECHETTE, *RISK AND RATIONALITY: PHILOSOPHICAL FOUNDATIONS FOR POPULIST REFORMS* 39 (1991) [hereinafter, SHRADER-FRECHETTE, *RISK AND RATIONALITY*]. See MICHAEL OAKESHOTT, *RATIONALISM IN POLITICS AND OTHER ESSAYS* 13 (rev. ed. 1991) ("The natural scientist will certainly make use of the rules of observation and verification that belong to his technique, but these techniques remain only one of the components of his knowledge; advance in scientific discovery was never achieved merely by following the rules."); LESZEK KOLAKOWSKI, *MODERNITY ON ENDLESS TRIAL* 19 (1990) ("There is no abandoning of judgment; what we call the spirit of research is a cultural attitude, one peculiar to Western civilization and its hierarchy of values. We may proclaim and defend the ideals of tolerance and criticism, but we may not claim that these are neutral ideals, free from normative assumptions."); Sandra Harding, *After the Neutrality Ideal: Science, Politics, and "Strong Objectivity,"* 59 *SOC. RES.* 567, 575 (1992) ("what the sciences actually observe is not bare nature but always only nature-as-an-object-of-knowledge—which is always already fully encultured") (footnote omitted).

The principle of complete neutrality may also be compromised by biases and contextual values. The former, which are distortions introduced through such things as the deliberate omission or misrepresentation of data, are minimized through peer review and the repetition of controlled experiments. SHRADER-FRECHETTE, *RISK AND RATIONALITY*, *supra*, at 40. By the term contextual values, Shrader-Frechette means all of the personal, social, cultural, and philosophical emphases which permeate the judgments of scientists and risk assessors. Contextual values fill gaps in our otherwise imperfect knowledge. "One reason why contextual values have played such a large role in many areas of scientific activity and risk assessment is that any research is hampered by some type of incomplete information. Because of this gap, contextual values often determine scientific procedures." *Id.*

144 SHRADER-FRECHETTE, *RISK AND RATIONALITY*, *supra* note 143 at 31. "The naive positivists attempt to discredit citizens by alleging that they are ignorant of the science and mathematics essential to hazard evaluation and by assuming that technical expertise, alone, is sufficient for rational risk assessment. The relativists attempt to discredit citizens by alleging that their faulty attitudes toward risk arise because they are victims of a biased 'sectarian' social framework." Shrader-Frechette, *Reductionist Approaches to Risk*, *supra* note 142, at 219.

Many philosophers of science would reject the foregoing view of science on the ground that value judgments are unavoidable and science is more complex than the naive positivist view admits. Thus, Kristin Shrader-Frechette has written:

[S]cientists and risk assessors make constitutive value judgments whenever they follow one methodological rule rather than another. Even collecting data requires use of constitutive value judgments because one must make evaluative assumptions about what data to collect and what to ignore, how to interpret the data, and how to avoid erroneous interpretations. Constitutive value judgments are required, even in pure science, because perception does not provide us with pure facts; knowledge, beliefs, values, and theories we already hold play a key part in determining what we perceive. The high-energy physicist, for example, does not count all the marks on his cloud-chamber photographs as observations of pions, but only those streaks that his *theories* indicate are pions . . . . All this suggests that methodological values unavoidably structure experiments, determine the meaning of observations, and influence both science and risk assessment.<sup>145</sup>

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145 SHRADER-FRECHETTE, *RISK AND RATIONALITY*, *supra* note 143, at 41 (footnote omitted). Richard Rudner, while acknowledging the importance of pursuing objectivity, has argued that "refus[ing] to pay attention to the value decisions that *must* be made, to make them intuitively, unconsciously, and haphazardly, is to leave an essential aspect of scientific method scientifically out of control." Rudner, *supra* note 141, at 153. In doing so, we may also give free rein to the values of others. See ROBERT PROCTOR, *RACIAL HYGIENE: MEDICINE UNDER THE NAZIS* 290-93 (1988) (arguing that the Nazis, by "de-politicizing" science and other areas of culture, reduced problems of vital human interest to mere scientific problems, conceived in the narrowest, most reductionist terms, destroyed "the possibility of political debate and controversy," and thus permitted them to pursue politics in the name of science). See also *Estate of Behringer v. Medical Ctr. at Princeton*, 592 A.2d 1251, 1265 n.6 (N.J. Super. 1991) ("While their conclusions differed about interpretation of terms such as 'significant risk,' both [medical experts] relied on the same statistical information. The conclusions of the parties were in dispute, but these conclusions were simply matters of interpretation of information."); Gillette & Krier, *supra* note 129, at 1070-74 (When experts are not given death estimates for a certain risk, they resort to many of the same principles that the lay public considers in determining the risk, including "heuristics" or rules of thumb); Donald T. Hornstein, *Reclaiming Environmental Law: A Normative Critique of Comparative Risk Analysis*, 92 COLUM. L. REV. 562, 617-18 (1992) [hereinafter, Hornstein, *Reclaiming Environmental Law*] (the experts also search for a baseline (a mortality rate or morbidity count), thereby falling prey to the same framing effects as the lay public).

In Philip Kitcher's view, scientific progress results from changes in "consensus practice," which, in turn, result from changes in individual practice. Changes in individual practice result not only from encounters with nature, but also from conversations with peers: "The encounters with nature involve the impinging of stimuli on cognitive systems whose prior states play an important role in determining the new state of the system. Thus there is no suggestion that experience is raw or unbiased. Those prior states are

We must also recognize that scientific "truth" is provisional by definition and always subject to revision; it would not be science if it were not open to the claims of new knowledge. In addition, some examples of scientific knowledge must be deemed more provisional than others, and thus more open to question, simply because some areas have been subject to more or less study, and to a greater or lesser effect, than others. In either event, we cannot be content simply to know what we know; the origins, derivation, and perceived limits of our knowledge are also critical.<sup>146</sup>

Finally, Mary Douglas has approached the problem from a different perspective, one which is indebted to the philosophical position known as cultural relativism.<sup>147</sup> Mary Douglas suggests that "risk," at least in the sense in which we are concerned with it, is mainly a cultural concept: "[T]he risk that is a central concept for our policy debates has not got much to do with probability calculations . . . . [T]he word *risk* now means danger; *high risk* means a lot of danger."<sup>148</sup>

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partially caused by conversations with peers, earlier encounters with nature, and, ultimately, the training process and even the earlier intellectual ontogeny of the scientists." KITCHER, *supra* note 140, at 162. Kitcher does not deny the role of "social" forces, but denies that they are "sufficiently powerful that the effects of nature are negligible." *Id.* at 162. Otherwise, scientists could not be said to "eliminate falsehood in favor of truth, abandon the insignificant, add significant truths, . . . reconceptualize already accepted truths . . . . [or] replace statements that are further from the truth with those that are closer to the truth." *Id.* at 117.

146 Obviously, it is necessary to acknowledge the inherent limitations and provisionality of scientific knowledge, but it also is possible to overemphasize the point—an error which results in the suggestion that the most conservative measures must always be taken, simply because science cannot assure us with certainty that no risk exists. That was the basis, as we have seen, for the argument in favor of the categorical exclusion of children with HIV from ordinary school activities. See Carolyn Kasler, Comment, *Reading, Writing, But No Biting: Isolating School Children with AIDS*, 37 CLEV. ST. L. REV. 337 (1989).

147 In its strongest form, cultural relativism takes the view that: "All reality as known is cultural reality, and all human experience is culturally mediated. And if all human experience is structured by enculturation, it follows that all cultural judgments, perceptions, and evaluations are a function of, and are relative to, a given cultural system. Moral values are but one element in cultural experience, and moral relativism is only one aspect of a general theory of cultural relativism." David Bidney, *Culture: Cultural Relativism*, in 3 INTERNATIONAL ENCYCLOPEDIA OF THE SCIENCES 543, 544 (David L. Sills ed., 1968). See also Raymond Williams, *Culture and Civilization*, in 2 ENCYCLOPEDIA OF PHILOSOPHY 273-76 (Paul Edwards ed., 1967).

148 DOUGLAS, RISK AND BLAME, *supra* note 26, at 24. In some cases, of course, public policy is concerned with the reliability and proper use of probability calculations, as in the debate over the admissibility of DNA testing results. See, e.g., *Caldwell v. State*, 393 S.E.2d 436, 444 (Ga. 1990) (excluding DNA evidence), *aff'd in part, vacated in part*, 436 S.E.2d 488 (Ga. 1993); *Commonwealth v. Lanigan*, 596 N.E.2d 311, 316 (Mass. 1992) (same); *State v. Alt.*, 504 N.W.2d 38, 49-51 (Minn. Ct. App.), *cert. granted, remanded*, 505



In sum, contemporary trends in the philosophy and sociology of science have raised questions about the neutrality of science. Two extreme positions are taken by the naive positivists, who adhere to the idea of "pure science" devoid of values, and by the cultural relativists, who tell us that there is no such thing as a fact apart from culture. The practical consequences which flow from such divergent philosophical positions can be seen in the debate which raged several years ago concerning the exclusion of children with HIV and AIDS from ordinary school activities.<sup>149</sup> On the one hand, the opponents of exclusion viewed risk simply as a matter of tallying up objective evidence. According to them, the facts could be ascertained with certainty, and, once they were, the answer to the exclusion question would follow as a matter of pure logic. Because the behavior necessary for transmitting the disease did not usually occur within the classroom, there was no reason to exclude a child with HIV or AIDS from the classroom.<sup>150</sup> On the other hand, the proponents of exclusion based their view on at least a strong scepticism about the reliability of scientific facts, and, in the hardest version of their theory, on an absolute rejection both of the authority of science and of the very possibility of scientific knowledge. In that view, science could tell us little that we needed to know, and most assuredly not with the certainty with which we needed to know it. Because science could not guarantee that the HIV virus could not be transmitted through the kinds of contacts which occur in the ordinary school setting, and the potential harm was so great, the child should be excluded from classroom participation.<sup>151</sup>

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N.W.2d 72 (Minn. 1993); *State v. Houser*, 490 N.W.2d 168, 183-84 (Neb. 1992) (same); *State v. Vandebogart*, 616 A.2d 483, 494 (N.H. 1992) (same); *State v. Anderson*, 853 P.2d 135, 146 (N.M. Ct. App.) (same), *cert. granted*, 848 P.2d 531 (N.M. 1993); *State v. Cauthron*, 846 P.2d 502 (Wash. 1993) (same); NATIONAL RESEARCH COUNCIL, *DNA TECHNOLOGY IN FORENSIC SCIENCE* (1992); Dan E. Krane et al., *Genetic Differences at Four DNA Typing Loci in Finnish, Italian, and Mixed Caucasian Populations*, 89 PROC. NAT'L ACAD. SCI. USA 10583 (1992); Leslie Roberts, *Fight Erupts Over DNA Fingerprinting*, 254 SCIENCE 1721 (1991); *contra*, *United States v. Jakobetz*, 955 F.2d 786 (2d Cir.), *cert. denied*, 113 S. Ct. 104 (1992); *United States v. Yee*, 134 F.R.D. 161 (N.D. Ohio 1991), *aff'd sub nom. United States v. Bonds*, No. 91-3608, 1993 U.S. App. LEXIS 32574 (6th Cir. Dec. 11, 1992); *State v. Brown*, 470 N.W.2d 30, 32 (Iowa 1991); *State v. Pennington*, 393 S.E.2d 847 (N.C. 1990).

149 Sullivan, *Among Schoolchildren*, *supra* note 24.

150 See Lisa J. Sotto, Comment, *Undoing A Lesson of Fear in the Classroom: The Legal Recourse of AIDS-Linked Children*, 135 U. PA. L. REV. 193 (1986).

151 See Kasler, *supra* note 146, at 377.

Whatever might be said, as a philosophical matter, for the categorical rejection of scientific truth, it is difficult to conceive of a consistent public policy being based on such a rejection. We can be mindful of the philosophical arguments supporting that view, and we certainly must recognize the practical limits of scientific knowledge. However, in making the practical policy decisions which must be made, we would have nowhere to turn if we were to reject the possibility of scientific knowledge. From a practical perspective, therefore, we must recognize risk as a reality with which we must deal. On the other hand, we must recognize that even meaningful estimates of very small risks are subject to wide margins of error, which make them substantially less reliable than they appear. Most important, we must recognize that questions as to the "significance" or "acceptability" of risks are not questions that can be resolved by purely "scientific" means.

#### B. *The Problem with Significant Risk*

One need not accept the proposition that "risk" is principally a cultural category, having little to do with probabilities, let alone adhere to the strong view that objective knowledge about risk is impossible. Indeed, one might plausibly take the view that the kinds of value judgments in which scientists indulge at the theory selection and data collection stages are simply unimportant or capable of being called value judgments only in some trivial sense. In this view, the proof is in the pudding. If such value judgments were truly decisive, their consequences would be manifest; one would expect much less consistency of result in scientific theory and discovery.<sup>152</sup> Whether one should take that view is a question that need not detain us here.

If one takes the view that "risk" cannot be understood absolutely, or "measured" with total objectivity, it necessarily follows that risk analysis presents issues which cannot be reduced to questions of fact. Even if one concedes the possibility of objective knowledge about risks, however, it would not follow that questions of "significant" or "acceptable" risk also should be deemed to be

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152 See KITCHER, *supra* note 140, at 149 ("A finer-grained look at the history of science shows that where we are successful our references and our claims tend to survive even extensive changes in practice and to be built upon by later scientists, giving us grounds for optimism that our successful schemata employ terms that genuinely refer, claims that are (at least approximately) true, and offer views about dependencies in nature that are correct."). See also BREYER, *supra* note 23, at 10-11.

purely factual. "The accepted theory of risk perception maintains that the rational principle of selection would combine the probability of an event with its value."<sup>153</sup> Each risk could then be quantified, ranked, and compared. Appropriate responses could be assigned to various categories of risk. But that theory does not go very far in explaining actual reactions to various risks.<sup>154</sup>

It is useful to know that the chance, for example, of contracting HIV from the kind of casual contact which ordinarily takes place in the school setting is considered by experts in the area of risk assessment to be "much less than the chance of the boiler that heats the building blowing up,"<sup>155</sup> but that comparison is not likely by itself to persuade us that we should or should not take some particular step with respect to one risk or another. Among other things, there are too many risks for us to deal with in that way. As Mary Douglas has written: "Risks clamor for attention; probable dangers crowd from all sides, in every mouthful and at every step. The rational agent who attended to all of them would be paralyzed."<sup>156</sup> In addition, two risks may be equally likely to occur, and equally likely to cause a particular harm if they do occur. We may not question any of the assumptions or calculations underlying that statement, but we may well choose one risk over another, we may do so consistently, and our choice may well be supported by a consensus. Yet, it still might not be the "right" choice because this mode of analysis is indifferent to benefits, and

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153 DOUGLAS, RISK ACCEPTABILITY, *supra* note 15, at 59-60. But consider Nicolas Bernoulli's "St. Petersburg Paradox" and Daniel Bernoulli's solution, noting that the expected *utility* of a gamble is a better indicator of behavior than the expected *value* of a gamble. Hornstein, *supra* note 145, at 587-88.

154 For example, Hornstein argues that comparative risk analysis ignores equity analysis, including *ex ante*, *ex post* and risk-benefit equities, by aggregating the risks and counting bodies in general. To be more complete, risk analysis should look at which bodies are at risk (*ex ante*), identify those bodies which suffer the harm (*ex post*), and compare the bodies enjoying the benefits to those that bear the risks (risk-benefit equity). Hornstein acknowledges that equity analysis is not a substitute for risk analysis, but it does help to make the dialogue about risk more comprehensive. Hornstein, *supra* note 145, at 592-604. See also Gillette & Krier, *supra* note 129, at 1079 ("The possibility of catastrophe, then, is clearly material to choices among risks. Aversion to catastrophic losses is also consistent with the commonplace observation that people are regularly willing to pay a premium in order to soften the blow of very costly (but very unlikely) events.").

155 See Sotto, *supra* note 150, at 198.

156 DOUGLAS, RISK ACCEPTABILITY, *supra* note 15, at 59.

the same risks may well carry different benefits.<sup>157</sup>

In any event, to the extent that the problem of risk has practical importance, the problem is really a problem about *acceptable* risks, and is therefore mainly a normative, rather than narrowly scientific, issue:

The point to be made here is not that the risk analysts cannot achieve purity nor that they cannot stand forever on the sidelines. They probably could, but at the cost of relevance. They are employed by corporations and governments who want to know something more than the technical calculations of probabilities. *The political question is always about acceptable risk.*<sup>158</sup>

Mary Douglas illustrates this point by suggesting that it was not accidental that the American and British medical establishments, based on the same evidence, reached opposite conclusions about the desirability of nationwide vaccination against the projected swine flu outbreak of 1976:

In Britain there is likely to be more mutual shielding of doctors from criticism. More professional cover-up means more professional boldness . . . . The British took the risk that swine flu was not a threat and the Americans instituted nationwide vaccination . . . . This suggests that protecting from criticism and victim-blaming, when they go with a strong communal organization, lead to less risk aversion. A community can take a

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157 For a general criticism of comparative risk analysis, see Hornstein, *supra* note 145. Hornstein offers four general criticisms of comparative risk analysis [CRA]. *First*, CRA masks the values underneath the policy decisions. It adopts the expected value analysis and not the expected utility analysis. So a body is a body is a body, and 10,000 deaths in one hamlet has the same "value" (albeit negative) as 10,000 deaths spread across a country as large as the United States. *Id.* at 587-92. *Second*, it ignores equity analysis. *Id.* at 592-604. *Third*, comparative risk analysis is a blanket rejection of public perceptions about risk, and is thus undemocratic. *Id.* at 604-16. "[A] fully synoptic system of comparative risk analysis would lack legitimacy because its decisions would be despised as undemocratic." *Id.* at 611. *Finally*, comparative risk analysis is internally inconsistent. Experts reject the public's use of "baselines" or heuristics in risk analysis. However, the value assigned to any risk for purposes of comparison is just that—a baseline. *Id.* at 616-29. Hornstein's solution to environmental uncertainty is to improve the dialogue over risk-imposing and risk-bearing.

158 DOUGLAS, RISK AND BLAME, *supra* note 26, at 44 (emphasis added). Mary Douglas has also suggested that "it would be extraordinarily ingenious to organize the principles of risk distribution by tests of cost efficiency—perhaps a major philosophical triumph, but more likely an impossibility because costs can be used only within a fixed scheme of valuations, whereas the issue of acceptable risk lies with the principles of valuation itself, that is, with culture." DOUGLAS, RISK ACCEPTABILITY, *supra* note 15, at 13-14.

bold public policy decision in favor of risk-seeking if it is strong enough to protect the decision-makers from blame.<sup>159</sup>

We live in a world, Mary Douglas and Aaron Wildavsky tell us, where, much as we might like to deny it, "public perception of risk and its acceptable levels are collective constructs, a bit like language and a bit like aesthetic judgment," and "the selection of dangers and the choice of social organization run hand in hand."<sup>160</sup> In other words, "each culture, each set of shared values and supporting social institutions, is biased toward highlighting certain risks and downplaying others."<sup>161</sup>

One need not accept the extreme view that risk assessments are similar in kind to aesthetic judgments, still less the possible implication that all views about risk are equally valid, with no rational basis for choosing one over another. The important insight to be derived from cultural relativism is that questions of acceptable risk appear not to be wholly objective or factual; such

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159 DOUGLAS, RISK ACCEPTABILITY, *supra* note 15, at 61. Sheila Jasanoff also has suggested that some differences between American and European responses to risk are due to the less homogeneous or centralized culture of knowledge which prevails in the United States and thus makes it more difficult to develop an expert consensus for use as a baseline for developing policy. Jasanoff, *supra* note 125, at 75-78. See also Sheila Jasanoff, *Acceptable Evidence in a Pluralistic Society*, in ACCEPTABLE EVIDENCE: SCIENCE AND VALUES IN RISK MANAGEMENT 29 (Deborah G. Mayo & Rachele D. Hollander eds., 1991) ("Cultural variation appears to influence not only the way decision makers select among competing interpretations of data but also their methods of regulatory analysis and their techniques for coping with scientific uncertainty.").

160 MARY DOUGLAS & AARON WILDAVSKY, RISK AND CULTURE: AN ESSAY OF THE SELECTION OF TECHNICAL AND ENVIRONMENTAL DANGERS 186 (1982).

161. *Id.* at 14. Thus, it is not surprising that the people in one country should seem obsessed with the issue of smoking, but indifferent to the dangers of alcohol consumption, while the citizens of another may have the opposite risk priorities. See Shrader-Frechette, *Reductionist Approaches to Risk*, *supra* note 142, at 218 ("Many Americans, sensitized by the media to the dangers of cigarette smoking, have been appalled to discover on their visits to the Far East that most adult Chinese smoke. The Chinese, on the other hand, consume little alcohol and have expressed bewilderment about the hazardous and excessive drinking in the West."). Just as it is important that such questions should not be deemed wholly factual, it also is important to the cultural relativists that the questions should not be deemed to be wholly subjective. "Between private, subjective perception and public, physical science there lies culture, a middle area of shared beliefs and values . . . . Standing inside our own culture, we can only look at our predicament through our culturally fabricated lens." DOUGLAS & WILDAVSKY, *supra* note 160, at 194. As Shrader-Frechette suggests, however, cross-cultural differences do not totally explain the varying levels of risk acceptance. Individual members of the same society also demonstrate different attitudes about the risks attendant upon such activities as sky diving, hang gliding, and motorcycling, to say nothing of the dangers posed by nuclear reactors, toxic dumps, and liquefied natural gas facilities. Shrader-Frechette, *Reductionist Approaches to Risk*, *supra* note 142, at 218.

questions necessarily present matters of judgment, in which the gathering of "[o]bjective evidence about technology in general is not going to take us very far."<sup>162</sup> That is not to say, however, that risk is entirely a "collective construct," as Douglas and Wildavsky contend, still less that we have neither "facts" nor a means available for reasoning about them.<sup>163</sup> A middle ground has been identified by Kristin Shrader-Frechette, who suggests that "although hazard assessments can never be wholly value free . . . , nevertheless it is false to assert . . . that *any* perspective on risk can be justified."<sup>164</sup> On the contrary, "some risk judgments are more warranted than others."<sup>165</sup> If that were not the case, she suggests, "insurance companies and actuaries would go out of business; they do not, so there must be better and worse evaluations of risk."<sup>166</sup> Risk analysis is neither purely objective nor merely a social construct; judgments about risks thus cannot be defended entirely on scientific or objective grounds, but neither can they be dismissed as merely subjective.

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162 DOUGLAS & WILDAVSKY, *supra* note 160, at 194. To appreciate the power of this insight, one need not accept the more extreme view that risk evaluations may be reduced entirely to "sociological constructs." Thus, Kristin Shrader-Frechette suggests that cultural relativism errs by over-emphasizing the importance of values in risk analysis, just as naive positivism errs by underemphasizing them. See Shrader-Frechette, *Reductionist Approaches to Risk*, *supra* note 142, at 230. Both treat categorical value judgments as "purely relative and matters of taste." While the naive positivists ignore such values, because they believe them to be subjective, the cultural relativists embrace them, because they believe that relativism is unavoidable. *Id.*

163 Shrader-Frechette, *Reductionist Approaches to Risk*, *supra* note 142, at 230.

164 *Id.* at 220 (emphasis added).

165 *Id.* at 220. See also, BREYER, *supra* note 23, at 10-11.

166 SHRADER-FRECHETTE, RISK AND RATIONALITY, *supra* note 143, at 35. Shrader-Frechette also points out an inconsistency peculiar to the particular cultural relativist view taken by Douglas and Wildavsky, namely, that they assert that there is no correct description of risk behavior, and thus no basis for choosing one account over another, but then express their preference for the "center" position, as opposed to the "border" position. *Id.* An inconsistency more generally applicable to the cultural relativist position, which Shrader-Frechette also notes, concerns the assumption that risk aversion is irrational because life is actually becoming safer: "[The cultural relativists] appeal to alleged 'facts' about hazards—namely, that life is getting safer—when they wish to discredit environmentalists' aversion to risk. Yet they repeatedly deny the existence of any such 'facts' about hazards and claim that 'risk is a constructive construct,' that it is *immeasurable*, that it is determined by social structures, and that no hazard judgment is better or worse than another." *Id.* at 38-39 (footnotes omitted). Both insights cannot be correct.

### C. Analyzing "Significant" Risk

If nothing else, the foregoing discussion should demonstrate that the concept of "significant risk" is far more complex than the case law would suggest. The question whether a "significant risk" exists is not simply a factual question, and it is not a question which properly can be answered if we treat it in that way. At the same time, the question must and can be answered. Few things worth knowing are capable of being known with absolute certainty,<sup>167</sup> and the need for regulation often appears greatest in precisely those circumstances in which our knowledge is the most imperfect and provisional.<sup>168</sup> In such circumstances, we cannot abstain from judgment, but recognize, as Aristotle argued in the *Ethics*, that "one should not require precision in all pursuits alike, but in each field precision varies with the matter under discussion and should be required only to the extent to which it is appropriate to the investigation."<sup>169</sup> As Kristin Shrader-Frechette puts it, "wise persons realize the reliability characteristic of different kinds of judgments and . . . demand only that assurance appropriate to the particular type of investigation."<sup>170</sup> Here, the nature of the

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167 See H. Jefferson Powell, *Rules for Originalists*, 73 VA. L. REV. 659, 678-83 (1987). See also KITCHER, *supra* note 140, at 94 ("But, in my judgment, truth is not the important part of the story. Truth is very easy to get . . . . Once you have some truths, simple logical, mathematical, and statistical exercises will enable you to acquire lots more. Tackling truths together is something any hack can do . . . . The trouble is that most of the truths than can be acquired in these ways are boring.") (footnote and citations omitted).

168 See, e.g., *Ethyl Corp. v. EPA*, 541 F.2d 1, 23 (D.C. Cir.), *cert. denied*, 426 U.S. 941 (1976) ("where . . . the regulations turn on choices of policy, on an assessment of risks, or on predictions dealing with matters on the frontiers of scientific knowledge, [the court] will demand adequate reasons and explanations, but not 'findings' of the sort familiar from the world of adjudication") (quoting with emphasis added, *Amoco Oil Co. v. EPA*, 501 F.2d 722, 741 (D.C. Cir. 1974)); KENNETH CULP DAVIS, *ADMINISTRATIVE LAW TREATISE* § 6.16 (2d ed. 1979) ("If no such scientific finding is likely for another fifty years, what should be done about leaded gasoline in the meantime? May something less than a finding based on evidence support a regulation? The majority said yes . . . . The law is unquestionably what the majority said it is. It has to be, for otherwise the government would be deprived of the needed tool of rulemaking whenever science fails to answer a crucial question of fact.") (discussing *Ethyl Corp.*).

169 ARISTOTLE, *NICOMACHEAN ETHICS* BK. 1, ch. 7, § 1098a (Martin Ostwald ed., 1962).

170 Shrader-Frechette, *Reductionist Approaches to Risk*, *supra* note 142, at 233. "Reasonable people accumulate observations and inferences about judgments until the probability of those judgments is so great that they do not doubt them. They make assumptions when their inferences and evidence support them, but they do not demand empirical confirmation for everything." *Id.* at 241. See also KITCHER, *supra* note 140, at 84 ("Human knowers are not lone knowers: we can and do assign authority to others and base our

investigation, and thus the character of the assurance appropriate to it, necessarily rest on the recognition that "hazard assessments can never be wholly value free (as many naive positivists claim), [but] it is [likewise] false to assert (as many cultural relativists do) that *any* perspective on risk can be justified . . . ."171

At the very least, the problem of "significant risk" may be understood to have two components: one planted in the realm of facts, the other in the realm of values. To engage the reality of the problem, and act constructively in matters of public policy, we cannot ignore one or the other; we must deal with both. The task, then, is to find an assurance of reliability appropriate to an investigation of this kind.

However, naive positivism and cultural relativism both demand an inappropriate assurance: the former by insisting on empirical confirmability,<sup>172</sup> the latter by insisting on infallibility and universality.<sup>173</sup> Thus, Kristin Shrader-Frechette has suggested an alternative understanding of "scientific objectivity," one that is not rooted in the concept of empirical confirmability, but in the common sense way in which we speak about a judgment that is "not obviously biased or subjective."<sup>174</sup> In this sense, objectivity "is linked to evenhanded representation of the situation."<sup>175</sup>

Shrader-Frechette's approach, which she calls "scientific proceduralism," envisions two mechanisms for assuring scientific

judgments on what the authorities say . . . . [M]ost significant endeavors that have been undertaken in the history of science, would be impossible unless the protagonists were prepared to take some matters on trust.") (footnote omitted).

171 Shrader-Frechette, *Reductionist Approaches to Risk*, *supra* note 142, at 219-20 (emphasis added).

172 If empirical confirmability were the appropriate test, Shrader-Frechette argues, science could never satisfy it: "[t]he naive positivists demand an inappropriate level of assurance because [that] requirement . . . would allow neither pure scientists . . . nor risk assessors to decide on criteria for choosing a theory, gathering and interpreting data, or rejecting hypotheses." *Id.* at 233. An additional problem is that the magnitude of very small risks often cannot be confirmed. "That is why explanatory power, tested by prediction, sometimes functions as a goal of science and risk assessment, not as a criterion for it." *Id.* at 240.

173 *Id.* at 242. Shrader-Frechette argues that this standard is not justified because the existence of differences in scientific and policy-related behavior are not logically incompatible with the possibility of objective risk judgments. *Id.* at 242-43.

174 *Id.* at 240.

175 *Id.* Although Shrader-Frechette recognizes that cultural relativists would contest our ability to be objective in this sense, she argues that that objection is unpersuasive: "Because we often do blame people for not being objective, in a sense close to that about which I am speaking, it is clear either that objectivity in this sense must be attainable or that one can be more or less objective." *Id.*



objectivity in this sense:

First, we may be able to provide a general criterion for scientific rationality and objectivity in its application to risk assessment. This general criterion is likely to be explanatory power as tested by prediction. For example, we might say that a particular theory of risk response is rational if it can explain the behavior in question (e.g., aversion to commercial nuclear fission) and predict future instances of such behavior. Or we might say that a particular theory of risk estimation is rational if it can explain the magnitude and distribution of a particular risk and predict both the magnitude and distribution of such risks in the future. Second, . . . we may be able to contribute to rationality and objectivity by specifying how to avoid the charge of violating scientific objectivity in our risk judgments.

One way to avoid such a charge might be to subject our hazard assessments to review by affected laypersons and the scientific community. These expert and lay judgments might be said to possess scientific objectivity, in some minimal sense, if they can be subjected to criticism, debate, and amendment. . . . [A]lthough scientific rationality might be guaranteed by a risk assessor working individually, by pursuing a goal of explanatory power tested in part by prediction . . . , scientific objectivity could be guaranteed only by scientists and affected laypersons working together to criticize the proposed accounts of risk acceptability. According to this view, scientific rationality is a necessary condition for scientific objectivity, and scientific objectivity characterizes the middle position (between cultural relativism and naive positivism), which I call *scientific proceduralism*. The position is procedural because it relies on democratic procedures, that is, criticism by lay people likely to be affected by the risk judgments, as well as by scientists.<sup>176</sup>

Perhaps the central insight to be gained from Shrader-Frechette is that scientific objectivity usefully may be defined in procedural terms, and that the process should include "criticism by lay people likely to be affected by the risk judgments," as well as by scientists. Like Douglas, Shrader-Frechette recognizes that "[t]he political question is always about acceptable risk,"<sup>177</sup> and the problem of acceptable risk is a political problem. It follows that such decisions cannot be made only by scientists under the

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176 *Id.* at 240-41 (citation omitted).

177 DOUGLAS, RISK AND BLAME, *supra* note 26, at 44.

guise of purely scientific decisionmaking. In a democratic society, attention must be paid to the competing claims made by expertise, culture, ethics, and political life.<sup>178</sup>

Oliver Williamson has suggested a similar, but more fully developed approach, which he calls "the decision process approach," building on certain insights of Herbert Simon and on the practical experiences of the National Academy of Sciences Committee for a Study on Saccharin and Food Safety Policy.<sup>179</sup> In its approach to the saccharin controversy, the National Academy committee "made operational what Herbert Simon has . . . referred to as procedural rationality, as distinguished from substantive rationality."<sup>180</sup> Williamson explains the distinction:

Whereas substantive rationality takes the definition of the problem as given and refers to the "extent to which appropriate courses of action are chosen," procedural rationality deals with how complex public policy issues are structured. It ensures that the relevant dimensions are identified and ordered and that indirect consequences are described in a way that can contribute to a well-considered public policy.<sup>181</sup>

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178 Judge Breyer has given thoughtful consideration to these issues in his Holmes lectures. One may wonder, however, about the efficacy of the solution which he ultimately proposes: "Risk-related matters that enter the forum of public debate may have to pass political as well as technical tests for safety. But not every risk-related matter need become a public issue. A de-politicized regulatory process might produce better results, hence increased confidence, leading to more favorable public and Congressional reactions." BREYER, *supra* note 23, at 55-56 (1993). While not all risks need become part of the public agenda, it is those risks that do which are most likely to become nettlesome problems, and least susceptible to purely bureaucratic resolution. Similarly, good results may inspire public confidence in the bureaucracy, but it may take a very long time before the quality of results can be judged in this area, and no amount of good results is likely to compensate for procedures which are seen to provide insufficient guarantees of public participation. In the end, the most important decisions about risk may well be political decisions, in which the perceived quality of the process is no less important than the perceived quality of the result.

179 Oliver E. Williamson, *Saccharin: An Economist's View*, in THE SCIENTIFIC BASIS OF HEALTH AND SAFETY REGULATIONS 131 (R.W. Crandall and L.B. Lave eds., 1981) [hereinafter, Williamson, *Saccharin*].

180 *Id.* (citing Herbert A. Simon, *Rationality as Process and as Product of Thought*, 68 AM. ECON. REV. 1, 9 (1978)).

181 Williamson, *Saccharin*, *supra* note 179, at 131-32. In his introduction to the problem, Williamson considers and rejects five possible alternatives: (1) the FDA approach, which divides the world into safe and unsafe parts; (2) the risk classification approach, which is based on the view that similar risks should be treated similarly; (3) the net benefit or economic approach; (4) the information approach, which rests on the view that disclosure is the appropriate response to risk; and (5) the liability approach, which permits anything to be placed on the market, but allows victims to sue for damages. *Id.* at 134-42. In his critique of the risk classification or comparable risk approach, William-

The members of the National Academy committee did not reject the need for a "rational approach to food safety issues," but they did reject the efficacy of cost-benefit or risk-benefit analysis, on the ground that "the problems and the data were not yet quantifiable."<sup>182</sup> The need for "[s]elf-conscious attention to procedure" became obvious during the committee's work because, "[a]lthough saccharin would seem to be a relatively comprehensible issue, panel discussions were frequently piecemeal, and 'solutions' were repeatedly offered that neglected or suppressed important dimensions."<sup>183</sup> Moreover, a "constant danger" in dealing with complex public policy issues is "that attention directed to a single facet of the web will spawn solutions that disregard vital consequences for the other facets."<sup>184</sup> "What was needed was a procedure that was orderly and comprehensive—requiring decisionmakers to confront rather than suppress the difficult issues—yet . . . neither forced unwarranted quantification nor precluded judgment."<sup>185</sup>

Williamson suggests that attention to procedure is important, not only because it has "significant rationality ramifications," but also because it has "an important bearing on fairness."<sup>186</sup> Thus, the aim of procedure should be to "order[] the issues on the public agenda in a rational way," to attend appropriately to indirect as well as direct consequences, and to ensure that the process for reaching important decisions is perceived to be open and fair to affected groups, particularly those who are otherwise disadvan-

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son notes that ranking by risk cannot be deemed satisfactory because, by definition, such ranking ignores the varying levels of benefit which might be attributable to various risks which are ranked the same. *Id.* at 138. Williamson also notes that the risk classification approach seems to presume that probabilities can be known with a degree of precision which simply is not possible. *Id.* at 138-39. These criticisms obviously are relevant to similar attempts to deal with risks of AIDS. See, e.g., Sidney D. Watson, *Eliminating Fear Through Comparative Risk: Docs, AIDS and the Anti-Discrimination Ideal*, 40 *BUFF. L. REV.* 739 (1992).

182 Williamson, *supra* note 179, at 142. See also *id.* at 140 ("Using incomplete data to deal with complex issues leaves too much latitude in which cost-benefit calculations can be tilted to reflect the inclinations of interested parties rather than the outcome of dispassionate analysis."). In addition, many of the benefits attributable to saccharin are subjective. *Id.* at 133.

183 *Id.* at 142-43.

184 *Id.* at 142 (citing Herbert A. Simon, *Rationality as Process and as Product of Thought*, 68 *AM. ECON. REV.* 1, 13 (1978)).

185 Williamson, *Saccharin supra* note 179, at 142.

186 *Id.*

taged.<sup>187</sup> Williamson finds these requirements to be met in his decision process or "decision tree" approach, which "somewhat resembles risk-benefit assessment but is less formal, breaks problems down more completely, . . . allows for judgments to be made at various stages of analysis," and permits a discriminating policy to be devised by allowing for "differential hazards and benefits to be recognized."<sup>188</sup>

It bears emphasis that Williamson's decision tree approach does not seek to avoid value judgments, but accepts their inevitability and candidly builds them into the analytic framework. Indeed, the most fundamental aspect of the decision tree approach is the concept of hierarchical ordering, which breaks down the issue under consideration into parts, and then orders them sequentially in terms of their relative importance. "This calls attention to issues according to their relative importance and also eliminates the need for a comprehensive study if a decision can be reached on the basis of high priority considerations."<sup>189</sup> Because the order in which the issues are addressed has both substantive and procedural significance, procedural fairness demands that hierarchical ordering be accomplished by process of consensus.<sup>190</sup>

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187 *Id.* at 143. Cf. MILNER S. BALL, LYING DOWN TOGETHER: LAW, METAPHOR AND THEOLOGY 59 (1985) ("Assessments of the . . . success or failure [of the United Nations Conference on the Law of the Sea] have focused upon its work product, the treaty. I think the focus ought to be on the conference itself as a significant, instructive event of law. It was a laboratory for experiments in negotiation, multinational decisions, and transcultural discourse. The event itself promises more than its documental outcome for the prospects of a bond of human fellowship."). In Ball's view, the "most striking characteristic of the conference was its adoption of the process of consensus." *Id.* Noting that consensus is hard to achieve where there are "many, divergent, and conflicting interests," Ball asserts that consensus was achieved, in practice, "by the passage of time, developing familiarity among the delegates, patience, flexible, and floating negotiating groups, intersessional communication, and . . . fruitful chance encounters . . ." *Id.* at 60. See also *id.* at 73-74 ("An extension of federalism . . . means extending the forms through which the government of marine affairs is popular at the same time that it protects minorities—the forms for participation, representation, opinion, dialogue, diversity, and fruitful conflict.").

188 Williamson, *Saccharin*, *supra* note 179, at 143. For example, the decision tree for analyzing food additives would begin by distinguishing the various uses of the additive, and then, for each use, would consider health hazards, substitutability, health benefits, and other economic benefits. "Decisions to approve, ban, or otherwise restrain the use" of the additive could be taken at any stage of the sequence; "[c]onsideration of additional factors would be unnecessary" if decisions could be taken based on factors considered early on (pursuant to the hierarchy of factors which has been established) "or if further assessment would be unduly speculative." *Id.* at 144.

189 *Id.* at 144.

190 *Id.*

Similarly, early consideration ordinarily is given to "traditional values," to ensure "that no drastic changes will be introduced without according great weight to the traditional way of dealing with the issues,"<sup>191</sup> while efficiency values are considered late in the sequence because of the importance of equity in health procedures.<sup>192</sup> Finally, decisions should be the product of open and complete analysis, so that "relevant dimensions of a problem [are] not to be suppressed without explanation."<sup>193</sup>

For Williamson, the key point is that the decision tree approach "breaks problems down and processes issues in a way that exposes the relevant dimensions and makes possible a rational resolution."<sup>194</sup> It is a "'decision aid' rather than a 'decision made.'"<sup>195</sup> It does not purport to provide an answer, but it structures the problem and chooses to make its complexity understandable through rich description, rather than hiding or ignoring complexity.

While the "significant risk" test seeks to simplify the analysis and flatten the landscape by restricting the number of issues to be considered, and by suppressing or concealing normative aspects of

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191 *Id.* In Williamson's view, however, this preference for traditional values need not be "an immutable characteristic of decision process analysis." In appropriate cases, where such values are no longer consonant with contemporary values, a lower position in the hierarchy should be assigned to them. *Id.* at 144 n.43.

192 *Id.* at 144-45.

193 *Id.* at 145-46. Williamson also describes several other attributes of his food additive decision tree, such as consideration of the availability or unavailability of substitutes, possible health benefits which might result from use of an otherwise hazardous substance, the degrees of hazard attributable to different uses or users, and, finally, the possibility that the decision tree may require augmentation in some circumstances to account for additional factors warranting consideration in specific circumstances. *Id.* at 146.

194 *Id.* at 149. In this respect, Williamson argues that the decision tree approach is responsive to the suggestion that "there might be more understanding by the public [with respect to complex public policy problems to which economists do not know the answers] if economists exercised self-restraint and confined themselves to attempting to *explain the nature and complexity of problems*, rather than providing conflicting and widely divergent solutions." *Id.* at 151 (quoting ELI DEVONS, *ESSAYS IN ECONOMICS* 46 (1961)) (emphasis by Williamson).

195 Williamson, *Saccharin*, *supra* note 179, at 147. Williamson illustrates the operation of the decision tree analysis by taking up the problem of aflatoxin, a carcinogen present in peanut butter. Peanut butter has no special health benefits, but is a cheap source of protein, with no taste substitute. The withdrawal of peanut butter from the market might well have consequences for the health of children in low income groups. Aflatoxin also is present in animal feeds and can be found in meat and dairy products. Aflatoxin hazards can be reduced, but not eliminated. Williamson shows how the decision tree approach permits these facts to be developed and evaluated. *Id.* at 149.

the problem,<sup>196</sup> the decision tree approach aims at bringing to the fore all relevant considerations, factual and normative, including direct and indirect consequences, and then structuring them in an orderly and frankly hierarchical way, so that the many and disparate dimensions and consequences of the problem can be candidly confronted and evaluated. The decision tree approach provides a means for dealing with complex social problems, without having to choose between a level of simplicity that bears no resemblance to the complex nature of the problem and being overwhelmed and immobilized by its complexity.

To understand the contribution of the decision tree approach, one need only recall the primitive nature of the "any risk" analysis which the court used in *Washington University*, where no consideration was given to substitutes and indirect consequences.<sup>197</sup> In other words, does it make sense to take the position that all seropositive dental students (or health care workers) should be precluded from clinical work, simply because "some risk" of transmission exists? Our approach to the problem must take into account the richness of the context in which the question arises, as well as the many different kinds of concerns which arise from the question and its context. As the proponents of comparative risk analysis suggest, it would be useful to know (to the extent we can) how the risk in question compares to other risks that we tolerate. In the decision tree model, that would be *part* of the inquiry. But the inquiry would not end there. We need also to know how such a decision would impact the world we live in. What direct and indirect consequences might flow from such a decision? If dentists with HIV were to be barred from practice, for example, what effect would that have on the delivery of health care generally, and with respect to any particular population? Given the public's investment in dental education, what public costs would such a removal entail? Would such an action have effects beyond the dental field? To the extent that some effects would be beneficial and others not, how should those consequences be weighed? To the extent that some effects will fall more heavily on some groups than others, how should those consequences be weighed? What other alternatives might we consider, and in what ways might they be more or less efficacious?

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196 Hornstein also argues that comparative risk analysis conceals the values inherent in policy choices. See *supra* note 145.

197 See *supra* notes 110-16 and accompanying text.

Williamson's decision tree provides an approach for dealing with the kinds of problems which Lon Fuller characterized as "polycentric,"<sup>198</sup> that is, those situations which resemble a spider web:

A pull of one strand will distribute tensions after a complicated pattern throughout the web as a whole. Doubling the original pull will, in all likelihood, not simply double each of the resulting tensions but will rather create a different complicated pattern of tensions. This would certainly occur, for example, if the doubled pull caused one or more of the weaker strands to snap. This is a "polycentric" situation because it is "many centered"—each crossing of strands is a distinct center for distributing tensions.<sup>199</sup>

It is perhaps appropriate to think of Williamson's decision tree approach in conjunction with Shrader-Frechette's concepts of "scientific objectivity" and "scientific proceduralism." The former provides a rather detailed account of how an appropriate decisional process might be structured, while the latter brings into sharper focus the need for some form of political legitimacy in the making of such decisions. While their ideas have been sketched out only in an incomplete way, they necessarily appear more promising than continuing the search for the holy grail, that is, continuing to think that we can solve our problems by somehow determining whether, as a matter of fact, a particular risk is "significant." Unlike the "significant risk" test, the approach suggested by the ideas of Kristin Shrader-Frechette and Oliver Wil-

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198 See Lon Fuller, *The Forms and Limits of Adjudication*, 92 HARV. L. REV. 353, 394 (1978). As an example, Fuller posits the task of effectuating a testator's bequest of her valuable art collection to two museums in equal shares, but without having provided any particular apportionment. The problem of effecting an equal division of the paintings would present a polycentric task because the disposition of any particular painting would have implications for the disposition of every other. *Id.* Thus, one might prefer even a minor John Singleton Copley to a Childe Hassam, but not if one could be assured all three of the Hassams by the end of the day, particularly if the development of one's American Impressionism department were an existing priority.

199 *Id.* at 395. Fuller's concept of the polycentric problem is useful for understanding the problem presented under the banner of "significant risk." The utility of Fuller's insight does not depend, however, on also accepting his view that such problems categorically rest beyond the expertise of the courts because "there would be no clear issue to which either side could direct its proofs and contentions." *Id.* at 394. Modern litigation practice regularly assigns such issues to the courts, and the courts deal with them, vexing though they may be. See Abram Chayes, *The Role of The Judge in Public Law Litigation*, 89 HARV. L. REV. 1281 (1976); Owen M. Fiss, *The Social and Political Foundations of Adjudication*, 6 LAW & HUM. BEHAV. 121 (1982); Richard L. Marcus, *Public Law Litigation and Legal Scholarship*, 21 U. MICH. J.L. REF. 671, 676-81 (1988).

Williamson would at least give effect to the polycentric and value-laden nature of the task involved here.

## V. THE "SIGNIFICANT RISK" TEST AND THE QUESTION OF MODELS

There are two problems with the standard formulation of the "significant risk" test. First, it treats the question of significant risk as simply a question of fact. However, the insights provided by Mary Douglas, Kristin Shrader-Frechette, and Oliver Williamson all suggest that the problem is more complicated than that. The "significant risk" inquiry is not wholly objective or factual.<sup>200</sup> Indeed, to the extent that the question really is a question of "acceptable risk," it is polycentric as well as value-laden. Second, the test exists at a high level of generality, providing little guidance to the courts either as to how the decisionmaking process should be structured or as to how unavoidable value choices should be resolved.<sup>201</sup>

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200 Nor should the courts be expected to assess the size of the risk based on facts alone. Nobody can say for sure how many additional cases of cancer there will be when the concentration of benzene in the air rises from 1 part per million (ppm) to 10 ppm. See *Industrial Union Dep't, AFL-CIO v. American Petroleum Inst.*, 448 U.S. 607 (1980). "[S]cience does not fully understand the mechanism of carcinogenicity." John S. Applegate, *The Perils of Unreasonable Risk: Information, Regulatory Policy, And Toxic Substances Control*, 91 COLUM. L. REV. 261, 262 (1991).

201 The normative aspect of this inquiry necessarily exists, whether or not Congress has made any provision for how judges should deal with it. Thus, if Congress does not provide a measuring stick, the courts will have to create one for themselves. Whatever one might think in the abstract about leaving such fundamental issues to the courts, there is no reason to believe that Congress either understood the logical inevitability of that result, or affirmatively intended it. See, e.g., 134 CONG. REC. S52 (daily ed. Jan. 26, 1988), reprinted in 9 HISTORY AND ANALYSIS OF THE CIVIL RIGHTS RESTORATION ACT (Jon S. Schultz, compiler) (1989) (In not automatically reinstating *Arline*, the court first made "a factual determination whether, . . . she [was] qualified for the job . . . . But the other factual determination was, was Ms. Arline indeed noninfectious? . . . [T]he factual determination means, is there a medically sound reason for keeping the person out.") (statement of Sen. Chafee on *Arline* and §504 of the Rehabilitation Act). On the contrary, it appears that Congress simply misconceived the nature of the inquiry; it did nothing to suggest that it expected the courts to do anything other than make a wholly objective decision based on the facts. What Congress did not understand was that the courts, without further guidance from the legislative branch, would not be able to apply this standard without inventing some meaning with which to invest it. It might be argued that this is something that Congress frequently does. Even if that is the case, however, the desirability of doing so is not necessarily universal. As a normative matter, it would seem particularly bad practice for Congress to relegate such issues to the courts, without acknowledging either the nature of the problems left to the courts or the need for common law development of a solution, particularly where the issues involve a basic lack of consensus about important individual rights. In a democratic society, such conflicts should be resolved, rather than ignored. See, e.g., Brian Barry, *Tragic Choices*, 94 ETHICS 303, 308 (1984) (review essay) (distinguishing between a society's efforts at coping with "tragic



With these two points in mind, the results in the later cases seem more comprehensible. They reflect an effort to redefine the concept of significant risk in a way that makes it more susceptible to judicial application, by categorically excluding all risks, rather than simply those risks which might be said to be "significant." This redefinition certainly makes the test easier to apply. On the other hand, it creates a test which categorically underenforces the rights which Congress apparently thought that it was granting to persons with contagious diseases when it codified the *Arline* test.<sup>202</sup> In addition, Congress apparently intended the courts to engage in a case-by-case analysis, but the reformulated test is simply a bright-line rule, and one that draws the line, not in the middle, but at one end of the spectrum.

One conclusion to draw from this account is that courts simply cannot deal with problems like this, and that the responsibility for doing so should be taken away from them. There are a number of obvious objections to that conclusion. Among other things, what basis do we have for believing that some other organ of government could do a better job? It is probably inconceivable that Congress could ever legislate with sufficient particularity to provide standards that would be timely, useful, relevant, and permanent. Congress probably lacks the competence, as well as the will, to do that.<sup>203</sup> Agencies, on the other hand, are not well known for their speed, or for their sensitivity to individual rights, which obviously is an important consideration in the attempt to find solutions to the present problem. More important, one could object that courts have had no problem dealing with the same or similar concepts in the context of occupational safety and health laws or in the area of environmental law. The statutes in those

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choices" and its attempts to deny their existence).

202 In this sense, it is worth remembering that Congress intended that injunctive relief be available in these circumstances; that relief is forward-looking, rather than backward-looking. If the plaintiff prevails, the chancellor will order that she be returned to work or school, and permitted to have normal contacts with her peers.

203 See, e.g., Daniel D. Polsby & Robert D. Popper, *Ugly: An Inquiry Into The Problem Of Racial Gerrymandering Under The Voting Rights Act*, 92 MICH. L. REV. 652, 670 (1993) ("Candidates for Congress shy away from strong measures on ideologically charged issues if they can, and they often find ways to move 'hot button' matters to courts, base-closing commissions, or other agencies for whose decisions they cannot be blamed. If these system flaccidities are exasperating, they have a compensating attribute. Extremism is notably absent.").

areas may be susceptible to other problems,<sup>204</sup> but courts have not had great difficulty in applying the "significant risk" test in those contexts.<sup>205</sup> The second objection is important because it suggests that further attention needs to be given to the precise context in which courts are being asked to apply the "significant risk" test in this area, as opposed to others.

To understand why courts seem to have problems with the "significant risk" test in the AIDS discrimination area, but not in the environmental or occupational safety and health field, it may be useful to focus on the different nature of the legal models which are used in these two different contexts and the differences which follow from that fact. In the present circumstances, we are looking at the concept of "significant risk" as it has evolved and currently exists in a statutory framework that is based on what might be called a civil rights enforcement model.<sup>206</sup> As a general

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204 See, e.g., Latin, *The Feasibility of Occupational Health Standards*, *supra* note 119, at 589 (In *Industrial Union Dept., AFL-CIO v. American Petroleum Inst.*, 448 U.S. 607 (1980), a plurality of the court equated an *uncertain* risk with an *insignificant* risk, and concluded, therefore, that OSHA had not met its burden of proving its new standard to be "reasonably necessary" to avoid a "significant risk."). See generally, Applegate, *supra* note 200, at 276-77 (Discussing judicial review of the "unreasonable risk" standard in many of the EPA statutes, Applegate writes: "Courts are, of course, generally comfortable with case-by-case balancing, for example, in the risk-utility test for design defects in products.").

205 *But see contra supra* note 125. One would be hard pressed not to recognize the numerous other problems which have surrounded the administration of these laws. For example, Theodore Lowi has persuasively argued that these statutes have proved incapable of serving the basic purposes for which they were enacted. According to Lowi, that is true for a number of reasons, including the inherent conflict between the unattainability of the goals they set and the guaranty they give that achievement of those goals is not simply the end of the statute, but a right owed to its beneficiaries. See Lowi, *supra* note 27, at 17, 19, 33-38. Cass Sunstein has made the same point. See SUNSTEIN, *supra* note 27, at 89-93. For our purposes, however, the point is that these statutes have not presented the courts with the same problem which concerns us here. Thus, in *Industrial Union Department, AFL-CIO v. American Petroleum Inst.*, 448 U.S. 607, 615 (1980), the Supreme Court held that the Secretary was required to determine the existence of a "significant risk" as a condition precedent to rulemaking under the Occupational Safety and Health Act, but the "significant risk" determination was for the Secretary, and not for the courts to make. By contrast, *Arline* requires that the courts themselves repeatedly engage in making these determinations. See *supra* notes 33-39 and accompanying text.

206 This point should not be confused with the different point made by Theodore Lowi and Cass Sunstein. See *supra* note 205. Whereas they focused on the (obviously related) right-creating characteristic of these statutes, and thus on their doctrinal dependence on substantive principles of civil rights law, our focus here is on the somewhat different issue of how the statutes are enforced, whether principally by an administrative agency or principally by the courts. It is in that sense—enforcement—that we will discuss the civil rights model.

matter, the civil rights enforcement model is a judicial enforcement model, and that is the kind of model that we have been talking about with respect to AIDS and the "significant risk" test. On the other hand, in the case of the environmental and occupational safety contexts, we are looking at a mode of legal regulation which belongs to a more traditional administrative action model. This difference may seem so obvious as to be trivial, but its practical ramifications are substantial. Consideration of the two models may also suggest the need for a hybrid in these circumstances.

### A. *The Civil Rights and Regulatory Models*

In the civil rights enforcement model, the norm is judicial—rather than administrative—enforcement of the law.<sup>207</sup> The great civil rights acts of the nineteenth century were enacted before the dawn of the modern administrative state, and they make no provision for administrative action.<sup>208</sup> On the contrary, it was thought from the beginning that those statutes would be enforced by the judicial branch of government.<sup>209</sup> Likewise, modern feder-

207 See, e.g., Robert J. Kaczorowski, *The Enforcement Provisions of the Civil Rights Act of 1866: A Legislative History in Light of Runyon v. McCrary*, 98 YALE L.J. 565, 582 (1989) ("[T]he framers' knowledge of federal law and legal process oriented them to provide for the judicial enforcement of the civil rights secured through section 1 [of the statute] in actions primarily brought by and against private individuals in the federal courts.") (citation omitted); CONG. GLOBE, 39th Cong., 1st Sess. 605 (1866) ("It is a court bill; it is to be executed through the courts, and in no other way") (statement of Sen. Trumbull); *Burnett v. Grattan*, 468 U.S. 42, 50-55 (1984) ("In the Civil Rights Acts, Congress established causes of action arising out of rights and duties under the Constitution and federal statutes. These causes of action exist independent of any other legal or administrative relief that may be available as a matter of federal or state law. They are judicially enforceable in the first instance . . . . They do not limit who may bring suit, do not limit the cause of action to a circumscribed set of facts, nor do they preclude money damages or injunctive relief . . . . [T]he central objective of the Reconstruction-Era civil rights statutes, [was] to ensure that individuals whose federal constitutional or statutory rights are abridged may recover damages or secure injunctive relief.").

208 The great exception, of course, was Congress's creation of the Freedmen's Bureau. See ERIC FONER, *RECONSTRUCTION: AMERICA'S UNFINISHED REVOLUTION, 1863-1877* 68-70, 243-50 (1988).

209 Kaczorowski, *supra* note 207, at 581 ("[T]he framers [of the civil rights statute] provided for the enforcement of civil rights directly in the federal courts.") *Patsy v. Board of Regents of Fla.*, 457 U.S. 496, 503 (1982) ("[t]he very purpose of § 1983 was to interpose the federal courts between the States and the people, as guardians of the people's federal rights—to protect the people from unconstitutional action under color of state law, "whether that action be executive, legislative or judicial".") (quoting *Mitchum v. Foster*, 407 U.S. 225, 242 (1972) (quoting *Ex parte Virginia*, 100 U.S. 339, 346 (1880))); *Felder v. Casey*, 487 U.S. 131, 147 (1988) (civil rights may be vindicated in either federal or state court). See also Barry Sullivan, *Historical Reconstruction, Reconstruction History, and the Proper Scope of Section 1981*, 98 YALE L. J. 541 (1989); *supra* notes 207-09.

al civil rights enactments, such as Title VII of the Civil Rights Act of 1964,<sup>210</sup> while providing for certain administrative processes, generally do not endow those processes with the substance normally accorded them in the modern administrative state.<sup>211</sup> Thus, it was determined that the results produced by those processes should not be entitled to *res judicata* or collateral estoppel effect, and, moreover, that exhaustion would not even be required with respect to the administrative remedies that those statutes provided.<sup>212</sup> So strong is the tradition of judicial enforcement of civil rights laws that private rights of action, not found on the face of other modern civil rights statutes, including the Rehabilitation Act, generally have been implied by the courts.<sup>213</sup>

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210 42 U.S.C. § 2000e to e-17 (1988 & Supp. III 1991).

211 Civil rights enforcement generally depends on the filing of lawsuits by those who actually have suffered an injury. See *Rizzo v. Goode*, 423 U.S. 362, 371 (1976) (The court will not involve itself in "a 'controversy' between the entire citizenry of Philadelphia . . . and appointed officials over what steps might . . . [appear] to have the potential for prevention of *future* police misconduct.") (citing *Goode v. Rizzo*, 506 F.2d 542, 548 (3d Cir. 1974)) (emphasis added by the Supreme Court). However, the Attorney General may be given the power to bring suit, and agencies such as the Equal Employment Opportunity Commission also may bring suit in some circumstances. See *Georgia v. United States*, 411 U.S. 526 (1973) (Attorney general sues under the Voting Rights Act to enjoin state of Georgia from conducting elections for its House of Representatives under a legislative reapportionment law); *Occidental Life Ins. Co. of Cal. v. EEOC*, 432 U.S. 355, 360 (1977) (The Equal Employment Opportunity Commission may file a civil action against any party that is not a government, government agency or political subdivision at any time thirty days after the Title VII complaint has been filed). See also, 42 U.S.C. §§ 1973a, 1973b, 1973h, 1973j, 1973aa-2, 1973ee-4, 1973ff-4, 1997a, 2000a-5, 2000b, 2000c-6, 2000e-5, 2000e-6, 12117, 12133, 12188, 12203 (1988 and Supp. III 1991).

212 *Astoria Fed. Savs. & Loan Ass'n v. Solimino*, 501 U.S. 104 (1991) (unreviewed state administrative findings do not have preclusive effect on age discrimination claims in federal court); *University of Tenn. v. Elliott*, 478 U.S. 788, 796 (1986) (unreviewed state administrative proceedings do not "have preclusive effect on Title VII claims.") (footnote omitted); *Patsy v. Board of Regents*, 457 U.S. 496, 500 (1982); *Steffel v. Thompson*, 415 U.S. 452, 472-73 (1974) ("When federal claims are premised on [§ 1983]—as they are here—we have not required exhaustion of state judicial or administrative remedies, recognizing the paramount role Congress has assigned to the federal courts to protect constitutional rights."); 42 U.S.C. § 2000a-6 (1988) ("The district courts of the United States shall have jurisdiction of proceedings instituted pursuant to this subchapter and shall exercise the same without regard to whether the aggrieved party shall have exhausted any administrative or other remedies that may be provided by law.").

213 See, e.g., *Cannon v. University of Chicago*, 441 U.S. 677, 717 (1979) (implying private right of action under Title IX of the Education Amendments of 1972, codified at 20 U.S.C. §§ 1681-88 (1988)); *Allen v. State Bd. of Elections*, 393 U.S. 544, 554-55 (1969) (implying a private right of action for declaratory judgment and injunctive relief under the Voting Rights Act of 1965, now codified as amended at 42 U.S.C. § 1973 to 1973 aa-5 (1988)); *Jones v. Alfred H. Mayer Co.*, 392 U.S. 409 (1968) (finding a private right of action against another private party under the Civil Rights Act of 1866, codified at 42 U.S.C. 1982 (1988)).

A scheme which does not require exhaustion of administrative remedies, and encourages the enforcement of the law through private actions, is committed in theory to values different from those which inform the administrative action model. Such a scheme, after all, puts the machinery of law enforcement (including the all-important power of agenda-setting) in the hands of everyman, and diffuses the responsibility for decisionmaking by putting it in the hands of hundreds of federal judges (and possibly thousands of juries), rather than one expert agency. In this sense, the judicial enforcement model is very different from the administrative action model.<sup>214</sup>

The regulatory model is different, both with respect to the kinds of issues which typically are presented and with respect to the roles assigned to the administrative agency and the judicial system, respectively. There are several traditional rationales for delegating the responsibility for decisionmaking to administrative agencies. The extent to which these rationales are now (or ever were) justifiable is open to debate, but they include the inability of legislative bodies to micromanage the resolution of complex policy issues, particularly where the matters to be regulated involve rapid changes; the need for expertise, which can be developed by

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214 See Colin S. Diver, *Policymaking Paradigms in Administrative Law*, 95 HARV. L. REV. 393, 406-08 (1981). Given the multiplicity of organic statutes responsible for the creation of federal administrative agencies, it is not surprising that all administrative agencies do not conform to this model. For example, the National Labor Relations Board may not act on its own initiative, but only in response to a charge filed by a "person." See 29 U.S.C. § 160 (1988); *Nash v. Florida Indus. Comm'n*, 389 U.S. 235 (1967) (board cannot initiate unfair labor practice proceeding unless some person files charge that other person has committed an unfair labor practice); *NLRB v. Labors Intern. Union, AFL-CIO, Local 282*, 567 F.2d 833, 835 (8th Cir. 1977) (board may not initiate unfair labor practice charge on its own motion); *Saad v. Burns Int'l Sec. Servs.*, 456 F. Supp. 33 (D.D.C. 1978) (court lacked jurisdiction where plaintiff had not filed charge with board).

In earlier times, it probably also was thought that the types of questions normally presented in civil rights cases were appropriate for decision by judges or lay persons because they were deemed "bipolar" in nature, affecting only the two parties at the table. See generally Lon L. Fuller, *The Forms and Limits of Adjudication*, 92 HARV. L. REV. 353 (1978). That certainly is not the case, of course, in modern public law litigation aimed at structural reform. See, e.g., Abram Chayes, *The Role of The Judge in Public Law Litigation*, 89 HARV. L. REV. 1281 (1976); Owen M. Fiss, *Foreword: The Forms of Justice*, 93 HARV. L. REV. 1 (1979); Owen M. Fiss, *The Social and Political Foundations of Adjudication*, 6 LAW & HUMAN BEHAVIOR 121 (1982). Some also would say that it is not the case, strictly speaking, in many other modern litigation contexts, see, e.g., Richard L. Marcus, *Public Law Litigation and Legal Scholarship*, 21 U. MICH. J.L. REF. 647, 671 (1988) (new tort theories are created and accepted "not solely to improve the plaintiffs' chances of compensation, but also and explicitly to alter the behavior of providers of goods and services.") (footnote omitted).

an administrative agency; and the need for political accountability and legitimacy, which theoretically is associated with the popular branches of government, rather than with the courts.<sup>215</sup> But administrative action involves policy choices as well as fact-finding. For that reason, the extent to which agencies should be permitted to make policy decisions is a question which has concerned students of American government virtually since the dawn of the administrative state, when Congress authorized the Interstate Commerce Commission to fix rates that are "reasonable and just."<sup>216</sup> Although agencies originally captured the power to make such decisions from the courts, rather than from the legislative branch, modern theory would probably expect those decisions to be placed within the purview of the political branches of government, rather than the judiciary.<sup>217</sup> As the century has progressed, it has not been the prerogatives of the courts, but the democratic values associated with the legislative branch that have questioned the legitimacy of the administrative agency's power to balance interests and make value choices.

A principal justification for the use of administrative agencies has been the development and deployment of agency expertise in areas that are thought to be, if not beyond the ken of most judges, at least within an area that can benefit from the special knowledge which experts can bring to bear.<sup>218</sup> Concentration of issues within an agency also is thought to bring about certain benefits to be gained through repeated experience with the same or similar types of problem, such as the consistency and predictability of

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215 See generally, Stewart, *supra* note 137, at 1671-88 (describing the rise and fall of the traditional model of administrative law); Gerald E. Frug, *The Ideology of Bureaucracy in American Law*, 97 HARV. L. REV. 1276, 1282-86 (1984) (critiquing four models used to justify the broad delegation of legislative authority to the agencies).

216 See Gerard C. Henderson, *Railway Valuation and the Courts* (pts. 1 & 2), 33 HARV. L. REV. 902, 1031 (1920); see also JAMES M. LANDIS, *THE ADMINISTRATIVE PROCESS* 8-17 (1938).

217 See Barry Sullivan, *The Honest Muse: Judge Wisdom and The Uses of History*, 60 TUL. L. REV. 314, 316-18 & nn.12-13 (1985) (discussing broader conception of judicial role in nineteenth century); WILLIAM E. NELSON, *THE ROOTS OF AMERICAN BUREAUCRACY, 1830-1900* 31-34, 140-45 (1982) (discussing the shift in styles of judicial reasoning during the nineteenth century from formal to policy analysis); James M. Landis, *Administrative Policies and The Courts*, 47 YALE L.J. 519, 520-21 (1938) (discussing transfer of regulatory responsibilities from courts to agencies).

218 Landis, *supra* note 217, at 536 (1938) (asserting that liberty requires only that decisions be made by the tribunal most competent to decide the question, which is the administrative agency in cases where the administrative agency is best suited to acquire the factual information necessary for policymaking).

result which come from expertise. Thus, a highly technical question may be decided more efficiently, as well as more expertly, by an agency charged with deciding such questions on a routine basis, as opposed to a federal judge who might encounter the question only once in her career.<sup>219</sup> In addition, it is at least consistent with the theory of administrative agencies that they should be held accountable to the public, whereas the federal courts were designed with the specific goal of putting them beyond the pressures of the political process. Whether administrative agencies are in fact accountable is, of course, a hotly contested issue. Congress can conduct oversight hearings and summon administrators to Capitol Hill, but the only real remedy is to elect a new president, and that remedy is not narrowly tailored. She may be elected despite her stand on a particular issue, rather than because of it.<sup>220</sup>

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219 Of course, the argument based on continuity assumes the existence of some institutional memory (clearly an empirical issue) because individual administrators typically come and go, while federal judges tend to serve for a longer period. In addition, there may be a bias which develops from repetitious work. In that sense, judicial decisionmaking may represent a "fresh look." See MARVEN H. BERNSTEIN, *REGULATING BUSINESS BY INDEPENDENT COMMISSION* 160 (1955):

The determination of the public interest requires perspective and judgment derived from wide experience in handling problems as well as from considerations of public policy. The [independent] commission's search for the public interest is limited by the narrow experience afforded by its regulatory jurisdiction. As an agency detached from the main currents of political life and economic experience, it profits little by the experience of other government commissions and offices. It has no method for feeding back into the general stream of administrative regulation the lessons drawn from its own experience.

See generally Harold Leventhal, *Environmental Decisionmaking and the Role of the Courts*, 122 U. PA. L. REV. 509, 543-44 (1974) (discussing the range of perspectives that a single reviewing judge or a panel of judges will bring to bear on an administrative decision). In addition, agencies may be more subject to "capture" by the industries they regulate than are the courts. See, e.g., Gillette & Krier, *supra* note 129, at 1086-88 (Even if a risk bearer enjoys a process bias in her favor once she gets into court, at best it merely offsets the access bias which frustrates her ability to get into court in the first place; on the other hand, both the access and process biases of the agency cut against the risk-bearing plaintiff). For another explanation of agency bias that does not rely on the capture theory, see Stewart, *supra* note 137, at 1681-88. See also J. Skelly Wright, *Beyond Discretionary Justice*, 81 YALE L. J. 575 (1972) (book review) (discussing the judiciary's role in limiting agency discretion).

220 The accountability in fact of administrative agencies is, of course, an empirical question on which there is much ground for disagreement. See, e.g., U.S. PRESIDENT'S COMMITTEE ON ADMINISTRATIVE MANAGEMENT, *ADMINISTRATIVE MANAGEMENT IN THE GOVERNMENT OF THE UNITED STATES* 29 (1937) (stating that the independent regulatory commission is the "headless fourth branch" of government). See generally Symposium, *The Independence of Independent Agencies*, 1988 DUKE L. J. 215. See also generally MICHAEL D. REAGAN, *REGULATION: THE POLITICS OF POLICY* 52-67, 154-162 (1987); MARVEN H.

Finally, recent developments in administrative law have emphasized, from the viewpoint of democratic theory, the salutary purposes which can be served by public participation in the administrative rulemaking process.<sup>221</sup> That, after all, may be the strongest reason for federal judges to defer to policy decisions which expert administrative agencies have made, after full participation by parties and the interested public, concerning scientific or other matters within their particular areas of expertise.<sup>222</sup>

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BERNSTEIN, REGULATING BUSINESS BY INDEPENDENT COMMISSION 128-134 (1955). See also *infra* note 229. Cass Sunstein has suggested that a unified executive would be preferable to the currently decentralized structure of independent regulatory agencies, on the ground that agencies would be more accountable to the public if they were more accountable to the president. See SUNSTEIN, *supra* note 27, at 107-08. That solution would provide a check only at a very high level of generalization. The president's position with respect to the conduct of a particular agency is not likely to be unbundled, and his opponent may have the same views with respect to that particular agency.

221 Thus, the opportunity for notice and comment originally was valued for its educational importance, in the sense of providing administrative decisionmakers with relevant information, see Colin S. Diver, *Policymaking Paradigms in Administrative Law*, 95 HARV. L. REV. 393, 405 (1981) (citing *NLRB v. Seven-Up Bottling Co.*, 344 U.S. 344, 349 (1953)), rather than as a means of ensuring political legitimacy to the process. Indeed, the idea that public participation might serve this purpose was not widely accepted. See generally *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 547-48 (1978), *aff'd on reh'g sub nom. Baltimore Gas & Elec. v. Natural Resources Defense Council*, 462 U.S. 87 (1983). More recent scholarship also has addressed the validity of the political legitimacy model, based on the recognition that it is not the "public," but discrete interests which seek to influence the policymaking process, and the amplitude with which their voices are heard necessarily depends on the resources which they have available for the task. See, e.g., MICHAEL T. HAYES, *LOBBYISTS AND LEGISLATORS: A THEORY OF POLITICAL MARKETS* 4, 15-16, 26 (1981); Howard M. Leichter, *Political Accountability in Health Care Rationing: In Search of A New Jerusalem*, 140 U. PA. L. REV. 1939, 1952-56 (1992). Where institutionalized conflict exists in the agency, and involves competing interests of similar strength, the process may work tolerably well. See HAYES, *supra* at 68, 108.

222 Much controversy has surrounded the practical consequences of even such procedural devices as the "hard look" doctrine. See, e.g., Leventhal, *supra* note 219. Some commentators have suggested, for example, that the doctrine has had the effect of making the administrative agencies engage in much more cumbersome processes than otherwise would be warranted. See, e.g., Stephen Breyer, *Judicial Review of Questions of Law and Policy*, 38 ADMIN. L. REV. 363, 383 (1986) (The hard look doctrine and other procedural principles "require that the agency examine all relevant evidence, to explain its decision in detail, to justify departures from past practices, and to consider all reasonable alternatives before reaching a final policy decision . . . . A remand of an important agency rule (several years in the making) for more thorough consideration may well mean several years of additional proceedings, with mounting costs, and the threat of further judicial review leading to abandonment or modification of the initial project irrespective of the merits.") (citations omitted); see also Diver, *supra* note 221, at 424 ("The urge to satisfy a multitude of conflicting interests may force administrators to make decisions based on expediency or an ad hoc evaluation of 'all the relevant circumstances'. The chances of achieving rational policy through the advocacy of various affected interests may therefore



### B. *The Differences Revisited and Applied*

The fundamental differences between these two models, particularly with respect to the different roles which they contemplate for the judiciary, are extremely important here. Thus, it may be true that courts deal without difficulty with issues such as "significant risk" in the environmental and occupational safety and health areas. In those contexts, however, the courts typically deal with those issues in a very different way. Judicial action there follows an initial agency determination as to the existence of "significant risk," or whatever analogous inquiry is to be made—a determination which normally comes only after a rulemaking proceeding, which has provided an opportunity for a thorough ventilation of the issues. In other circumstances, where issues are decided by agency adjudication, the agency also brings its expertise to bear, but perhaps in a somewhat different way.<sup>223</sup> In any event, it is not up to the courts, in reviewing such administrative actions, to decide whether there was in fact a "significant risk" or whatever the ultimate object of the inquiry might be.<sup>224</sup> On judicial review of administrative action, the role assigned to the courts is purposefully circumscribed and generally requires that the court decide whether the agency followed proper procedures and properly interpreted the law, but not whether correct conclusions have been reached.<sup>225</sup> For the most part, responsibility for the quality

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be doubtful.") (citing Richard B. Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1667, 1776-81 (1975)); *Baltimore Gas & Elec. Co. v. Natural Resources Defense Council*, 462 U.S. 87, 103 (1983) (stating that courts must be at their most deferential when examining scientific determinations, at the frontiers of science, and made by an agency acting within its area of special expertise) (citation omitted).

223 See generally Diver, *supra* note 221, at 401-09 (discussing the "golden age" of "incrementalism," when agency adjudication was the predominant mode of policymaking).

224 The Supreme Court made a similar point in *Jacobson v. Massachusetts*, 197 U.S. 11, 30 (1905), when it held that the choice between competing medical theories as to the elimination of smallpox was a matter for the legislative branch: "[The state legislature] was not compelled to commit a matter involving the public health and safety to the final decision of a court or jury. It is, no part of the function of a court or a jury to determine which one of two modes was likely to be the most effective for the protection of the public against disease." The Court also observed, quoting from a then-recent decision of the New York Court of Appeals, that republican government required the conclusion that "what the people believe is for the common welfare must be accepted as tending to promote the public welfare, whether it does in fact or not." *Id.* at 35.

225 See *Chevron U.S.A. v. Natural Resources Defense Council*, 467 U.S. 837, 863 (1984) (given congressional silence, a reviewing court must defer to an agency's reasonable interpretation of its statute not only for legislative rules, but also for interpretive rules and administrative adjudications); *Vermont Yankee Nuclear Power Corp. v. Natural*

of the substantive decisions rests with the agency, not the court.

The decisions which the courts are being asked to make in the present context are not similar to those which follow in the wake of agency rulemaking or adjudication, and the courts are not limited to the carefully circumscribed power of review which generally applies in that context. Indeed, to the extent that standards of review come into play here, it is because of the deference which appellate courts must pay to factual findings made by trial courts.<sup>226</sup> In case after case, therefore, we see trial courts grappling with "significant risk" as a factual issue, hearing expert testimony on that factual issue, and then making findings of fact with respect to that issue.<sup>227</sup> The wheel of the factual findings is thus reinvented time after time, differing only because of the skill of judge and the lawyers, the resources of the parties, and the skill and knowledge of the available experts. On appeal, reviewing courts then deal with those "factual findings" according to the

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Resources Defense Council, 435 U.S. 519, 523-25 (1978) (a reviewing court cannot impose additional rulemaking procedures upon an agency; the court can only check to see that the agency followed the procedures contained in the Administrative Procedure Act or in the agency's organic statute), *aff'd on reh'g sub nom.* Baltimore Gas & Elec. v. Natural Resources Defense Council, 462 U.S. 87 (1983); John S. Applegate, *Worst Things First: Risk, Information, and Regulatory Structure in Toxic Substances Control*, 9 YALE J. ON REG. 277, 336-37 (1992) ("Typically, judicial review of agency action has been limited to the last two stages of the regulatory process: the choice of response (promulgation of a rule) and enforcement."). See also Hanly v. Kleindienst, 471 F.2d 823, 829 (2d Cir. 1972) ("[I]n some cases a complete *de novo* analysis of the legal questions, though theoretically possible, may be undesirable for the reason that the agency's determination reflects the exercise of expertise not possessed by the court.") (citing *Moog Industries v. FTC*, 355 U.S. 411, 413 (1958)).

226 See *Martinez*, 861 F.2d at 1506-07 (Eleventh Circuit vacates the lower court decision and remands the case so that the trial court can determine the "overall risk of transmission"); *Chalk*, 840 F.2d at 704 (appellate court will not overrule a lower court's grant or denial of a preliminary injunction unless the lower court abused its discretion. A decision based on a "clearly erroneous" factual finding is an abuse of discretion; a finding of fact is clearly erroneous if "on the entire evidence [the reviewing court] is left with the definite and firm conviction that a mistake has been committed.") (citing *United States v. United States Gypsum Co.*, 333 U.S. 364, 395 (1948)); *Leckelt*, 909 F.2d at 827 (trial court found that the hospital reasonably believed that Leckelt was not otherwise qualified; that finding was sustained by the court of appeals as not "clearly erroneous.") (citation omitted). See also *infra* note 227.

227 See *Severino*, 935 F.2d at 1182 ("We are bound by the trial court's factual findings unless they are clearly erroneous. The factual findings based on substantial, competent evidence that the Fire District was placed in the position of employing an AIDS-infected employee who could perform modified duties but who would not work satisfactorily under the conditions created by the District for his benefit, are not clearly erroneous.") (citations omitted). See also *supra* note 226.

general principles governing appellate review.<sup>228</sup> This kind of review is not likely to generate a coherent body of principle. In any event, the task faced by the trial court in this situation is not in any sense analogous to the task which ordinarily faces a reviewing court on review of administrative action. On the contrary, the decisions which trial courts must make are precisely the kinds of decisions which we leave, in other contexts, to be made by agencies in which we put our trust, at least theoretically, because of their presumed expertise and political accountability.<sup>229</sup>

The decisionmaking process is different in a second sense as well. In the present context, courts are being asked to make these determinations, not simply as *nisi prius* decision-makers, but also as chancellors, and often in circumstances where they are required to decide on the basis of scant evidence presented on an emergency basis.<sup>230</sup> As students of the remedial process have long recognized, decisions made at the preliminary injunction stage, when the court and the parties have a much less firm grasp of the case than would be true after extensive discovery, briefing, and trial, are particularly susceptible to error.<sup>231</sup> In addition, chancellors

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228 See *supra* notes 226-27.

229 Whether the political branches are as accountable as we would like them to be is another question altogether. See, e.g., Leichter, *supra* note 221, at 1952 ("The 'grand difficulty' of holding political elites answerable for their actions has become the grand frustration of American political theory."). Nonetheless, it seems clear that problems of accountability can be solved only by making the political branches of government more accountable, not by depending upon the least accountable branch to do their work.

230 There is one substantial difference which warrants mention. Decisions in the rulemaking context do not usually involve weighing the competing rights of known individuals, at least in the same sense in which that typically happens in the adjudicatory context. For example, a court may be required to decide whether a particular nursery school teacher with a particular infectious disease should be permitted to return to the classroom, despite some theoretical risk that the decision may result in the infection of some undetermined number of a particular group of individual students. In rulemaking, on the other hand, an agency may be attempting to assess the concentration of a particular substance to which exposure should be permitted in the case of a statistically average worker who spends his entire working life in the industry. Those two situations seem very different, at least at an existential level.

231 A preliminary injunction, which often is entered after only the most rudimentary sort of hearing, may well have very significant and sweeping effects, which may be destined to last for months or years, particularly in complex cases requiring substantial pre-trial activity. This insight caused John Leubsdorf to redefine the central issue in this area, which he did in his classic article on preliminary injunctions: "Since preliminary injunctions issue on the basis of rudimentary hearings, the preliminary injunction standard should aim to minimize the probable irreparable loss of rights caused by errors incident to hasty decision." John Leubsdorf, *The Standard for Preliminary Injunctions*, 91 HARV. L. REV. 525, 540-41 (1978). Thus, Leubsdorf identified the court's decision on a motion for preliminary injunction as presenting a dilemma, namely, the choice between denying the

typically are granted substantial discretion in enforcing the law,<sup>232</sup> and their decisions, perhaps especially at the temporary restraining order and preliminary injunction stages, typically are given great deference by reviewing courts.<sup>233</sup> That being the case, it is particularly dangerous to build a body of precedent based primarily, or even substantially, on decisions rendered in those procedural circumstances. Given the nature of the legal problems spawned by the AIDS epidemic, however, the majority of cases are likely to be decided in that context, if they are to be decided by courts in the first instance.

Finally, common law development works best where courts can deal with a problem and its permutations over a period of time.<sup>234</sup> In the present circumstances, however, the need for prompt judicial action does not relate solely to the decision of individual cases, but also to the development of a consistent body of legal principle. Largely because there is little time for judges to

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injunction on the one hand, and risking the possibility that the plaintiff will suffer a loss of his lawful rights which no later remedy can restore, and granting the injunction on the other hand, and possibly visiting the very same consequences upon the defendant. "The dilemma . . . exists only because the court's interlocutory assessment of the parties' underlying rights is fallible in the sense that it may be different from the decision that ultimately will be reached." *Id.* at 541. *See also* *American Hosp. Supply Corp. v. Hospital Prods. Ltd.*, 780 F.2d 589, 593 (7th Cir. 1986) (Posner, J.) ("A district judge asked to decide whether to grant or deny a preliminary injunction must choose the course of action that will minimize the costs of being mistaken. Because he is forced to act on an incomplete record, the danger of a mistake is substantial. And a mistake can be costly.").

232 There may be some conflict, of course, between the principles of substantive law that the court is bound to apply and the principles of remedial law which it also is bound to apply. *See, e.g.*, *Weinberger v. Romero-Barcelo*, 456 U.S. 305 (1982); *Tennessee Valley Auth. v. Hill*, 437 U.S. 153 (1978); *Brown v. Bd. of Educ.*, 349 U.S. 294 (1955). In other circumstances, the demands of substantive and procedural law may be congruent. *See, e.g.*, *Smith v. Staso Milling Co.*, 18 F.2d 736 (2d Cir. 1927) (L. Hand, J.).

233 *Roland Mach. Co. v. Dresser Indus.*, 749 F.2d 380, 390 (7th Cir. 1984) ("The question for [the reviewing court] is whether the [trial] judge exceeded the bounds of permissible choice in the circumstances, not what we would have done if we had been in his shoes.").

234 KARL N. LLEWELLYN, *THE CASE LAW SYSTEM IN AMERICA* 3 (Paul Gewirtz ed. & Michael Ansaldi trans., 1989) ("In a case law system, typically, it takes a very long time and many test cases before legal rules acquire a *fixed* invariant formulation resembling the language of statute.") (emphasis in original); Barry Sullivan, Book Review, 4 CONST. COMMENTARY 452, 454 (1987) ("[E]ven in cases clearly involving important questions of federal law, the [Supreme] Court will sometimes permit a persistent conflict to remain unresolved for several years, presumably to permit a fuller development of the law in the lower federal courts." (footnotes omitted) *See also* Gillette & Krier, *supra* note 129, at 1077 ("Latency and irreversibility practically deny us the fruits of trial-and-error, perhaps the best means yet devised by which to resolve uncertainty.") (footnote omitted)).

act with respect to individual cases, the need exists for a consistent body of legal principle which can be applied by the courts. But that body of principle has not yet evolved, and it is not likely to evolve in the short term for a number of reasons, including the speed with which individual cases must be decided, the ambivalence with which individual judges apparently approach these cases, the heavy policy content of the questions presented in these cases, the relatively small number of reported decisions in this area, and the widely disparate factual circumstances in which these issues arise and lend themselves to the making of distinctions.

It seems reasonable to conclude that the unsatisfactory nature of the more recent case law is not simply the result of judicial recalcitrance or poor reasoning. A more likely explanation is that the "significant risk" test cannot be applied in the manner that was contemplated, not only because of the open-ended nature of the test, but because of the circumstances in which it typically must be applied, and because the civil rights or judicial enforcement model is not ideally suited by itself to the resolution of these polycentric, value-laden, and emotionally-charged problems. This is not to say that the problem of discrimination against persons with contagious diseases is not an important problem, still less that it should not properly be considered a civil rights or judicial problem. Nor is it to suggest that these are the kinds of problems which simply should be left to a bureaucracy, which may or may not be indifferent to individual rights. On the contrary, the civil rights aspect of the problem is both serious and important, and it clearly warrants the kind of protection which we traditionally seek in the courts.<sup>235</sup>

The problem is not difficult to state: because the civil rights enforcement model is not well-suited to accomplishing the task at hand, and, in addition, we are asking judges to do something which they are not equipped to do, in an area that is as emotionally charged as any they face, we almost certainly have had the effect of inviting judges to underenforce the rights which Congress has created for the benefit of persons with infectious diseases.<sup>236</sup> That approach is not consistent with the intent of Congress, as re-

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235 See, e.g., Barry Sullivan, *AIDS: Law, Public Policy, and The Work of The American Bar Association*, 21 U. TOL. L. REV. 1 (1989).

236 Cass Sunstein has made a similar point with respect to the OSHA and environmental laws, namely, that the creation of impossibly high standards has resulted in less enforcement than might have been the case if more modest standards had been selected. See SUNSTEIN, *supra* note 27, at 91-92.

flected in its post-*Arline* enactments, but it may well be the price we pay for withholding from judges the guidance they need to decide the issues with which we have charged them. On the other hand, there is something to be gained from the administrative model. A better solution to the problem does not lie in replacing the judiciary with administration in this area, but in finding a better way for using administration to inform judicial action. If an agency were able to promulgate rules and standards, which courts could draw upon, the gulf between the statutory test and the real world might be narrowed. In addition, the primacy of the courts could be protected if those rules and standards were not deemed decisive, but only presumptively correct.

## VI. SOME OBSERVATIONS IN AID OF RESOLUTIONS

If one is persuaded that the "significant risk" test has not proved an appropriate test for use by the courts in the first instance, and that the traditional judicial model of civil rights enforcement is not well-suited by itself for resolving the issues presented by persons with contagious diseases such as AIDS, the problem obviously warrants a great deal more consideration.<sup>237</sup> That is the case for a number of reasons.

First, the administrative agency model may be preferable to

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<sup>237</sup> Alternatively, if one thought that the "significant risk" test was not an appropriate test for use by the courts, but that the civil rights judicial enforcement model was nonetheless an appropriate model for enforcing the rights created by these statutes, the solution might be to require Congress to create a more specific test for application by the courts. Even if that could be done, however, it would not solve the entire problem because, as we have seen, part of the problem stems from the limitations of the judicial enforcement model. In addition, there is a great deal to be said for the point made by Philip Frickey and Daniel Farber in their appraisal of recent enthusiasm for the nondelegation doctrine, that is, that agencies are at least required to give reasoned explanations for their actions, based on an evidentiary record, whereas Congress need give no reasons at all for the choices it makes. DANIEL A. FARBER & PHILIP P. FRICKEY, *LAW AND PUBLIC CHOICE: A CRITICAL INTRODUCTION* 85-86 (1991). On the other hand, Michael Hayes has suggested that agency capture frequently is something that is far from accidental, being intended by Congress when it enacted the legislation. Congress minimizes disturbances for the attentive groups important to the reelection of its members, while appearing concerned with the broader public interest. In this view, "the real effect of delegation is not so much to avoid choice as to disguise it." MICHAEL HAYES, *LOBBYISTS AND LEGISLATORS: A THEORY OF POLITICAL MARKETS* 104 (1981). Other scholars, of course, have recently questioned the claims of the legislative branch, based on the mechanism by which legislators are elected and on the means by which they express the will of the legislative body. See, e.g., Lani Guinier, *The Triumph of Tokenism: The Voting Rights Act And The Theory of Black Electoral Success*, 89 MICH. L. REV. 1077, 1134-54 (1991). See also Lani Guinier, *No Two Seats: The Elusive Quest For Political Equality*, 77 VA. L. REV. 1413 (1991).

the civil rights enforcement model in some respects, but the administrative model by itself is no more a solution to the problem than is the judicial model by itself. The claims made for the administrative model are subject to serious reservations, and the ultimate problem — a question of individual rights — is not the kind of issue which is comfortably left to a bureaucracy, subject only to minimal judicial review. The answer, then, does not rest in substituting administrative for judicial action, but in supplementing judicial with administrative action.<sup>238</sup> Matters should not be turned over to administration, but we must take advantage of what administration can bring to bear on the subject.

One problem, of course, is that we do not now have available any administrative agency with an obvious claim to the expertise or political competence necessary for fulfilling such a role.<sup>239</sup> The National Commission on AIDS might have developed in a way that was capable of performing this function, and to some extent did perform it, but the Commission had the misfortune to exist at a time when the President had little interest in hearing what it thought, and its life has now expired in any event.<sup>240</sup> A similar kind of body seems appropriate for engaging in the kind of decisionmaking that we have postulated here. By defining the problem in the way that we have—recognizing that the problem of “significant risk” contains both normative and objective elements—we obviously would be asking the administrative decisionmaker to do something different from what most agencies

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238 Specifically, an administrative body could promulgate rules or standards expressing the current scientific consensus of the degree of risk in various contexts and normative judgments concerning whether these risks are acceptable. The scientific aspect of the rules would decrease the likelihood of inconsistent outcomes resulting from the varying quality of the expert testimony and other scientific evidence presented at trial, while still permitting the court to consider evidence of recent advances in scientific knowledge concerning transmission risks, as well as evidence relating to the plaintiff's specific circumstances. The normative aspects of the rules would provide the courts with policy-making guidance without trenching on their independent authority and duty to uphold the values embedded in the civil rights statutes, and thus protect the civil rights of individuals.

239 Even the Centers for Disease Control have not maintained a totally “rational” response to the crisis. Bobinski, *Risk and Rationality*, *supra* note 58. Nor do the Centers have the political competence and prestige necessary for fulfilling this role.

240 See NATIONAL COMM'N ON AIDS, AIDS: AN EXPANDING TRAGEDY: THE FINAL REPORT OF THE NATIONAL COMMISSION ON AIDS vii (1993) (“This is a short, sometimes angry report tinged with sadness and foreboding. It is short, because all of what we say here has been said many times before. It is sometimes angry because the carefully considered, widely heralded recommendations contained in our previous reports have been so consistently underfunded or ignored.”).

typically are thought to do. Simply moving the inquiry into an administrative setting certainly would not accommodate that part of the problem which stems from a misunderstanding of the nature of risk and a refusal to acknowledge the normative component of the "significant risk" inquiry. If the administrative decisionmaker took the view that the "significant risk" inquiry requires nothing more than an investigation into facts, and gave no conscious consideration to values or policy choices, there would be no point in affording an agency the first opportunity to deal with the problem. In that event, value choices would be made because such choices are inevitable. As with the current situation, however, those choices would not be acknowledged; they would be made in the dark and without benefit of reasoned discussion. The process would not produce purely objective rules, but rules that are the product of unacknowledged value choices; only the identity of the rulemaking body would change.<sup>241</sup> But more than a change of venue is needed. We also need an improved decisionmaking process.

Second, the administrative body must not simply recognize that the "significant risk" inquiry has both objective and normative dimensions; it must follow a methodology appropriate to that recognition. The ideas of Kristin Shrader-Frechette and Oliver Williamson are helpful in this respect because they suggest possible methodologies that are capable of facing up to normative values rather than attempting to suppress them. Williamson's decision tree, with its frank acknowledgment of values, profitably may be compared to the herculean, but wholly unsuccessful, efforts which the Centers for Disease Control (CDC) put forth in an attempt to promulgate an "objective" rule on the subject of health care workers with HIV.<sup>242</sup>

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241 See generally Gillette & Krier, *supra* note 129, at 1088 (critics of the courts who would rather have an agency decide the questions about public risk fail to prove that the agency would be any less biased than the courts).

242 In 1982, the principal focus of the CDC guidelines was on protecting clinical workers from infection. Bobinski, *Risk and Rationality*, *supra* note 58, at 218. In 1983, the CDC issued new guidelines, which essentially retained the same focus, but expanded the ambit of the guidelines to protect a broader category of health care workers [HCW] and morticians. *Id.* The 1985 guidelines emphasized the slight chance of transmission from patient to HCW and also recognized that an HCW could transmit the virus to a patient; they took the position that the type of procedure was determinative of the degree of risk. *Id.* at 219-20. Five months later, the CDC issued guidelines highlighting the problem with respect to invasive procedures; the CDC supported the use of "universal precautions" and rejected systematic testing of HCWs performing even invasive procedures on the



The CDC's efforts underscore the need for something more than a simple change of venue.<sup>243</sup> In their July 1991 guidelines, the CDC attempted to structure an approach to the problem of health care workers with HIV by focusing their attention on a subset of invasive procedures that were called "exposure-prone" procedures.<sup>244</sup> It was thought that concentrating on these procedures, and on that core group of health care providers responsible for performing these procedures, would narrow the issues and

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ground that the risk of transmission was too low. The CDC also rejected a blanket ban on infected HCWs performing invasive procedures on the ground that that risk was too low. *Id.* at 219-21. In 1987, the CDC took the position that any restrictions on infected HCWs was to be made on an individualized basis, and suggested that such individualized decisions should be made by expert panels. *Id.* at 221-22. In 1990, the CDC acknowledged that a case of health care worker to patient transmission may have occurred in the case of Dr. Acer. *Id.* at 223. In 1991, the CDC issued new guidelines which proposed listing a set of invasive procedures which no seropositive health care worker should perform. *Id.* at 226-31. This proposal, which followed a "town meeting" which the CDC conducted in Atlanta, with the participation of many medical organizations and civil rights groups, eventually failed because most medical professional groups, for one reason or another, took the view that no such list could be compiled. That was the case, they claimed, because the incidence of transmission was too small to warrant the conclusion that any procedures were dangerous, and, in the final event, the degree of danger depended more on the skill of the practitioner than on the nature of the procedure. In 1992, the CDC reverted to the individualized inquiry. *Id.* at 231-35. It remains to be seen whether the CDC will change positions once more. *See also*, Verla S. Neslund et al., *The Role of CDC in the Development of AIDS Recommendations and Guidelines*, 15 *LAW, MED. & HEALTH CARE* 73 (1987). For an overview of state responses to the crisis, see Nodzanski, *supra* note 58, at 332. ("States that are taking action on this issue seem to be adopting the informed consent model to regulate the activities of HIV-infected health care professionals.")

243 The same might well be said of the regulations which have been promulgated by the Occupational Safety and Health Administration and the Equal Employment Opportunity Commission. While the approaches taken by those agencies obviously have been constrained by their respective statutes, it is nonetheless clear that the regulations take us very little distance beyond the statutory language itself. For instance, the Supreme Court articulated the significant risk test in *Artline*, 480 U.S. at 287 n.16; Congress codified the test in the Civil Rights Restoration Act, 29 U.S.C. § 706(8)(d) (1988 & Supp. IV 1992) (as amended); Congress re-affirmed it in the Americans with Disabilities Act, 42 U.S.C. §§ 12111(3), 12113 (Supp. III 1991); finally, both the EEOC and the Department of Justice adopted it in 29 C.F.R. §§1630.2(r), 1630.15 (1992) and 28 C.F.R. §36.208 (1992), respectively. But the EEOC expands the scope of the affirmative defense only by including a qualification when the plaintiff poses a direct threat to herself, as opposed to others. 29 C.F.R. §§ 1630.2(r), 1630.15 (1992). Whether this provision will be deemed consistent with the statute remains to be seen.

244 *See* Centers for Disease Control, U.S. Department of Health & Human Serv., *Recommendations for Preventing Transmission of Human Immunodeficiency Virus and Hepatitis B Virus to Patients During Exposure-Prone Invasive Procedures*, 40 *MORBIDITY & MORTALITY WKLY. REP.* (No. RR-8) 1 (July 12, 1991). Mary Anne Bobinski has recounted the history of the CDC guidelines. Bobinski, *supra* note 58, at 226-37. *See also* Nodzanski, *supra* note 58, at 322-26.

provide an appropriate basis for structuring a rational response to the problem. Rather than attempting to create a list of such procedures, the CDC left that matter to be resolved by the professions and the health care industry.<sup>245</sup> When the professions took the position that there was no rational basis for developing such lists, the approach failed spectacularly.<sup>246</sup> Subsequent efforts also have been unsuccessful.<sup>247</sup> If nothing else, this example demonstrates the danger of losing control over the issue to be decided. In a more profound sense, however, it demonstrates the difficulty of attempting to resolve normative issues without acknowledging their normative character, as well as the difficulty of leaving those issues to an agency which has no mandate to resolve normative issues. Thus, this example shows the need for a methodology appropriate to the nature of the questions presented.<sup>248</sup>

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245 Centers for Disease Control, *supra* note 244, at 5.

246 See Bobinski, *supra* note 58, at 232. Bobinski has questioned the purpose of the July 1991 guidelines: "The new guidelines suggested that the risk of HIV transmission from HCW to patient—previously viewed as too small to require HCW testing and practice restrictions—had gained a new salience after the Acer case. The guidelines were not premised on new information about previously unknown risks of transmission. Instead, they merely stated that, 'until further data are available, additional precautions are prudent.' At the very least, the CDC's new recommendations represented an extremely risk averse approach, advocating the elimination of even minute risks." *Id.* at 229 (footnotes omitted). See also OSHA Regulation, 56 Fed. Reg. 64,004, 64,036 (1991) ("At this time, OSHA believes that there are not sufficient data on HIV to quantify the occupational risk of infection. Nevertheless, the epidemiological data on HIV provide strong qualitative evidence that HIV can be transmitted in the workplace and serve to further illustrate risk remaining after the major protection measure of HBV vaccination is implemented. Individuals who have a needlestick exposure to blood from an HIV infected individual have a 3 to 4 per 1,000 risk of developing an HIV infection."). The July 1991 guidelines also left it to local expert review panels to determine whether any practice limitations should be imposed upon health care workers with HIV. See Bobinski, *Risk and Rationality*, *supra* note 58, at 228-29. Jack Nagel has written in another context: "When policy choices are especially divisive, authorities may pass the buck to ordinary citizens . . . . [G]overnment agencies have often established grassroots committees to handle hard choices involving the allocation of individual benefits and deprivations; local draft boards were a conspicuous example." Jack H. Nagel, *Political Accountability: Combining Deliberation and Fair Representation in Community Health Decisions*, 140 U. PA. L. REV. 1965, 1971 (1992).

247 See, e.g., *CDC Appears to Have Shelved Listing of Exposure-Prone Surgeries in HIV Advisory*, Daily Labor Report (BNA), at 1589 (Dec. 9, 1991); *CDC Apparently Will Drop Proposal to List Exposure-Prone Procedures*, Daily Labor Report (BNA), at A-4 (Dec. 5, 1991).

248 Although the approach taken by the Centers for Disease Control was criticized because of the suppression of normative values, the health care regulations promulgated by the Occupational Safety and Health Administration have been criticized for lack of scientific understanding. See *American Dental Association v. Martin*, 984 F.2d 823, 834 (7th Cir. 1993) (Coffey, J., concurring in part, dissenting in part) ("As established in this opinion, OSHA has failed in the record to accurately or scientifically analyze the risk of exposure to bloodborne pathogens.").

Third, the nature of the "significant risk" issue requires that the decisionmaking process include public participation as well as participation by experts. As we have seen, recent scholarship demonstrates that lay people may well have something special to bring to the table.<sup>249</sup> More important, perhaps, is the recognition that public participation increases the level of public confidence in the integrity of the decisionmaking process; and this is an area in which there is much need for public confidence. Above all, the public—and the courts—must perceive the decisionmaker to be an honest broker who has considered all relevant interests.<sup>250</sup>

In any event, it is clear that this project requires public participation far greater than normally is the case. In this respect, the ideas of Kristin Shrader-Frechette obviously bear upon this project, as do the ideas of those who have been working on the moral and policy dimensions of the health care rationing problem.<sup>251</sup> This is problematic, of course, because public participation cannot be allowed to become majority tyranny, and consideration of lay opinion cannot be permitted to camouflage rank bias and prejudice. So long as these decisions are perceived to have normative dimensions and consequences, however, the necessity for substantial public participation and debate is obvious. The prospect of openly debating these issues on normative grounds may seem unsettling, but the alternative is more so.<sup>252</sup> In this respect, Judge Breyer is

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249 See *supra*, notes 145 and 176-77.

250 Richard B. Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1669, 1756 (1975). The doctrine of "adequate consideration" helps to ensure that agencies consider all the relevant interests involved. See, e.g., *Hanly v. Kleindienst*, 471 F.2d 823 (2d Cir. 1972), *cert. denied*, 412 U.S. 908 (1973) (agency must consider social effects of a prison on a neighborhood or community). This doctrine has been praised for its tendency to improve decisionmaking, and for its tendency to increase citizen participation and confidence in government. See Richard B. Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1669, 1760-63 (1975). It is not, however, without criticism: How does one select which interests are to be represented and to what degree? Who is to make that decision? How will the poorer interests pay for their involvement? How will agency capture be minimized, or preferably avoided? Will the increased delay and resource costs force the agencies to turn to informal rulemaking procedures to which many of these protections will not apply? Will the now large numbers of interests presented complicate the questions before the agency? *Id.* at 1762-81.

251 See, e.g., Leonard M. Fleck, *Just Health Care Rationing: A Democratic Decisionmaking Approach*, 140 U. PA. L. REV. 1597 (1992); Nagel, *supra* note 246; Leichter, *supra* note 221, at 1939.

252 Thus, the approach which we have been considering is very different from that proposed, in other contexts, by those who would simply leave matters to the "experts." See, e.g., Peter W. Huber, *Safety and the Second Best: The Hazards of Public Risk Management in the Courts*, 85 COLUM. L. REV. 277, 332-35 (1985); Joel Yellin, *High Technology and the Courts: Nuclear Power and The Need for Institutional Reform*, 94 HARV. L. REV. 489, 555-57

undoubtedly correct in his assertion that good results are an important part of public satisfaction with the administrative system.<sup>253</sup> On the other hand, expectations with respect to public participation are so great in our society that good results will not compensate for a lack of public participation. Indeed, the excellence of results may be rejected simply because they are imposed from on high, so strong is our belief in Jefferson's dictum that the aim of science in a democracy should not be to supplant the power of the people, but to "inform their discretion."<sup>254</sup>

Fourth, just as any new approach must be capable of accommodating the moral dimension of this discourse, it also must be capable of dealing authoritatively with scientific uncertainty and legislated facts.<sup>255</sup> Courts normally manage the use of such facts by changing the burdens of proof.<sup>256</sup> In the existing model, one of the burdens that rests with the party seeking to exclude a disabled person from the benefit to which she otherwise would be entitled is the burden of establishing that the disabled person would present a "significant risk" or a "direct threat" to the health

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(1981). That is so because, as Colin Diver has suggested, the values of participation and rationality are distinct and often at odds. *See* Diver, *supra* note 221, at 425 ("the leading metaphor for comprehensive rationality is not the spirited debate of the town meeting but the scientist's lonely search for truth").

253 As Judge Breyer has suggested, "public respect depends not only upon the perception of public participation but also, in part, upon an organization's successful accomplishment of a mission that satisfies an important societal need." BREYER, *supra* note 23, at 63.

254 *Letter from Thomas Jefferson to William Charles Jarvis (September 28, 1820)*, in 10 THE WRITINGS OF THOMAS JEFFERSON 160 (Paul Leicester Ford ed., 1899). Jefferson wrote: "When the legislative or executive functionaries act unconstitutionally, they are responsible to the people in their elective capacity. The exemption of the judges from that is quite dangerous enough. I know no safe depository of the ultimate powers of the society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion by education. This is the true corrective of abuses of constitutional power." *Id.* at 161.

255 To legislate a fact is to conclude something is fact even though there is no proof. The Delaney Clause provides a vivid example: what is carcinogenic in mice is likewise carcinogenic in people. In a significant risk case, the legislated fact is whether "some risk" rises to the level of "significant," or not. *See supra* note 125 and accompanying text.

256 *See generally* KENNETH CULP DAVIS, ADMINISTRATIVE LAW TREATISE § 15.9 (1978). Davis's example compares *Paris Adult Theatre I v. Slaton*, 413 U.S. 49 (1973) (burden on party challenging the "fact" that exposure to obscene material produces antisocial behavior), with *Carey v. Population Services International*, 431 U.S. 678 (1977) (burden on party relying on the "fact" that limiting access to contraceptives to those over 16 years of age has a deterrent effect on early sexual behavior). *Id.*

or safety of others.<sup>257</sup> If that fact cannot be established, because of medical uncertainty or for any other reason, then the plaintiff necessarily will secure her place at the table. Perhaps that is where the burden should rest. However, we should be aware that the burden currently rests there, not because of any particular attention that Congress has given to the problem of medical uncertainty, but because of a more general policy judgment, namely, that the party opposing the granting of the disputed benefit to the disabled person should carry the burden of proof. That applies across the board and does not reflect any particular legislative judgment with respect to the issue of medical uncertainty. But medical uncertainty presents special concerns. It would seem desirable, therefore, that the administrative body should address this issue more specifically, and at a lower level of generality, with emphasis placed on the policy implications of leaving the burden of medical uncertainty on one party or the other.<sup>258</sup>

Fifth, the rule or standard articulated in this way should be entitled to deference by the courts, but it should not preempt further conversation at the judicial level. The purpose of these rules or standards is to aid the court, to give it a headstart in deciding the issues presented for adjudication, but not to bind the court to the will of the administrator. A different rule of deference would strike a different balance between the judicial and the administrative, and might well endanger the ability of the courts to fulfill their traditional function of protecting individual rights. That is important because any new approach must provide adequate safeguards for protecting the rights of persons with contagious diseases. We must not forget that the fundamental approach of these laws is not to satisfy existing preferences, but to change

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257 At least under the Americans with Disabilities Act, the direct threat test relates to an affirmative defense. 42 U.S.C. § 12113 (Supp. III 1991).

258 In *Industrial Union Dep't, AFL-CIO v. American Petroleum Inst.*, 448 U.S. 607, a plurality of the Court held, without extended discussion, that "the burden was on the Agency to show, on the basis of substantial evidence, that [the presence of a significant risk] is at least more likely than not." *Id.* at 653. With respect to that holding, Howard Latin has observed: "This degree of certainty may be appropriate in an adjudicatory setting, but its application is questionable in a hybrid rulemaking context in which policy considerations often play a decisive role." Latin, *supra* note 119, at 590. Thus, Latin has suggested that "the courts should fashion particularized allocational doctrines in light of the policies and priorities in the applicable regulatory statute, the characteristics of the disputed factual issues, the abilities of different parties to resolve uncertainties, and the potential consequences of erroneous judgments." *Id.* at 603.

them.<sup>259</sup> By giving effect, as we must, to the normative dimension of the problem of evaluating risk, we must not create a situation in which normative considerations are allowed to serve as camouflage for invidious discrimination, and thus subvert the basic policy of these statutes. To some extent, the Constitution will afford protection against such discrimination, but, consistent with the purpose of the various relevant congressional enactments, the Constitution can do little more than serve as a remedy of last resort. Thus, any new approach must have strong safeguards against discrimination. Otherwise, it would be ironic that the insight which led us to question the existing scheme—the insight that the existing scheme leads to categorical underenforcement of the values which Congress intended to further—should lead us to propose a new framework which does even less to enforce those values. That need not be the case.

## VII. CONCLUSION

The “significant risk” test has not proved helpful in deciding cases involving contagious diseases. The courts have found the test difficult to apply in non-routine cases because it requires them to make policy judgments in an area rife with normative concerns and hobbled by medical uncertainty. Thus, some courts have re-framed the test in narrower terms, permitting differential treatment of persons with contagious diseases upon a showing of “some risk,” rather than requiring compliance with the “significant risk” mandated by *Arline*. The main problem, as we have seen, is that the courts have been unable or unwilling to make the kinds of judgments which Congress has imposed upon them, given the circumstances in which those judgments must be made, and given the lack of guidance which Congress has provided.

An alternative approach is necessary. Either Congress must speak more explicitly than it has, which seems unrealistic to expect, or the courts must be given guidance by some other agency of the government, which is able to give appropriate consideration to the questions of policy which Congress has left open. That administrative process will require the consideration of both scien-

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259 See, e.g., 29 U.S.C. §§701, 720, 760, 770, 796 (1988) (discussing the purpose of the 1973 Rehabilitation Act and its subchapters); 42 U.S.C. §12101(b) (Supp. III 1991) (discussing the purpose of the ADA); *Arline*, 480 U.S. at 277-80 (considering the purpose of the 1973 Rehabilitation Act; how it is modelled after Title VI; and how, if anything, the scope of the act has expanded over time).

tific and normative issues, and will require broad public participation, as well as substantial accountability to the public. But the nature of the interests at stake will not permit the agency to have the last word; the vindication of civil rights ultimately is the work of the courts, not the bureaucracies. Thus, the courts must be able to take advantage of the work of administration, without abdicating their responsibilities to administration. If the law is to achieve its goal, as to the authoritative allocation of values in society, we must develop a mechanism for the making of decisions which are not only reasonable, but are also perceived to be reasonable, and are made in a manner that is consistent with the decisionmaking processes appropriate to a democratic society.