

BOOK REVIEW

Thunder From the Left

Storm over Biology: Essays on Science, Sentiment, and Public Policy, by Bernard D. Davis.
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"Among the notionable dictes of antique Rome was the fancy that when men heard thunder on the left the gods had somewhat of special advertisement to impart. Then did the prudent pause and lay down their affaire to studye what omen Jove intended." So wrote Sir Eustace Peachtree in *The Dangers of This Mortall Life*, Christopher Morley once informed us when titling a novel *Thunder On The Left*. Hence, the meteorological metaphor in Davis' title is even more apt than he may have realized.

Like such ancient Romans, many academic and other intellectuals remain ready to cock an obedient and credulous ear to the Left at the slightest rumble. By thundering loudly, consequently, leftist academics have been rewarded beyond their due for what often turn out to be glib and self-serving exercises in pop virtue, conducted at the expense of scientists who are no longer alive to defend themselves or who have shown themselves too much alive by raising questions deemed

improper according to standards of liberal orthodoxy.

Once the storm of irrationality has broken, experience shows that other academics, even when privately in sympathy, will almost never brave its fury to defend the suddenly unpopular cause or victim (unless it happens to be the Left that is under attack). Many will even turn away, protecting their own future careers, conserving their own past reputations. Bernard Davis is one of the heroic exceptions to this rule—a Sidney Hook of the biosciences.

Physician, distinguished microbiologist, member of the National Academy of Sciences, logical and articulate writer, Davis' qualifications were superb for comprehending and defending key principles located at the strategic crossroads of scientific and ethical concerns during the anti-science upswell of the past two decades. Unlike many others equally well-qualified, however, he rose to the occasion, not once, but again and again, over not just one issue, but several. The essays in this book resulted. They are of enduring value because they dispel widely disseminated, but lingering, misconceptions and because they explicate and, where necessary, formulate the worthy principles at stake in some of our most excruciating academic controversies.

The forward by sociologist Edward Shils touches briefly on all the book's major issues in order to warn against the anti-science movement's intellectual implications and to chide those scientists

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Editor's note: In view of the controversies surrounding the subject of ethnicity, IQ, and educational policy, the editors feel that the mission of the journal would be best served by opening them to extended debate. Consequently, in an upcoming issue *Academic Questions* will feature a broad exchange of views on these questions.

who “cannot bear to dissociate themselves from the spokesmen for allegedly progressive causes.” Although the essays are grouped loosely in six sections, the themes in *Storm Over Biology* intertwine. Where overlap occurs, the recapitulations serve to emphasize important points as Davis traces controversies through their natural development, helped by brief introductions furnishing background for each piece.

In the first section, Davis tackles one of the great clichés of the current academic scene, namely, the claim that objective knowledge is unattainable and, therefore, that there is little point in appealing to knowledge when defending any controversial position or policy. Once accepted, this relativistic dogma undermines the final basis for impartial authority in a secular society and eases the burdens of scholarship for those who feel that their own subjective convictions are as valid as any, if not more so. Nowadays, it takes self-confidence to speak up for objectivity without fear of playing the fogey and so, although most scientists continue to conduct themselves as though objectivity matters, the principle itself, unfortunately for students, is seldom affirmed. It is one thing to recognize with Davis that “unconscious bias is often hard to avoid” and quite another to surrender standards of rigor so that controversies over knowledge are replaced by contests of humanitarian concern to be won by whichever side is willing to make the more grandiose claims.

Davis skillfully dissects the relevant arguments. Yes, values and other subjective considerations do enter into the art and practice of science, but that “does not weaken the objectivity of the product.” Clarity depends on distinguishing the various meanings of *science*: “as a highly subjective activity, a methodology that

maximizes objectivity, and the resulting body of knowledge.” The tentativeness of scientific knowledge reinforces rather than impairs the goal of objectivity, which “remains the foundation on which the success of science rests.” Responding to members of the radical group Science for the People, Davis shows that professing, as they do, “a commitment to . . . a more socially just . . . society” is not enough when debating, for example, the extent of genetic contributions to IQ differences. “Social policies will be most effective if we base them on objective knowledge of reality,” Davis reminds us. One comes away from reading Davis on science, as from Carl Becker on democracy, convinced that there are, in Becker’s words, “some generalities that still glitter.”

To deny the possibility of objective knowledge and at the same time to bother forbidding certain forms of knowledge because they seem to pose dangers to our social values is inconsistent. After all, there are better ways to critique subjectivity than banning. But such is the protean nature of ideology that inconsistencies of this sort commonly pass unnoticed. Despite the attack on objectivity, most ideologues are content to argue the facts when they support their side; when the facts do not, some shift to arguing the ethics. This can tie up a discussion indefinitely. Davis properly rejects the whole idea of forbidden knowledge, pointing out that the real danger lies not in the knowledge *per se* but in its potential misapplications, which can be controlled as they are recognized. Whatever the risks of misapplications, the risks of remaining ignorant must be taken into account too. The history of medicine leads Davis to conclude that the costs of ignorance are hard for the laity to foresee, but are usually considerable. For

this reason, scare tactics intended for mobilizing public opinion against scientific undertakings before experts themselves have had sufficient opportunity to consider pros and cons are especially deplorable.

Just such an instance arose when, in 1969, two prominent molecular geneticists called a press conference to announce their regrets over having recently isolated the first gene, on the grounds that their accomplishment led toward manipulating human genes. Perhaps it was only coincidental that they attempted to derive a need for radical political change from alarm over the prospect of such powers, but one cannot help wondering in retrospect whether the event was merely guerrilla theater, cleverly staged to provide opportunity for furthering radical goals. In any case, the media, sensing perhaps an attempt at manipulation, ignored the political angle and seized instead upon the delicious admission by scientists that "science is dangerous." Serendipitously, it was thus discovered that such a neo-Frankensteinian motif could captivate the media. (The parallel is closer than one might think; DNA could symbolize "the principle of life" sought by Victor Frankenstein and a clone could symbolize his perfect artificial man.)

According to Davis, a member of the same Harvard department as the two geneticists and thus in position to observe, Science for the People grew out of this incident as activists recognized the power suddenly placed at their disposal. By making a battlefield of science, and especially of new developments in biology, members of Science for the People could pose as vigilantes acting in defense of mankind. Successes scored in blocking research would enhance the credibility of the vigilantes and, ultimately, of the leftist politics from which they claimed inspiration.

A widely publicized victory was indeed achieved in 1975 when Science for the People succeeded in blocking a follow-up study of the consequences to children being born with certain chromosomal anomalies. (For example, XYY males, whose extra male chromosome was briefly suspected, until just a few years prior to the opposed study, of greatly increasing the risk of violence. Whether or not XYY males experience a somewhat higher risk of criminality in general through a depressing effect on IQ remains an unsettled issue.) Science for the People's triumph was all the more significant because appropriate committees had reviewed and approved the project, reasonable precautions had been taken for protecting the interests of the children and their families, and complaints against the project, based mostly on conjectures about the risks attaching to supposed "self-fulfilling prophecies" of criminal behavior, had been reviewed and rejected. Finally, a faculty vote of 199 to 35 at the Harvard Medical School had defeated a resolution against the research. Nevertheless, the project was abruptly terminated when lawyers for the Children's Defense Fund (CDF) threatened to intervene. (This organization issues heavily anti-establishment publications adorned on practically every page with endearing photographs of children. By campaigning against school suspensions and other disciplinary measures, the CDF has contributed more than its share to the disorganization, and hence unpopularity, of our public school systems.) The shared victory over genetic research in this case plainly implied that even our most respected scientific institutions were dependable guardians of the public interest, when, in truth, as Davis points out, they were merely inadequate for defending the research enterprises that formed their reason for being.

In the mid-1970s, much of Science for the People's energy was concentrated against Edward O. Wilson and the new field of sociobiology. A popular topic, sociobiology proved an excellent foil for broad allegations of racism and sexism in our intellectual life, but it provided no opportunities for clean victories because no action was at issue. Davis participated constructively in this debate too, but here his role was modest compared to that of Wilson himself, who, although eventually driven to the point of exhaustion by his numerous opponents, proved to be remarkably eloquent in his own defense. Consider, for example, Wilson's stunning rejoinder: "Knowledge humanely acquired and widely shared, related to human needs but kept free of political censorship, is the real science for the people."¹

Attacks such as the one on Wilson contributed to the momentum of the anti-science movement, especially in biology and the behavioral sciences. Before long, charges concerning the supposed hazards of research on recombinant DNA and of genetic engineering (an unfortunate phrase, according to Davis) led to new calls for restricting research involving the transfer of single genes between species and for hobbling science with cumbersome bureaucratic controls. Although the scientific issues were indeed somewhat different in each case, there is irony nevertheless in the fact that the genetic alarmists over DNA now included some of the same persons who had earlier discounted the possible dangers to children of abnormal numbers of sex chromosomes, each carrying a multitude of excess genes. Only one extra chromosome, for example, and a relatively small chromosome at that, suffices to cause the far-reaching effects collectively known as Down's syndrome.

Two sections of the book are devoted to the controversy surrounding recombinant DNA, in which Davis played a leading role. In these sections, Davis argues convincingly that fears were overblown from the start. For example, DNA transfers between species occur regularly in nature via several mechanisms involving bacteria, viruses, and the spillage from broken cells lining the human gut, and yet no harm is evident. A main reason is that novel recombinations of DNA from different species must fit into a demanding ensemble to produce a merely viable new organism, let alone one capable of competing successfully with established strains. Davis also points out the absurdity of warnings against possible genetic control over human behavior through the new techniques. First of all, the kind of behavior that would matter in this discussion usually involves polygenic traits such as IQ, the hereditary components of which vary in their magnitude with the number of favorable genes, whereas the new techniques are basically monogenic, capable at best of remedying certain metabolic errors based on single genes. Second, genetic intervention cannot alter key structures, such as the brain, once maturation has run its course. Third, effective interventions are already possible by old methods such as selective breeding, and there is really no reason to assume that unacceptable measures would be any easier for a government to implement by the new methods than by the old. Fourth, the cloning of humans, while scary for us singletons to contemplate, now appears totally impossible because of fundamental difficulties.

Fortunately, reason has basically carried the day for recombinant DNA research and the stifling outcomes Davis wisely warned against have been narrowly averted. Otherwise, truly creative

individuals having “science in their bones” might have turned away from a biology so bureaucratized as to lose its “fun.” This is not a small point, but it takes a person who knows creativity to acknowledge the importance of fun to scientific researchers. Drones, not clones, were the real danger all along.

Stephen Jay Gould and Richard Lewontin are among the more visible members of Science for the People, and so their names appear often in this book. Two of the essays, in fact, focus mainly on Gould. Davis coolly takes his measure as a man of science and concludes, with ample justification, that Gould “is not a scientist’s scientist.” These much-needed critical assessments, and several other possible sets of selections as well, are alone worth both the price of the book and the added trouble, probably, of having to order it specially.

What confers on individuals like Gould and Lewontin, who themselves display so few scruples in scientific debate, the moral authority to preach to us on ethical matters? After all, with the reputations of others and major scientific issues on the line, the stakes are not small. And yet, believing their cause to be righteous, they still find it necessary to stoop low in controversy. For example, Wilson complained of Science for the People, “they cite piece by piece incorrectly, or out of context, and then add their own commentary to furnish me with a political attitude I do not have and the book with a general conclusion that is not there.”² Such disrespect for its audiences raises the question of why members of Science for the People, and the prolific Gould in particular, are so admired by the usually skeptical media, disproportionately left-of-center though media personnel are known to be. Although the political biases of journalists have been docu-

mented by S. Robert Lichter, Stanley Rothman, and Linda S. Lichter, in their 1986 book, *The Media Elite*, these authors also established that fairness and objectivity are values that media professionals esteem highly.

For deeper insights, I believe we must turn to C.P. Snow’s thoughtful discussion of differences between the two main kinds of intellectuals, “literary” and “scientific.” Journalists are literary rather than scientific intellectuals. Like literary intellectuals in general, but in contrast to scientists, their sense of practical as distinct from professional importance tends to derive mainly from the exercise of moral rather than amoral considerations. For better or worse, morality is one domain in which nonspecialists can always claim adequate qualifications, and so journalists find themselves at little disadvantage in a field “for which there are no entrance requirements” according to *Washington Post* editor Richard Harwood (as quoted in *The Media Elite*). Since the greater the issue on which moral considerations are brought to bear, the greater the sense of importance to be derived from their exercise, unspecialized intellectuals such as journalists have opportunities to figure importantly in vital matters despite the increasingly technical nature of many modern problems. To enter the fray, the journalist need only recast a technical or aesthetic problem as chiefly a moral one.

Public disagreement among scientists over policy-laden issues invites laypersons to decide matters for themselves since they cannot determine easily which side is technically correct. As the example of Gould demonstrates, a scientist with a flair for words can capitalize on the resulting uncertainty, especially by appealing to popular conceptions of morality. Among literary intellectuals, such an indi-

vidual will be perceived as a scientist who "speaks our language." Egged on by his authority as a scientist, and encouraged by the temporary impairment of scientific consensus to assert their own claims to primacy in dealing with human affairs, the more susceptible of the literary intellectuals will suffer disinhibition of their most credulous tendencies whenever the issue of morality is dangled before them. Here, I refer for documentation to the quotations concerning Gould's work that Davis has assembled from the literary arena. In contrast to the "almost uniformly laudatory" reviews of Gould's *The Mismeasure of Man* within that arena, Davis notes that "the reviews in . . . scientific journals were almost all highly critical."³

The problem for literary intellectuals is that their procedures for resolving differences among themselves, and thus for determining who in a given instance was right, are much less developed than those available to empirical scientists. Consequently, differences between literary intellectuals tend to be immobilizing to a far greater degree than differences between scientists, and judgments are apt to be swayed by gratuitous appeal to moral considerations, often made to seem more pertinent with the help of subtle distortions of fact. It would seem especially risky, therefore, that journalists and other literary intellectuals should view themselves as arbiters of scientific controversies, as some are wont to do (as noted, for example, in Dorothy Nelkin's 1987 book, *Selling Science: How The Press Covers Science and Technology*). The scientists who dwell upon moral considerations when addressing literary intellectuals usually do so for the purpose of winning the literati over to their own side, and they are not always scrupulous in presenting their case, as we have seen with Science for the

People. The best that the journalist can aim for, consequently, is honest service as an accurate conduit of information from the two sides of a controversy.

Even the modest role for journalists as conduit is unsatisfactory in some respects, because it leads them to continue according equal time to both sides of a morally-charged controversy long after the real experts have regarded the matter as settled. This leaves the public with a permanent impression that "it comes down to a matter of choice and personal opinion, no matter what the experts say," as one journalist recently told his readers. Under such circumstances, prior conceptions of moral soundness are again likely to govern. Media reports of black-white differences in IQ, for example, rarely appear without balancing quotations from some academic, by no means always a black, insisting that tests are culturally biased against blacks. The public does not realize that such individuals have little standing among psychometric experts, that the issue has been intensively researched, and, finally, that the 1982 report of a blue-ribbon committee of the National Academy of Sciences, in the words of *The Washington Post*, "strongly rejected charges that standardized tests discriminate against blacks, even though blacks on the average score far below whites on almost all of the exams."⁴ As we shall see, this will be an important example to recall when we consider Davis' role in a controversy centered on affirmative action at Harvard Medical School and his position that standards had been seriously compromised in order to maintain an unrealistic quota for black students.

The ascendancy of the morality principle over the reality principle lends plausibility to such a romantic notion as "forbidden knowledge," which Davis

contrasts with a "classic concern with truth." Obviously, the banning of knowledge *per se* undercuts the reasonable position that scientific or other expertise can be absolutely essential for reaching an informed moral decision. Lack of respect for that common-sense view renders any claim to superior morality that is used to justify such a ban specious, if not pretentious. Certainly, instructive examples of the relevance of expert technical knowledge to the resolution of morally charged disputes are not lacking. For instance, in recent years, a self-righteous campaign against whooping cough vaccine spearheaded by media intellectuals led to minor epidemics of that dread disease and the quite predictable result that many more children experienced severe adverse effects, including death, than would have been the case had they been vaccinated.⁵

The two remaining sections of Davis' book deal with the issue of affirmative action, which brought him notoriety, and which provided him with experience in bucking the liberal academic establishment proper, as distinct from the radical members of Science for the People. The inability of moral assertions to substitute for real expertise was never more fully evident than in the controversy over special admissions of minority individuals to medical school. Although the moral claims have seemed legitimate, judging from the prevailing view of affirmative action among intellectuals, they retain that appearance only if shielded from realistic evaluation by what amounts to a taboo on certain kinds of knowledge. Sociologist William R. Beer recently remarked:

Twenty years after the enactment of the Civil Rights Act of 1964. . . , there has been no systematic inquiry into the effects of affirmative action on American society, neither its costs to

the nation's economy nor its impact on our country's morale. In an age of program evaluation, when most other social experiments are studied almost to death, our profession has shown a resolute ignorance about an extraordinarily controversial policy that has been in place for over two decades. It is as if affirmative action has assumed the status of a religious article of faith, and professionals choose to avoid studying its effects for fear of what they might find out.⁶

As we shall see from Davis' case, Beer might well have added, ". . . and for fear of what will happen to them as a result of honestly reporting what they find out."

For addressing the questions of minority admissions to medical school responsibly, the need for scientific expertise arises in at least two connections. First, what do we need to know to understand the problem of affirmative action in general, and, second, what is the minimum degree of competence that should be required of medical school graduates? No moral stance on the matter in question is defensible without realistic answers to these two basic questions. Yet, answers to both have been subject to embargo, a national one concerning the meaning of differences in the overlapping, but far from congruent, IQ distributions of blacks and whites, and a local one concerning the actual performances of black students at Harvard Medical School. Forbidding knowledge deemed dangerous, I submit, is itself a morally suspect and corrupting policy.

Because the case in hand was concrete and the principles in jeopardy were ones that are respected generally, Davis had every right to expect a reasoned response when he entered the controversy. However, the case involved a black student at Harvard Medical School who was being passed along despite what Davis regarded as serious deficiencies in his academic performance. The wider issue concerned quotas for blacks that were in

force at the school. The policy implications of serious deficiencies in performance and of quotas are so acutely contradictory that the two phenomena can coexist within the same social setting only if we refuse to acknowledge the presence of at least one of them. Hence, the publicly visible reaction to Davis' calling attention to both was exactly as though he had violated a primitive taboo.

For this volume, Davis has written a major new essay that provides more detail than ever before about this incident, the role of the media, the duplicity of the dean involved, and the reactions of his colleagues and closet supporters (over a hundred faculty sent *private* messages of support). He also furnishes new examples of the bizarre "Sowell's effect" (so-called by me because it was first complained of by Thomas Sowell at Cornell University), in which blacks sometimes discriminate against qualified blacks when entrusted with control over minority admissions. The phenomenon can best be understood, in my opinion, not simply as a misguided effort to favor those viewed as truly needy, but as a raw political attempt to transform the admissions process and the access to careers that it affords into a system of patronage within the minority community. Less nakedly, perhaps, but just as surely, white supporters of double standards in academia are often playing exactly the same game, confident that eventually the growing numbers of beneficiaries will reward them over the defenders of single standards.

Although Davis makes the nature of the persisting conflict between maintaining standards of performance and maintaining racial quotas absolutely clear, his own expertise lies in areas that do not enable him, apparently, to provide needed psychometric background concerning the magnitude of the black-white difference

in mean IQ that is the immediate source of the dilemma. Consequently, his bold defense of honesty in other sections concerning the possibility of a genetic basis for individual and group differences in IQ becomes somewhat abstract when he discusses the concrete problem of quotas in medical schools. Just a few facts, however, are sufficient to indicate the true seriousness of the problem and to explain why the medical school found that "vigorous recruitment" alone was to no avail.

Let me emphasize first, however, that the argument does not depend on the source of the black-white IQ difference. The assumption is common that the problem presented by such a stubborn group difference is somehow lessened as long as conclusive evidence of its having a genetic basis is lacking, but this is simply a misconception. What counts is that the practical implications of corresponding test scores are the same for blacks and whites, and that all standardized tests used for admissions purposes are known to correlate highly with IQ tests. Consequently, the size of the black-white difference in the general population, when converted to standard units, tends to be about the same on all good tests of general mental ability, and this makes it especially convenient to employ the familiar numbers known as IQ scores when discussing the effects of that difference, regardless of the test involved.⁷

Most of the details Davis provides about his experience with minority quotas at Harvard Medical School deal with outcomes. He does inform us that academic qualifications, test scores presumably included, were permitted to drop in order to achieve those quotas, but without further information there is no way to know just how far down in the score distribution Harvard was forced to

go. Were it available, such information might make the outcomes easier to understand. From published data, however, including some IQ test results for physicians, we can make educated estimates about the policies of medical schools throughout the nation as a whole and use them to illuminate the situation at Harvard, with the understanding that the weaker students in such a demanding school as Harvard would tend to score higher than the weaker students elsewhere. Inasmuch as all schools were competing to recruit students from a pool of qualified blacks that was much smaller than almost anyone dared to imagine, the national data are also crucial for establishing the context in which Harvard had to seek its quota.

The average IQ difference between blacks and whites is a key fact. Conventionally reported as 15 points wide, that figure reflects rounding downward to the nearest whole standard statistical unit when studies are viewed one at a time, and also a bias in favor of stating the difference as it would appear on certain popular tests that, for other reasons, employ slightly larger IQ units, thereby making group differences seem smaller. When all the major studies since the end of World War I are considered together, however, their consistency supports a somewhat higher and more precise figure of 1.1 standard units and that is equivalent to 18 IQ points when expressed on the more fundamental Stanford-Binet scale (and to 16.5 IQ points on scales of the Wechsler variety).⁸

A second key fact is that the operative lower-bound IQ for white physicians is located approximately at 115.⁹ From knowledge of the percentile distributions of black and white IQ scores expressed on the Stanford-Binet scale, therefore, we would expect a ratio of black-to-

white physicians, if black and white students were recruited from the same mental ability range in the population as a whole, of about seven blacks per thousand whites instead of the twenty times larger ratio of about 140 blacks per thousand whites that represents parity for our present population and hence the ideal outcome envisaged for affirmative action. According to recent research, what we actually observe for practicing physicians is a clearly intermediate third ratio of forty blacks per thousand whites, which is consistent with a past range of recruitment for blacks that had been extended downward to a lower-bound IQ of about 104.¹⁰ Recent data on medical school admissions alone suggest that the nationwide cutoff now being used for entering blacks may be located several IQ points below 104.¹¹ This value, of course, does not necessarily hold for any particular school. Nevertheless, by reserving twenty percent (i.e., 250 per thousand whites) of its medical school places for minority persons, even with the special advantage of being able to recruit the best black candidates from the entire country, Harvard was bound to create instances of severely marginal students either in its program or in those of other schools with ambitious quotas of their own.

Although the lower IQ extreme for black medical students can be estimated only tentatively at present, it is useful to understand the meaning of the score range on which some of the schools appear to be verging. IQs of 104 are at the level once regarded as a minimum for satisfactory work in an academic high school and are considerably below the mean value of 115 once typical of the average freshman in a good state university. Neither level of IQ approaches the value of about 125, corresponding to an SAT-Verbal score somewhat below 600,

at which graduate work in a demanding professional school would begin to represent a reasonable ambition for those who wish to achieve above average success in their educational careers. To realize universal racial parity in physicians, without robbing other occupations and professions with affirmative action programs of their own, the IQ range for recruiting blacks would have to be extended to below the mean IQ for whites of 100; however, there has never been any serious suggestion that I know of to seek white physicians from the lower half of their IQ distribution. Considerations of character and motivation are, of course, relevant when selecting medical students, as Davis himself points out, but “no one of these . . . qualifications can compensate for a deficiency in another.”

The devilish irony of the problem, as the figures show, is that what has evidently been a maximum effort on the part of medical schools to produce black doctors has resulted in an observed ratio, less than one-third of parity in the distant past and less than half of parity within the last decade, that activists regard as being far from satisfactory. As a sociologist, one must ask why it is that traditionally selective organizations and institutions do not go all the way with their double standards instead of stopping well short of parity, as they usually do despite Harvard’s example, thereby letting themselves in for continued criticism. During the sixteen years beginning at 1971–72, for example, the percentage of blacks among the nation’s first-year medical students never fell outside the narrow range of 6.4 to 7.5 percent, and the time trend, if any, was in the negative direction so that the slight variation cannot be said to have been governed by modest but steady improvements in the preparedness of black applicants.¹² Reasons usually enter-

tained for why double standards in highly intellectual contexts remain in such exquisite check deserve more scrutiny than they commonly receive.

The two most popular explanations cast academics in the role of either sinners or saints. Given the liberal political orientation of most academics and one’s own observations as a participant in the academic scene, blaming the persistent shortfall from parity on residual “racism,” as dissatisfied activists often do, simply does not hold water.¹³ And given the adoption of generous double standards by many educational organizations in the first place, not to mention their protectiveness concerning the actual performances of persons admitted under those standards, it would be quite unrealistic to invoke too high a principle—for example, courageous dedication to standards of some sort—as one’s alternative hypothesis for explaining the failure to achieve full parity.¹⁴ There have been too many instances of capitulation to activist demands on the part of educators for that brave scenario to explain convincingly the surprising regularity and persistence of the shortfall from parity that the data reveal despite determined implementation of affirmative action policies. No, what we require in order to understand such a peculiarly stable but uncomfortable compromise is an explanation that is neither netherworldly nor otherworldly, one that is instead closer in spirit to the *Realpolitik* of everyday life.

Although the term “standards” can be employed in both senses, it is useful to distinguish the principles of individuals, which are often passionately held, from the norms of organizations, which are seldom more than lukewarmly supported. Organizational standards, therefore, can prove pliable indeed, especially so since inflexible personnel can be replaced.

Large institutions and organizations, whether they are universities or business corporations, need help in staying honest or they will do whatever is expedient for survival in their ever-challenging environments if they think they can get away with it. One thing they know they cannot get away with is being caught in fraudulent performance of a task that is of primary interest to one of their major constituencies.

Standards can be bent, therefore, to achieve affirmative action goals, but only up to what I term "the point of organizational embarrassment." Beyond the hypothetically located, but nevertheless real, point of organizational embarrassment the consequences of compromised standards become intolerably conspicuous. Risks become simply too great that some scandalous incident, or some individual with common sense, such as Davis, will soon expose the whole scheme to public criticism. Whenever such exposure occurs, as does happen from time to time, particularly in connection with college athletics, the burned institution will back away from the point of embarrassment until it forgets the bad experience and begins once again to encroach on that point in yielding to revived demands for winning teams, racial parity, or whatever happens to be the concern of the day. It is essential to recognize the role of the point of organizational embarrassment, because it serves as the only serious barrier to achieving perfect parity by means of racial quotas that is now in evidence, and it may not stand indefinitely if our capacity for indignation is eroded much further.

In some settings, such as public schools, where it is not inevitable that poor quality control becomes readily apparent, thanks to ample opportunities for disguising the product, the point of or-

ganizational embarrassment can sink abysmally low. Hence, the median years of schooling completed is practically the same for blacks and whites now entering adulthood, although the blacks still lag 3.5 years behind the whites in median grade level on secure tests measuring comprehension of written material.¹⁵ General tests whose content has not been compromised in one way or another are rarely employed by school systems anymore, which helps them avoid impolitic encounters with the point of embarrassment and makes it much more difficult for catalytic individuals to call those systems to account.¹⁶ But in medicine, with lives understandably at stake, that dangerous point lurks much earlier in the downward spiral than in most other fields.

Obviously, positions taken for or against affirmative action programs have little practical meaning without reference to which of the three kinds of ratio described above best represents the intended objective. It matters greatly whether the immediate goal is absolute parity, some intermediate ratio, or simply the proportion of blacks to be expected on the basis of their existing ability distribution (which may still amount to more blacks than had been included in past times). As we have seen, in actuality the three numbers involved can be orders of magnitude apart.

By the same logic, the cogency of the moral case also depends on the ratio in question and so moral obligations cannot be discussed meaningfully in isolation either. In practice, rhetoric more appropriate to the most cogent moral case is usually employed in an effort to secure parity, the least practical outcome, and administrators making what seem to be reasonable concessions to demands for setting "goals" are apt to find, therefore, that they have given away the store. Igno-

rance of, or fear of articulating, the reasonable case for an intermediate ratio of blacks to whites (let alone for anything like a single standard!) based on solid psychometric data leaves administrators defenseless against critics who shrewdly turn the exaggerated claims of the education establishment back upon itself by contending that it is the accepted job of schools to eliminate “inequalities” in levels of achievement.

Though sincerely sympathetic to the situation of blacks, Davis raises many neglected questions with unusual toughness of mind, and so provides insights into the pathologies of affirmative action that make this cluster of essays possibly the most valuable writing to date on that topic concerning entry into any single occupation. That the occupation in question happens to be one concerned with matters of life and death, and still the pathologies have been allowed to develop, tells us something, *a fortiori*, about just how far standards have probably been allowed to slip in jobs of a less critical nature.

Stretching the criteria for admission to medical school somewhat so as to include more blacks is a policy that Davis does not challenge directly. He does draw the line emphatically, however, at stretching the criteria for passing and graduating to a point at which performance would drop below a “truly satisfactory” level. Apparently willing to entertain the possibility that underqualified applicants may benefit somewhat from compensatory education between entering and leaving medical school, Davis accordingly directs his strongest criticism concerning admissions toward cases of “students who have a very low probability of measuring up to *reasonable* standards” (emphasis added).

Psychometric research since Davis first stated his position in 1976 confirms

that the relation between performance on standard admissions or hiring tests and later performance on relevant measures of outcome is basically the same for blacks and whites, and so the prospect for the occurrence of compensatory or “catch-up” learning is dim.¹⁷ As one psychometrician, Lloyd Humphreys, has commented, “the primary barrier for blacks in achieving proportional representation in higher education, business, the professions, etc., is not the selection test but the criterion performance [i.e., the outcome].”¹⁸ Even should some minimum standard of passing be satisfactorily met, one should not be under the illusion that whatever compromises one allows at admissions will not also be reflected, whether actually measured or not, at all later stages of the educational process.¹⁹ This relationship between the average input and the average output is inexorable, as far as we know. Thus the initial response to Davis by the dean who supported the unrealistic quota at Harvard when it was first established—that he also had no intention of lowering standards for passing courses—was bound to be on a collision course with maintaining the ambitious quota. Either one or the other of these objectives would have to be compromised if an attrition rate for blacks that would eventually embarrass the institution was to be avoided.

As Davis now reveals in the unusually frank essay, “Affirmative Action and Veritas at Harvard Medical School,” the new admissions standard for minority applicants had a domino effect on various policies that had evolved over the years to enable the school to monitor its product and maintain its commitment to excellence. Because black students experienced their greatest difficulty in basic science courses, it was suggested that the “long tradition of building on these

courses as a foundation for clinical training might have been wrong: perhaps one really did not need to be competent in science to be a good physician." Letter grading was replaced by the less informative pass-fail criterion, and incompletes were rendered invisible on student records once the missing coursework had been made up. Such changes made it easier for the dean to claim that performance records of minority students were indistinguishable from those of other graduates. Departments were pressed to permit repeated re-examinations for failing students, "and inevitably these examinations became less demanding." As a by-product, the standards for passing crept downward for all students.

Before long, the dean's office discontinued yearly reporting on the aggregate ranking of the school's students in the National Board Examinations, until then a ritual. Eventually, the faculty came to rely on passing the National Board Examinations as evidence that standards had not declined too far, although Harvard would have considered such a criterion excessively permissive for its students in the past.²⁰ But the National Board Examinations are renormed each year, Davis informs us in another essay, "and so the absolute norm for passing is necessarily lowered by any nationwide increase in admission of students with substandard academic qualifications." (A similarly insidious, but convenient, process is behind the demand in city school systems for standardized tests with "urban norms.") A failing student could retake the National Board Examinations five times, but eventually that anemic standard was itself waived and a diploma awarded in the case that at last caused Davis to publish a 1976 guest editorial in *The New England Journal of Medicine* in which he sounded the

alarm. The point of organizational embarrassment had finally been passed.²¹

It is only now in retrospect, with the help of that organizational concept and of Davis' new essay, that I can begin to comprehend the reasons for the medical school dean's chagrin and hence anger toward Davis. At the time, I obtained a copy of Davis' tactful editorial and passed it around to friendly colleagues with the wondering comment, "This is the mild little statement that set off all the fuss a few weeks ago." Little did I suspect just how far toward culpable negligence a great medical school had unthinkingly drifted, and hence how sensitive the responsible figures would be to the sound of a whistle.

The dismal sequence at Harvard demonstrates how pervasive the effects can be of accommodating to an unrealistic shift in student composition involving the ability dimension. When changes are so numerous and diffuse, a social scientist is inclined to summarize the outcome in global terms by referring to a change in culture. Davis' fears of five years before, prior to the emergence of affirmative action, therefore proved to be justified. Seeing that schools were threatened with a decline in the standards of medical education by the egalitarianism of the late 1960s, he had reminded his colleagues that, however pressing or noble our concerns, "we also have a culture to preserve." As it happens, this is an instinct that is fundamental to conservatism, and so we are presented here with a time-compressed object lesson in at least one of the merits of that frequently scorned political philosophy. Those who find it difficult to accept that culture in the usual sense can depend on the many ramifications of mental ability to such an extent would do well to read this book and ponder the miniature example Davis has set before us.

At Harvard, the final domino was the tradition of *veritas*. In jeopardy all along as the faculty was systematically deprived of objective feedback on the performance of students, the tradition collapsed catastrophically as the administration maneuvered to contain the embarrassment caused by Davis' principled whistleblowing. The dean sent out a letter to all medical schools denying that standards had been lowered at Harvard and issued a misleading press release castigating Davis; Davis' colleagues abandoned him publicly as blacks debated whether or not he was a racist; and the *Harvard Crimson* and Richard Lewontin rushed to depict him as indeed a racist who questioned the ability of all black medical students if not all blacks.

The real villains all along, of course, were the quota and its naive supporters. Yet, it would be equally naive to overlook the symbolic connection between achieving parity at Harvard Medical School and needing to certify that the 18-point difference in mean IQ between blacks and whites in general was not a real source of problems. Any concession on the first issue is apt to be viewed as a concession on the second, and this the liberal community simply cannot brook. The effect of the perceived connection between the two issues should not be underestimated. In my opinion, that connection helps to explain why the local factual details of *mismanaged quotas typically count for so little in argument, however compelling they seem to be short of the feared point of embarrassment, and also why many academics have found so few compunctions about suppressing those awkward details. Such massive resistance to logic, evidence, and principle only begins to make sense when viewed in relation to defending an implicit dogma concerning the nonexistence of major race differences in*

average ability. The main issue, for liberal academics, seems to be the truth or falsity of a proposition about group differences in general intelligence (whatever their cause). Consequently, attempts to remedy a racial disproportion, whether by affirmative action or other measures, tend to be treated as though they were demonstration projects designed to prove such group differences nonexistent. Once such a burdensome hidden agenda has been imposed, there is always far too much at stake to permit settling for less than complete parity. Reservations about parity tend to be seen as reservations about the average intellectual status of all blacks, and, by accepted definition, that is an unenlightened and racist idea made order for triggering the morality principle. The possibility that one might be quite uninterested in the question of the intellectual status of blacks as a whole, and yet be concerned about the quality of medical training, is often disallowed or treated as subterfuge.

Reading between the lines, therefore, the dean's insistence that Harvard continue its tradition of leadership, not merely by producing good black physicians, but also by consistently achieving or exceeding parity, was implicitly a demand that Harvard should be first in settling the main issue. His later complaint against Davis, that however well-meaning his editorial, it risked "providing ammunition for those who wish to abandon our commitment to minorities" (in the dean's own words) seems less curious when interpreted in light of my suggested reading of the issues. Who are these nameless persons searching for such ammunition, one might otherwise wonder, the campus chapter of the Ku Klux Klan? The "ammunition for those" argument is a familiar and self-serving formula, of course, but it becomes less patently ab-

surd when properly construed to apply to the main issue: abandoning parity as a goal at Harvard could well be seen as a tacit admission that group differences are real. If Harvard, with its power to recruit from the entire country, cannot achieve parity with truly qualified students, how can everybody else?

This line of interpretation also makes it more understandable that the *Harvard Crimson* and Lewontin should have found it so easy to portray Davis, falsely, as a racist who regarded all blacks as categorically incompetent. As we have seen, the existence of group differences is implied by rejecting the feasibility of parity; the caricature of Davis simply attributed to him the vulgarized misconception of a mean group difference found in stereotypes held by unsophisticated persons and relished by true bigots. Since most intellectuals have been led to believe that such a simplification is the only possible alternative to the null hypothesis of no difference, Davis was an easy victim of the bad teaching that has dogged this subject on even our better and more expensive campuses for the past several decades. In such settings ever-present Marxists and other radicals cleverly exploit the stubborn problems still facing American blacks to discredit the United States and its political and economic systems.

Largely because of imbalanced and even incompetent teaching concerning the current problem of black-white differences, "racist" has become the most abused term of abuse in American life. The time is long overdue, with "racist" being gratuitously applied in the courtroom even to the victims of horrible crimes, to begin to look hard and long at the moral character of those who resort freely to this destructive epithet—and to act accordingly. The problem is how to wean people away from the heady sense

of moral superiority it so cheaply provides, not to mention its powers of intimidation. But its worst property, surely, is that its use promotes the morality principle over the reality principle, especially within academia, where just the opposite should occur.

Notes

1. This quotation is from p. 190 of Wilson's "Academic Vigilantism and the Political Significance of Sociobiology," *Bioscience* (March 1976), a major response by him to allegations of Science for the People. In this context, vigilantism is defined by Wilson as "the judgment of a work of science according to whether it conforms to the political convictions of the judges, who are self-appointed." It and related essays have been gathered into a book edited by Arthur L. Caplan, *The Sociobiology Debate* (New York: Harper & Row, 1978). Of particular interest in this volume is the article by science journalist Nicholas Wade, reprinted from *Science* (March 19, 1976), "Sociobiology: Troubled Birth for a New Discipline." Referring to Science for the People, Wade perceptively notes, "The group's manner of attack . . . could well act as a deterrent to others, particularly those less eminent and less able than Wilson to defend themselves." I have long suspected that the extremely unfair, but influential, attacks of some leftist academics on deceased scholars are intended to serve as warnings to eminent living scholars of the fate awaiting their own reputations, postmortem, should they be so imprudent as to side against the Left in any current controversy. A useful corrective for such intimidating tactics would be for intellectual historians and biographers to take more careful note of who spoke up for scholarly integrity and who did not in troubled times, regardless of which end of the political spectrum was involved. But for such literary intellectuals to do so they would need to become better informed about the real issues by specialists, and that would require breaking the vicious cycle of silence in the first place.
2. Wilson, *op. cit.*, p. 187.
3. One of the most informative is the review of *The Mismeasure of Man* by psychometrician Lloyd G. Humphreys in the *American Journal of Psychology* (Fall 1983), pp. 407-416. Editors of two journals agreed to carry this review.
4. "Study Rejects Bias Charges in Job Tests," *Washington Post* (3 March 1982), p. A2.

5. In the late 1970s, widespread publicity in the United Kingdom that whooping cough (pertussis) vaccine was dangerous made parents reluctant to have their children inoculated. That the disease itself is far more hazardous than the vaccine, which produces occasional severe reactions that are poorly understood, was soon demonstrated: a major outbreak followed, killing 36 children (*Science*, 1 March 1985). In 1981, a similar sequence ended in death for at least 40 Japanese children (*Science*, 8 March 1985). Despite these prior lessons, in the spring of 1982 WRC-TV (Channel 4) in Washington, DC, broadcast an hour-long documentary claiming, according to reporter Sue Miller of the Baltimore *Evening Sun* (13 August 1982), that "the vaccine is not fully safe, effective or necessary." Shown three times locally, and later excerpted on NBC's "Today," this documentary was blamed in part by Maryland health officials for the isolated occurrence in that state of 23 cases, one involving irreversible brain damage. Since the producer, Lee Thompson, and her staff were reported to have spent one entire year researching their expose, journalistic haste was not implicated to the usual degree. Three years later, a book by Harris L. Coulter and Barbara Loe Fisher, *DPT: A Shot in the Dark*, revived similar claims, now combined with the thesis "that the government, the doctors and the vaccine manufacturers are involved in a colossal conspiracy to hide the truth about the DPT vaccine." Here, I quote from the excellent review of this book by Harvard medical student Ezekiel J. Emanuel in *The Wall Street Journal* (7 March 1985). Misinformation, often the product of incompetence, can clearly be dangerous.
6. From William R. Beer, "Resolute Ignorance: Social Science and Affirmative Action," *Society* (May/June 1987), p. 63.
7. For example, two psychologists who have reviewed extensively the average IQs of medical students commented, "the present writers always have considered the MCAT [Medical College Admission Test] an IQ test for a high-ability group. In two unpublished studies . . . the MCAT has found to correlate with the WAIS [Wechsler Adult Intelligence Scale] Full Scale IQ about .60 to .75, even in the restricted range of talent represented by a sample of medical students" (p. 105). See Joseph D. Matarazzo and Steven G. Goldstein, "The Intellectual Caliber of Medical Students," *Journal of Medical Education* (February 1972), pp. 102-111. A 1958 correlation between WAIS IQ and an MCAT score of .66 as well as substantial MCAT correlations with the Miller Analogies Test are reported in Appendix VIII of William E. Sedlacek, ed., *Medical College Admission Test: Handbook for Admissions Committees* 2d ed. (Evanston, IL: Association of American Medical Colleges, 1967). The correspondence between IQ tests and the tests used to select medical students is further attested to by the remarkable stability of the mean IQ of non-minority medical students over a period of four decades, beginning in 1946. In various samples, that mean has always remained close to 125. See Matarazzo and Goldstein, *op. cit.*, and also James V. Lupo, Robert E. Mitchell, Thomas G. Grady and Charlene Erskine Combs, "The Intellectual Caliber of Medical Students of the 1980s and Past Decades," *Journal of Medical Education* (August 1987), pp. 680-682. Although the different names of tests are often exploited for public relations purposes to obscure their common link with general intelligence, specialists usually know better, as the following statements from a more candid time indicate: "We will consider the special kind of ability which is most indicative of what students can do scholastically in college or university. Academic aptitude, scholastic aptitude, verbal ability, college aptitude, or abstract reasoning ability—all of these terms are used to designate this one psychological dimension" (p. 6); "College aptitude tests are not much different from tests of general intelligence used with students and adults" (p. 10). These quotations are from Ralph F. Berdie, Wilbur L. Layton, Theda Hagenah, and Edward O. Swanson, *Who Goes To College?* (Minnesota Studies in Student Personnel Work No. 12, Minneapolis: University of Minnesota Press, 1962).
8. The major studies and their results are listed in Table 2 of Robert A. Gordon, "Scientific Justification and the Race-IQ-Delinquency Model," in T.F. Hartnagel and R.A. Silverman eds., *Critique and Explanation: Essays in Honor of Gwynne Nettler* (New Brunswick, NJ: Transaction Publishers, 1986), pp. 91-131.
9. The standard deviation (*i.e.*, "standard statistical unit") of IQ for non-minority medical student *acceptees* appears to be only about 5 points, as compared to 15 points for whites in general. Matarazzo and Goldstein, *op. cit.*, p. 106, equate 3 points of IQ with 50 points on the old pre-1978 MCAT, which was designed to have a standard deviation of 100 points in the 1951 *applicant* pool; this implies that the IQ standard deviation for those applicants would be 6 points. Accepted students would have a somewhat smaller standard deviation than applicants. Consistent with this expectation, Lupo et al., *op. cit.*, p. 681, report a WAIS IQ standard deviation of 5.2 points for two cohorts of non-minority medical students at one school considered typical. Thus,

an IQ of 115 would fall about two standard deviations below the non-minority acceptee IQ mean of 125 described in note 7. Since only about 2 percent of all cases fall beyond that distance below the mean in a normal distribution, an IQ of 115 is a reasonable choice for defining the operative lower bound for becoming a physician among whites. The lowest WAIS IQ in the medical student samples tested by Lupo et al. was in fact 115.

10. These estimates are drawn from the article by Linda S. Gottfredson, "Societal Consequences of the *g* Factor in Employment," published in a special issue of the *Journal of Vocational Behavior* (December 1986) that was devoted entirely to recent research on the role of intelligence in employment. They are based on the best existing statistical estimates of parameters of the black and white IQ distributions and the reported proportions of physicians who are black or white. By establishing a lower bound IQ for qualifying as a physician, from published data for whites (for example, see note 9), it is possible to compare the sizes of the available talent pools of blacks and whites and thus to estimate the proportion of black physicians to be expected on the assumption that members of both groups are recruited on the same basis. When the proportion of physicians who are black exceeds the proportion to be expected on the basis of the corresponding talent pools, the lower bound IQ for black physicians is implicitly forced downwards to a point below that for white physicians. This new point can be identified because it represents the percentile in the black IQ distribution that defines the broader talent pool required to accommodate the observed proportion of black physicians, and it is a trivial matter to convert a percentile in any normal distribution to its associated IQ.
11. Data on minority admissions to medical school are reported by the Association of American Medical Colleges. See especially, *Minority Students in Medical School: Facts and Figures III* (Washington, DC: Association of American Medical Colleges, Office of Minority Affairs, 1987). The lower bound IQ for admissions is estimated as described in note 10. The plausibility of IQ 104 as the approximate lower bound for blacks can be assessed in another manner. Averaged over subtests, mean MCAT scores reported for blacks are usually almost exactly an MCAT standard deviation below the mean of whites; this suggests a mean IQ for black medical students, according to the reasoning set forth in note 9, of about 119 or 6 points below the value of 125 for whites. The standard deviation for black acceptees (in the 1985-86 entering class) is about 1.9 to 2.2 points on the

new MCAT, as compared to the norm of 2.5, which suggests an IQ standard deviation for black medical students of about 4.5 to 5.3 points. Two standard deviations below the black mean would thus yield an IQ of 108 to 110, and a third standard deviation would reach IQ 103 to 105. In MCAT score units, this low an IQ corresponds to a score of about 1.0, the bottom of the available range, which extends from 1 to 15. Whether or not there are any blacks in medical school with new MCAT scores of 1.0 on any of the six subtests is obscured by the current practice of reporting scores categorically in the extreme lower and upper ranges as "1-4" and "12-15," respectively. The "1-4" category is definitely populated, however. In 1985-86, it contained from 3.2 percent, for the Science Problems subtest, to 16.1 percent, for the Quantitative subtest, of all black acceptees. On the Reading subtest, which may be the strongest MCAT predictor of blacks' grades in the first three years of medical school, 13.8 percent of the 984 reported black acceptees fell in the "1-4" category. The presence of students with actual MCAT Reading scores as low as 1.0, and Quantitative and Biology scores as low as 3.0, in the combined 1978 and 1979 entering classes at a mainly black medical school, is indicated on page 631 of Davis G. Johnson, Sterling M. Lloyd, Jr., Robert F. Jones, and Judith Anderson, "Predicting Academic Performance At a Predominantly Black Medical School," *Journal of Medical Education* (August 1986), pp. 629-639. See their Table 2 for comparisons revealing greater predictive validity of the Reading subtest over other MCAT subtests, at least at this mainly black institution. A correlation of .50 between SAT-Verbal scores and MCAT Reading subtest scores for a black sample of 131 is reported in Table 2 of Vera B. Thurmond and Lloyd Lewis, "Correlations Between SAT Scores and MCAT Scores of Black Students in a Summer Program," *Journal of Medical Education* (August 1986), pp. 640-643. This was the highest correlation of any MCAT subtest with SAT-Verbal score, which is a good but narrow measure of general intelligence. The Reading subtest may, therefore, have correlated best of all MCAT subtests with medical school grades in the study by Johnson et al., simply because it is the best MCAT measure of intelligence. If so, this makes all the more meaningful the relatively large percentage (13.8 percent in 1985-86) of black acceptees scoring in the range "1-4" on the Reading subtest. The scores for the 1985-86 minority acceptees are reported in a memorandum, "1985-86 Admission Action Summary Report and Analysis of Minority Applicants"

- (February 18, 1986), from Dario O. Prieto of the Office of Minority Affairs of the Association of American Medical Colleges, which is also the source for the MCAT standard deviations of blacks cited above.
12. The basic data for the academic years 1976 to 1986 are from *Minority Students in Medical School: Facts and Figures III*, Table 10. For earlier years, see Table 1 in Steven Shea and Mindy Thompson Fullilove, "Entry of Black and Other Minority Students Into U.S. Medical Schools," *New England Journal of Medicine* (October 10, 1985), pp. 933-940.
 13. "Lingering subliminal prejudice" was the unstable explanation suggested by one academic activist for why some of his faculty colleagues might become concerned with the test scores and academic performance of minority students. This sanctimonious phrase is quoted by Robert Klitgaard in his book *Choosing Elites* (New York: Basic Books, 1985), p. 158, which provides an excellent overview of the problem of achieving parity in minority admissions to highly selective schools.
 14. For example, among recent suggestions from college administrators for increasing the proportion of black faculty, as reported in *The Chronicle of Higher Education* (10 February 1988), were to "link affirmative action to . . . 'matters of conscience,'" "Stop searches that do not include minority-group members in the candidate pool," and "Redefine excellence." See "Recruiting Minority Professors: Some Techniques That Work," by Scott Heller, p. A17.
 15. *Profile of American Youth: 1980 Nationwide Administration of the Armed Forces Vocational Aptitude Battery*, Office of the Assistant Secretary of Defense (March 1982), Table C-9.
 16. In a recent pamphlet, the citizen group Friends for Education, headed by John Jacob Cannell, MD, has revealed the embarrassing fact that all 50 states and most school districts score above the national average on the standardized achievement tests that are purchased with taxpayers' money. School administrators have clearly shopped for tests that place their struggling systems in a better light and once a major test publisher had obliged with soft norms the other publishers have little choice but to go along or go out of business. Similarly, once some systems have taken this easy way out and demonstrated what is "possible" in the way of improved achievement, administrators elsewhere facing the same kinds of problems will feel pressures to produce similar results. Having recently attended a conference of school assessment personnel, I can state that these professionals are quite aware of the situation, but lack the power within their school systems to unmask the politically-charged charade. Because demand for bad news is weak, market forces alone cannot buck this manifestation of Gresham's law unless we once again prove willing to pay a premium for truth. It is precisely for such reasons that the attitude toward truth conveyed within our colleges and universities is critical for sustaining the integrity of society as a whole. Copies of the 1987 report, *Nationally Normed Elementary Achievement Testing in America's Public Schools: How All Fifty States Are Above The National Average* are available from Friends for Education, Box 358, Daniels, West Virginia 25832-0358, for \$10.00. See also the article by David Savage, "Scrutinize Students' Test Scores, and They Might Not Look So Rosy," *American School Board Journal* (August 1984), pp. 21-24.
 17. A sampling from the research literature follows: T. Anne Cleary, "Test Bias: Prediction of Grades of Negro and White Students in Integrated Colleges," *Journal of Educational Measurement*, 5, (1968), pp. 115-124; Sidney Gael and Donald L. Grant, "Employment Test Validation for Minority and Non-minority Telephone Company Service Representatives," *Journal of Applied Psychology*, 56, (1972), pp. 135-139; Robert A. Gordon and Eileen E. Rudert, "Bad News Concerning IQ Tests," *Sociology of Education*, 52, (1979), pp. 174-190; Robert A. Gordon, "Jensen's Contributions Concerning Test Bias: A Contextual View," in S. Modgil and C. Modgil, eds., *Arthur Jensen: Consensus and Controversy*, (New York: Falmer Press, 1987), pp. 77-154; Donald L. Grant and Douglas W. Bray, "Validation of Employment Tests for Telephone Company Installation and Repair Occupations," *Journal of Applied Psychology*, 54, (1970), pp. 7-14; John E. Hunter, Frank L. Schmidt, and Ronda Hunter, "Differential Validity of Employment Tests by Race: A Comprehensive Review and Analysis," *Psychological Bulletin*, 86, (1979), pp. 721-735; Robert Linn, "Test Bias and the Prediction of Grades in Law School," *Journal of Legal Education*, 27, (1975), pp. 293-323; Robert Linn, "Ability Testing: Individual Differences, Prediction, and Differential Prediction," in A.K. Wigdor and W.R. Garner, eds., *Ability Testing: Uses, Consequences, and Controversies: Part II*, (Washington, DC: National Academy Press, 1982), pp. 335-388; Julian C. Stanley, "Predicting College Success of the Educationally Disadvantaged," *Science*, 171 (19 February 1971), pp. 640-647; George C. Temp, "Validity of the SAT for Blacks and Whites in Thirteen Integrated Institutions," *Journal of Educational Measurement*, 8, (1971), pp. 245-251; Arthur R. Jensen, *Bias in Mental Testing*, (New York: Free Press, 1980).

18. From pages 21-22 of Lloyd G. Humphreys, "Race Differences in Tested Intelligence: Important Socially, Obscure Causally [Review of *Bias in Mental Testing*]," *Proceedings of the National Academy of Education*, 7 (1980), pp. 1-41.
19. Klitgaard, *op. cit.*, p. 246, displays means and standard deviations for 1,568 white and minority medical students from the class of 1975-76 at nine schools on both the old MCAT subtests and Parts I and II of the National Board of Medical Examiners tests, which are taken after completing two and four years of medical school, respectively. Part I assesses knowledge in basic medical sciences and Part II tests knowledge in clinical science. According to these data, mean differences between whites and blacks on the MCAT tests taken to enter medical school, stated in standard units of the white standard deviation, are almost identical to the corresponding mean differences on the later National Board tests taken to demonstrate what one has learned from medical school. This relationship is especially true of the MCAT Verbal and General Information subtests, which are similar to general intelligence tests (see, for example, Matarazzo and Goldstein, *op. cit.*, p. 105) and not based on content closely related to a medical curriculum. In standard units, the white-minority difference is .84 (white standard deviations) for these two MCAT subtests, and also .84 (white standard deviations) for the average of Parts I and II of the National Board tests, which individually produce differences of .86 and .81. Pooling the tests, as done here, would be expected to increase the reliability of the comparison. That the two main differences in this sample were not larger than .84 probably reflects what I surmise to be the noninclusion of students at mainly black medical schools. The stability of the white-minority difference when expressed in this form implies that the relationship between whatever causes the mean difference between white and minority students, on the one hand, and whatever causes differences among individual white students, on the other hand, is fundamentally unaltered by medical schooling. Put somewhat differently, the relative magnitudes of individual and group differences with respect to the quite general content of the two MCAT subtests were maintained with respect to the far more specific content of the two Medical Board tests.
20. In order to pass Part I of the National Board tests, one need only score 380 or higher. This passing score is located 1.2 standard deviations below the mean of the reference or normative group, hardly an appropriate standard for Harvard. For the Part II and Part III examinations the minimum passing score is 290 or 2.1 standard deviations below the mean. According to a recent report, passing rates on these examinations have remained fairly stable over the past twenty years. See Barbara J. Turner, Mohammadreza Hojat, and Joseph S. Gonnella, "Using Ratings of Resident Competence To Evaluate NBME Examination Passing Standards," *Journal of Medical Education* (July 1987), pp. 572-581. After studying 1,994 graduates of Jefferson Medical College from 1970 through 1982, these researchers identified the National Board score of 421 as defining a level below which the risk of being rated low on command of medical knowledge by the director of one's residency program became markedly greater than usual. Recognizing the tradeoffs involved in raising the passing score on the National Board examinations in order to screen out such students, in that some acceptably performing residents would also be excluded, Turner et al. emphasized "the need to maintain high internal evaluation standards in the individual medical schools" (p. 580), which, of course, was Davis' main point. The minority means on Parts I and II of the National Boards cited by Klitgaard, *op. cit.*, were 434 and 424, respectively, with standard deviations of 101 and 96. These statistics indicate that many of the minority students would score in the range at high risk of receiving poor ratings during residency as described by Turner et al.
21. The sudden indifference to the implications of such performances, when minority students are involved, is quite inconsistent with the long-standing concern of the medical establishment with the "intellectual caliber" of medical students in general. For examples of that concern, see Matarazzo and Goldstein, *op. cit.*, Lupo et al., *op. cit.*; and Cynthia G. Tudor and Robert L. Beran, "Changes in the Qualifications Of Medical School Applicants, 1981 to 1985," *Journal of Medical Education* (July 1987), pp. 562-571.