

that have received the most attention; instead it speaks to how existing arguments about technology and about resources might complement rather than compete with each other.

In doing so, Clark's argument also becomes a more typically historical one, in which multiple changes occurring together in time shape a pattern of change that is explicable, but also unique. That kind of argument, which focuses on how trends interacted with each other rather than trying to isolate them, may even be truer to the Darwinism Clark invokes than is his approach elsewhere. After all, individuals and their environment

(which for humans include available resources, institutions, and culture) both undergo changes. Since humans make so much of the settings of our lives, an argument that asks us to hold those settings constant for many, many generations and focus exclusively on the evolution of individuals' traits is asking so much that it would require overwhelming evidence to be convincing. And here, on the contrary, most available evidence cuts the other way.

KENNETH POMERANZ
University of California,
Irvine

JOHN CARSON. *The Measure of Merit: Talents, Intelligence, and Inequality in the French and American Republics, 1750–1940*. Princeton, N.J.: Princeton University Press. 2007. Pp. xvii, 401. \$39.50.

Among the several battles currently being waged in America's so-called "culture wars," none is more divisive than the conflict over affirmative action. Proponents of affirmative action argue that in the interests of diversity institutions such as colleges and universities can make allowances for racial minorities when it comes to admissions. These advocates of preferential selection contend that there are ways of determining a candidate's overall merit other than relying simply on grade averages and standard test scores. The mere presence of minority students, so this argument goes, can enrich campus life and thus call for a different way of understanding personal merit.

Opponents of affirmative action disagree, contending that merit and talent should be based chiefly on past academic performance and inherent skills. Grades and the results of tests such as the SAT and LSAT, they argue, do in fact measure intelligence. Efforts to achieve equality of opportunity, affirmative action's opponents maintain, run the risk of mistaking it for equality of outcome. In the words of President Andrew Jackson: "Equality of talents, of education, or of wealth cannot be produced by human institutions."

The historical background to this spirited and often acrimonious debate is the topic of John Carson's book. Carson deftly shows that while opponents may disagree profoundly over the principle of affirmative action, they tend to agree that the debate is all about how to define merit. At least at the level of legal argument, even affirmative action's backers admit that demands for social justice should not trump the question of individual merit. They might refer to women, the poor, or certain minorities with their distinctive histories of oppression as reasons for preferential treatment, but in the end their justifications boil down to criticisms of specific merit-based systems of selection, notably IQ tests. In other words, to Carson the debate over affirmative action is less a dispute than a "conversation" about the nature of democracy and equality (p. xii). The media

like to hype the differences on either side of the debate; what is lost amid the perfervid rhetoric is the rudimentary consensus that makes such a debate possible in the first place.

The consensus is that there is such a thing as individual merit—or, as they used to say in earlier times, virtue. The disagreement begins when people try to establish what constitutes merit: can it include athleticism, musical talent, mathematical skill, an excellent memory, a poetic nature, or a bent for social activism? The story of this disagreement reveals that intelligence—and its relation to merit—is more a product of history than of nature.

Carson arrives at this conclusion at the end of a narrative that takes the reader from the eighteenth century up to World War II. His focus is not exclusively American; among the many virtues of this book is the comparison he draws between American and French attempts to come to terms with the issues of intelligence, merit, and talent. Carson's choice to compare France and the United States of America makes a lot of sense. In the eighteenth century both countries underwent momentous revolutions, political upheavals that sought to establish societies that were far more meritocratic than either colonial America or *ancien régime* France. The French and American revolutions, in the name of popular sovereignty, aimed to sweep away institutions that bred inequality and injustice. Revolutionaries in both countries maintained that the future looked brighter than ever before; people whose skills and talents might have been buried beneath the arbitrary privileges of earlier eras could now realistically expect many more opportunities for individual advancement and social usefulness.

Yet, what looked straightforward to eighteenth-century reformers proved to be vexing for the American republic and French *nation*. In the words of Madame de Staël in 1800, "the principle of a republic where political equality is sacred, must be to establish the more

marked distinctions among men, according to their talents and virtues" (p. 68). Doing so involved a delicate balancing act for citizens of both nations: how did they provide equal opportunity and at the same time ensure that talent thrives? How did each nation reconcile the ideal of equality and the realities of difference? Or, as Carson himself puts it, what is the "boundary demarcating where universal rights ended and the privileges of talent began?" (p. 36). The ways in which France and America answered these questions form the core of Carson's book.

Once the American and French revolutions had run their courses, both nations settled down to the difficult task of establishing meritocracy. Initially, there was little philosophic support for using intelligence as a scientific barometer to measure talent. Thanks to Scottish Common Sense philosophy and the eclecticism of France's Victor Cousin, the notion that intelligence was a single, measurable entity with a biological foundation had trouble gaining acceptance. Cousin, a university professor, was virtual ruler of the French philosophical world from 1830 to 1848. He imagined the mind was composed of numerous, diverse faculties and admitted that people were more or less endowed by their Creator with these faculties. But Cousin was mainly interested in the mental similarities among human beings, not their differences. He believed in a universal moral sense, present in every human being regardless of age, gender, or race: "There is not a man, ignorant or instructed, civilized or savage, provided he be a rational and moral being, who does not exercise the same judgment" (p. 70). Phrenologists, who enjoyed great support in radical political circles, might preach that specific intellectual talents were localized in certain organic parts of the brain, but Cousin's eclecticism held sway in France's schools between the 1820s and the end of the July Monarchy in 1848.

The search for discernible intellectual differences among individuals and human groups did not begin in earnest until after the mid-nineteenth century. This turning point coincided with the rise of what historians call "race science," the study of biological differences among human beings. Race science benefited from the Victorian-era advances in experimental medicine, physical anthropology, and evolutionary biology. Phrenology, Darwinism, and degeneracy theory encouraged scientists to naturalize ever more aspects of human nature, including psychology.

As a result, Cousin's eclecticism rapidly took a nose dive in popularity. So did Common Sense philosophy. The editor of *Popular Science Monthly* criticized it in 1867 as an approach in which "living reality, as a subject of study, disappeared from view," and rendered mind an "abstraction, to be considered as literally out of all true relations as if the material universe had never existed" (p. 162). Fair or not, this comment mirrored the fact that as the nineteenth century wore on more and more psychologists viewed the mind as a biological phenomenon. Often borrowing from the language of positivism and Darwinist evolution, psychologists argued

that the mind's various "faculties" and "powers" were fictions. What scientists needed to do was subject mental phenomena to rigorous observation, experiment, and analysis. Psychologists interpreted the mind's functions less as separate properties and more as features of a single entity. As for memory, judgment, imagination, taste, perception, and the like, by the end of the nineteenth century psychologists increasingly lumped them together under the broad heading of "intelligence."

Thus, intelligence was discovered—or at least "re-made" into "a differential, quantifiable, unilinear entity that determined an individual's or group's overall mental power." By the end of the nineteenth century many scientists had concluded that intelligence was "measurable, statistically distributed, hereditary . . . [and] biological in origin." If someone was poor, committed a crime, or lapsed into vice it was "less from personal moral failure than congenital mental inadequacy" (pp. 159–160).

This physicalist explanation for individual and group behavior gained credence thanks to the immense transformations experienced by Americans in the late nineteenth century. Industrialization, urbanization, mass immigration, expanded schooling, labor unrest, African American emancipation, and women's suffrage raised sharp concerns about how the many groups within U.S. society could co-exist. Intelligence testing seemingly offered a way to categorize individuals and groups whose ultimate niches in society were not immediately obvious. The possibility of labeling with the authority of science consoled countless Americans baffled by the challenges involved in the transition to mass society.

Within a few short years intelligence testing became "something of an industry" in American psychology (p. 178). As scientists viewed the mind as an integrated whole rather than an entity made up of several different faculties, interest in "intelligence" soared. When the United States entered World War I in 1917, it had to cope with mass mobilization for the first time in its history and resorted to intelligence testing of about two million recruits. After the war, intelligence testing increased in popularity among educators as more and more young Americans attended the nation's schools. In 1926 the Scholastic Aptitude Test (SAT) was invented, a college-entrance intelligence test valid anywhere in the United States. The business world also seemed to value IQ testing, seeing it as a way of screening applicants and employees, as well as separating those fit for office work and sales. By World War II intelligence as a concept and intelligence testing as a means of measuring it, though far from uncontested, had gained a firm foothold in American society. The IQ test was gradually becoming a part of everyday experience for millions of American schoolchildren, job applicants, and armed services personnel. For a nation increasingly preoccupied with "gray matter" or "brains," intelligence testing was a practice whose time had come.

This new, cutting-edge "metric version" of intelli-

gence, however, did not catch on in France nearly as tenaciously as in the United States. For example, the French military largely ignored intelligence testing during World War I. This comparative lack of French interest in intelligence testing is surprising given that the founders of the first real intelligence test were two Frenchmen: Alfred Binet and Theodore Simon. To account for this historical curiosity, Carson relies on Theodore Porter's thesis that French elite culture privileged the judgments of experts rather than the reduction of social problems to simple quantitative benchmarks (pp. 152, 231). He also correctly cites the French tradition in psychiatry and psychology that emphasized the compilation of exhaustive case histories and the study of individual patients in all their uniqueness rather than standard measurements of vast numbers of people.

But the distinctive, highly centralized French system of schooling was probably the key difference. Established by Napoleon I, the Paris-dominated French educational system was designed to produce a technocratic elite to serve the nation. By contrast, America's school system was decentralized, with many private academies and sectarian colleges. In theory, rigorous exams identified at early ages those best equipped to teach in France's secondary and post-secondary institutions and those with the aptitudes best suited for technical occupations. This process of nationwide selection through education made the determination of talent through intelligence testing much less urgent. French psychology was buffeted by many of the same trends that affected America—Darwinism, degeneration, eugenics, and imperialism—but its historical path into the twentieth century differed from that followed by U.S. psychology.

Carson's book challenges several customary interpretations of the history of science and medicine. The comparison with France suggests that while attitudes toward the status of African Americans exerted a significant influence over U.S. race science, anxieties about race may not have been the dominant factor after all. Race science was a complex phenomenon caused by all sorts of considerations, including concerns over the emancipation of African American slaves before and after the U.S. civil war. In France, by contrast, the rise of racial science was shaped by other concerns, notably the urgency of transforming millions of rural peasants into citizens of the republic that emerged from the defeat of 1870–1871. In other words, race science may not have been identical to scientific racism (pp. 78–79).

Additionally, Carson demonstrates that the "turn to nature as a way of justifying inequality," a common complaint about today's defenders of IQ, actually has deep roots, going back to the [U.S.] republic's very founding," in his own words (p. 277). "The turn to nature" can be discovered in the writings of Enlightenment thinkers such as Condillac, David Hartley, Mary Wollstonecraft, and Jean-Jacques Rousseau, most of whom were radical critics of their societies' institutions and ideas. It was also a belief of gilt-edged American

republicans such as Thomas Jefferson and Thomas Paine. What they all meant by nature varied widely. Some meant heredity, some meant simply native endowment, and some meant physiology. Some felt natural differences only applied to the comparison between men and women. That these reformers believed in nature is hardly surprising. They were united in the belief that the "accidents" of birth, wealth, and social class should be subordinate to the hierarchy of natural talents found throughout the population. Others, including William Godwin and the Marquis de Condorcet, argued that education and environment could mold human abilities to a degree never attained before in history. But even Condorcet granted that in his ideal republic a natural elite would surface and take charge.

The important point is that historically the appeal to nature as a means of explaining the distinctions that exist among human beings crisscrossed political boundaries. As Carson shows, it was only in the late nineteenth century when France and America began to really grapple with the problems of mass democracy that naturalistic explanations found favor in the eyes of defenders of the status quo. And even then, as in the case of phrenology and eugenics, biological explanations of social issues often attracted progressives and radical reformers. As Carson notes about nineteenth-century French anthropology, this new "science of man was, at its origins, a science of the left" (p. 108). Feminists, too, borrowed the language of biology to advance their claims to equal rights in education and other walks of life.

If there is a drawback to Carson's book it is that, with the exception of the last few pages, he ends his story in 1940. Readers who follow his subtle and searching discussion to that point will be disappointed that he did not continue it up to the present in more detail. After all, as he notes in passing, the history of IQ has been heated in recent years. The work of psychologists Arthur R. Jensen, Richard J. Herrnstein, and Hans J. Eysenck; the introduction of "sociobiology" in the 1970s; the publication of Herrnstein and Charles Murray's *The Bell Curve* (1994); and the ways groups like the Pioneer Fund support research have sparked countless protests since World War II. Critics insist that such research attempts to reinstate the hereditarianism of earlier eras and legitimize natural differences in mental abilities among ethnic groups, with the aim of undermining public support for government programs that, for example, try to improve poor children's academic futures. Accusations that this body of research penalizes the poor, women, and minorities have fostered the perception that it attracts the support of "mostly conservative scientists and social critics" (p. 278). It is true that those who emphasize nature over nurture do view certain government efforts to rectify inequalities in school performance with a deep dose of skepticism. Yet, as Carson notes, their standpoint has a long pedigree that stretches back to the dawn of the new republic and has straddled various political camps since then.

In the end, Carson's historically based advice to tone down the rhetoric and stake out the common ground

shared by the debate's participants is worth following. Less inflammatory language would go a long way toward revealing the merits of both arguments in the debate. The greater likelihood, however, is that the debate will unfold as it has in the past with Americans "wor[r]y[ing] the problem" and leaving the issue of intelligence in "flux" (p. 279). The limitations of science when it comes to defining intelligence and establishing firm natural distinctions among groups, whether biological or social, mean that its proponents will not conclusively win the debate anytime soon.

On the other hand, as Carson acknowledges, the possibility that nature can simply be dismissed out of hand

when assessing individual mental ability is equally far-fetched. No matter how much money is spent on education, it will not transform every classroom into a bunch of Beethovens, Einsteins, or Jane Austens. Everyone concedes that money must be spent; the only question is how much. As long as uncertainty in America over what is inborn and what is learned persists, the "conversation" over how much is enough is bound to continue.

This may be a messy compromise. But, in Carson's eyes, it is probably better than the alternatives.

IAN DOWBIGGIN

University of Prince Edward Island

ALLAN M. BRANDT. *The Cigarette Century: The Rise, Fall, and Deadly Persistence of the Product That Defined America*. New York: Basic Books. 2007. Pp. vii, 600. \$36.00.

PAMELA E. PENNOCK. *Advertising Sin and Sickness: The Politics of Alcohol and Tobacco Marketing, 1950–1990*. (Drugs and Alcohol: Contested Histories.) DeKalb: Northern Illinois University Press. 2007. Pp. viii, 282. \$36.00.

The history of drugs in the United States has taken major steps forward over the last few years. For decades, alcohol and its control dominated American discussion in the field. In the 1960s to the 1980s scholars began to respond to the widening concerns over drug addiction in American society by studying the history of narcotics, particularly heroin or other opiates. More recently they have turned their attention to the impact of pharmaceuticals, but important continuities in approach remain. Some recent exceptions aside, historians have continued to focus on individual drugs rather than the interrelations between them, and the majority of historians interested in tracing the rise, impact, and control of psychoactive substances in the United States still concentrated on the alcohol issue. Concern over drug addiction remained subordinate to the study of social movements in American life, especially the case of alcohol prohibition. Only recently has a move begun to bring work on various addictions together, and to include alcohol as a drug. Pamela E. Pennock's book is an example of latter-day ecumenism on this subject, but it remains a rare example.

Another trend in earlier historiography was the continuing neglect of one of the most serious of all drug problems, tobacco. Until the 1970s, tobacco smoking was one of the most ubiquitous social habits in the United States, as in many other Western countries. Unlike the history of alcohol, however, the story of tobacco received scant historical attention. Apart from notable forays into the subject by business historians, tobacco's impact seemed as ephemeral as the individual act of smoking itself. But that neglect began to change when the modern health-based attacks provoked reassessment of both the marketing of the dreaded weed, and

of the cigarette's destructive effects upon American society and public health.

In the study of smoking, historiographical concern has centered almost exclusively on the rise of the cigarette, a story retraced and amplified in Allan M. Brandt's book. Brandt's interest is public health's intersection with legal battles and scientific research. He tells how smoking came to be seen as a major public health killer, and how the tobacco industry worked to blur the progress of science from the time of the early findings in the 1950s associating tobacco with lung cancer. The gist of this story has been told before in other equally impressively sized tomes, notably from the perspective of a journalist-historian (Richard Kluger, *Ashes to Ashes: America's Hundred-Year Cigarette War, the Public Health, and the Unabashed Triumph of Philip Morris* [1996]); and from within the community of medical anti-tobacco activists (Stanton E. Glantz et al., *The Cigarette Papers* [1996]). Yet no one has told the story so authoritatively, comprehensively, and judiciously as Brandt. Many years in the making, Brandt's book is forcefully argued and compellingly documented and will long stand as an authoritative text in its field.

Courtesy of its snappy title, the book is billed as being about the one-hundred year rise, fall, and persistence of the cigarette, yet it gives the greater part of its attention to struggles over tobacco smoking since the landmark 1964 Surgeon General's Report. Just over a fifth concerns the years before 1945. After a brief nod to the earlier history of tobacco, the turn-of-the-century anti-tobacco movement, and the role of World War I in increasing use of cigarettes (stories already well told by authors such as John Burnham, *Bad Habits: Drinking, Smoking, Taking Drugs, Gambling, Sexual Misbehavior,*