Book Reviews

A Discarded Consensus

Outcasts from Evolution. Scientific Attitudes of Racial Inferiority, 1859–1900. JOHN S. HALLER, JR. University of Illinois Press, Urbana, 1971. xvi, 228 pp., illus. $7.50.

A number of scientists and other people are concerned today because within the community of science a few minority voices, chiefly those of Arthur Jensen and William Shockley, are being raised to question the consensus of racial equipotentiality. The era which historian John S. Haller, Jr., describes was one in which there were no exceptions at all to a scientific consensus about differences in the inherited potentialities of racial stocks. The issue was the same as today's, but the consensus was the exact opposite. Most of today's intellectuals, discomfited by contemporary antiegalitarian dissenters, would praise any scientist who during the 1880's and 1890's challenged the prevailing views of black inferiority. But none did. Haller's book confronts us, therefore, with the problem of whether or not in any age unanimity of scientific opinion is an unmixed blessing. The question is not likely to be settled soon, by this book or any other.

Haller's narrative shows that the social impact of scientists' opinions on this subject was at least as important in molding social policy in the late 19th century as in the 1970's. Every informed scientist of the time reinforced popular beliefs that Americans of African descent were so limited in mental and characterological development and also in the possibility of development that social equality was an unrealistic and undesirable goal.

What was new in the Victorian period was Darwinism. Haller begins his story where William Stanton left off in *The Leopard's Spots: Scientific Attitudes toward Race in America, 1815–59* (1960). Before 1859 many scientists had questioned whether blacks were of the same species as whites. After 1859, the evolutionary schema raised additional questions, particularly whether or not Afro-Americans could survive competition with their white near-relations. The momentous answer was a resounding no. Racial inferiority, according to post-Civil-War scientists, included marked physical defect. In 1903 a physician voiced the common conclusion that "the American negro [would] never become firmly established . . . before disease and death . . . thinned his ranks and there will be no race problem." The Victorians and Progressives took few actions to upgrade the status of blacks, therefore, partly because every authority assured them that "the Negro problem" would disappear—the inferior minority would perish naturally and inevitably because it was inferior.

Some of the impact of Darwinism in buttressing racial suppression was of this theoretical kind. The African was inferior because he represented the "missing link" between ape and Teuton (a satisfying resolution of the polygenist-monogenist debate about the origin of races). But in large part, as Haller shows, the scientists were not merely using science to make their biases respectable. An array of disturbing statistics seemed irrefutable. Extensive physical anthropological measurements appeared to show blacks to be organically disadvantaged. Turned loose from paternalistic bondage, ex-slaves broke down, and statistics indicated alarming increases in mental illnesses among the freedmen. Above all, mortality rates for blacks were so high that even sophisticated social analysts and life insurance actuaries were among those predicting the demise of the Negro.

Segregation was, therefore, from one point of view, a kindness. Kept apart from whites, blacks would have an easier struggle for survival. "It is the hard fate of the transplanted Negro," wrote economist J. A. Tillinghast, "to compete, not with a people of about his own degree of development, but with a race that leads the world in efficiency . . . . his position can with difficulty be regarded as other than precarious to the last degree." That generation of scientists believed that no artificial process of education or forced evolution would ever enable the blacks to catch up. Even black intellectuals tended to share the pessimistic evaluation made by their white colleagues.

Haller's work, while primarily descriptive, anatomizes the contributions of scientists to the social failure of three generations of Americans. The story is still far from told with this book, however. Some subjects need further treatment—the lingering noble savage tradition, for example. But mostly depth of discussion beyond the descriptive is needed, and a biographical organization in the last part of the book obscures much of what analysis Haller provides.

Physicians and public health authorities did not just note black mortality rates but also talked about the types of diseases involved; by slighting this literature Haller makes the scientists appear less thorough and thoughtful than they were. Likewise he neglects the widespread belief in degeneration and devolution, including the growing literature on nonadaptive survivals. He fails to explore to the extent it deserves the Lamarckian assumption of turn-of-the-century scientists and the revolutionary impact of Weismannism on racial and all hereditary thinking, a subject introduced some years ago by George W. Stocking, Jr. Stocking and other recent writers include, too, much more of the specific scientific content of racial anthropology than does Haller.

The terrible professional and moral questions that Haller raises have to be considered in many contexts. Christine Bolt (*Victorian Attitudes to Race*, 1971) suggests that American scientists may have been relatively moderate in their attitudes and more empirical than colleagues in other countries. And the query of writers such as Lawrence J. Friedman (*The White Savage*, 1970) still has to be answered: why did Americans who despised and feared their black minority still "need a nigger"? What were the interrelationships between the role of the black who was acceptable to whites, the situ-

ation of the nonconformist or the "uppity Negro," and perceptions of black deviancy, including mental illness and more general "disease"? Haller has not so much answered questions as furthered inquiry, and he shows that historians have been no more successful in making sense of the role of science in social tragedy than have contemporary scientists in a variety of disciplines.

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Historical Interpretations

The Origins of Theoretical Population Genetics. WILLIAM B. PROVINE. University of Chicago Press, Chicago, 1971. xii, 202 pp. $7.75. The Chicago History of Science and Medicine.

This is a little book about a big subject. It covers a field which has received little attention from historians, and one sufficiently difficult that even understanding it is a serious problem for an outsider. Add to this the fact that the history of science itself is as yet a rather immature discipline, and the task of writing a history of population genetics becomes most formidable. We should be most grateful for so useful an introduction, even if further work soon necessitates different interpretations.

Provine has circumscribed his study to concentrate upon the more influential figures and schools. He stresses the conflict between the Mendelians and biometricians, and the work leading up to the syntheses of Fisher, Wright, and Haldane. This approach has obvious difficulties, in that the works examined may not adequately reflect what is going on. Indeed, one of the points that emerges from this study and others like it is how little the arguments presented in research papers reflect the actual reasons why scientists advocate theories. Peripheral influences may not be sufficiently recognized, and one has to be very careful in accepting what one scientist says about another. Provine has taken advantage of personal interviews to learn how Wright thinks he has been misinterpreted. One isn't always in a position to obtain insight in this way, however, and Provine rather uncritically goes along with Fisher's interpretations of Darwin.

Provine documents some general conclusions which give his work unusually great interest for working scientists. The unfortunate lack of communication between those who make history and those who write it may result in our not appreciating how right he is or how much it matters. First, he notes that "personality conflicts are sometimes very important in the development of scientific ideas." I dare say that this should be given as a rule rather than an exception, and the rule casts a great deal of light on the history of biology. Provine finds it curious that Huxley, one of Darwin's "staunchest supporters and admirers," advocated saltationism. There are two basic reasons, neither of which is generally recognized, for Huxley's attitude: he didn't understand natural selection, and he was jealous. The failure to understand natural selection helps to explain as well why Huxley opposed Darwin on genealogical classification. Also, Darwin was a Cavalier of biology, Huxley a Roundhead. Darwin had independent means, but Huxley had to struggle to make a living. Darwin made it as a theoretician, Huxley succeeded through professionalism and public service. I wonder how much of Huxley's advocacy of Darwinism was ultimately motivated by a desire to get even with Richard Owen. Second, "the acceptance by scientists of a new idea is sometimes more dependent upon its a priori acceptability than upon its scientific proof." We might add that the very idea of "proof" is suspect. Was Bateson more reasonable in criticizing the chromosome theory of inheritance than he was in championing Mendel's genetics? Finally, a "field of science can begin with a theoretical structure which is far from consistent," and in the field under study here the inconsistencies are still with us. The problem goes far beyond resolving contradictions. When we follow the misadventures of blending inheritance, genetic load, the "bean bag" approach, and the like, it may seem dubious whether gratuitous assumptions can ever be totally excluded from our thinking. The trouble with theoretical population genetics, now as always, is that so many of its basic premises are false. It needs continued support from empirical population genetics. Our universe is not populated by mathematical models, and if the organisms contradict the theories it is not the organisms that have to be corrected.

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A Tussle with Orthodoxy

Homeopathy in America. The Rise and Fall of a Medical Heresy. MARTIN KAUFMAN. Johns Hopkins Press, Baltimore, 1971. xii, 206 pp. $10.

This instructive account traces the strange American odyssey of homeopathy from its tardy arrival in the second quarter of the last century to its present moribund state. In so doing, the book sheds light on the history of the orthodoxy with which homeopathy constantly wrestled in a tussle sometimes bitter, sometimes gentlemanly.

With its mild medication, homeopathy won countless converts among patients tired of heroic bleeding and purging and so forced regular medicine to relax its heroism. In their turn, many homeopaths forsook the purity of Hahnemann's systematic theories and borrowed what seemed useful from the burgeoning medical revolution. This posed a continuing identity crisis for homeopathy: adapt the new and become lost within the regular medical profession; hold to the old and become quaint, outmoded, and perhaps barred from practice by tightened licensing laws. The major wing adopted the new sufficiently that in 1903 the American Medical Association accepted homeopaths to membership, but the homeopaths still held on stubbornly to a unique materia medica, a retention that probably prevented the AMA from granting homeopathy status as a therapeutic specialty.

Kaufman might have done better than he has at explaining homeopathy's 20th-century reluctance to abandon its special materia medica and at characterizing homeopathy as a therapeutic mode. He does not mention the homeopathic pharmacopoeia, a volume that was lofted to an official status in federal drug regulation with the enactment of the 1938 Food, Drug, and Cosmetic Act because the law's chief sponsor, Senator Royal S. Copeland, was a homeopathic physician. Nonetheless, even though denied access to crucial records, Kaufman relates a much fuller story than has heretofore been told about homeopathy's recent history. By 1923, as a result of the radical upgrading of medical education, only two of the 22 homeopathic medical colleges that had existed in 1900 remained, and these two lost their homeopathic distinctiveness a decade later when an AMA council refused to continue the approval of schools teaching "sectarian medi-