## **Roots of Criminality**

**Crime and Human Nature.** JAMES Q. WILSON and RICHARD J. HERRNSTEIN. Simon and Schuster, New York, 1985. 639 pp. \$22.95.

This is a massive review of criminological research focused on the role of genetic and familial factors in the development of criminality. Wilson, a political scientist, and Herrnstein, a psychologist, are both well-known scholars. The authors argue against sociological theories that explain crime by social conditions. Their major conclusion is that genetic and familial elements play a significant role in predispositions to criminality.

In Herculean fashion, the authors undertake to clean the stable of contemporary criminology of its liberal and sociological biases. The amount of research reviewed is enormous. There are approximately 1350 items in the bibliography. The authors' central concern is with criminality—the traits of the repetitive criminal involved in "serious" crimes, such as murder, assault, rape, theft, or robbery.

Wilson and Herrnstein assert that theories assuming a plastic, malleable human nature have failed to admit that such important psychological and genetic variables as intelligence, bodily structure, and modes of parenting are associated with criminality. In the research they cite, such elements appear equal to, or more significant than, such factors as class, labor markets, peer associations, and school performance in predicting individual differences in criminal behavior.

An example of the authors' method and argument can be seen in the discussion of twin studies and the "birds of a feather flock together" theory-the view that delinquency is fostered through peer relations in which each participant influences the others. Examining studies of identical and fraternal twins, Wilson and Herrnstein corroborate the well-established relationship between delinquency and association with delinquents. However, they also cite studies demonstrating a higher correlation between identical than between fraternal twins in such associations. They interpret this evidence as support for the significance of genetic factors.

Evidence for predisposing factors also emerges from the authors' examination of studies of other variables. The relation of innate intelligence and crime is a central concern in *Crime and Human Nature*. That IQ scores are correlated with delinquency

and with school performance has long been known, though often ignored or interpreted by criminologists as reflecting social factors of class and culture and responses to school contexts. After describing studies of the relations between IQ test scores and other indices of behavior, such as school performance, the authors conclude that intelligence plays a prior and independent role in association with crime.

They supplement their argument by two other bodies of evidence: published studies of personality and modes of parental socialization (permissive or restrictive; consistent or inconsistent) associated with criminals and delinquents. Such studies, they assert, show higher criminogenic propensities among children from more permissive families and among those who score high on impulsivity on personality tests. These measures are judged to be better predictors of individual criminality than class, community, or school performance.

The study overall is informed by a theory of human behavior that stresses response to reward and punishment and reinforcement. Intelligence affects crime in that the individual of low intelligence is less aware of longrun consequences, less willing to defer present gratifications, and less able to restrict impulsivity. The authors conclude that studies of deterrence policies indicate the value of increasing punishment when the punishment is perceived as certain. In a historical chapter, they claim that crime rates decreased during periods when a stricter "Victorian morality" dominated America than has been the case since the 1940's.

As the authors recognize, studies of criminality are confounded by the interaction of factors and the distribution of attributes within groups. The same person has an IQ score, belongs to a particular socioeconomic class, lives in a particular area, associates or not with criminal or delinquent peers, and has had a particular kind of socialization. How these variables interact and the strength of each is an empirical question. The authors maintain that the studies reviewed establish a greater role in predicting individual differences for genetic and developmental features than for social group features. They do not say that all those with more predisposing attributes are more likely to commit crime than all those with fewer. Low-IQ, high-income children are not as likely to commit crime as low-IQ, lowincome children. A fuller explanation would be one of multivariation, taking into account the amount of variance explainable by each factor and by successive additional factors. Readers should avoid the temptation to construe the authors' effort to redress a balance as offering a genetic interpretation as a total replacement for sociological ones. Their argument is that the constitutional factors and familial forms of socialization have not been given due significance in explaining criminal behavior.

In my judgment, the procedure that Wilson and Herrnstein follow limits the success of their Herculean task. The very cornucopia of findings leaves them unable to assess the quality and relevance of much of the research cited. Studies in this field are often flawed or limited by the specific situations of the research. Detailed analysis is often needed to support their comparability. Police records and survey data used to operationalize the criminal act vary thoughout the array of studies cited. Some of the studies cited are studies of delinquencies; some are of adult crime. Some include minor as well as "serious" crimes in their array. Some hold sociological variables constant; some do not. Some provide multivariate analysis; many do not. An additive approach to research necessarily assumes both equal quality and uniformity for the purposes of the argument among the studies utilized. But what shall we make of a twin study by Rowe and Osgood when a reading of that study indicates that it was based on a 48 percent return of a self-reporting questionnaire? How should that limitation affect its evidentiary value? Although the authors do engage in more thorough description of some studies, it might have been more fruitful to utilize fewer and key works, concentrating on a fuller description and analyses of criticisms and counter-studies.

Though there are many references in the book to impulsivity as a trait of the criminal, the meaning of that term and how it relates to criminal acts are unspecified. The authors write that low intelligence predisposes to crime, sometimes directly and sometimes by higher association with impulsivity. Are criminal acts, and which ones, unintelligent acts because they are criminal? That IQ scores correlate with crime and delinquency seems established. How they are related is by no means clear.

This book will very likely generate controversy well beyond the confines of criminology seminars. A book as ponderous and heavily documented as this is apt to be read in its entirety only by specialists and reviewers. That is a misfortune, since the introductory and concluding chapters are written in a more politically combative tone than much of the rest of the book. The final chapter presents a forceful argument for greater attention to development of a more disciplined, restrictive socialization and for the importance of religious values in prevention of crime. Yet the historical chapter on which the authors depend for evidence is the weak-

est of the entire book. With a thin reading of historical studies, they provide an idealized image of an American past, freer of crime than today. They may bolster their attack on the liberal program of crime prevention through institutional change, but they lose the credibility that their patient analysis of other studies has provided.

In attacking sociological theories Wilson and Herrnstein are flogging a dying horse. The present mood is pessimistic about the prospects for any overall explanation of crime, and the rehabilitative ideal in punishment is already on the defensive. Nevertheless they do raise vital issues of the role of genetic and developmental factors. Crime and Human Nature is already being heralded as a landmark book and is the topic of talk shows and newspaper accounts. Pushed into the public arena, its findings are likely to be distorted. Agreement and disagreement will doubtless depend less on the analysis of materials than on whether the reader's pet ox has been gored or massaged.

Yet it is a limited perspective that leads criminologists, including Wilson Herrnstein, to attend only to individuals and to illegal acts in explaining crime. As laws change, the law-abiding citizen of yesterday may be the violent criminal of today and vice versa. Consider the shift into or out of criminality of slave ownership, child abuse, driving under the influence of alcohol, and marital rape. These examples, not to mention the experiences of many millions in this century of genocide, political terror, and intergroup massacre, suggest that the very definition of the object of studycriminal behavior—is itself an issue. Only scholars with a restricted, ahistorical vision could write that "most people in most places do not live under a pervasive fear of criminal victimization" (p. 525).

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## German Science Abroad

Cultural Imperialism and Exact Sciences. German Expansion Overseas 1900–1930. Lewis Pyenson. Lang, New York, 1985. xvi, 342 pp., illus. \$40. Studies in History and Culture, vol. 1.

What was the historical role of modern science in the development of European overseas imperialism? Did the European powers promote the exact sciences for purposes of "cultural imperialism," as distinct

from economic and military motives? The answers to these questions are still far from clear. Thus it is good to see them addressed in regard to at least one power, Imperial Germany, in this pioneering new book. The book consists mainly of three case studies of far-flung outposts of German scientific culture during the years around the First World War: a geophysical observatory in Germancontrolled Apia, Western Samoa; a provincial university staffed in part by first-rate German physical scientists and astronomers in La Plata, Argentina; and a German naval observatory in Tsingtau, in the German colony of Kiautschou, China, as well as German-Chinese institutions of higher education in Tsingtau and Shanghai. Working from disparate sources written in seven languages and scattered around the globe, Pyenson has gathered copious details about how these institutions were established, staffed, and financed, what their scientific purposes were and how well they were achieved, and how they contributed to "cultural imperialism" by spreading the knowledge and methods of exact science to the local populations and cultures. In each case he finds that German cultural influence was significant and long-lasting, albeit less extensive than the Germans originally hoped.

Pyenson tells his story as a straightforward narrative; he is methodologically conservative, and he does not fit his disparate cases into a framework that would facilitate point-by-point comparison. As a result, though the book is extremely informative about the institutions and scientists involved, it is sometimes necessary to flip through pages to compare information on specific aspects of each case such as institute budgets. The introductory and concluding chapters, though helpful, do not make up for this deficiency.

Samoa and Argentina receive the most attention, some hundred pages of text each, with the Chinese case receiving only half as much. Samoa is the most coherently discussed. The geophysical observatory was a single institution devoted to a single purpose and moreover had a clear beginning as well as an equally clear end as a result of the First World War, in which Germany's defeat forced her to relinquish control. The story in this case is also particularly interesting because, despite difficulties relating to the tropical environment and early inadequacies in funding and equipment, the Samoan station for a time was one of the most important geophysical observatories in the world. Data collected there contributed significantly to the development of modern geophysics by Emil Wiechert and his school at Göttingen, whose scientific society supervised the institution.

The treatments of German scientists in Argentina and in China are less coherent, because more disciplines and institutions were involved and because the war did not effectively terminate the German scientific presence in these countries. Conditions in Argentina were far less difficult than in Samoa, though the first German director of the physics institute at La Plata died of typhus. Serious funding problems also did not arise, because money came from a progressive Argentine administration that was trying to create a "modern and experimental" (p. 153) institution for higher education in La Plata and was thus willing to spend large sums to get the best possible scientific equipment and staff. Pyenson notes that the budget of the physics institute there was comparable to that at Berlin, and he considers La Plata to have been "the single strongest overseas center" of theoretical physics in 1913 (p. 17). Despite his evidence for the importance of the theoretical physics done at La Plata, the absence of a systematic comparison with work done elsewhere may well leave readers not wholly convinced on this score.

A further conceptual problem with the story of Argentina arises from the fact that, in contrast to Samoa and China, the scientists and institutions there were not appointed or supported by the German government or German academic institutions. This raises the question whether Argentina should really be discussed under the rubric of "imperialism," cultural or otherwise, even though the German government expected gains from the presence of its scientists there. When a country's acceptance of a foreign culture occurs at its own initiative, would it not be more appropriate to use the term "modernization," which has been applied to Japan during the same period and to China today?

To justify the term "cultural imperialism," Pyenson is at pains to emphasize his interest in the exact scientific as opposed to the practical side of the institutions he discusses. By playing down technology and the applied sciences, he can distinguish strictly cultural imperialism from forms motivated by hopes of economic or political gains. In practice, of course, none of his cases exhibits clear-cut "cultural imperialism" alone. Overall the impression from Samoa as well as from the German efforts in China, where government money had to be supplemented by contributions from German businessmen, is that before the war the German public and the imperial bureaucracy had little interest in supporting the exact sciences unless they were combined with practical applications. Yet a powerful stimulus came from German fears that to withhold support