Conflict Marks Crime Conference

Charges of racism and eugenics exploded at a controversial meeting exploring the genetic basis of crime, yet some opponents found a little common ground

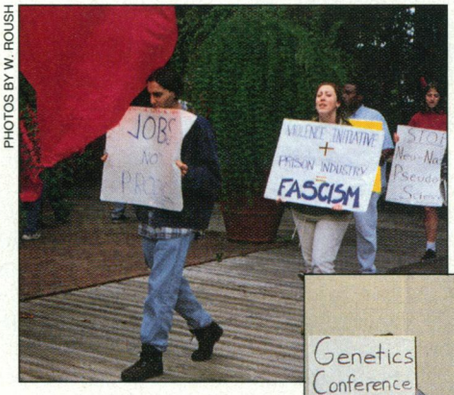
QUEENSTOWN, MARYLAND—David Wasserman, usually a soft-spoken legal scholar, was shouting at the top of his lungs: "There are a hell of a lot of people attending this conference who think the dangers of genetic research are as great in the long term as the dangers of atomic energy!" He was trying to ward off the demonstrators who swarmed into the auditorium where the University of Maryland was hosting a conference examining the genetic roots of violence and crime last week. The protesters chanted "Maryland conference, you can't hide—we know you're pushing genocide" even as Wasserman, who organized the meeting, yelled at them to leave, saying their views were already represented by conference participants.

Indeed, some conferees had already argued that the meeting should be abandoned. Less than a day into the gathering, tempers were fraying almost as quickly as you could say "antisocial behavior."

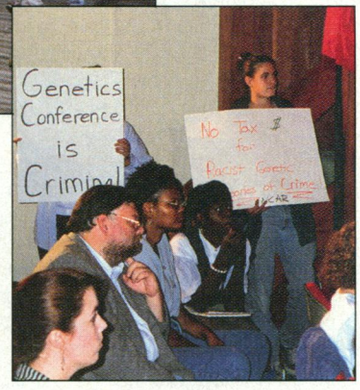
The conference, "The Meaning and Significance of Research on Genetics and Criminal Behavior," has been protested, canceled, rescheduled, and otherwise dogged by controversy ever since it was first planned 3 years ago. By the time some 70 biologists, criminologists, historians, and philosophers gathered last weekend in a remote conference center near the Chesapeake Bay, battle lines were drawn. Some scientists contend that if genes mold physiology and physiology influences behavior, then behavior, including antisocial behavior such as violent crime, has a genetic component; it might be understood—and possibly treated—from a biological standpoint. Yet another faction pressed the case that evidence supporting genetic links was—according to a press release they distributed during the meeting—"circumstantial" and "racist pseudoscience" that would inevitably stigmatize minority populations, paving the way for social control in the guise of medical treatment.

But when the dust settled, remarkably, the conference participants found some common ground. "I don't think we can ask people" not to pursue the genetic underpinnings of antisocial behavior, says Paul Bil lings, a Stanford University physician who initially was asking researchers to do just that. And Adrian Raine, a psychologist at the University of Southern California who studies how environmental stresses and physiological abnormalities interact to produce violent behavior, says he was "very struck by [the] genuine, honest, and appropriate concerns" of people such as Billings. Raine says he will do more to "ensure that my findings are not misinterpreted in a way which could feed into the fears of the public." As for keeping them from being misused by policy-makers, however, Raine confesses he's at a loss.

The tortuous route to this conference began in 1992 when the National Institutes of Health (NIH) funded it as part of its effort to assess the social implications of the Human Genome Project. That support was abruptly withdrawn after critics, including black political leaders and gadfly psychiatrist Peter Breggin, assailed the conference agenda as racist (*Science*, 7 August 1992, p. 739). The critics charged that the roots of crime are in social causes—poverty, racism, and unemployment—that call for social solutions, not biological ones. Minority groups already victimized by these conditions would be the first targets of any new genetic therapy for violent behavior, they argued. Behind these assertions lurked the ghost of eugenics, the early-20th-century campaign in the United States and Germany to purify the human gene pool by sterilizing the "feeble-minded."



PHOTOS BY W. ROUSH



Protests without and within. Marchers swarmed around the genetics and crime meeting *(top)*, and shouted at the conferees *(above, seated)*.

Wasserman, a researcher at the University of Maryland's Institute for Philosophy and Public Policy, decried the NIH decision as censorship and eventually won an expanded $133,000 grant from NIH's National Center for Human Genome Research for a revamped version of the conference. The revised agenda featured an entire session devoted to the legacy of the eugenics movement. And for each psychologist or behavioral geneticist researching predispositions to antisocial behavior, the conference also featured a scientist, philosopher, or historian leery of suggestions that crime is causally linked to genes; some of these, like Wellesley College bioethicist Adrienne Asch, argued that such research has no place in our society. Other critics in attendance, such as Howard University economist Rodney Green, argued that the conference itself had no place.

Those looking for the biology behind impulsive and antisocial behavior were on deck first. Psychologist Irving Gottesman of the University of Virginia and physician David Comings of City of Hope Medical Center in Duarte, California, among other researchers, outlined the similarities between the criminal records of identical twins reared separately, cited studies pinpointing gene mutations affecting enzyme function in a Dutch family plagued by violent behavior and trouble with the law (*Science*, 22 October 1993, p. 579), and noted evidence for neurochemical changes in the brains of some children with attention-deficit hyperactivity disorder. These are all "good leads toward genetic components" that may put people at risk for committing crimes, Gottesman said. Criminologist Diana Fishbein of the U.S. Department of Justice said that if definitive markers for antisocial behavior are ever found and "manifest early, perhaps we can intervene early."

Although he cautioned that behavioral patterns are highly subject to environmental influences and are never strictly determined by genes, Gottesman also argued strongly that genetic research should continue, quoting Goethe's statement that "it is not possible to wait with new explorations until man is a moral being."

Critics countered that the evidence for such genetic markers is slight. The diagnos-

tic categories used in many genetic studies—such as "violent," "aggressive," and "criminal"—are impossible to quantify, as they are legal and social rather than scientific in origin, said Andrew Futterman, a psychologist at Holy Cross College in Worcester, Massachusetts. Behaviors that are "moving targets" don't provide credible grounds for the search for genetic determinants, Futterman and Washington University biologist and historian Garland Allan said.

Such studies are worse than inconclusive, critics continued—they are racist and dangerous. Katheryn Russell, a criminologist at the University of Maryland, pointed out that because a disproportionate number of arrests for violent crimes occur among members of minority groups, genetic therapies for antisocial behavior would be inherently racist. "My concern is that we will be taking a step backward," Russell said.

That specter prompted six conference participants, including Billings, Allan, Green, and Indiana University historian William Schneider, to author their formal protest statement. The statement read in part: "Scientists as well as historians and sociologists must not allow themselves to be used to provide academic respectability for racist pseudoscience."

Once a piece of research has been completed, opponents added, even the most conscientious scientists have little control over how it will be applied. The leaders of the eugenics movement in the United States—although they had acted out of a sincere desire to build a better society—could do little when these ideas took root in Nazi Germany in the 1930s and transmuted into the Holocaust, Allan said.

Then internal critics got some uninvited outside reinforcements. Flag-waving demonstrators, including self-described communists, members of the Progressive Labor Party, and representatives of Support Coalition International—an alliance of "psychiatric survivors" endorsing Breggin's program against psychiatric medication—stormed the auditorium and seized the microphones. The protesters repeated many of the same themes voiced by conference participants. "You might think that you have a right to do the research you are doing, but the bottom line is that it will be used to subjugate people," asserted Robert Cook, a student at Rutgers University.

It took 2 hours to clear the protesters from the buildings and another 8 hours of sessions to bring the proceedings to a close. And at that point, to the participants' quiet surprise, they found a small rapprochement. Part of the text of the protest statement arguing that the conference should not be held was scratched out. In place it read that the meeting "should not have been necessary." Billings, one of the signers, explains that researchers should be very aware of the dangerous misuse to which their findings can be put and shouldn't require a costly scientific conference to drive the point home. "I think the conference should have taken place. I also think it should have been disrupted," he says.

A few researchers acknowledged they needed an eye-opener. "Only historians have never had their results misused," says David Goldman, a neurobiologist at NIH's National Institute on Alcohol Abuse and Alcoholism. Raine notes that "I feel much more sensitized to the potential tragedies and misuses of biological research."

Sensitized enough to bring his work to a halt? "The answer is no. I will worry more about how could I live with myself if this research is misused. But if we were to block biological research, then the protesters who came to this conference would have to live with the blood of innocent victims on their own hands—the victims of crime we could have prevented if biological research was allowed to continue."

–Wade Roush

FRENCH BUDGET

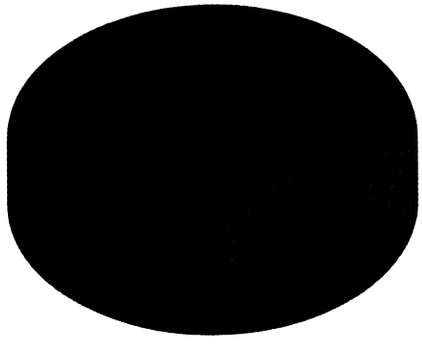
Research Given an 'Apparent Increase'

PARIS—Ever since Elisabeth Dufourcq, a relatively unknown academic trained in political science and public health, was appointed France's secretary of state for research last May, her rambling press conferences have become legendary with the nation's corps of science and medical journalists. Last week's get-together was no exception. For more than an hour, several dozen reporters packed into a reception room at the research ministry's elegant headquarters on the Rue Descartes scratched their heads in bewilderment while Dufourcq, flanked by a half-dozen aides, attempted to explain the government's proposed research budget for 1996.

Their task was made particularly difficult by France's complex accounting system, which makes it hard to determine whether research spending is going up or down from one year to the next. Dufourcq kicked off by announcing that expenditures for civilian research and development in 1996 are projected to reach $10.6 billion, an increase of 2.4% over the 1995 budget as revised during the second half of the year. But when compared to the budget initially proposed for 1995—the victim of a series of economy measures (*Science*, 7 July, p. 22)—the 1996 increase is only 1.4%. And these figures do not take into account France's inflation rate, which has been running at an average of 1.9% over the past 12 months.

Nevertheless, said Dufourcq, compared to key ministries such as defense and industry, which will see their budgets sharply cut in 1996, "one cannot say that research has been mistreated." Moreover, she argued, the phasing out of a number of programs in civil aeronautics research will allow a more substantial increase in the money allocated to several research agencies, including the Centre National de la Recherche Scientifique (CNRS), which will receive a 4.79% increase over 1995, and the biomedical agency INSERM, the beneficiary of an additional 5.42%.

France's 1996 Civil Research Budget



These figures might seem worth celebrating during a time of fiscal hardship, but some French scientists caution that the numbers should not be taken at face value—particularly as at least 80% of the agencies' budgets are tied up in salaries. When the costs of purchasing large-scale equipment are added in, they say, very little is left for running laboratories. "We should call it an apparent increase, like apparent molecular weight," says Jean-Paul Thiery, director of the new cell biology research complex at the Institut Curie in Paris. "Even an apparent 4% increase can lead to minus 6 or 10%" in actual money for doing research, Thiery contends.

At last week's press conference, the assembled journalists—who have grown skeptical from hearing good news pushed by research officials contradicted in later interviews with French scientists—fired question after question at Dufourcq and her aides before adjourning to partake of the customary spread of champagne and eclairs.

"We have found ourselves in a financial situation that is very, very far from being brilliant," Dufourcq said, in a reference to the financial problems the conservative government says it inherited from its socialist predecessor. And in an apparent dig at past fiscal mismanagement, she added: "This budget is not fabulous, but it contains no fiddling of the accounts."

–Michael Balter