

The Science of Human Potential

Public Dialogue about Behavioral Genetics

The findings of behavioral genetics, already provocative, are likely to pose new social and ethical challenges as the science progresses. And so it is heartening to see a number of recent efforts to inform the public about the potential impact and ultimate limitations of behavioral genetics.

The latest is a report called *Behavioral Genetics*, which is part of a multi-year project jointly sponsored by the Hastings Center and the American Association for the Advancement of Science. The report does an admirable job of describing the various scientific questions that research geneticists are asking, and offering useful explanations of the basic methodology of the field: twin studies, family studies, adoption studies. It also offers an interesting paean to the humble fruit fly, which has made so much genetic research possible. Some of the studies described in the

report, like the successful efforts of scientists to breed mice to be either brave or fearful, are likely to surprise readers new to the field.

If there is a common vice in these public education efforts, it is the temptation to talk down to one's audience, and this latest report is no exception. While many readers might appreciate the report's basic explanations and textbook definitions, the approach sometimes sinks into condescension. *Behavioral Genetics* relies on brief narrative stories to introduce each chapter, each featuring an appropriately multicultural antihero—Margaret, the pushy mother who wants her child to be the next Tiger Woods; “Skip, a regretful man”; “Hoda, the perplexed nurse”; “Mr. Huang, a puzzled patriarch”; and “Lamar, a man with bad news.” This device is meant to personalize the serious matters under discussion, but the stories and the accompa-

nying pictures are mostly silly and distracting.

The story of Skip, a laundry list of one man's personal and professional failures and his quest for someone (or something) to blame for them, is accompanied by a mugshot of a glowering guy who looks more menacing than regretful. Mr. Huang frets that his son is planning to marry a non-Chinese woman who might make branches of the family tree droop toward dumbness. Lamar is dumped by his fiancée when she discovers that his mother has early-onset Alzheimer's—but who knows, maybe Lamar is lucky for having been “spared marriage to someone so flighty.” One can see the appeal of such stories for experts writing for a lay audience. But in their predictable narratives and attempts at emotional manipulation, they resemble nothing so much as those miniature manufactured television dramas known as “after school specials.”

If one can look beyond the silly stories, the report actually asks good questions and offers straightforward answers: “What is behavioral genetics?” “How do genes work within their environments?” “How do environments impinge upon genes?” and “How is genetic research on behavior conducted?” There are personal questions, like that facing the aforementioned Lamar: Should he seek a genetic test for early-onset Alzheimer's, or is it better not to know what the future holds? And there are policy questions, like whether the information in government-operated DNA databases, originally used in criminal investigations and prosecutions, should be opened to scientists: “Under current law, the tissue samples from which DNA is profiled (such as blood or saliva) are off limits to researchers, but they are tempting treasure troves and the law is subject to change.”

The report's central conclusion is that DNA is not destiny: “Based on your genes, no one can say what kind of human being you will turn out to be or what you will do in life. If you can only learn one thing about behavioral genetics, that statement should be it.” A good lesson indeed. But it is also true that many avenues of life—from basketball star to Nobel laureate—will be closed off to those who do not have the right genes. Our identities are both “made” and “given,” and the dilemmas of behavioral genetics center on how to use seemingly new knowledge about what is given (our genes) in shaping the lives we make for ourselves.

The report is supplemented by a long essay, “Genetic Differences and Human Identities,” by Hastings Center fellow Erik Parens. In this weightier version of the public education report, Parens asks why behavioral genetics makes us nervous: “[N]o less is at stake than human identities and the proper organization of societies. To what extent are whatever privileges people enjoy the consequence of natural gifts instead of luck and ‘gifts of nurture’? Does our current social order reflect the way things are ‘by nature’ meant to be? ... Few issues inspire as much feeling.”

And few issues have such a predictable gallery of villains. It is difficult to find a summary of behavioral genetics that doesn't move, within the space of a few paragraphs, from eugenics founder Francis Galton to IQ testing to the Nazis and then, in a move that no longer surprises, to Richard Herrnstein and Charles Murray's book, *The Bell Curve*.

Published a decade ago, *The Bell Curve* still has the power to raise bioethicists' hackles. Parens himself indicts Murray and Herrnstein by noting, “it is easy to see how their insinuation”—that race and IQ

might be linked—“can be used to justify whites’ social power.” This is not an unreasonable concern, given humanity’s track record in melding science and racism with coercive state power, and Parens is right to argue that people leading the public conversation about behavioral genetics bear a unique responsibility: “Given that those at the greatest risk for being hurt are those who already hurt as a result of the current organization of our society,” he writes, “there is a special obligation to guard against allowing research aimed at increasing knowledge and reducing suffering from being hijacked by the desire to justify the status quo.” But Parens tangles around the full implications of his own warning—that there are some who would use our knowledge of behavioral genetics to make society more radically

egalitarian. Here, too, there is a dark history, with Soviet Russia and communist China as cautionary tales.

In the end, questions about the uses and potential abuses of behavioral genetics prompt deeper reflections on the role of science in our American democratic experiment. How can a heterogeneous, pluralistic, multiracial society separate the social and political influences of this debate—both good and ill—from the science itself? The new report and new essay from the Hastings Center and the AAAS are a welcome contribution to this oft-tendentious debate. We need to be talking about these issues, and as Parens notes, “if we’re clueless about what behavioral geneticists do, we won’t adequately appreciate either the potential benefits or the abuses of their work.”