

Oh, Behave!

Britain's Nuffield Council Weighs in on Behavioral Genetics

Behavioral genetics has long been the wicked stepchild of the genetic sciences. Making claims about the genetic roots of behavior often leaves one treading the unsafe terrain of genetic determinism. But recently, and intrepidly, Britain's Nuffield Council on Bioethics published a lengthy report, *Genetics and Human Behavior: The Ethical Context*, which attempts to bring behavioral genetics back into the broader debate over new genetic technologies. The council, a group of lawyers, scientists, ethicists, and academics, aimed the report at non-specialists, saying its intention was to "define and consider the ethical, legal, and social issues arising from the study of the genetics of variation within the normal range of behavioral characteristics."

The Nuffield Council readily concedes the tainted provenance of the field of behavioral genetics—including its link to eugenic theories popular in the early to mid-twentieth century. Eugenicists in Britain, the United States, and many other countries once confidently assumed that they could locate the hereditary causes of a range of human behaviors: from "feeble-mindedness"

to cheerfulness to quirks such as love of the sea—a trait they dubbed "thalassophilia" and which they thought was passed down from mariner to mariner through the generations. By the late 1920s, such theories had become the scientific justification for compulsory sterilization laws in some U.S. states, and were a favorite cause of "progressives," including the avowedly liberal jurist Oliver Wendell Holmes, Jr.

The Nuffield report looks at what we currently know about the influence of genes on traits such as personality, sexual orientation, violent behavior, and intelligence. It concludes that our knowledge in this area is ambiguous and uncertain, consisting only of hints and speculation.

But as our scientific understanding increases, we may come to find more definitive connections between genetics and behavior, resulting in new ethical and legal challenges. The council is clear-eyed about possible future uses of genetic tests for behavior and the need to discuss their ethical implications sooner rather than later. As the report notes, genetic tests might someday be used "to prevent aggressive behavior by using medicines or by

attempts to change relevant aspects of the environment.” Or they might lead to “the streaming of children in schools on the basis of intelligence and aptitude, the screening of employees and job seekers to exclude those with traits employers consider undesirable, and the use by insurers of genetic information about behavior and personality traits in order to estimate risk.”

According to the report, the findings of behavioral genetics will likely change the boundaries of what is considered “normal” and “abnormal” behavior. If certain unwanted behaviors that are currently tolerated by society are found to have genetic causes—shyness and homosexuality are among the examples given in the report—we might start to treat those behaviors as medical problems. We are already moving in that direction, as evidenced by the increasing use of behavior-modifying drugs like Ritalin and Paxil. And as our understanding of behavioral genetics develops—or simply our confidence in what we think it tells us—we may be tempted to medicalize many more behaviors.

The report rejects the use of “preimplantation genetic diagnosis” (screening embryos created by in vitro fertilization) for the purposes of selecting desirable personality traits, but leaves the door open for more “modest applications” of the technique. It recognizes the “risks inherent in gene therapy” for adults and outright rejects tinkering with the genome in gametes and embryos: “We cannot envisage any circumstances in which the modification of the human germline would be justifiable.” This is all, for the most part, common sense about speculative technical possibilities—although how common it will stay if these possibilities become real remains to be seen.

Still, some of the content and recommendations of the council’s report are

questionable (including the choice of cover art: a rather terrifying picture of tiny wax babies emerging from test tubes, their arms spread wide as if to embrace the reader). For one, the report suggests that if genetic markers for certain antisocial behaviors are located, judges could use that information as a mitigating factor (if not for exoneration) during criminal sentencing, much like environmental factors such as childhood abuse or poverty are used now.

But this genetic version of the “Twinkie defense” would dramatically (and obviously) alter notions of personal responsibility and public justice. As a representative from the Victims of Crime Trust in the U.K. told the London *Times*, “This would definitely be a step too far. We need to stop making excuses for people’s appalling bad behavior.” Worse, if the public and legal system embraced the notion that genes are a prime determinant of criminal behavior, this could undermine efforts at the rehabilitation of criminals and the eradication of environmental factors that are of equal and sometimes greater importance in encouraging antisocial behavior. Criminals would be both excused and abandoned, as predetermined in what they are and what they do as sub-rational animals.

This is not to say that such genetic predispositions to certain behaviors or characters don’t exist; they surely do. It is only to doubt that our knowledge of the genetic sources of behavior can ever be so precise as to make the law more just, and to doubt that having such knowledge would actually improve rather than diminish the way human beings treat one another or the way citizens govern themselves.

In this vein, the report also exudes a bit too much optimism about the potential impact of developments in behavioral

genetics on our understanding of human liberty and human dignity. “We conclude there is no inherent conflict between a greater understanding of genetic contributions to behavior and due regard for human dignity,” the report says. “A non-reductive, rationalist understanding of human freedom can coexist with recognition of the genetic influences on our

human abilities.” In other words, we need not be fatalistic about genetics.

This is a sensible approach, as far as it goes. But it ignores our long history of misusing partial knowledge, and the modern error of believing that human beings and human societies can always be broken down to their parts and scientifically improved.