

Science for the People and its Progeny Challenge Biological Determinism

Jon Beckwith
Harvard Medical School
Boston, MA U.S.A.

The appearance/reappearance
of biological determinism as
new scientific approaches
and/or new political/socio-
economic conditions arise

Its impact through the popular
media

Science for the People

closed down in 1990



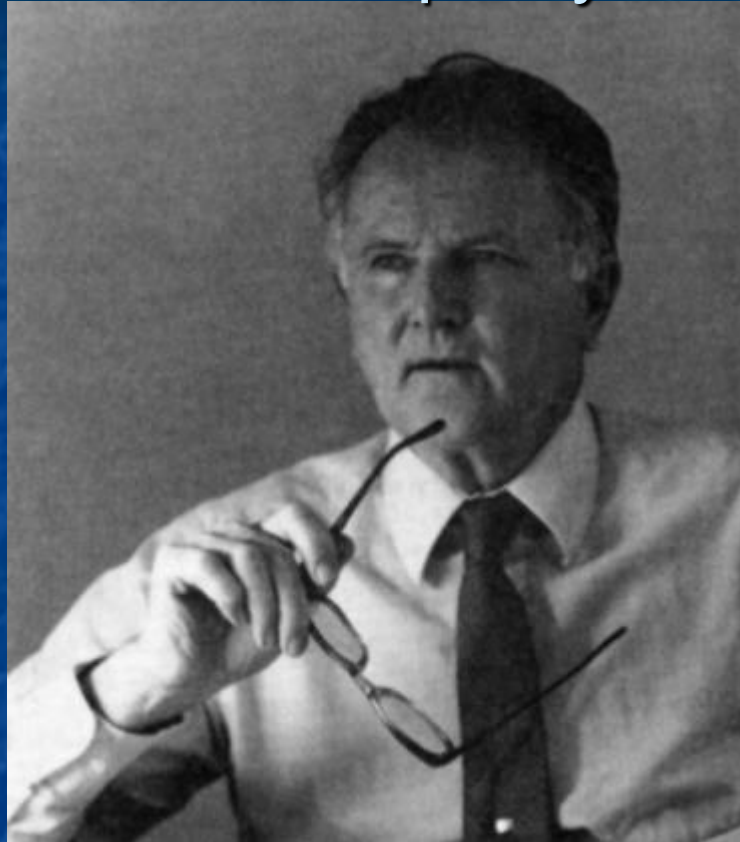
the Council for Responsible Genetics **(1983)** and
the Genetics and Society Working Group

How?

- Directly challenge faulty science where it is being done
- Publish articles in academic journals and the public media
- Prepare educational materials
- Public workshops
- Conferences that bring together scientists, journalists and teachers
- Publish books
- Most of us teach

1969

Civil rights and social policy of the 1960s



Psychologist Arthur Jensen
Harvard Educational Review

“How much can we can we boost IQ and
scholastic achievement?”

Genes, race and Intelligence

Jensen represented the field of
behavior genetics



Lewontin, Gould, Hubbard and Allen



Genes and Criminality: The XYY Male



1974: A group from SftP protested and successfully stopped research programs that screened newborn baby boys for the extra Y chromosome and drew attention to the poor and refuted science behind the “criminal chromosome.”

[illegible]

Television- Law and Order



LAW & ORDER



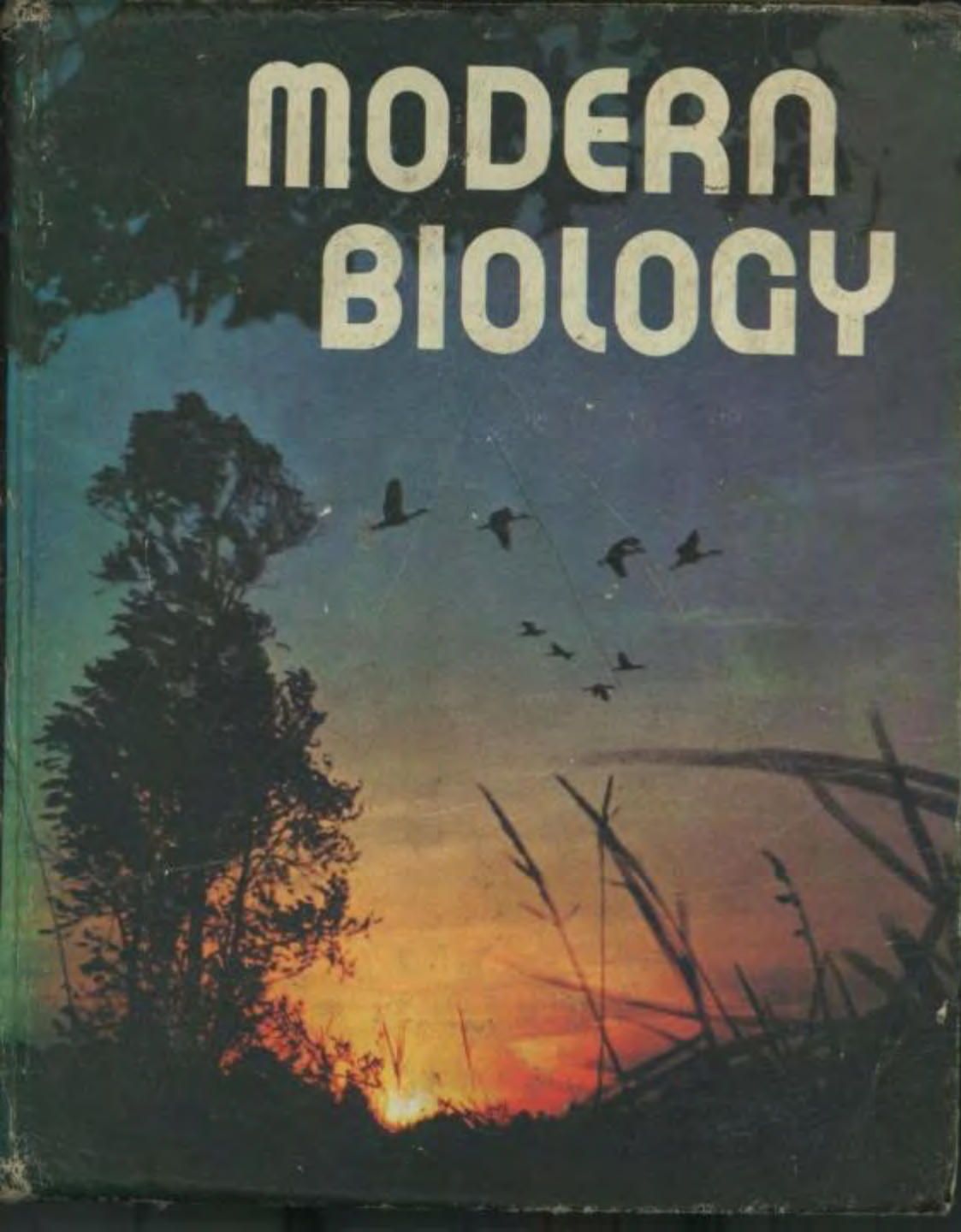
Born Bad (TV episode 1993 #4.9)

The lawyer of a 14-year-old boy claims he is not responsible for the beating death of his friend because he has an extra Y chromosome and is genetically predisposed to criminal behavior.

16 November 1993

Persistence: 28+ years

MODERN BIOLOGY

The image shows the front cover of a textbook titled 'MODERN BIOLOGY'. The title is printed in large, bold, white, sans-serif capital letters at the top. Below the title is a photograph of a sunset or sunrise over a body of water. The sky is a mix of orange, yellow, and blue. Several birds are shown in flight against the sky. In the foreground, there are dark silhouettes of trees and reeds. The overall tone of the cover is naturalistic and somewhat somber due to the dark foreground elements.

1973

High School Biology Texts

“....an XYY male ...is usually over six feet tall and very aggressive.”

2014

Student survey

Here's the good news

CSI Miami "Born to Kill"

May 14, 2007

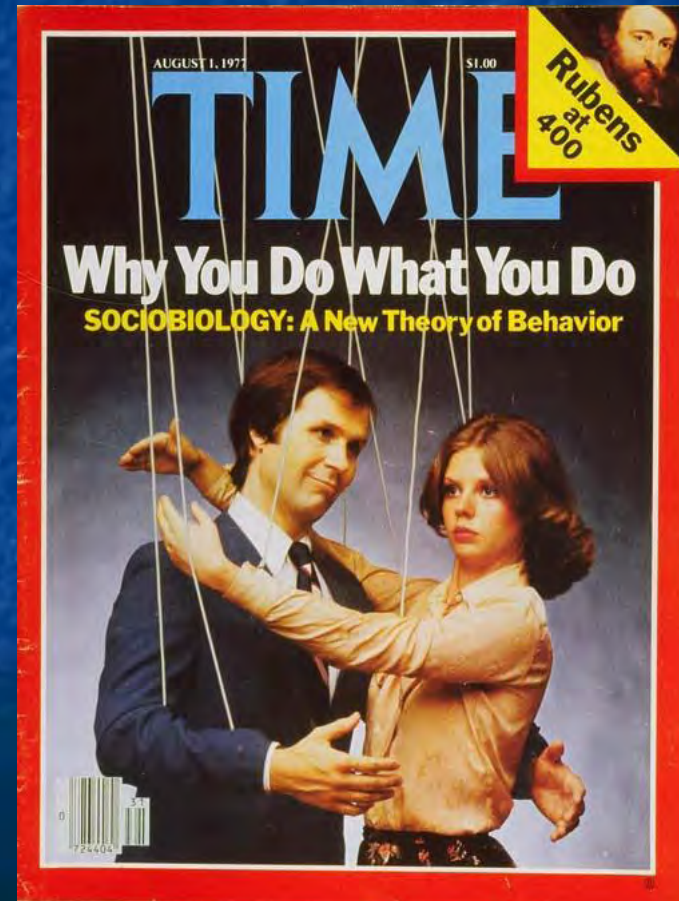


Sociobiology: Updating Darwin on Behavior

By BOYCE RENSBERGER

**Front page NYTimes May 28,
1975**

Sociobiology.... Carries with it the revolutionary implication that much of man's behavior towards his fellows ranging from aggressive impulses to humanitarian inspirations may be as much a product of evolution as is the structure of the hand...



The Sociobiology Study Group is Formed

- Our Response

The New York Review

November 13, 1975

Against "Sociobiology"

Elizabeth Allen, pre-medical student, Brandeis University; **Barbara Beckwith**, teacher, Watertown Public High School; **Jon Beckwith**, professor, Harvard Medical School; **Steven Chorover**, professor of psychology, MIT; **David Culver**, visiting professor of biology, Harvard School of Public Health, professor of biology, Northwestern; **Margaret Duncan**, research assistant, Harvard Medical School; **Steven Gould**, professor in the Museum of Comparative Zoology at Harvard University; **Ruth Hubbard**, professor of biology, Harvard University; **Hiroshi Inouye**, resident fellow,

Harvard Medical School; **Anthony Leeds**, professor of anthropology, Boston University; **Richard Lewontin**, professor of biology, Harvard University; **Chuck Madansky**, graduate student in microbiology, Harvard Medical School; **Larry Miller**, student, Harvard Medical School; **Reed Pyeritz**, doctor, Peter Bent Brigham Hospital, Boston; **Miriam Rosenthal**, research associate, Harvard School of Public Health; **Herb Schreier**, psychiatrist, Massachusetts General Hospital. (*Affiliations for identification only.*)

Editors' Note: We regret that C. H. Waddington, who would have been asked to reply to this letter, died on September 26.

- The Issues: Race, class and sex roles
- The activities

1977

The Ann Arbor
Science for the People
Editorial Collective

BIOLOGY AS A SOCIAL WEAPON

1983

The Council for Responsible Genetics formed and eventually published the journal GeneWatch which covers all things genetic

~1985

As the publicity for Sociobiology waned, and with the beginnings of human genome sequencing, the Sociobiology Study Group changed its name (ultimately to Genetics and Society Working Group) and also its focus to human genome mapping and sequencing.

Am. J. Hum. Genet. 50:476–482, 1992

Discrimination as a Consequence of Genetic Testing

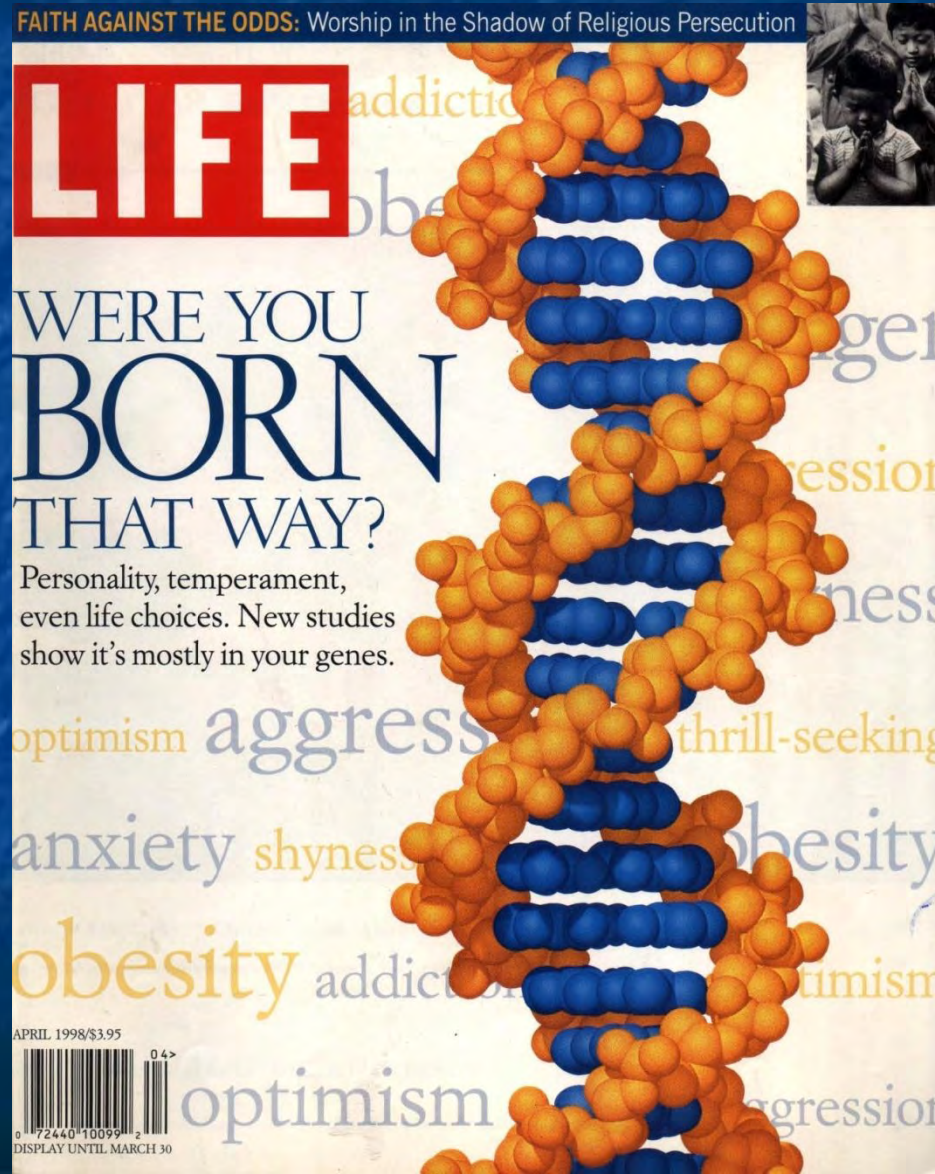
Paul R. Billings,* Mel A. Kohn,† Margaret de Cuevas,† Jonathan Beckwith,‡ Joseph S. Alper,||
and Marvin R. Natowicz§, #, * *

*Division of Genetic Medicine, Department of Medicine, California Pacific Medical Center, San Francisco; Departments of †Medicine, ‡Microbiology and Molecular Genetics, and §Pathology, Harvard Medical School, ||Department of Chemistry, University of Massachusetts, and #Department of Pathology, Massachusetts General Hospital, Boston; and * *Division of Medical Genetics, Shriver Center for Mental Retardation, Waltham, MA

1992

Human Genome mapping and sequencing arrives

1998



The Booming Militia Movement • Internet Phobia in France • Anaconda Fever

U.S. News & World Report

How the politics
of biology shapes
opinion, policy, and
our self image

Born Bad?

77620



1997

Are Political Orientations Genetically Transmitted?

JOHN R. ALFORD *Rice University*

CAROLYN L. FUNK *Virginia Commonwealth University*

JOHN R. HIBBING *University of Nebraska*

Race and Genetics:

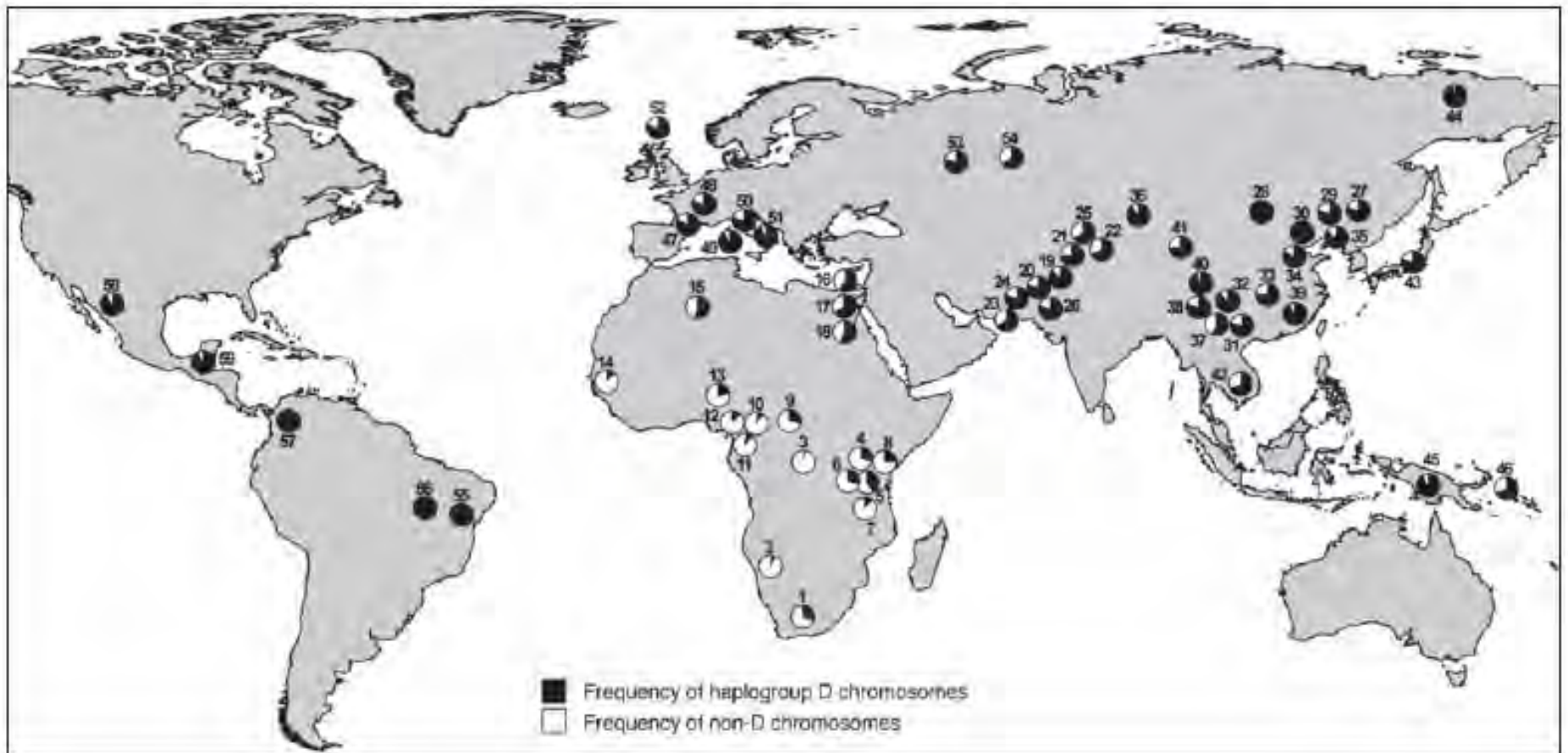
- 1. Search for Intelligence genes and**
- 2. Distinguishing peoples from geographically distinct regions by genome analysis**

Genes, Brain Size and Race: Science, Sept. 2005

Microcephalin, a Gene Regulating Brain Size, Continues to Evolve Adaptively in Humans

Patrick D. Evans,^{1,2} Sandra L. Gilbert,¹ Nitzan Mekel-Bobrov,^{1,2}
Eric J. Vallender,^{1,2} Jeffrey R. Anderson,¹ Leila M. Vaez-Azizi,¹
Sarah A. Tishkoff,⁴ Richard R. Hudson,³ Bruce T. Lahn^{1*}

The researchers found two different versions of the gene



Selection?

John Derbyshire, *National Review Online*, Nov. 2005:

Our cherished “ national dream of a well-mixed and harmonious meritocracy...may be

..
New Scientist September 17, 2005

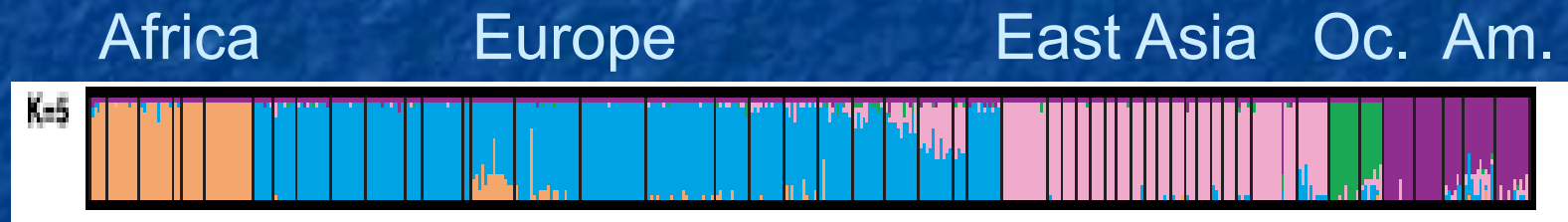
"Whatever advantage these genes give, some groups have it and some don't. **This has to be the worst nightmare of people who believe strongly there are no differences in brain function between groups,**" says anthropologist John Hawks of the University of Wisconsin in Madison.

Completely refuted within a year by several studies. But no media coverage of refutation.

Genetic Structure of Human Populations

Noah A. Rosenberg,^{1*} Jonathan K. Pritchard,² James L. Weber,³
Howard M. Cann,⁴ Kenneth K. Kidd,⁵ Lev A. Zhivotovsky,⁶
Marcus W. Feldman⁷

Science Magazine Dec. 20, 2002



How? Computer program looked for the small % of genetic markers in the human genome that differed between different groups of people. There was never a marker that was found in everyone in one group and not another. No race-specific genes.

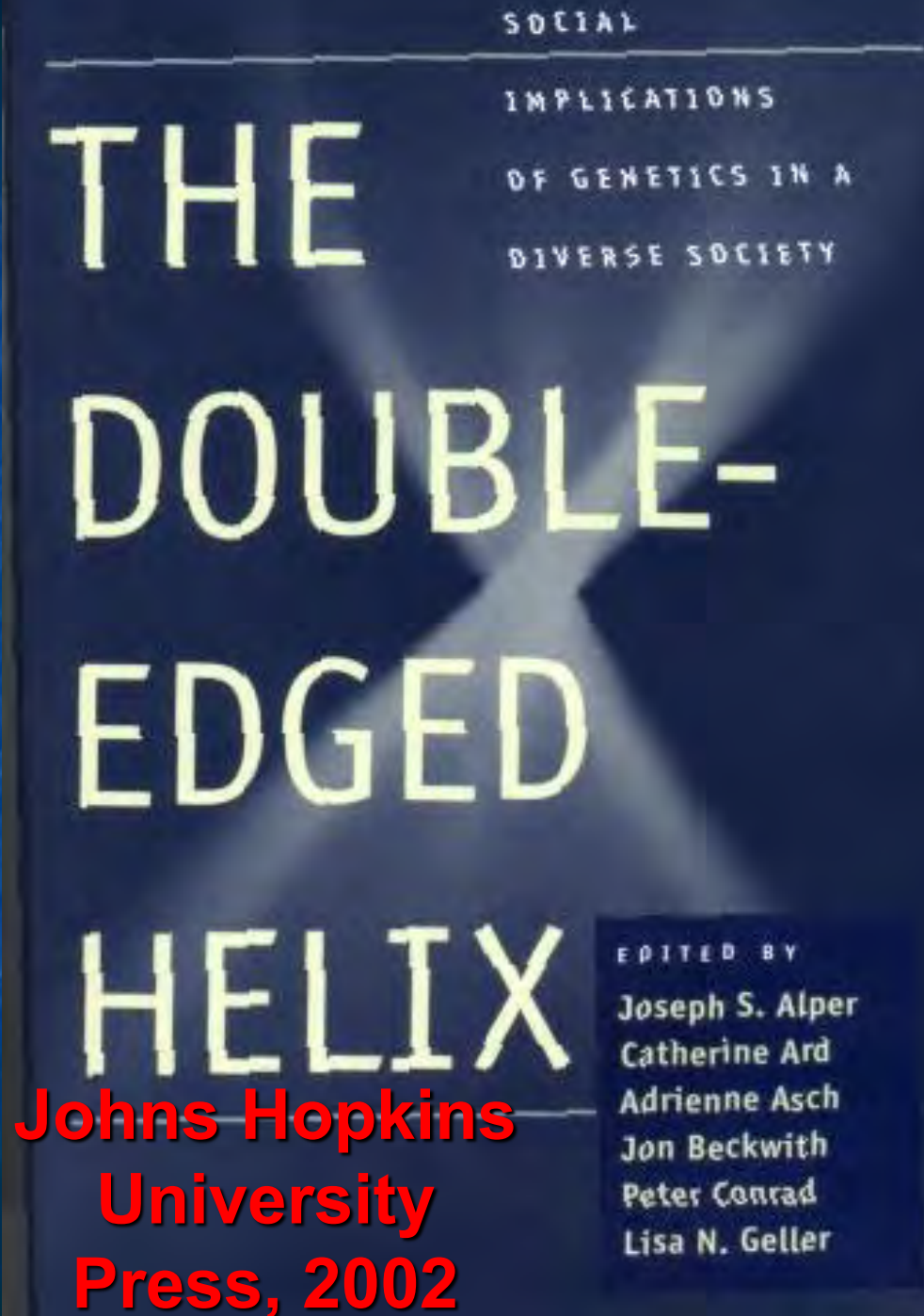
“I was naïve”

The Genetics and Society Working Group

1. Book

2. Articles critical of the new “criminal genes” and “political genes.”

3. High school unit on genetic ancestry



The Genetics and Society Working Group

2006 Conference on Genetics and Race

Science & Journalism III *Genes & Human Behavior* A New Era?

a conference at the
Harvard Medical School
Saturday October 26

1991

Science and Journalism:

1986

Covering
Controversy
in
Science

Science and Journalism II

gene therapy
prenatal testing
genetics and behavior
genetic discrimination
employment screening

Are We Ready For the New Genetic Medicine?

David Baltimore
Jon Beckwith
Helen Donis-Keller
Steven Friend
Nora Groce
Eric Lander
Dorothy Nelkin
Philip Reilly
Marsha Saxton
Nancy Wexler

A Conference
Harvard Medical School
April

1989

GENES THAT MAKE NEWS

NEWS THAT MAKES GENES

GENETICS OF COMPLEX TRAITS

1994

FOURTH SCIENCE AND JOURNALISM CONFERENCE
ORGANIZED BY THE GENETIC SCREENING STUDY GROUP

Workshops: 1)at Exhibit on Race: Power of an Illusion, Boston Museum of Science and 2)at annual Cambridge Science Festival

