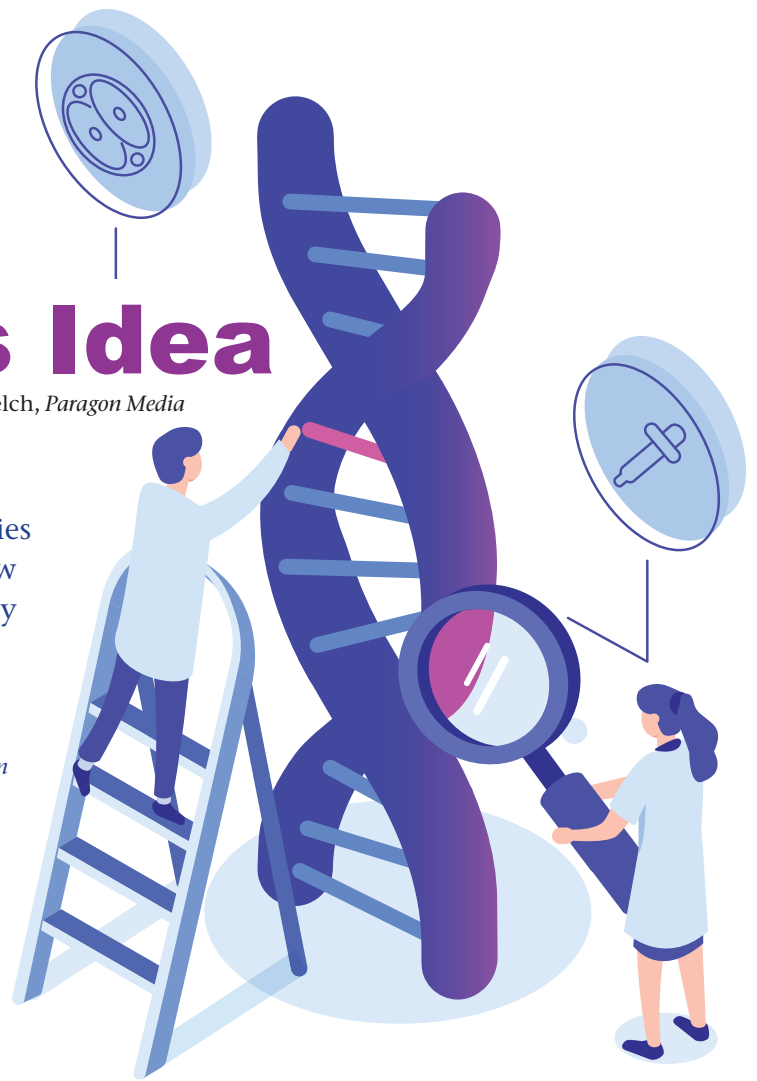


# A Dangerous Idea

Stephanie Welch, *Paragon Media*

“We pass through this world but once. Few tragedies can be more extensive than the stunting of life, few injustices deeper than the denial of an opportunity to strive or even to hope, by a limit imposed from without, but falsely identified as lying within.”

- Stephen Jay Gould,  
*The Mismeasure of Man*



While we were editing the final cut of *A Dangerous Idea*, Donald Trump was making it very difficult for our team to wrap it up. How many more examples would he give us that would illustrate exactly what we were warning of in the film?

We'd focused on the 20th century, reminding viewers of terrible U.S. policies rooted in the belief that some people were biologically inferior, such as forced sterilization and bans on immigrants. Here we were in 2017 with a president who was dragging us all back in time with toxic rhetoric about Mexicans being rapists and murderers, giving a wink and a nod to white supremacists who felt free to take to the streets, and banning people who practiced Islam from entering the country.

Since our film was released, I've tracked frequent, disturbing reminders that the belief in biological determinism remains strong in the United States: "The Biological Roots of Intelligence" (*The Scientist* 11/1/18), "Why Progressives Should Embrace the Genetics of Education" (*NYT Opinion* 7/24/18), "Researchers Want to Link Your Genes and Income - Should They?" (*Wired* 4/12/19), "How Genetic Engineering Will Reshape Humanity" (*The Economist*, 4/25/19).

These kinds of articles are alarming not because there's any truth to the claims

that scientists have located genes for "intelligence" or any complex trait. But because so many people believe such discoveries have been made. The general public seems unaware of the colossal failure by proponents of this type of research to locate genes and deliver on their decades-long promises. This hasn't stopped many of those proponents from proclaiming the end of the "nature/nurture" debate, and failing to object when the media get it wrong, which is most of the time.

How can what we believe about genetics and DNA be so far from proven, scientific truth?

That question was the basis of *A Dangerous Idea*, and we discovered the answer is actually rooted in an age-old political battle over the causes of inequality. What better ideological weapon than biology to convince people that it's useless to foment a revolution demanding that society favor everyone and not just a small elite? You are where you are because of your genes, so stop complaining.

15 years of research into claims about

genetics taught me more about ideology than I ever learned in purely political reading. Before embarking on the film project, I was what one of our executive producers, Andrew Kimbrell, called a "lazy progressive" when it came to the topic of genetics. I kept up on current events and was a seasoned news junkie, and when I saw stories about "gene" discoveries, I assumed the basic science had been carefully vetted even if it was being overly simplified by the media. As a radio producer, I joined my colleagues in sounding the alarm about the safety and morality of genetic engineering experiments. But I never questioned the scientific premise upon which these experiments were based. Research into *A Dangerous Idea* opened that door, and I couldn't believe how duped I had been.

My first task was to dig into media archives going back to 1953 with the legendary discovery of the DNA double helix, through the 1960s as universities and government agencies "went molecular," through the 1970s when recombinant DNA took hold of the public imagination,

into the 1980s as fantastic promises were made about the benefits for medicine and agriculture, into the genomic revolution of the 1990s and warnings of “superbabies,” culminating with the completion of the Human Genome Project in 2003.

What stood out most was the steady increase in hype over the decades, while the primary messages stayed the same. Once we understand DNA and genes, we will know the secret of life and what it means to be human. Religious language and imagery were ubiquitous. Then there was the wild speculation by reporters about recombinant DNA. Genetic engineers now have the power to be coauthors of evolution, and are manipulating life at the most fundamental level. Will they use this power for good or for evil? And wild speculation by investors. Think of the possibilities, think of the profits, a lot of people are in biotechnology and the race to map the human genome.

Another pattern that emerged was the reinforcement of stereotypes and tired myths about the sexes and “human nature.” Scientific claims about the differences between men and women have been around for a long time, but when E.O. Wilson dropped his 600-page book *Sociobiology* in 1975, the evolution frame really took off. Wilson attempted to cover all of human nature in this book about how we’re basically prisoners of the genes of our Pleistocene ancestors, but details about the sexes were particularly interesting to a wide audience.

Wilson claimed that “in hunter-gatherer societies men hunt and women stay home. This strong bias presents in most agricultural and industrial societies and, on that ground alone, appears to have a genetic origin” (“Human Decency is Animal,” *NYT Magazine*, October 12, 1975: 177).

“It pays males to be aggressive, hasty, fickle and indiscriminating. In theory it is more profitable for females to be coy, to hold back until they can identify the male with the best genes. Human beings obey this biological principle faithfully” (Wilson, *On Human Nature*, 1978: 552).

Psychologist Oliver James remembers when the book came out. He and his colleagues couldn’t believe that someone was contending that genetics profoundly affected the shape of society. “The word of E.O. Wilson and his successors very

much starts with the premise that something in the past must have caused what we’re like, regardless of what the evidence is. Take anything, shopping, obviously things like sex and aggression – it doesn’t matter what it is, they can come up with a theory for it. It’s not remotely science. They’re just speculating, they’re creating fairy stories about the past. But it serves a very useful purpose for the ruling elite in the society that we live in today” (interview with Oliver James).

These theories made their way into the news and popular media, raising questions about the viability of equality of the sexes just as the “Second Wave” of feminists were organizing around the country. “...An uneasy sense of frustration and pessimism is growing among some advocates of full female equality in the face of mounting conservative opposition. Moreover, even some staunch feminists are reluctantly reaching the conclusion that women’s aspirations may ultimately be limited by inherent biological differences that will forever leave men the dominant sex.” (*New York Times*, B4, November 30, 1977).

Pop culture couldn’t get enough. *Playboy Magazine* triumphantly reported that biological science proves men aren’t naturally monogamous. “It has been said that a man will make it with anything that moves – and a woman won’t. Now the startling new science of sociobiology tells us why” (“Darwin and the Double Standard,” Scott Morris, *Playboy*, May 1983).

A decade later, evolutionary psychology emerged, different in that its theory focused on the human brain as a sort of Swiss army knife with various behavior modules. The messages were similar enough and inspired a new wave of speculation. *Cosmopolitan Magazine* offered explanations for sexism and stereotypes: “Is Your Man an Ogler? We can’t help it! Blame it on DNA, testosterone, or the evolutionary years spent hunting for the perfect female to perpetuate the species.” “Blond hair is an indicator of higher fertility levels.” A *Discovery Channel* program titled “The Science of Sex,” featured evolutionary psychologist Martie Haselton “examining speed dating from an evolutionary point of view.” “It’s Sociobiology, Hon!” “Genetic Gender Determinism in *Cosmopolitan*

*Magazine*,” *Feminist Media Studies Journal*, August 24, 2009).

Sociologist Hilary Rose finds the people who promote these theories particularly irritating for their seeming lack of knowledge of social science research findings. “The extraordinary, unbridled speculation. It knows no limits. My whole training as an academic says kindly show me some evidence. I’m prepared. Give me good enough evidence and I’ll listen to it. The only reason that I look at it is because I think it’s pernicious, and it’s damaging our culture. Otherwise, it is such awful stuff, I couldn’t be bothered with it” (interview with Hilary Rose).

Theories like these are used to explain differences between the sexes in social status, why there aren’t more women in powerful positions in society, and to argue that what women mistakenly perceive as sexism and discrimination are simply unavoidable biological realities. Some have even proposed crafting social policies like affirmative action around biological sex differences.

Social scientist Charles Murray chimed in on the question in his book, *Human Diversity: The Biology of Race, Gender and Class* (2020). He’s built a lucrative career promoting anti-egalitarian arguments based on biology. On the topic of sex and gender, he includes chapters citing studies that a number of biologists and others (e.g. Rebecca Jordan-Young and Cordelia Fine) have shredded after going through all the data. He concludes that “the links between phenotypic differences and the sex differences in the brain are still only partly understood, but what we have learned so far hangs together” and that “this coherent picture fits seamlessly into within the context of evolutionary pressures over millions of years that shaped *Homo Sapiens*.”

In the end, he recommends that these purported sex differences be “taken into account” around issues like women in combat, Title IX requirements and broadens it this statement: “An acceptance of the constraints imposed by human nature should guide the administration of the civil and criminal justice systems, the regulation of business, the powers granted to bureaucrats – the operations of just about every social, cultural, economic, and political institution” (Murray, 2020).

“Biological knowledge has potent political implications, and you cannot avoid them. Whether you’re quiet or you speak out, you get involved in those political implications.”

- Richard Lewontin  
*Nova (PBS, 1975)*

The most disturbing research I have come across during this project has been the hidden history of eugenics in the United States. In fact, this research led us to ultimately shift our focus away from agriculture and medicine to focus entirely on genetics through a social lens.

We present the most detailed history of eugenics that we could manage in a single documentary as we tackled all the other things we felt we needed to cover. We include the rarely discussed Nixon years, when nearly half a million people (mostly poor, and mostly black and Native American women) were sterilized without their knowledge or coerced into an operation, often under the threat of losing financial assistance upon which they were relying.

We demonstrate that eugenics took off during the Gilded Age at the end of the 19th century and beginning of the 20th century. Psychologist William Tucker notes that “One reason that the eugenics movement was so influential at the time was because it provided a scientific solution – or a supposedly scientific solution – to a political problem.” Namely, it blamed individuals and groups for the abject poverty and terrible conditions they were living in and justified anti-immigrant racism and policies designed to stem the influx of people coming from Southern and Eastern Europe (interview with William Tucker).

Closing the borders, sterilization, segregation of the sexes, and other eugenic measures were implemented without any solid scientific evidence that they were warranted. The belief in “genes” was at the heart of eugenics, promoted by some of the most prestigious scientists in the country. Consequently, the belief in genetic determinism became broadly accepted on all sides of the political aisle.

While the Catholic Church spoke

strongly against eugenics, we had trouble finding any scientists who joined them. Some said let’s wait until the gene is discovered, but weren’t in opposition otherwise. The only real critic of the eugenics project I found was J.K. Chesterton, the British writer and philosopher who wrote a seething analysis: “Eugenics is nothing but terrorism against the poor committed by tenth-rate professors. My question is: who will practice eugenics on the eugenicists?” (*Eugenics and Other Evils*, 1922).

Today, social conditions are precarious enough to anticipate that some version could emerge. Inequality in the United States is starker than it was in the Gilded Age, and there are many more people than when we started this project who are willing to openly suggest biology as the ultimate explanation.

Charles Murray is one of them. Of course, he repeatedly denies he is promoting eugenics, which prompts an eye roll and face plant from me every time. Instead, he calmly and softly asks, golly, how can people possibly come to that conclusion? All he has said, he claims, is:

“Not only is biology the most important of the sciences politically today, it is about to become of epic importance. And that has to do with the sense of human nature and whether it is malleable or not” (The Robert Taft Club, panel discussion on Darwin, Genetics, Conservatism: Friends or Foes, December 5, 2007).

Intelligence is 60-80% genetic, and that inequality is simply the result of a natural distribution of talents in society based on intelligence. Those who don’t score well on IQ tests are on the losing end of this distribution (Charlie Rose interview, PBS, November 3, 1994).

“Science is going to undermine the moral underpinnings of the welfare state” (*Coming Apart: The State of White America, 1960-2010* (2012, 299).

These were all cornerstone arguments of the eugenics movement. One needn’t promote a sterilization campaign – ignoring or denying social forces and attempting to apply biology directly to social questions is the foundation of eugenics. The danger is that such bogus arguments will be used to implement certain eugenic programs, or embolden white supremacists with pseudoscience they can use to generate support and find allies abroad, as

we see happening presently.

William Tucker notes that, in *The Bell Curve*, Richard Herrnstein’s arguments about immigrants echo those made by eugenicists in 1924 when they lobbied and passed racist legislation restricting certain people from entering the country: “What he writes is that today’s immigrants are very low quality, unlike the immigrants who came in the ‘20s, who were smart and resourceful and self-starting and took initiative. Which of course is absurd if you look at what the social scientists at the time said about those immigrants. They were the “morons” of the time. So what it suggests is that it’s the same thing that we heard over and over again” (interview with William Tucker).

Tucker adds that while the media reported on controversy around the claims about race that Murray and Herrnstein made in *The Bell Curve*, another important claim they made got less attention: “Herrnstein argues that if you create equal opportunity, you’ll inadvertently heighten inequality because, you’ll wind up with a society that is stratified. But it won’t be stratified because of differences in privilege that come from birth, it’ll be stratified because of differences that come from genes. And you’ll wind up with a biologically based meritocracy in which the people at the top are there because they deserve to be there, they’re smarter than everybody else, and the people at the bottom will be there because that’s where they belong. It will be the socio-economic reflection of their genetic merit, that’s where they belong” (interview with William Tucker).

E.O. Wilson echoes Herrnstein’s assertion in *Consilience: The Unity of Knowledge* (1999), confident that genes dominate: “Imagine the result if a society were to become truly egalitarian, so that all children were raised in nearly identical circumstances and encouraged to enter any occupation they chose within reach of their abilities. Variation in environment would thus be drastically reduced, while the original innate abilities and personality traits endured. Heritability in such a society would increase. Any socio-economic class divisions that persisted would come to reflect heredity as never before” (Wilson 1999, 153).

Perhaps the most blatant eugenics

argument Charles Murray makes is his social Darwinian scheme in which all government assistance be abolished and replaced with a basic guaranteed income. Anyone who falters at that point will have to rely on the kindness of strangers and hope that their local communities care enough to help them (Reason TV, April 25, 2012).

## So What About The Science?

As much as Murray and others would like us to believe science is on their side, it just isn't. After many years diving deeply into scientific claims versus reality, the evidence is clear: Scientists have nothing to show for the billions of tax dollars and private money spent on so-called "candidate gene studies." Despite years of excitement in the media about supposed gene discoveries, those claims were retracted, proven wrong or just fabricated.

Now proponents are banking on Genome Wide Association studies (GWAs). Scientists are in the midst of this massive and hugely expensive effort to sequence the DNA of millions of people searching for "pathways" and "variants" that have very small "significance," but in total they give us a gene associated with X. These so-called "polygenic" results are being hailed as solid evidence that biology will reveal secrets to our behaviors and personalities. Yet, as in the past, the public isn't receiving an accurate translation of results from these studies.

Detractors predict that this technology will fizzle out like all the others. The supposedly positive results will continue to be nullified as they undergo scrutiny, and it will become too difficult to feign excitement over them anymore. The need for a replacement will surely prompt yet another "promising" technology.

## So why continue this research?

Shouldn't a massively expensive endeavor with such an abysmal track record have been scrapped a long time ago? As we explain in *A Dangerous Idea*, apparently too much is at stake for doubt to be cast on the whole research enterprise – too much

money in the pipeline, and too many people banking on it politically.

Honest proponents admit the biological evidence "isn't quite there," but argue that the research should continue. The rationale, they say, are the results of twin, family and adoption studies.

But psychologist Jay Joseph has written about problems with twin studies that make them useless from the get-go. "All of these studies have tremendous flaws and whole sets of assumptions that are not true. There's bias by genetically-oriented researchers who tend to interpret their results as supporting their views, regardless of what the study finds. The failure to identify genes is validating a lot of what critics have said. And what people need to do is to go back and look at the problems and flaws and biases in these adoption studies. And they don't. What they do is they say we need better molecular genetic studies, or the media reports gene findings that are not duplicated. And this erroneously led to the idea that genetics play an important role in psychiatry, intelligence, and what researchers define as personality" (interview with Jay Joseph).

When I asked neuroscientist Steven Rose about this, he said it's sort of an interesting historical joke. "Twin studies and heritability studies were the only ways geneticists could study human differences up until the DNA revolution. So then the argument was twin studies and heritability studies are old-fashioned, and they're out the window, we don't need them anymore. Molecular genetics will provide what we need. Well, the human genome didn't, and the GWAs haven't lived up to expectations. So that particular wheel has come full circle, the genetic bubble has burst... So let's leave it alone, and let's actually move into 21st century biology" (interview with Steven Rose).

Instead, many continue to rely on the famous Minnesota Study of Twins Reared Apart study by psychologist Thomas Bouchard and colleagues. Jay Joseph points out that Bouchard refuses to let their MISTRA data be independently scrutinized. Considering how ideologues have come in and historically fixed twin studies data, Oliver James says Bouchard must allow independent scrutiny of their data if he wants to be taken seriously. "From that point of view, that study is

really, really unreliable, and yet it has been in countless documentaries, countless newspaper features, very, very well covered and presented as being watertight science, which it is nothing of the sort" (interview).

## Conclusion – A Social Battle

As long as these arguments continue to be framed as a "nature/nurture" debate in which people from two valid philosophical viewpoints are simply disagreeing, we won't get anywhere. The general media will continue to favor deterministic views, due to their support of the scientific and political establishment. Those who warn that genetic determinism is a political view falsely projected onto biology will continue to be accused of being "blank slaters" who wish the science was different because of their leftist political beliefs.

Richard Lewontin and his close colleagues have heard these accusations during their entire careers. "Those of us who say that these things are not fixed in the genes, but are part of social structures are accused of saying this because of our politics. We want to change the world, so we make this up. But the reverse is actually true. It's perfectly possible for me to say I would like to change the world, but I must know for a fact that the world can be changed. The truth is very important to me. If it turns out it's a fact that the world can't be changed, what a fool I would be to want to change the world."

"On the other hand, people will say, oh no, human nature is fixed. They don't have to be right. It doesn't matter what the truth is for those people. They just want to keep the world the way it is. But it matters a lot for people who claim to be devoted to changing the world, that the world is changeable, and we must know the truth about that. We can't say that just because we wish it were true" (interview with Richard Lewontin).