

3. Evolution, “Progress,” and Eugenics

Scientific writers, not less than others, write to please, as well as to instruct, and even unconsciously to themselves, (sometimes,) sacrifice what is true to what is popular.

Frederick Douglass

Chapter 2 explored the effects of “race science” on the way Americans viewed differences in the years before the Civil War. This chapter focuses on the impact of a new scientific theory published in England just before the war began—Charles Darwin’s theory of evolution. Noting that living things change from generation to generation, Darwin argued that new forms of life eventually develop from (and sometimes replace) old forms. In the decades after the Civil War, scholars applied that theory to not only the natural world but also human societies. It seemed to “explain” all of the differences they observed in the world.

By 1900, writes historian Page Smith, Darwin’s theory “colors the way social classes view themselves and, more important, the way they view other classes. It affects attitudes toward other races . . . especially American Indians, blacks, [East Asians], all of whom are generally viewed as representing lower stages of evolutionary development. It is taken by some Americans, generally wealthy and ‘successful,’ as confirming the model of competitive individualism and thereby justifying capitalism, and it is taken by many others as anticipating socialism as a higher and more humane form of political and economic organization. It divides clerics and professors of philosophy, natural scientists and ‘social scientists,’ husbands and wives, parents and children.”¹

In time, some thinkers came to believe that evolution could do more than explain physical and social differences. It could be used to “improve the race” through eugenics—a new branch of scientific inquiry developed by Darwin’s cousin, Francis Galton. He claimed that eugenics would “raise the present miserably low standard of the human race” by “breeding the best with the best.” At another time, that idea might have been dismissed or ignored. In the early 1900s, many people found it appealing. What attracted them to eugenics? Was it “good science” or, as Frederick Douglass once argued, another example of scientists “sacrificing what is true to what is popular”? Chapter 3 addresses these questions. Many of the readings suggest what can happen when unexamined ideas about difference are used to justify social inequalities, deny opportunities, and legitimize discrimination. They also explore the complicated relationship between science and society.

1. *The Rise of Industrial America* by Page Smith. McGraw-Hill, 1984, p. xiii.

From Darwin to Social Darwinism

Reading 1

Charles Darwin's theory of evolution grew out of a journey he made to South America on a survey ship. Between 1831 and 1836, while the crew mapped the coast of South America, the young Englishman collected plants and animals at every stop. The sights he saw on the voyage and the specimens he gathered transformed the way he viewed the natural world. In time, his vision would also alter the way people everywhere saw themselves and others.

His observations convinced Darwin that species develop in different directions when they are isolated from one another. But he did not have any idea of how it happened until he sat down one evening to read *An Essay on the Principle of Population as It Affects the Future Improvement of Society* by the Reverend Thomas Malthus. According to Malthus, human populations multiply faster than the supply of food. If that is also true of animals, Darwin reasoned, they must compete to stay alive. So it is nature that "selects" the forms of life most likely to survive. "Here then I had at last got a theory by which to work!" he wrote.

Darwin concluded that all living things struggle to obtain food, water, and a safe habitat. An organism that is well suited to its environment has the best chance of living long enough to mate and produce offspring. Gradually, as some organisms thrive and others die out, new traits, species, and forms of life develop or evolve. Darwin called this process "natural selection." In 1859, Darwin published his theories in a book entitled *On the Origin of Species*. It became an almost instant sensation.

Many readers immediately saw connections between Darwin's theory of evolution and their own society. A number of them were influenced by the writings of Herbert Spencer, a British thinker. Referring to Darwin's work but using his own phrases such as "the struggle for existence" and "the survival of the fittest," Spencer helped popularize a doctrine known as "social Darwinism."

In every country, people interpreted social Darwinism a little differently. In Germany, Ernst Haeckel, a biologist, combined the doctrine with romantic ideas about the German people. In a book called *The Riddle of the Universe*, he divided humankind into races and ranked each. "Aryans" were at the top of his list and Jews and Africans at the bottom. In the United States and England, social Darwinists stressed the idea that competition rewards "the strong." As a result, many of them opposed aid to the poor, laws that would place limits on cut-throat competition, and efforts to regulate working conditions in the nation's factories. They wanted government to let nature take its course.

Spencer and his followers argued that individuals and groups who undertake “in a wholesale way to foster good-for-nothings” commit an “unquestionable injury” by stopping “that natural process of elimination by which society continually purifies itself.”¹ William Graham Sumner, a professor at Yale and a follower of Spencer, explained further:

Every man and woman in society has one big duty. That is, to take care of his or her own self. This is a social duty. For, fortunately, the matter stands so that the duty of making the best of one’s self, individually, is not a separate thing from the duty of filling one’s place in society, but the two are one. . . .

Now the man who can do anything for or about anybody else than himself is fit to be head of a family; and when he becomes head of a family he has duties to his wife and his children, in addition to the former big duty. . . . If, now, he is able to fulfill all this, and to take care of . . . his family and his dependents, he must have a surplus of energy, wisdom, and moral virtue beyond what he needs for his own business. No man has this; for a family is a charge that is capable of infinite development, and no man could suffice to the full measure of duty for which a family may draw upon him. . . .

Society, therefore, does not need any care or supervision. If we can acquire a science of society, based on observation of phenomena and study of forces, we may hope to gain some ground slowly toward . . . a sound and natural social order.²

Not surprisingly, social Darwinism had special appeal for the rich and powerful. To them, it seemed to explain inequalities among not only individuals but also social classes and races. Some social Darwinists combined Samuel Morton’s racial hierarchy (pages 47-49) with the theory of natural selection to create a new “more scientific” way of justifying prejudice and discrimination. These theories appealed to many white Americans, including a number of religious leaders. The Reverend Josiah Strong was one of the most influential writers in the late 1800s. In 1885, he wrote:

There is apparently much truth in the belief that the wonderful progress of the United States, as well as the character of the people, are the results of natural selection; for the more energetic, restless and courageous men from all parts of Europe have emigrated during the last ten or twelve generations to that great country, and have there succeeded best. Looking to the distant future, I do not think that the Reverend Mr. Zincke takes an exaggerated view when he says: “All other series of events—as that which resulted in the culture of mind in

Greece and that which resulted in the empire of Rome—only appear to have purpose and value when viewed in connection with, or rather subsidiary to . . . the great stream of Anglo-Saxon emigration to the west.”³

Once the West was settled, Strong declared:

Then will the world enter upon a new stage of its history—the final competition of races for which the Anglo-Saxon is being schooled. If I do not read amiss, this powerful race will move down upon Mexico, down upon Central and South America, out upon the islands of the sea, over upon Africa and beyond. And can anyone doubt that the result of this competition of races will be the “survival of the fittest”?⁴

In 1896, the United States Supreme Court expressed a view similar to Strong’s in deciding a case known as *Plessy v. Ferguson*. Homer Plessy, an African American, challenged a Louisiana law that kept blacks separated from whites on public transportation. He argued that John Ferguson, the Louisiana judge who convicted him, had violated his rights as stated in the Fourteenth Amendment to the United States Constitution. That amendment guarantees every citizen equal protection under the law. Eight of the nine justices sided with Ferguson, who argued that as long as the railroad offered “separate but equal” seating for whites and blacks, Plessy’s rights were protected. In expressing the majority opinion, Associate Justice Henry B. Brown asserted, “If one race be inferior to the other socially, the Constitution of the United States cannot put them on the same plane.”

The decision permitted the growth of a system of state and local legislation known as “Jim Crow” laws. They established racial barriers in almost every aspect of American life. In many places, black and white Americans could not publicly sit, drink, or eat side by side. Churches, theaters, parks, even cemeteries were segregated. By the early 1900s, writes historian Lerone Bennett, Jr., “America was two nations—one white, one black, separate and unequal.” He likens segregation to “a wall, a system, a way of separating people from people.” That wall, which did not go up in a single day, was built “brick by brick, bill by bill, fear by fear.”⁵

That wall shaped the opportunities open to African American children throughout the nation, but most particularly in the South. Historian Leon F. Litwack writes:

When Pauli Murray entered school in Durham, North Carolina, in the 1920s, she inherited nearly half a century of separate and

unequal education in the South. The schoolhouse, located in the West End, resembled a warehouse more than a school. The dilapidated two-story wooden structure creaked and swayed in the wind as if it might collapse. The exterior showed the effects of some hard winters. The interior featured bare and splintery floors, leaky plumbing, broken drinking fountains, and smelly toilets that were usually out of order. "It was never the hardship which hurt so much," Murray remembered, "as the contrast between what we had and what the white children had." The new books white children used ("we got the greasy, torn, dog-eared books"), the field days in the city park the white children enjoyed ("we had it on a furrowed stubby hillside"), the prominent mention white children received in the newspapers ("we got a paragraph at the bottom"), the attention bestowed on public displays in white schools by city officials, including the mayor ("we got a solitary official")—all served to set the white schools apart from the black schools. No one pretended to take seriously the Supreme Court decision commanding separate but equal schools. To Murray, the school she attended defined her very being. "Our seedy, run-down school told us that if we had any place at all in the scheme of things it was a separate place marked off, proscribed and unwanted by the white people." The lesson imparted was absolutely clear. Whatever else Murray learned in school, she came to understand that her color marked her as inferior in the eyes of whites, regardless of how she conducted herself, regardless of how well she did in school, regardless of her social class.⁶

CONNECTIONS

When Darwin used the word *change*, some social Darwinists thought he meant *progress*. When Darwin described an organism as *different* from earlier ones, they assumed he meant the new organism was *better*. How do you account for such errors in reading? How do the times in which we live shape the ways we understand ideas? What other factors shape our thinking?

Sumner's goal was "a sound and natural social order." What do you think he meant? In what sense is a social order "natural"? Is there a natural way of organizing a society? What makes a society "sound"?

Each of us has a "universe of obligation"—a circle of individuals and groups toward whom we have obligations, to whom the rules of society apply, and

whose injuries call for amends. Whom does Sumner consider “one of us”? Whom does he seem to exclude from citizenship? How does Sumner define his universe of obligation? Whom does Strong consider a fellow citizen? Whom does he seem to exclude? How does the Supreme Court define the nation’s universe of obligation? Whom do the justices exclude?

What does Pauli Murray’s story suggest about the consequences of the way many Americans defined their universe of obligation in the late 1800s and early 1900s? In what sense did the school Pauli Murray attended define her place in society? In what sense do schools in your community define your place in society? What other institutions in a community reflect how society regards particular individuals and groups?

In reflecting on the effect of a childhood in the Jim Crow South, Pauli Murray described herself as “not entirely free from the prevalent idea that I must prove myself.” Yet by any standard, her accomplishments were impressive. At a time when few African Americans were able to even attend high school, she earned a college diploma (Hunter College in New York), a law degree (Howard University), and a Ph.D. (Yale University Law School). She became an attorney, a professor, a prize-winning author and poet, and an Episcopal priest. She was also an activist who challenged “Jim Crow” throughout her life. Long before the “sit-ins” and “freedom rides” that marked the Civil Rights Movement of the 1960s, Murray was arrested, jailed, and fined for refusing to sit in the segregated section of a Virginia bus. Find out more about Pauli Murray. What do her self-doubts suggest about the power of others to define not only one’s place in society but also one’s identity? To the importance of challenging that power?

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1. Quoted in *In Search of Human Nature* by Carl Degler. Oxford University Press, 1991, p. 11.
 2. *What Social Classes Owe to Each Other* by William Graham Sumner. New York, 1883, pp. 113–121.
 3. *Our Country: Its Possible Future and Its Present Crisis* by Josiah Strong. Home Missionary Society, 1885, p. 168.
 4. *Ibid.*, p. 170.
 5. *Before the Mayflower: A History of Black America* by Lerone Bennett, Jr. Penguin Books 1984, p. 256.
 6. *Trouble in Mind: Black Southerners in the Age of Jim Crow* by Leon F. Litwack. Knopf, 1998, pp. 108–109.

“Race Improvement”

Reading 2

By the late 1800s, the Industrial Revolution had changed not only how goods were made in the United States and much of Europe but also where they were made. More and more people were leaving the countryside for jobs in large urban centers, where they lived and worked among strangers. In such a society, it is all too easy to blame someone else for all that is new and disturbing in life. *They* are responsible for society’s ills. Who are *they*? In the United States, *they* were African Americans, immigrants from Southern and Eastern Europe, Native Americans, and others who looked, spoke, or acted differently than *we* do.

Francis Galton, an English mathematician and Charles Darwin’s cousin, offered an attractive solution to the threat *they* posed. He promised to “raise the present miserably low standard of the human race” by “breeding the best with the best.” His theories were based on the idea that individuals are born with a “definite endowment” of qualities like “character, disposition, energy, intellect, or physical power”—qualities that in his view “go towards the making of civic worth.”

Galton decided that natural selection does not work in human societies the way it does in nature, because people interfere with the process. As a result, the fittest do not always survive. So he set out to consciously “improve the race.” He coined the word *eugenics* to describe efforts at “race betterment.” It comes from a Greek word meaning “good in birth” or “noble in heredity.” In 1883, Galton defined eugenics as “the science of improving stock, which is by no means confined to questions of judicious mating, but which . . . takes cognizance of all influences that tend in however remote a degree to give the more suitable races or strains of blood a better chance of prevailing speedily over the less suitable than they otherwise would have had.”¹

Galton was particularly concerned with the decline of genius in society. He believed that intelligence is an inherited trait and that the upper classes contain the most intelligent and accomplished people. He was therefore alarmed to discover that the poor had a higher birth rate. In 1904, Galton explained how eugenics might address that problem:

Eugenics is the science which deals with all influences that improve and develop the inborn qualities of a race. But what is meant by improvement? We must leave morals as far as possible out of the discussion on account of the almost hopeless difficulties they raise as to whether a character as a whole is good or bad. The essentials of eugenics may, however, be easily defined. All would

agree that it was better to be healthy than sick, vigorous than weak, well fitted than ill fitted for their part in life. In short, that it was better to be good rather than bad specimens of their kind, whatever that kind might be. There are a vast number of conflicting ideals, of alternative characters, of incompatible civilizations, which are wanted to give fullness and interest to life. The aim of eugenics is to represent each class or sect by its best specimens, causing them to contribute more than their proportion to the next generation; that done, to leave them to work out their common civilization in their own way.

There are three stages to be passed through before eugenics can be widely practiced. First, it must be made familiar as an academic question, until its exact importance has been understood and accepted as a fact. Secondly, it must be recognized as a subject the practical development of which is in near prospect, and requires serious consideration. Thirdly, it must be introduced into the national conscience, like a new religion. It has, indeed, strong claims to become an orthodox religious tenet of the future, for eugenics cooperates with the workings of nature by ensuring that humanity shall be represented by the fittest races. What nature does blindly, slowly, and ruthlessly, man may do providently, quickly, and kindly. As it lies within his power, so it becomes his duty to work in that direction, just as it is his duty to be charitable to those in misfortune. The improvement of our stock seems one of the highest objects that can be reasonably attempted. We are ignorant of the ultimate destinies of humanity, but feel perfectly sure that it is as noble a work to raise its level as it would be disgraceful to abase it. I see no impossibility in eugenics becoming a religious dogma among mankind, but its details must first be worked out sedulously in the study. Over-zeal leading to hasty action would do harm by holding out expectations of a near golden age which would certainly be falsified and cause the science to be discredited. The first and main point is to secure the general intellectual acceptance of eugenics as a hopeful and most important study. Then let its principles work into the heart of the nation, which will gradually give practical effect to them in ways that we may not wholly foresee.²

Galton was not sure how to bring about these changes. Although he spent years studying heredity, by the time he died in 1911 he still had no idea how traits are passed from parent to child. In his research, however, Galton stumbled upon two discoveries that might have led another scientist to abandon eugenics. Neither fazed him. One was the result of a test he devised to measure intelligence. To his dismay, the poor did as well on the test as “the better elements in society.” He concluded that the problem lay in the test rather than his theory.

His second discovery resulted from his efforts to track successive generations of pea plants. He found that, no matter how high the quality of the parent strains, some offspring were as good as the parent plant and some worse, but most were a little worse. This idea is known in statistics as “regression toward the mean” or middle. Galton suspected it was true for humans as well. If so, it would be impossible to improve the “race” through eugenics. Yet neither finding altered Galton’s beliefs. He continued to insist that intelligence is linked to social class and that “the fittest” parents produce superior offspring.

CONNECTIONS

Compare and contrast Galton’s definitions of eugenics. What are the key words in each definition? How are the two definitions alike? What differences are most striking? How do both definitions relate to Darwin’s theory of natural selection?

Reread the first paragraph in Galton’s 1904 description. What words or phrases stand out (“inborn qualities of the race,” “better to be healthy than sick,” etc.)? What does Galton say about eugenics? What does he imply? When Galton writes that the aim is for each “class or sect” to contribute its best elements to future generations, he is suggesting that all groups contribute to the future of humanity even though they are not equal. How do you think Galton expects each class to weed out its worst elements and find its appropriate place in society?

Galton insisted that the “best” people in a society are the “brightest.” What is the power of that argument? How does it shape our society today?

What are the three stages Galton suggests as necessary to the success of eugenics? What is clear about each stage? What is vague? How do you account for the vagueness? Galton wanted eugenics to be accepted as an “orthodox religious tenet” and a scientific fact. Is it possible for an idea to be both a science and a religion? How does Galton seem to regard the relationship between science and society? The relationship between science and religion?

Why do you think Galton insisted that morals be left out of any discussion of eugenics as an “orthodox religious tenet”?

How is Galton’s vision of a eugenic society similar to the “Masterpiece Society” described in Chapter 1? What differences seem most striking?

1. *Inquiries into the Human Faculty and Its Development* by Francis Galton. J.M. Dent and Sons, 1883, p. 24.

2. Reprinted by permission from *Nature*, May 26, 1904. Copyright 1904 Macmillan Magazines Ltd.

The Laws of Heredity

Reading 3

Francis Galton was aware that organisms within a species differ from one another. He also understood that each passes on characteristics to its offspring, but he did not know how offspring inherit traits from their parents. As a result, eugenics was little more than an interesting idea until scientists rediscovered Gregor Mendel's laws of heredity in the early 1900s.

Mendel did most of his research in the 1850s and 1860s, at about the time that Darwin was publicizing his theory of natural selection. Although Mendel also published his findings, few of his contemporaries paid attention to his work. No one knows why his studies were of so little interest at the time. Some historians believe that Darwin's theory of natural selection overshadowed every other idea in biology in the 1860s. Others observe that scientists at the time focused on ideas related to change and adaptation. Mendel's work, on the other hand, dealt with the way traits are passed on rather than with the way they change. Still other historians note that Mendel worked on a small scale at a time when most scientists were studying entire species. His work was also experimental and analytical at a time when many scientists were stressing description and speculation.

The son of peasants, Mendel studied at the universities of Olmütz and Vienna in the Austro-Hungarian Empire. In 1843, he entered a monastery in Brunn, partly because of his interest in research. The abbot had an experimental garden and was willing to support Mendel's work. Mendel began experimenting in 1857. Working with the green pea flower, he transferred pollen from a tall variety to the stigma of a short-stemmed variety. He sowed the resulting seeds to produce new plants whose characteristics offered insights into the relationship between parents and their offspring. People had been breeding animals and plants selectively for centuries even though they had no idea how inheritance worked. Most assumed that traits were passed through an organism's "bloodlines." Somehow, "blood" from both parents mingled together to create an offspring.

Based on his experiments with peas, Mendel disagreed. His experiments suggested that such traits as seed color and texture are inherited as discrete "particles." Either the offspring have a particular trait or they do not; there is no "mingling." To test his hypothesis, Mendel followed specific traits over many generations. He took groups of "pure line" smooth peas or wrinkled peas and fertilized them with their own pollen. ("Pure line" means that plants grown from these seeds, if self-fertilized, always duplicate the traits of the parent stock.) Pure-line smooth peas always produced more smooth peas.

Next, Mendel cross-fertilized varieties of peas. He found that when he crossed pure-line smooth with pure-line wrinkled, the first generation was always smooth. Usually, the second and third generations were smooth as well, but sometimes a plant with wrinkled peas would emerge. Over time, he noticed a pattern—there were about three smooth plants for every wrinkled one.

For nearly ten years Mendel combined multiple traits and carefully observed their appearance in successive generations. In 1865 in a paper presented to the Brünn Society for the Study of Natural Science, he described what became known as Mendel's Laws of Inheritance:

Principle of Dominance: Each pea plant contains a set of hereditary particles (in 1909 they became known as genes). Alternate forms of the particles or genes are called alleles. If both alleles are the same, they are pure line or homozygous. If the alleles differ from one another, they are called hybrid or heterozygous. In the latter combination one trait always seems to be dominant and the other recessive. For example, a combination of smooth and wrinkled alleles will always yield smooth peas.

Principle of Segregation: Mendel reasoned that the two matching alleles in each gene are segregated when reproductive cells (gametes) are formed. Therefore, each cell—the sperm or the egg—contains just one allele for a particular trait. When they come together in reproduction, the new seed contains an allele from each parent organism. Therefore, the reproductive cells, sperm and egg, contain one half of a gene pair, or one allele for each particular trait. When the organism reproduces, the new seed contains one allele from each gene pair in each parent organism.

Principle of Independent Assortment: Different gene pairs defining different traits are passed on independently of each other in random combinations. Mendel crossed two hybrid pea plants with normal stature and smooth seeds (the dominant forms for these traits). The offspring included some with dwarf stature, some with wrinkled seeds, some with both, and most with neither. A plant that received one of these recessive traits was not more likely to receive the other. Mendel reasoned that the hereditary particles for different traits are not connected. (This later turned out to be true only in some cases.)

Mendel was lucky in his research. He experimented with a plant that was easy to grow and had a short generation time. Also a single gene affected each of the characteristics he studied. Because those characteristics are inherited separately, he could trace them individually. Without such luck, his experiments might

have resulted only in confusion. Recent research indicates that most traits are not influenced by a single gene, but by several genes along with a variety of environmental and biological processes. Scientists also now know that a single gene may have multiple functions. Dominance is not always as clear-cut as it seemed to Mendel. Indeed, when he studied plants with complicated hereditary patterns, his predictions fell apart.

Mendel published his findings, but his work gathered dust in university libraries until 1900. That year, three scientists simultaneously discovered his writings. Each was working independently on problems involving hybrids. Within a very short time, they had introduced his ideas to dozens of other researchers. Little by little, these scientists enlarged Mendel's experiments to include more and more of the plant and animal kingdoms.

CONNECTIONS

What does Mendel's story suggest about the relationship between science and society? Why might some scientific theories be accepted immediately, while others are discounted or ignored for years?

To explore how Mendel's laws work, you may wish to try his experiment. It focuses on a single trait—color. As you work, keep in mind:

1. Every pea plant has two genes for determining color.
2. The green allele is dominant over the yellow one.
3. The genetic information within an organism is its genotype, (green/green; yellow/yellow; green/yellow).
4. The plant's external appearance (green peas or yellow peas) is its phenotype. (This was all Mendel himself could see.)

To illustrate the principle of dominance, place an equal number of green and yellow beads in a bag to symbolize the genes for color in Mendel's pea plants. Because each pea has two genes for color, reach into the bag and draw two beads at random. The two beads will determine the color of your pea plant.

- What is the genotype of your pea plant—GG, YY, or GY?
- What is the phenotype of your pea plant—green or yellow?
- How many combinations result in a green pea plant? In a yellow one?
- Repeat the process a few times. Which color is the more common?

To illustrate the principle of segregation, randomly select one bead and pair it with a bead from another student. You have just created a new "plant." One gene came from each parent plant. What is the genotype of your new pea plant? Its phenotype?

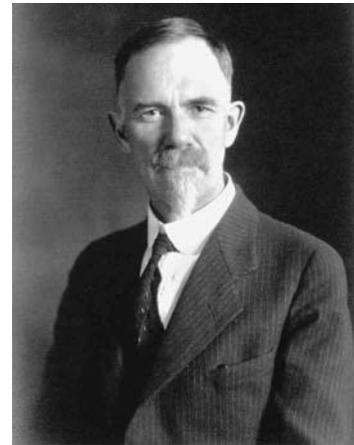
Eugenics and the Promise of “Progress”

Reading 4

By the early 1900s, a number of scientists were trying to combine Gregor Mendel’s research with Francis Galton’s theory of “race improvement” so that they could tackle some of society’s greatest problems. They viewed their work as a civic enterprise and claimed that eugenics would eventually reduce crime, end some diseases, and even boost human intelligence. It was a tempting vision—one that had particular appeal for middle class Americans in the early 1900s. It was a time when many marveled at the ability of science and technology to produce great wealth, create millions of new jobs, offer an ever-growing list of consumer goods, and open “life choices previously unimagined.”

At the same time, many people were deeply troubled by the changes in their lives. As a result of their dis-ease, they were attracted to ideas that gave scientific meaning to the old rules and the old hierarchies. By 1915, eugenics had become a fad in the United States. Although the theory also attracted followers in England, Germany, Sweden, Denmark, Russia, Canada, and Brazil, the United States led the world in eugenic research in the first two decades of the 20th century. One of the most influential people in the American eugenics movement was Charles Davenport. While earning a Ph.D. in biology at Harvard University, he stumbled upon the writings of Francis Galton and other English eugenicists. Davenport was so taken with their ideas that he traveled to England to meet Galton. He returned home determined to incorporate eugenic principles into his own research.

In 1904, Davenport persuaded the Carnegie Institution of Washington to provide the funding for the Station for Experimental Evolution at Cold Spring Harbor on Long Island in New York. He became its first director and oversaw early research into inheritance in both plants and animals. He hoped to combine Darwin’s ideas on natural selection with Gregor Mendel’s principles of heredity in controlled experiments.



Charles Davenport.

By 1910, Davenport was prepared to go further. That year he established the Eugenics Record Office (ERO) at Cold Spring Harbor. There he and other researchers not only studied human heredity but also tried to demonstrate how social traits such as pauperism, criminality, and prostitution are inherited.

Davenport particularly wanted the ERO to educate the public about the importance of eugenic research in solving social problems. In 1911, he published a popular textbook, *Heredity in Relation to Eugenics*, for use in college and high school biology classes. The following excerpts illustrate some of Davenport's key assumptions and conclusions.

Eugenics is the science of the improvement of the human race by better breeding or, as the late Sir Francis Galton expressed it:—"The science which deals with all influences that improve the inborn qualities of a race." The eugenical standpoint is that of the agriculturalist who, while recognizing the value of culture [environment], believes that permanent advance is to be made only by securing the best "blood." Man is an organism—an animal; and the laws of improvement of corn and race horses hold true for him also. Unless people accept this simple truth and let it influence marriage selection, human progress will cease. . . .

There is no question that, taken as a whole, the hordes of Jews that are now coming to us from Russia and the extreme southeast of Europe, with their intense individualism and ideals of gain at the cost of any interest, represent the opposite extreme from the early English and the more recent Scandinavian immigration with their ideals of community life in the open country, advancement by the sweat of the brow, and the uprearing of families in the fear of God and the love of country. . . .

Summarizing this review of recent conditions of immigration, it appears certain that, unless conditions change of themselves or are radically changed, the population of the United States will . . . rapidly become darker in pigmentation, smaller in stature, more mercurial, more attached to music and art, more given to crimes of larceny, kidnapping, assault, murder, rape, and sex-immorality and less given to burglary, drunkenness, and vagrancy than were the original English settlers. Since . . . there [are] relatively more foreign-born than native [in hospitals], it seems probable that under present conditions the ratio of insanity in the population will rapidly increase. . . .

If increasing attention is paid to the selective elimination at our ports of entry of the actually undesirable (those with a germ plasm [genes] that has imbecile, epileptic, insane, criminalistic, alcoholic, and sexually immoral tendencies); if agents in Europe learn the family history of all applicants for naturalization; if the luring of the

credulous and suggestible by steamship agents abroad and especially in the south-east of Europe be reduced to its lowest limits, then we may expect to see our population not harmed by this mixture with a more mercurial people.¹

CONNECTIONS

How does Davenport define eugenics? Compare his definition with Francis Galton's definition in Reading 2. On what points do the two writers agree? What differences seem most striking?

What is the effect of phrases such as "hordes of Jews," and "undesirables"? Who are the carriers of inferior "germ plasm"? Whom does Davenport consider "superior"? What traces of Camper's speculations about ideal types (Chapter 2) do you find in Davenport's work?

Davenport asserts that "human progress will cease" without eugenics. What does this suggest about the thousands of years of human history prior to 1900? He also asserts that Americans will become, on the average, shorter and darker than earlier generations. How does he seem to define human progress?

With whom do you think Davenport's book was particularly popular? Who do you think was most likely to oppose Davenport's ideas? How might these individuals and groups get heard in the early 1900s? or today?

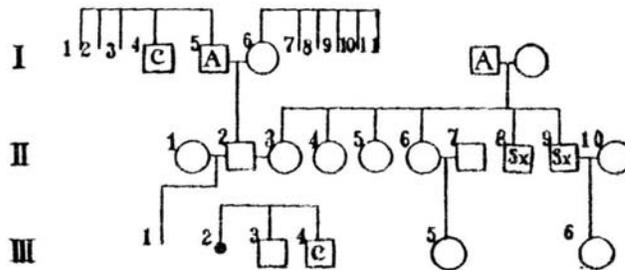
1. *Heredity in Relation to Eugenics* by Charles Benedict Davenport. Henry Holt, 1911, pp. 1, 216, 219, 224.

Tracking Inherited Traits

Reading 5

How did Charles Davenport and other eugenicists prove that such traits as insanity, “criminalism,” and sexually immoral tendencies were inherited? Were their investigations “good science”? Or, as Frederick Douglass once wrote, did they reason “from prejudice rather than from facts”? Charles Davenport’s Eugenics Record Office (ERO) relied on family histories to track inherited traits from one generation to the next. To trace those histories, Davenport and his colleagues created pedigree charts or “family trees.”

After a few weeks of training at the ERO, a field worker, often a college or graduate student, was sent to a poor house or an orphanage to observe behavior. There he or she would spot such traits as “shiftlessness,” “criminalism,” and “feeblemindedness.” Another popular technique involved interviews with neighbors who offered their impressions of the person or family being studied. Davenport relied on his field workers for much of the data he used in his charts. Many of these field workers later held influential jobs at state mental hospitals, almshouses, and prisons.



Pedigree chart used in *Heredity in Relation to Eugenics* by Charles Davenport.

Although no date is provided for the pedigree chart above, Davenport or one of his researchers probably gathered the information between 1887 and 1910. In Davenport’s chart, the circles represent females and the squares stand for males. The Roman numerals indicate generations within a family. (I is first generation, II is second, and so on.) The other numbers refer to birth order among the children of a particular generation. The letters within the circles and squares designate a pronounced trait. “A” stands for “alcoholism,” “C” for “criminality,” and “Sx” for “sexual immorality.” The narrative that accompanies the chart provides additional information about the fourth child, characterized by the letter “C,” in the third generation of the family.

Figure 50, Ill, 4 is an eleven-year-old boy who began to steal at 3 years; at 4 set fire to a pantry resulting in an explosion that caused his mother's death; and at 8 set fire to a mattress. He is physically sound, able and well-informed, polite, gentlemanly and very smooth, but he is an inveterate thief and has a court record. His older brother, 14, has been full of deviltry, has stolen and set fires but is now settled down and is earning a living. Their father is an unusually fine, thoughtful, intelligent man, a grocer, for a time sang on the vaudeville stage; his mother, who died at 32, is said to have been a normal woman of excellent character. There is, however, a taint on both sides. The father's father was wild and drank when young and had a brother who was an inveterate thief. The mother's father was an alcoholic and when drunk mean and vicious. Some of the mother's brothers stole or were sexually immoral. . . .

The foregoing cases are samples of the scores that have been collected and serve as fair representations of the kind of blood that goes to the making of thousands of criminals in this country. It is just as sensible to imprison a person for feeble-mindedness or insanity as it is to imprison criminals belonging to such strains. The question whether a given person is a case for the penitentiary or the hospital is not primarily a legal question but one for a physician with the aid of a student of heredity and family histories.¹

In creating such charts, Davenport assumed that a number of physical and behavioral traits are the result of a single recessive gene. He also believed that these traits were inherited in a simple Mendelian fashion. In some instances he was right. Huntington's chorea is the result of a single gene and so is color blindness. But for the most part, heredity is not nearly as simple as he believed. Even as Davenport claimed that wanderlust, pauperism, and criminality were inherited through the "unit characters" (genes) in one's blood, a number of scientists were undermining those claims.

Between 1905 and 1908, British geneticists Reginald Punnett and William Bateson, who coined the term *gene*, conducted experiments that suggested that the work of some genes modify the activity of others. Their research on sweet pea blossoms and the color of cock combs on roosters led to deeper insights into the ways genes act in combination with other genes to code for proteins and enzymes, which in turn influence such physical traits as skin color.

American biologist Thomas Hunt Morgan modified Mendel's ideas even further. Morgan conducted his experiments on the common fruit fly, *Drosophila*

melanogaster, to find out how such physical traits as eye color and wing length are inherited. The fruit fly proved ideal for that kind of experimentation. It lives for just 14 days, is easy to breed, cheap to grow, and contains only 4 chromosome pairs. (Humans have 23 pairs.) Morgan discovered that genes are not randomly assorted, as Mendel had thought. Instead, genes that occur on the same chromosome are linked. Some traits are the result of a single gene as Davenport believed, but most are due to several genes working together. Morgan also found that the environment might alter the effects of particular genes on an organism. These discoveries greatly complicated ideas about heredity.

So did the research of Charles W. Stiles, a young scientist who worked for the U.S. Public Health Service. He studied hookworm disease, which affected nearly 40 percent of all southerners in the late 1800s. A physician wrote that victims “become pale and anemic and complain of indigestion. In children, development, both physical and mental, is retarded and an infected child is dull and backward at school. In adults the symptoms vary with the intensity of the infection. A victim may feel weak, tire easily, and have shortness of breath. Also, infected persons may crave and eat unusual things such as paper, green fruit, chalk, clay and dirt—such persons are called ‘dirt eaters.’ Their muscles become weak, cause the abdomen to become prominent and enlarged, known as ‘potbelly,’ and the shoulder blades to stick out, ‘angel wings.’”²

The disease was found primarily among poor people who lived in low-lying areas and lacked both shoes and sanitary facilities. With funding from the Rockefeller Foundation and the help of county health agencies, Charles Stiles organized a campaign to diagnose, treat, and eventually eliminate hookworm. Between 1909 and 1914, nearly 1.3 million people were examined for hookworm infection and 700,000 were treated. Stiles also initiated a campaign that stressed the importance of well-constructed out-houses and a good pair of shoes as ways of preventing the disease. The results were dramatic.

In Huntsville, Alabama, the local newspaper featured before-and-after photographs of a local family. The before photo showed a “tumbledown shack” where the family “lived in misery not knowing what was their trouble.” The after photographs showed a family “so restored in health and vigor that they set to work to make enough money to better themselves in every way.” One of the after photographs featured “the little white schoolhouse . . . where the children are now going to school to learn to read and write—things that were beyond the power and knowledge of their father and mother, their grandfathers and grandmothers, their great-grandfathers and great-grandmothers.” The editors of the newspaper concluded the article by asking, “Is it any wonder that this family is doing what it can to prevent the further spread of the disease? Is it any wonder

that the father has built a sanitary privy and is observing those simple rules of sanitation that if generally lived up to would completely banish hookworm disease from the country?”³

Even though Davenport was aware of the research of both Morgan and Stiles, he never addressed either man’s research in his own scholarly works, textbooks, or lectures. Instead Davenport continued to assert that single genes are responsible for many physical and behavioral traits, including “feble-mindedness,” “wanderlust,” “pauperism,” and “criminality.”

CONNECTIONS

Notice the language used on page 78 to describe people featured on the pedigree chart (for example, “a normal woman of excellent character”). What judgments does the researcher make? What values do those judgments reflect? What evidence supports the claim that theft and arson are the results of a hereditary “taint”?

Review Mendel’s laws of inheritance in Reading 3. How has Davenport applied Mendel’s ideas in this family profile? Is heredity the only factor that may explain the boy’s behavior patterns?

Why do you think Davenport ignored the findings of Morgan and Stiles? Why do you think their work did not make a difference in the way other scientists, politicians, and ordinary citizens viewed eugenics?

At first, Thomas Morgan, like nearly all biologists of the time, believed that the human condition could be improved by weeding out bad traits and enhancing positive ones. In time, he became one of the first biologists to criticize eugenics. In 1925, he wrote:

Social reforms might, perhaps, more quickly and efficiently get at the root of part of the trouble, and until we know how much the environment is responsible for, I am inclined to think that the student of human heredity will do well to recommend more enlightenment in the social causes of deficiencies. . . . A little goodwill might seem more fitting in treating these complicated questions than the attitude adopted by some of the modern race propagandists.⁴

What questions might Morgan raise about Davenport's pedigree chart? What questions do you have about the chart? What additional information would you like to have?

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1. *Heredity in Relation to Eugenics* by Charles B. Davenport. Henry Holt, 1911.
 2. *The Germ of Laziness: Rockefeller Philanthropy and Public Health in the New South* by John Ettlting. Harvard University Press, 1981, p. 4.
 3. *Ibid.*, p. 149.
 4. *Evolution and Genetics*, 2d ed., by Thomas Hunt Morgan. Princeton University Press, 1925, p. 201.

All in the Family

Reading 6

Charles Davenport insisted that intelligence and other traits are transmitted in a Mendelian fashion despite scientific research to the contrary. To popularize that stand, he and a number of other eugenicists authored books that traced the history of a single family to prove that “feeble-mindedness” is a hereditary trait. In 1912, Henry H. Goddard published the most popular of these studies. Entitled *The Kallikak Family: A Study in the Heredity of Feeble-mindedness*, the book went through twelve editions between 1912 and 1939 and was widely quoted in not only academic journals and scholarly tomes but also popular magazines and high school textbooks. There was even talk of turning the book into a Broadway play.

Goddard’s book was unusual in that it compared two branches of the same family—one respectable and the other “a race of defective degenerates.” Although the family was real, the name is an alias that Goddard created by combining the Greek words for “beautiful” (kalos) and “bad” (kakos). Originally Goddard, who directed a laboratory for the study of mental deficiency at the Vineland Training School for Feeble-minded Boys and Girls in New Jersey, planned to focus his research on the direct ancestors of an inmate at the school—a young woman he called “Deborah Kallikak.” Through interviews with her living relatives, Goddard’s chief researcher, Elizabeth Kite, traced Deborah’s family tree back to a great-great-grandfather, “Martin Kallikak.” Kite also located another branch of the family with the same last name but with a markedly different reputation. At Goddard’s request, she studied the history of that family as well. Based on her efforts, Goddard concluded:

A young man of good family becomes through two different women the ancestor of two lines of descendants—the one characterized by thoroughly good, respectable, normal citizenship, with almost no exception; the other being equally characterized by mental defect in every generation. . . . We find on the good side of the family prominent people in all walks of life. . . . On the bad side we find paupers, criminals, prostitutes, drunkards, and examples of all forms of social pest with which modern society is burdened.

From this we conclude that feeble-mindedness is largely responsible for these social sores. Feeble-mindedness is hereditary and transmitted as surely as any other character. We cannot successfully cope with those conditions until we recognize feeble-mindedness and its hereditary nature, recognize it early, and take care of it.¹

How were Goddard and Kite able to assess the character and intelligence of people who had died over a hundred years earlier? Goddard told readers that

“after some experience, the field worker becomes expert in inferring the condition of those persons who are not seen from the similarity of the language used in describing them to that used in describing persons whom she has seen.” Goddard even included some of Kite’s reports in his book to “show something of her method, and enable the reader to judge of the reliability of the data.” In one of those reports Kite notes that a 12-year-old girl should have been in school, “but when one saw her face, one realized that it made no difference. She was pretty . . . but there was no mind there.” She describes three children as having the “unmistakable look of the feeble-minded.”²

Only a few scholars openly criticized the methods used by Goddard and other eugenicists. One of the most outspoken was Abraham Meyerson, a professor of neurology at Tufts University.

I have had charge of a clinic where alleged feeble-minded persons were brought every day, and I see in my practice and hospital work murderers, thieves, sex offenders, failures, etc. Many of these are brought to me by social workers, keen intelligent women, who are in grave doubt as to the mental condition of their charges after months of daily relationships, after intimate knowledge, and prolonged effort to understand. . . . And I have to say of myself, with due humility, that I have had to reverse my first impressions many and many a time.

Judge how superior the field workers trained by Dr. Goddard were! Not only does “their first glance” tell them that a person is feeble-minded, but they even know, without the faintest misgiving, that a “feeble-minded girl” living over a hundred years before in a primitive community is feeble-minded. They know this, and Dr. Goddard, acting on this superior female intuition, founds an important theory of feeble-mindedness, and draws sweeping generalizations, with a fine moral undertone, from their work. Now I am frank to say that the matter is an unexplained miracle to me. How can anyone know anything definite about a nameless girl, living five generations, before, whom no one has ever seen?³

Despite such criticism, studies like Goddard’s remained popular with scholars and ordinary citizens. That popularity had real consequences for “Deborah Kallikak” and other Americans who were labeled as “feeble-minded.” Many, including Kallikak, spent much of their lives in hospitals, “training schools,” and other institutions. Late in her life, Deborah had an opportunity to leave the school. Although as a young girl, she tried to escape from Vineland, she now chose to stay, because she required constant medical attention and no longer had

ties to anyone in the outside world. When she died in 1978 at the age of 79, she was described as a “wonderful lady” who engaged in many community activities. She said of herself, “I guess after all I am where I belong. . . . I don’t like this feeble-minded part, but anyhow I am not idiotic like some of the poor things around here. . . . Here everybody who is anybody, knows all about me and what I can do. With the wonderful friends that I got and the work I like so much, this place is my home.”

CONNECTIONS

In the mid-1800s, Frederick Douglass wrote, “It is the province of prejudice to blind; and scientific writers, not less than others, write to please, as well as to instruct, and even unconsciously to themselves, (sometimes,) sacrifice what is true to what is popular.” To what extent did prejudice blind Goddard?

How might Goddard and Kite have answered the questions Meyerson raises? Why do you think neither seemed to doubt the value of “first impressions”?

Despite Meyerson’s criticisms, many scholars continued to cite Goddard’s research long after other scientific research raised important questions about his methodology and scientific assumptions. How do you account for their support?

In 1949, a researcher said of Goddard’s study, “The assistants whom he employed to secure his genealogical records had relatively little training but were fired with Goddard’s enthusiasm. That they may have sometimes tended to find mental defect where mental defect was to be expected was perhaps inevitable under the circumstances, but no one can doubt the sincerity of their attempts to get the facts.” What are the qualities of a good researcher? If you had to choose one of those qualities as more important than any other, what would it be? Where do such qualities as “enthusiasm” and “sincerity” rank on your list?

When Deborah Kallikak was admitted to Vineland, she was eight years old. Her admissions report claims she was able to dress herself, recognize a few letters, understand commands, and sew. She was also described as “obstinate and destructive” and “not very obedient.” Over the years, Deborah’s teachers at Vineland described her as:

- Learning a new occupation quickly, but requires a half-hour or twenty-four repetitions to learn four lines.
- Retaining well what she has once learned. Needs close supervision.
- Bold towards strangers, kind towards animals.

- Able to run an electric sewing machine, cook, and do practically everything about the house.
- Having no notable defect. She is quick and observing, has a good memory, writes fairly, does excellent work in woodcarving and kindergarten (where she is an assistant), is excellent in imitation.
- Doing fine basketry and gardening. Spelling is poor; music is excellent; sewing excellent; excellent in entertainment work. Very fond of children and good in caring for them.
- Having a good sense of order and cleanliness. Sometimes very stubborn and obstinate.
- Not always truthful; has been known to steal, although does not have a reputation for this.
- Proud of her clothes. Likes pretty dresses and likes to help in other cottages, even to temporarily taking charge of the group.⁴

As an adolescent, Deborah often got in trouble with authorities. One report noted that “her skill with woodworking tools made it possible to alter her window screen and this fact, together with a moonlit campus and a convenient lover, set the stage for a romantic interlude. This had not progressed far when it was fortunately discovered. The young man was kindly dismissed by a lenient justice of the peace but Deborah per force remained in our custody.” A few years later, the staff tried to place her in a nearby community only to learn that she had once again found a boyfriend. She was promptly returned to Vineland “in sack cloth and ashes.” Deborah noted, “It isn’t as if I’d done anything wrong. It was only nature.”

To Henry Goddard, Deborah was a “typical illustration of the mentality of the high-grade, evil-minded, the moron, the delinquent, the kind of girl or woman who fills our reformatories.” How do her teachers regard Deborah? How would you characterize her? Was she “where she belonged”? What voice did she have? Who spoke for her?

According to Goddard, the moral of “Deborah Kallikak’s” story is that feeble-mindedness is hereditary and dangerous. What other morals might one draw from her story? What does it suggest about the power of labels? The role of the environment in shaping identity? The power of education to transform an individual?

1. *The Kallikak Family: A Study in the Heredity of Feeble-mindedness* by H.H. Goddard. Macmillan, 1912, pp. 115–116.

2. *Ibid.*, p. 76.

3. Quoted in *The Legacy of Malthus* by Allan Chase. Alfred A. Knopf, 1977, pp. 122-123.

4. *A History of Mental Retardation* by R.C. Scheerenberger. Paul H. Brookes Publishing Co., 1983, p. 150.

Raising Questions

Reading 7

In the early 1900s, most scientists in the United States viewed humanity as the sum of inherited traits and were convinced that some races were superior to others. Therefore many supported the segregation and isolation of the “feeble-minded” and the mentally ill. They also supported laws that separated black and white Americans, kept the Chinese from entering the nation as immigrants, and relegated Native Americans to “reservations.” Only a few raised troubling questions about race and heredity. Among those scientists was the nation’s leading anthropologist, Franz Boas.

Boas, a German immigrant with degrees in physics and geography, settled in the United States in the late 1800s. His career in anthropology began when he joined an expedition to the Cumberland Sound in Baffinland, Greenland, in 1883. He wrote of the experience:

[It] was with feelings of sorrow and regret that I parted from my Arctic friends. I had seen that they enjoyed life, and a hard life, as we do; that nature is also beautiful to them; that feelings of friendship also root in the Eskimo heart; that although the character of their life is so rude as compared to civilized life, the Eskimo is a man as we are; that his feelings, his virtues, and his shortcomings are based in human nature, like ours.¹

Boas’s stay in Greenland led him to question his own assumptions about race and the meanings he and others attached to human differences. In 1894, he gave his first scholarly address on the topic. In it, he argued that “historical events appear to have been much more potent in leading races to civilization than [inherited ability], and it follows that achievements of races do not warrant us to assume that one race is more gifted than the other.”

Boas believed that “the physiological and psychological state of an organism at a certain moment is a function of its whole history.” He responded to those who asked why some groups seemed unable to absorb Western civilization with the suggestion that they look to history, experience, and circumstances, rather than race, for answers.

As a professor, Boas challenged his students to put aside their prejudices in studying other cultures, or ways of life. As a curator at the American Museum of Natural History, he insisted that all of the artifacts belonging to a particular group be placed together so visitors could see how they related to one another.

He argued against arranging artifacts in ways that suggested that some “races” were superior to others. As a scholar, he demanded that those who looked to biology or race to explain human differences prove their claims. And he insisted over and over again that mental differences between the races “have not been proved yet.”

As a citizen, Boas felt strongly about equal opportunity. He came to the United States because of the discrimination he experienced as a Jew in Germany. As an American, he was particularly troubled by the plight of African Americans. In 1905, W. E. B. DuBois, the leading African American social scientist of his day, invited Boas to speak at Atlanta University, an all-black college. In *Black Folk Then and Now*, DuBois recalled the visit:

Franz Boas came to Atlanta University where I was teaching history . . . and said to the graduating class: You need not be ashamed of your African past; and then he recounted the history of black kingdoms south of the Sahara for a thousand years. I was too astonished to speak. All of this I had never heard and I came then and afterwards to realize how the silence and neglect of science can let truth utterly disappear or even be unconsciously distorted.

A few months later, Boas wrote a letter to Andrew Carnegie asking for his help in establishing an “African Institute.” The letter states in part:

The increasing antagonism between the white and the black races is not only a matter of concern from a humanitarian point of view, but entails serious dangers to the Commonwealth. Notwithstanding all that has been written and said on the subject of racial ability or inability of the Negro, a dispassionate investigation of the data at hand shows neither that his inability has ever been demonstrated, nor that it has been possible to show that the inferiority of the Negro in America is entirely due to social rather than to racial causes. . . .

It seems plausible that the whole attitude of our people in regard to the Negro might be materially modified if we had a better knowledge of what the Negro has really done and accomplished in his own native country.

It would seem that any endeavor of this kind should be connected with thorough studies of the conditions of the American Negro on such scientific basis that the results could not be challenged. The endless repetition of remarks on the inferiority of the Negro physique, of the early arrest of the development of Negro children, of the

tendency in the mulatto to inherit all the bad traits of both parental races, seems almost ineradicable, and in the present state of our knowledge can just as little be repudiated as supported by definite evidence.

There seems to be another reason which would make it highly desirable to disseminate knowledge of the achievements of African culture, particularly among the Negroes. In vast portions of our country there is a strong feeling of despondency among the best classes of the Negro, due to the economic, mental, and moral inferiority of the race in America, and the knowledge of the strength of their parental race in their native surroundings must have a wholesome and highly stimulating effect. I have noticed this effect myself in addressing audiences of Southern Negroes, to whom the facts were a complete revelation.

Considering that the future of millions of people is concerned, I believe that no energy should be spared to make the relations of the two races more wholesome, and to decide by unprejudiced scientific investigation what policy should be pursued. I should be inclined to think that an institution which might be called "African Institute" could contribute materially to the solution of these problems. Its purpose ought to be the presentation to the public, by means of exhibits and by means of publications, of the best products of African civilization. This should be accompanied by a scientific study of this civilization—one of the most important means of creating a group of men who will intelligently present the subject.

A second division of such an institution should be devoted to the study of the anatomy of the Negro. The investigations of such a division would be necessarily technical, but they would have the most important bearing upon the question of general policy to be pursued in regard to the Negro. . . .

A third division of such an institution should be devoted to statistical inquiries of the Negro race in this country; and here, also, I believe the most useful work could be done.²

Boas was unable to secure funding for his project from any of Carnegie's many foundations. Yet one of those foundations supported Charles Davenport's Eugenics Record Office. It also gave large sums of money to Booker T. Washington's Tuskegee Institute, primarily to provide African Americans with vocational training.

CONNECTIONS

What does W. E. B. DuBois mean when he recalls that after Boas's commencement address, he came "to realize how the silence and neglect of science can let truth utterly disappear or even be unconsciously distorted." What is he suggesting about the power of silence? What does he believe is necessary to keep truth alive?

In the late 1800s, few people paid much attention to Franz Boas's ideas about race. Yet popular magazines and newspapers carried article after article boasting of the superiority of the "Anglo-Saxon" and the inferiority of other races. They also printed articles by "race scientists," eugenicists, and anthropologists who believed that race explained all human differences. Why do you think some ideas become popular very quickly, while others are viewed with suspicion, even fear? What ideas are more difficult to believe? What ideas are most disturbing? Threatening?

Boas actively encouraged African Americans to become anthropologists. One of his students was Zora Neale Hurston. Born in Eatonville, Florida, Hurston was the first African American woman to graduate from Barnard College. As an anthropologist, she traveled through the South tracing the folklore of African Americans. Her research offered insights into a forgotten history and encouraged the study of folklore worldwide. How does Hurston's work deepen our understanding of the importance Boas placed on training anthropologists of all races and ethnicities?

The word *culture* is often defined as a way of life. It shapes not only how people live, work, and play but also their attitudes, values, and beliefs. We view the world through the lens of our culture. What does Boas suggest about how we can learn to view the world through another cultural lens? Why do you think he believed it was important to do so? Boas came to the United States from Germany. How do you think his experiences as an immigrant may have shaped the value he placed on looking at the world through multiple perspectives?

1. *From Savage to Negro* by Lee D. Baker. University of California Press, 1998, pp. 36.

2. *The Franz Boas Reader*, edited by George W. Stocking, Jr. University of Chicago Press, 1974.