

THE MYTH OF RACE

The Troubling Persistence of an Unscientific Idea

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racism is still so prevalent in our society; why the anthropological concept of culture is so important and the influence of culture on our lives is so profound. Unfortunately, one's cultural background often trumps logic, empirical data, and modern science. In fact, modern science is by its very nature framed by culture (Kuhn 1962; Benson 2011). However, in the end, I hope to show that racism and bigotry are fueled by deep-seated hatred and intolerance of human variation and are not supported by empirical evidence or modern science.

Early Racism in Western Europe

Early Christians, Hebrews, and the Greeks allowed out-groups to overcome their alleged inferiority by converting to the "superior" or dominant group, or through the process of assimilating (Loughurst 1964). The Greeks, for example, allowed so-called barbarians to learn to speak, write, think, and live as Greeks. However, in the fifteenth century, the Spanish introduced a new form of racism. In order to squelch the large and rising number of Jews who had been forced to convert to Catholicism and who were gaining status financially and in the church, Old Christians were separated from New Christians, or *conversos*, on biological grounds. Anyone with Jewish ancestry in the previous five generations was considered a New Christian and was subject to a number of restrictions, including an inability to attend college, join certain religious orders, or hold government positions. Certificates of "purity of blood" were issued to non-Jews to prove that an individual was not a member of this "inferior" group.

The Spanish Inquisition

The Spanish Inquisition was established to ensure that those of Jewish ancestry were kept apart and out of the mainstream of society. Although it was mainly directed at Jews, the inquisition also focused on Christianized Muslims and Gypsies and later moved to Asia and America, where it targeted indigenous people (Popkin [1974] 1983; Kamen 1998; Murphy 2012). In Spain, the inquisition was formally established in 1478, although it built on earlier inquisitions in other places. When it moved to Rome in the sixteenth century, although still persecuting Jews, the inquisition expanded its focus to include Protestants, homosexuals, people accused of witchcraft,

freethinkers, public intellectuals, and people considered to be quirky or “gadflies” (Murphy 2012).

The inquisitions discriminated against and separated one group from another without allowing any legal means for the discriminated group to assimilate. Unlike earlier inquisitions, the Spanish Inquisition did not focus on religion alone but expanded to include ethnicity or race, introducing the notion of *limpieza de sangre*, or “impurity of blood.” It was about classes of people rather than just categories of belief,” author Cullen Murphy notes (2012, 70). Furthermore, it was run by those in political power. It was political: religion, ideology, and race or ethnicity were ruled and defined by the state. Minority or conquered peoples could not change their identities; they could not convert or assimilate into mainstream society. Although these discriminating practices began as a result of economic and political conditions, “scientific” theories justifying this kind of racism began to appear in Spain and Portugal in the fifteenth century, and after the discovery of America, they were expanded to justify similar racist ideas toward Native Americans, Asians, and, later, enslaved Africans. It is interesting to note that Columbus’s voyage to America was at the peak of the Inquisition in Spain. It was financed mainly by *conversos*, and there were *conversos* among the ships’ crews. In fact, a large number of Jews who had refused to be baptized were leaving Spain at that time (Murphy 2012).

The initial cause of anti-Semitism in Spain and Portugal may have been jealousy of the power, wealth, and influence of some Jews (and others) in early Spanish society. However, it also could be explained and justified by biblical explanations of Jews as the killers of Christ and eternal enemies of Christianity (Cohen 2007). But when the Spaniards and Portuguese began to colonize America, the people they conquered and whose land they were taking had no established role in European society. Prior to this, travelers and explorers saw continuity between neighboring peoples as they traveled slowly through adjacent areas instead of traveling long distances to entirely new regions—basically jumping continents (Brace 2005; Jablon-ski 2012). New rationalizations had to be made to justify mistreating the peoples Europeans encountered and new theories formed to explain their place in the universe.

As described by Popkin (1973), although numerous explanations were expounded, two major theories emerged, became prominent, and exhibited remarkable staying power: the pre-Adamite and the degenerate theories. These theories first centered on the question of whether Native Americans’ origins were traceable to migrations of biblical people that had

somehow become degenerate or were not descendants from the biblical world at all but had a separate origin. In this latter theory, American Indians were not descendants of Adam and Eve but had an independent, earlier origin—they were pre-Adamites.

The conquistadores justified their mistreatment of Native Americans by claiming they were subhuman and incapable of having abstract ideas and of running their own world. They also were deemed incapable of morality and unable to become Christian. These views were promulgated by Spanish theorists such as Sepúlveda and Oviedo in the early sixteenth century (Popkin [1974] 1983; Brace 2005). In 1512, Montesinos, a preacher in Santa Domingo, opposed the mistreatment of the Indians and insisted that they were human. Bartholomé de Las Casas, who became bishop of Chiapas, became an advocate of this cause and debated Sepúlveda and his followers for almost half a century (Hanke 1949; Popkin [1974] 1983; Brace 2005). He claimed that “all people in the world are men . . . all have understanding and volition . . . all take satisfaction in goodness and [feel] pleasure with happy and delicious things, all regret and abhor evil” (quoted in Popkin [1974] 1983, 129).

The first professor of philosophy in the New World, Alonso de la Vera Cruz, argued in his first and only course at the University of Mexico that Spaniards did not have the right to subjugate the Indians, and Pope Paul III, in 1537, declared that “the Indians are truly men and that they are not only capable of understanding the Catholic faith, but, according to our information, they desire exceedingly to receive it” (quoted in Hanke 1949, 73). However, the church could not stop the conquest of America and the mistreatment of Native American peoples. Even though the Spanish government and the church eventually declared that the Indians were fully human, Vera Cruz was removed as professor and sent to lower Yucatan (Popkin [1974] 1983). The mistreatment of Native Americans did not subside.

As the inhumane conquest of America continued, racial theories remained crucial in justifying the treatment of the local peoples and, a bit later, the enslavement of Africans who often were needed to replace the rapidly dying indigenous Americans as a work force for exploiting the New World. The early Spanish debate was simply a preview of things to come. The two main theories used to explain human differences, pre-Adamite and degenerate, that the Spanish and Portuguese had first proposed in the sixteenth century were later adopted mainly by the English, Anglo-Americans, and the French in the seventeenth and eighteenth centuries. These theories then provided the basis of racist thought in regard to people of color and

Jews for the nineteenth and twentieth centuries. In fact, I will argue that the threads of these two theories survived Darwinian times and the modern synthesis of evolutionary theory. Furthermore, they are still with us today, both in the general public and in Western science.

The Degeneration Theory of Race from Ancient Times to Darwin

Although the pre-Adamite or polygenic theory had a following throughout the period covered here and became the dominant theory in the mid-nineteenth century, the degeneration theory of race was the most accepted version in earlier times. Rather than challenging the biblical account of human origins, a generally unpopular approach, the degeneration theory assumed that all humans were created by God beginning with Adam and Eve. Nonwhites were thought to be inferior and to need the guidance and control of rational, moral men (i.e., white European Christians). Their condition was considered to be caused by some degenerative process that was related to climate or conditions of life, to isolation from Christian civilization, or to some divine action explained in the Bible (Popkin [1974] 1983). This was, in fact, the more liberal point of view, since proponents of this approach believed that these degenerates could be remediated by giving them the benefits of European education and "culture," especially by missionizing them to Christianity.

After the debates between the church and the conquistadores discussed above, one of the earliest well-known proponents of the degeneration theory was John Locke. Locke was the seventeenth-century architect of English colonial policy who drafted the constitution for the Carolinas. He accepted the biblical account of human origins but believed that the equality at creation and the endowment of natural rights to all humans no longer had to be applied because the American Indians were not using their land properly. He also believed that they should lose their liberty because they had unjustly opposed the Europeans. Locke justified the maltreatment and slavery of nonwhites based on what he considered their personal failures (Locke 1690).

In the eighteenth century, many of the early, well-known natural historians attempted to explain just why these peoples were such "failures." These degeneration theorists attempted to explain "that the factors that led some peoples to change from white skinned to dark involved ways of life that were far inferior to those of Europeans" (Popkin [1974] 1983, 133-134). The French nobleman, politician, and political philosopher of the Enlight-

enment Montesquieu (Charles-Louis de Secondat, Baron de La Brède et de Montesquieu, 1689-1755) was among the first to develop an elaborate climate theory in his *De l'Esprit des Loix* (1748). He believed that climate and geography affected the temperaments and customs of a country's inhabitants and thus accounted for differences among humans and their cultures. However, these differences were not hereditary, and if one moved from one climate to another, one's temperament would change (Bok 2010). Carl Linnaeus (1707-1778), the founder of modern biology and the person who developed the system of zoological classification of species still in use today, also believed in the unity of mankind. Linnaeus, the son of a Lutheran minister, was born in southern Sweden. He studied medicine and later in his life became a professor at the University of Uppsala. Medicine in those days was mainly a matter of herbal remedies, and Linnaeus became a specialist in botany. However, he continued to practice medicine and became the physician to the royal family (Groves 2008). He also revitalized the Uppsala Botanical Garden. In fact, he considered himself God's registrar—his goal was to systematize the naming of all the plants and animals God had created and put them in order. The order so derived, however, was not based on relationship through evolution. It was a creationist concept: all species were created as fixed and separate species whose perfect representations were to be found only in the mind of God (Brace 2005). As anthropologist C. Loring Brace has stated (2005, 28): "The assumption that the world was hierarchically arranged pervaded medieval Christian thought and continued without question in the outlook of the Enlightenment thinkers as well. Linnaeus and his contemporaries simply took that general view and provided a more specific picture of all aspects of the world arranged in a series of steps running from God at the top down through the various entities of the living world to the inorganic. . . . This arrangement was referred to as the *Scala Naturae* or 'Great Chain of Being.'"

Using this concept, Linnaeus published twelve editions of his famous *Systema Naturae* during his lifetime, and in the tenth edition (1758) he established the system of binomial nomenclature in zoology, the starting point for all zoological nomenclature since. (The first edition was published in 1735, before Linnaeus was thirty years old.) He classified all living organisms into named units in descending order of increasing distinctiveness and began the two-name classification of genus and species for the basic name of an organism. Thus, he devised the term *Homo sapiens* for humans and, in fact, considered all humans to be members of the same species. Based on anatomical similarity, he placed humans in the order Primates, along

MAMMALIA.

ORDER I. PRIMATES.

*Fore-teeth cutting; upper 4, parallel; teeth 2
pedicel.*

1. HOMO.

Sapient. Durnal; varying by education and situation.

2. Four-footed, mute, hairy:

3. Copper-coloured, choleric, erect.

Hair black, straight; thick; *eyebrows* wide, *face* harsh; *beard* scanty; *abscissate*, constant tree. *Paris* himself with fine red lines: *Regulated* by customs;

4. Fair, sanguine, drowsy:

Hair yellow; brown; flowing; *eyes* blue; *genia*, acute, invective. *Covered* with close vestments. *Governed* by laws.

5. Sooty; melancholy, rigid.

Hair black; *eyes* dark; *genia*, haughty, covetous. *Covered* with loose garments. *Governed* by opinions:

6. Black; phlegmatic; relaxed.

Hair black, frizzled; *skin* silky; *nose* flat; *lips* tumid; *crests*, indolent, negligent. *Ancient* himself with grease. *Governed* by caprice.

Monophys. Varying by climate or art:

1. Small, active, timid.

2. Large, indolent.

3. Lids fertile.

4. Beards less.

5. Head conic.

6. Head flattened.

The anatomical, physiological, natural, moral, civil and facial histories of man, are best described by their respective writers.

Maintainer.

Patagonian.

Hottentot.

American.

Chinese.

Canadian.

Figure 1.1 The classification of *Homo* as written by Linnaeus in *Systema Naturae* in 1758.

with apes and monkeys (and bats). This made some of his contemporaries quite uneasy. Linnaeus then classified varieties of humans in relationship to their supposed education and climatic situation (see Figure 1.1). As usual, those who did the classifying, white Europeans, were seen as the superior variety. As did Montesquieu, Linnaeus believed the differences were due to climate and social conditions.

A contemporary of Linnaeus was the French naturalist Georges Louis Leclerc, comte de Buffon (1707–1788). Buffon was perhaps the greatest

naturalist of the eighteenth century. Independently wealthy, as were most scholars at that time (a fact that allowed them to take up their scholarly pursuits in the first place), Buffon moved from Burgundy to Paris in 1739, where he became the keeper of the Jardin du Roi (later to become the Jardin des Plantes, in which was housed the Paris Zoo and the Muséum national d'Histoire naturelle). Buffon died at the age of eighty, one year and three months before the beginning of the French Revolution. Since he had worked for King Louis XVI and had been in his favor (he was made a count in 1771), Buffon was not well treated after his death. His coffin was dug up, his remains were scattered, and his monument was smashed. Worst of all, his only son was sent to the guillotine a few years later (Groves 2008). It is quite amazing that Bernard Germain de Lécépède (1756–1825) and Louis-Jean-Marie Daubenton (1716–1800), protégés, coauthors, and close colleagues of Buffon, survived the French Revolution and were instrumental in the appointment of two key members of the next generation of French scholars, Étienne Geoffroy Saint-Hilaire (1772–1844) and Georges Cuvier (1769–1832), who became dominant figures in the study of natural history just before the publication of Charles Darwin's *On the Origin of Species*. This story is nicely told in Groves (2008).

Buffon offered the most complete explanation of human variation of his time in the fourth and fifth volumes of his forty-three-volume *Histoire Naturelle*, written from 1785 to 1787: "Humans are not composed of essentially different species among themselves, but on the contrary there is only one sole species of man which has multiplied and covered all the surfaces of the earth, [and] has been subjected to different changes due to influences of the climate, differences in nutrition, and those of manner of life [lifestyle], by sicknesses, epidemics, and also by the various infinite mixture of individuals more or less similar" (Buffon 1785, 180; my translation).

As one moves away from Central Europe, Buffon explains, these various factors cause increasing degeneration from the ideal, original humans:

The best climate is found between 40 and 50 degrees; it is here that one finds the most beautiful and most fit humans, it is in this climate that one finds the ideal of the natural color of man, it is here where one finds the model or the origin from which is derived all of the other nuances of color or of beauty. The two extremes are equally far from the true [ideal?] and the beautiful: The countries situated in this zone are Georgia, Circassie, Ukraine, Turkey, Europe, Hungary, Germany, Italy, Switzerland, France,

and parts of Spain, all these people are also the most beautiful and the best fit of all the earth. (Buffon 1785, 178–179; my translation)

Although the views of Linnaeus and Buffon might seem similar to us today, their approaches were actually quite different, and they were intellectual rivals throughout their lives. Linnaeus was interested mainly in naming the categories of animals, and his task would be complete when all organisms in creation had been classified. The nested hierarchy of life he created in his classification scheme, however, did not imply any particular process. Buffon, on the other hand, was an enemy of all rigid classification and believed that the categories devised by Linnaeus were simply human creations. He stated: “In fact, in nature there are only individuals; genera, orders, and classes exist only in our imaginations” (quoted in Nordenskiöld 1928, 222). Buffon was more interested in process. He seemed to be aware of what we would call ecology and adaptation and noted the relationships among the forms of plants and animals and certain aspects of the environment in the regions in which they lived. “Throughout his writings, there was a continual concern for the processes by which organic form is shaped that was completely missing in the writings of Linnaeus,” Brace noted (2005, 31). It is ironic that Buffon formulated an early scientific version of evolution but rejected it. In fact, he rejected Linnaeus’s system of higher taxonomic categories because he thought they implied something insidious—that is, microevolution—and this was against his religious beliefs. Jonathan Marks notes, “Even though Linnaeus himself did not espouse such an idea, it was (according to Buffon) simply because he had not grasped sufficiently the full scope of the implications of his system” (Marks 1995). Buffon regarded Linnaeus as a “nomenclateur” rather than what we would now refer to as a “scientist” (Brace 2005).

The German physician and anatomist Johann Friedrich Blumenbach (1752–1840), often thought of as the father of physical anthropology, was a disciple of Linnaeus and idolized him (Gould 1996). However, Blumenbach was also interested in process. Like Linnaeus and Buffon, he was a monogenist who believed that all humans were created by God. In his dissertation, which he wrote at the age of twenty-three in 1775, a year before the American Revolution, he attempted to classify the varieties of humans and to explain the significance of their physical and mental differences. As did Linnaeus and Buffon, he believed that all humans were the same species. He also insisted that there were no sharp distinctions between groups and that supposed racial characteristics graded continu-

ously from one people to another (Gould 1996; Montagu 1997). He was among the first to refer to race but believed that divisions of human groups were somewhat arbitrary and were used for the convenience of the classifier (Farber 2011).

Following Buffon, in 1775, Johann Friedrich Blumenbach published the first edition of his dissertation, *De generis humani varietate nativa* (*On the Natural Variety of Mankind*), in which he stated that he had constructed his human racial classification simply as a matter of convenience. This book became a standard beginning reference point for discussions about human races (Farber 2011). In a greatly expanded third edition, written in 1795, when Blumenbach was serving as a professor of medicine at the University of Göttingen, he wrote: “Although there seems to be so great a difference between widely separate nations, that you might easily take the inhabitants . . . [of different regions] . . . for so many different species of man, yet when the matter is thoroughly considered, you see that all do so run into one another, and that one variety of mankind does so sensibly into the other, that you cannot mark out the limits between them. Very arbitrary indeed both in number and definition have been the varieties of mankind accepted by eminent men” (quoted in Montagu 1997, 62).

Blumenbach went on to specify first four (based on Linnaeus’s four geographically noted varieties) and later five varieties of humans associated with major regions of the world. His five varieties—Caucasian, Mongoloid, Ethiopian, American, and Malay—became widely accepted by the educated community, and with some slight variations they are still in use today. In his scheme of the varieties of mankind, Blumenbach developed two major ideas that have endured in the history of racism and, unfortunately, also are still with us today. First, he coined the term *Caucasian* to refer to people of European descent and in doing so defined them as the most beautiful, the closest to representing God’s image, and the “original” humans from which other varieties had degenerated. Was this done by any scientific means? Well, no. He developed this on purely aesthetic grounds and, of course, on his own views of aesthetics. “Blumenbach’s descriptions are pervaded by his personal sense of relative beauty, presented as though he were discussing an objective and quantifiable property, not subject to doubt or disagreement” (Gould 1996, 411).

Second, even though he had expressed the difficulty of drawing lines between varieties of humans, he accepted the underlying paradigm of the day, as had Linnaeus, Curvier, and Buffon, that one variety was indeed better and preferable to another in relationship to God’s original creation. In

fact, unlike Linnaeus and Buffon, his varieties were set up not simply in a geographic system but also in a hierarchical one. Cuvier before him had described three varieties of human species and maintained that the Mongolian race remained stationary with regard to civilization and that the black race had never progressed beyond utter barbarism (Stocking 1968). Blumenbach, with his five varieties of humans, set up a racial geometry with two lines degenerating through intermediary stages from a central Caucasian “ideal” (see Figure 1.2). Stephen Jay Gould (1996, 405) believed that Blumenbach’s hierarchical model of human races was a major factor in the creation of the modern racists’ paradigm: “The shift from a geographic to a hierarchical ordering of human diversity marks a fateful transition in the history of Western science—for what, short of railroads and nuclear bombs, had more practical impact, in this case almost entirely negative, upon our collective lives and nationalities? Ironically, J. F. Blumenbach is the focus of this shift—for his five-race scheme became canonical, and he changed the geometry of human order from Linnaean cartography to linear ranking by putative worth.”

Could he have believed this ironic because although many of the monogenists were opposed to slavery and the mistreatment of the “degenerated” varieties of mankind and believed they could be “regenerated” in one way or another, Blumenbach was among the least racist and one of the most egalitarian of the Enlightenment scholars. In fact, he had a library in his home devoted to the writings of black authors and praised the “faculties of these our black brethren,” most likely as a rebuttal to the more common, pervasive Humeian and Kantian mentality (see later in this chapter). He campaigned for the abolition of slavery (a view not popular in his day) and, interestingly, asserted the moral superiority of slaves to their captors (Gould 1996). Nevertheless, in the end, Blumenbach ended up with a system with one single race, Caucasian, at the top. He assumed that race to represent the closest to “original” creation and then envisioned two lines of departure from this ideal toward greater and greater degeneration. As Brace (2005, 46) emphasized: “For the next two centuries, those who have attempted to ‘classify’ human biological variation have inevitably built on the scheme proposed by Blumenbach.”

Inherent in the degeneration theory of race was the concept of change. This was, however, a difficult idea to deal with in the eighteenth and nineteenth centuries because of the basically accepted tenet of the fixity of species as originally created by God. Yet many of the proponents of this theory attempted to explain how degeneration actually had occurred. Buf-

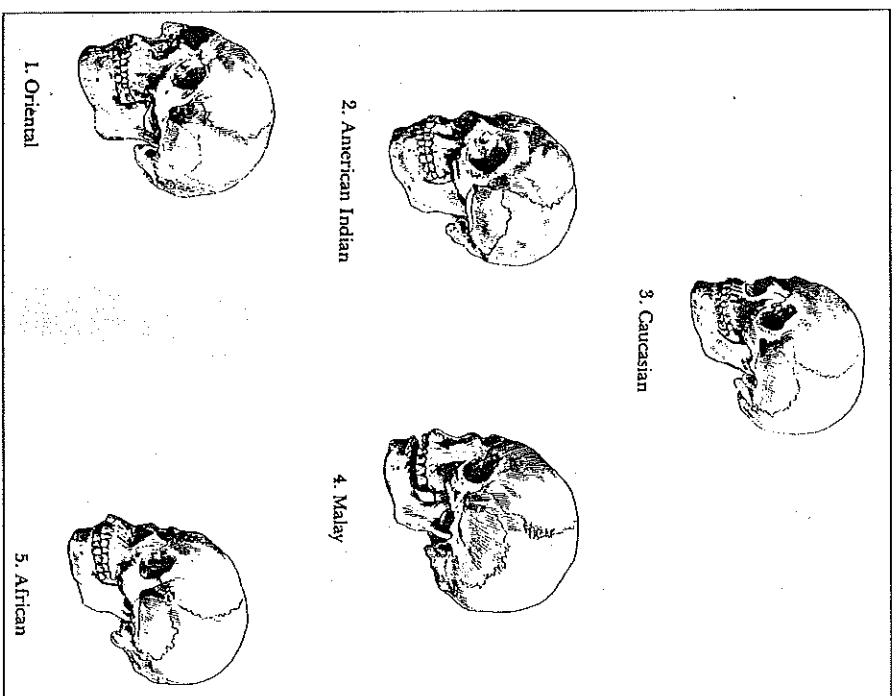


Figure 1.2 The five varieties of *Homo sapiens* established by J. F. Blumenbach in the late eighteenth century.

fon noted the relationship between aspects of the environment of particular regions and the forms of plants and animals living there. He accepted the idea that the similarity among differently adapted forms in given regions suggested some kind of “adaptive” relationship, and although he rejected the idea of organic evolution and went on at length to debunk any such theory, he brought it up as a topic of discussion. He was concerned with the processes by which organic forms developed and believed that environmental conditions could cause populations to change within a species but certainly not enough to become another species altogether (Marks

1995; Brace 2005). Similarly, Blumenbach, in writing about human varieties, believed that the farther populations had migrated from their place of origin in the Caucasus the more they were affected by different environments and conditions of life. Factors that could cause these changes were climate, nutrition, and mode of life. Over many generations, differences in these factors led to changes (degenerations) in form from the original (Brace 2005). Cuvier expounded the idea of "catastrophism." He believed that the earth went through a series of invoked catastrophes at the boundaries between geological strata and that new species were created after each of these catastrophes, presumably by divine creation (Marks 1995). Cuvier, however, like Linnaeus, was concerned more with the patterns that had been created by God than with the process by which patterns developed.

The most logical concept of the process of biological change at the time, given the available evidence, was that formulated by Jean-Baptiste Lamarck (1744–1829). Born in the north of France, Lamarck was the youngest of eleven children in an impoverished noble family with a centuries-old tradition of military service. His father and several of his brothers were soldiers. He entered a Jesuit seminary around 1756, but after his father's death in 1761, he bought an old horse and rode off to join the French army. He fought in the Seven Years' War in Germany and at the age of seventeen distinguished himself for bravery under fire and was commissioned as a lieutenant. In 1766, because of an injury, Lamarck was forced to retire to Paris with a meager pension. There, close to poverty, he supported himself as a bank clerk and began to study medicine. Then, possibly influenced by his friend Jean-Jacques Rousseau, he dropped medicine for the study of botany. In 1778, he published a book on the botany of France, and this launched his career in science. Buffon was impressed by Lamarck and engaged him as a tutor for his son (the one who later went to the gallows) and was instrumental in getting him admitted to the Academy of Science. In 1781, Buffon had Lamarck appointed as royal botanist and collector for the Jardin du Roi, and they traveled together collecting plants for the garden in Germany, Holland, and Hungary (Hays 1964).

Lamarck held this position until 1793. In that year Louis XVI and Marie Antoinette were sent to the guillotine and the renamed Jardin des Plantes was reorganized as the Muséum national d'Histoire naturelle. It was to be run by twelve professors of different scientific specialties. Lamarck was appointed as one of those professors, the one in charge of the natural

history of "insects, or worms and microscopic animals" (*invertébrates*, a term Lamarck later coined). This was the least prestigious of the professorships and a subject about which Lamarck knew nothing. To his credit, Lamarck took on the enormous challenges of organizing the museum's vast and growing collections and of learning and creating a new field of biology (Clifford 2004). Lamarck published a series of books on invertebrate zoology and paleontology; he also published in the fields of physics, meteorology, and hydrogeology.

Lamarck is most remembered, and often most criticized, however, for his early theories of evolution, which are most clearly stated in his *Philosophie zoologique* (1809). Lamarck expounded the idea that organisms are not passively altered by the environment but that environmental changes cause changes in the needs of organisms that in turn cause changes in their behavior. This altered behavior leads to greater or lesser use of a given structure or organ. Thus use causes increase in size of the structure or organ, and disuse causes it to decrease in size or disappear over several generations. This was Lamarck's "First Law"—that use or disuse causes structures to enlarge or shrink. His "Second Law" was that all such changes were heritable. Lamarck believed in continuous, gradual change of all organisms as they become adapted to their environment (Clifford 2004). One aspect of Lamarck's theory of evolution that differs markedly from modern Darwinian evolutionary theory is that evolution is not driven by chance. He believed instead that in evolution, nature is "attempting" to produce in succession, in every species of animal, a form beginning with the least perfect or simplest to an end product of the most perfect and structurally complex. He posed a specific direction (perfection) to be reached in every lineage, a progressive development in nature.

In this way, Lamarck was attempting to describe a particular process by which change takes place. At the time it was written, this idea was too radical for those who believed in the concept of the fixity of species as created by God. Lamarck was ridiculed for these ideas by his contemporaries and even by his closest colleagues, Buffon and Cuvier. Lamarck struggled with poverty throughout his life. He was married four times and had seven children. He spent his last years totally blind and cared for by two of his devoted daughters. When he died in 1829, he received a poor man's funeral and was buried in a rented grave. His books and the contents of his home were sold at auction. Five years later his body was removed, and no one knows the final location of his remains. His friend Geoffroy Saint-Hilaire gave one of the orations at his funeral.

Two years after Lamarck's death, Cuvier used the forum of a eulogy to discredit Lamarck's scientific beliefs, depicting his theories as able to entertain poets but unable to support the examination of any scientist (Hays 1964). Since Cuvier was so respected in his day, his remarks on Lamarck's views of evolution helped banish them to obscurity at that time. However, by the middle of the nineteenth century, since even the theory of degeneration implied the process of change, many scientists began to develop different views of how changes in biological and social phenomena occur. At that point, Lamarck's theories became acceptable to many of the biologists and social scientists. In fact, at the time of Darwin's *Origin*, Lamarckism had become one of the few scientific theories of degeneration theorists, presenting a coherent explanation of how environment could influence biological and social change. Lamarck was acknowledged as a great zoologist and as a forerunner of the theory of evolution by many of the scientists and evolutionists of Darwin's time, including Darwin, Charles Lyell, Ernst Haeckel, Paul Broca, and the American paleontologist Edward Drinker Cope. In fact, Darwin incorporated Lamarckian explanations in some of his descriptions of the process of change (Rectenwald 2008). Lamarck's view of transformation could be seen as the beginning of modern zoology. Darwin ([1859] 1860, vi) wrote: "Lamarck was the first man whose conclusions on the subject excited much attention. This justly celebrated naturalist first published his views in 1801. . . . He first did the eminent service of arousing attention to the probability of all change in the organic, as well as in the inorganic world, being the result of law, and not of miraculous interposition."

This view of how acquired characteristics could influence change was epitomized in a book written by Richard Louis Dugdale in 1877, with new editions appearing until 1910, entitled *The Jukes: A Study in Crime, Pauperism, Disease, and Heredity*. Dugdale described the history and experiences of the Juke family over many generations. In carefully examining the influence of environment on various members of the same family (actually a compilation of over forty families), Dugdale pointed out the improvement in delinquent behavior that could be brought about by a change in environment. As a believer in the theory of acquired characteristics, Dugdale ([1877] 1891, 55) stated: "Where the environment changes in youth the characteristics of heredity may measurably be altered. Hence the importance of education." To Dugdale, like other degeneration theorists, Lamarckism worked both ways: "Environment tends to produce habits which may become hereditary . . . if it should be sufficiently constant to produce modification of cerebral tissue. . . . From the above considerations the

logical induction seems to be, that environment is the ultimate controlling factor in determining careers, placing heredity itself as an organized result of invariable environment" (66). In sum, he argued: "Heredity . . . fixes the organic characteristics of the individual," while "environment . . . affects modifications in that heredity" (11). Many scientists of the time believed that Lamarckian theory meant that environment was a very important factor in producing human behavioral characteristics.

Since Darwin did not provide any single coherent explanation of the processes of biological change in his theory of natural selection, Lamarckism's acquired characteristics could be included as one of many possible processes. In fact, many of Darwin's explanations are quite Lamarckian (his theory of pangenesis, for example). However, with the rediscovery of Mendelian genetics and with the experiments of August Weismann around the turn of the century (see Chapter 2), Lamarckian theory once again was debunked and ridiculed.

The Pre-Adamite/Polygenic Theory from the Sixteenth Century to Darwin

The pre-Adamite or polygenic theory of human variation existed alongside the degenerate theory, and often in direct contrast to it, from the sixteenth century to Darwin's times. Early views that inhabitants of the New World were not descended from the biblical Adam were provided by Paracelsus (1493–1541), who lectured on medicine at the University of Basel and is credited with establishing the importance of chemistry in medicine (Brace 2005). He was a controversial figure who was not reluctant to contradict the traditional view of a single creation of man. In the early sixteenth century, he argued that people in faraway places were from a different source, the same one that had produced nymphs, sirens, griffins, and salamanders, all examples of beings without souls (Popkin [1974] 1983). Later in that century, the philosopher and cosmologist Giordano Bruno claimed that the Indians, Ethiopians, Pygmies, giants, and other strange and far-off beings were not descended from the same progenitor as the rest of the human world (Slotkin 1965; Popkin [1974] 1983, 1976). Bruno was burned at the stake in Rome in 1600, a victim of the inquisition (Vătes 1992, Murphy 2012). The polygenic theory that was the most influential in racist ideology and had the most staying power was the pre-Adamite theory of Isaac La Peyrère (1596–1676).

La Peyrère, a French Calvinist from a family of Spanish Jews who had been expelled from Spain at the end of the fifteenth century, had a long

and eventful life (see Brace 2005). He was the first to propose this theory, in his work *Præ-Adamitæ*, which was written in 1641 and published in Amsterdam in 1655 (Popkin [1974] 1983). It was translated into English in 1656 as *A Theological Systeme upon That Proposition That Men Were Before Adam*. Popkin (1973, [1974] 1983) gives a detailed synopsis of La Peyrère's theory; I will only point out salient features here. La Peyrère argued that there were millions of people prior to Adam but that they lived in a miserable state. Then God created Adam and began Jewish history in order to save mankind. His book challenged the authenticity of the Bible and was burned and banned. La Peyrère was considered a heretic; his views were condemned and he was imprisoned for six months. When he was released, he was forced to write a formal retraction. Popkin ([1974] 1983, 141–142) states: “Although his work was constantly being refuted from 1655 onward, its polygenetic thesis kept being revived as the best explanation of the new findings in geology, biology, archeology, anthropology, and history that conflicted with the Bible.” The racist implications of the pre-Adamite theory began to reemerge during the Enlightenment among theorists who no longer took the Bible literally. By the nineteenth and early twentieth centuries, it had transformed somewhat and developed into a powerful “scientific” defense of racist ideology.

In the eighteenth century, the pre-Adamite or polygenic theory was less popular than the monogenic or degeneration theory because of the latter's closer adherence to the biblical account of human origins (Gould 1996). However, although the polygenic theory was not the most popular view, it was still held as a minority viewpoint (Gould 1996; Smedley 1999; Brace 2005). David Hume (1711–1776), the renowned eighteenth-century Scottish philosopher, economist, and historian, was among the first noted authors to profess the polygenic theory of racism (Popkin [1974] 1983; Smedley 1999). He did so as part of his “inductive” naturalistic philosophy (Craig 1987), or experimental philosophy. “The only solid foundation we can give to this science (science of man) . . . must be laid on experience and observation,” he wrote in his *Treatise of Human Nature* (1739–1740, quoted in Beebe 2011, 729). Hume, who is considered among the most important figures in the history of Western philosophy and the Scottish Enlightenment, advocated the separate creation and innate inferiority of nonwhite peoples. In the mid-1700s, Hume wrote: “I am apt to suspect the negroes and in general all the other species of men (for there are four or five different kinds) to be naturally inferior to the whites. There never was a civilized nation of any other complexion than white, nor even any individual

eminent either in action or speculation. No ingenious manufacturers among them, no arts, no sciences” (cited in Popkin [1974] 1983, 143). In this statement, Hume was applying his methodology of historical “inductive” reasoning. Human nature was best studied by observations of human historical behavior, and from the European point of view civilization had never existed outside of Europe.

Following in Hume's footsteps but adding and enveloping similar racist ideas into a whole system of philosophical thought, Immanuel Kant essentially created a racist anthropology based on skin color. A contemporary of Linnaeus's Kant (1724–1804) developed his own classification of human races. Kant is acknowledged as one of the most influential philosophers of the Enlightenment. In fact, he is widely thought of as the most important moral theorist of modern times (Guyer [1998] 2004). However, he also can be considered the father of the modern concepts of race and scientific racism (Count 1950; Van de Pitte 1971; Neugebauer 1990; Eze 1995; Mills 1997; Jablonski 2012). Kant, who introduced the term *anthropology* to German science and philosophy, was the founder of what might be considered racist anthropology, which dominated much of anthropology up until World War II. His classification of humans included four races based on color and climate (Kant [1775] 1950). Kant believed that all races of man were created by God but that the characteristics (germs) of each were dependent upon climate. This made his polygenic view more acceptable to biblical interpretations of humanity. Climate determined the natural predispositions or character of each race, and once the process toward each racial disposition had begun, it was irreversible. Existing races and racial characteristics could not be undone by changes in climate or circumstance, “for once a race like the present one has been founded through long sojourn of its original stock . . . it could not be changed into another race by any further influences of the climate. For only the stem-formation can expel into a race; but once the latter has taken root and has stifled the other germs, it resists all further remodeling because the character of the race has now become predominant in the generative power” (Kant [1775] 1950, 24).

Kant's theory of race corresponded to intellectual ability and limitation. He included the typical color-coded races of Europe, Asia, Africa, and Native America, differentiated by their degree of innate talent (Kant [1798] 1974). In Kant's theory, the nature of the white race guarantees its rational and moral order, and they are in the highest position of all creatures, followed by yellow, black, and then red. Nonwhites do not have the capacity

to realize reason and rational moral perfectibility through education. To Kant, color is evidence of unchanging and unchangeable moral quality and thus ultimately of free will. White Europeans have the necessary talent to be morally self-educating; Asians have some ability to do so but lack the ability to develop abstract concepts. Innately idle Africans can only be educated as servants (to follow orders) but must be kept in order by severe punishment (and he explains how to properly beat them with split bamboo canes) (Neugebauer 1990; Eze 1995). Native Americans are hopeless and cannot be educated at all (Mills 1997). Furthermore, mixing of races should be avoided because it causes misfortune and damage (Neugebauer 1990).

Although Kant was a champion of the equality of all men and of civil rights, these were only for humans who have the ability to educate themselves and thus have free will—they were only for whites. Full personhood was actually dependent upon one's race. Nonwhites were relegated to a lower rung in the moral ladder (Mills 1997). Eze (1995) summarizes: "The black person, for example, can accordingly be denied full humanity since full and 'true' humanity accrues only to the white European." Kant believed that to be human one must be able to think moral thoughts (reason) and have the ability (free will) to carry them out. Native Americans and blacks did not have these qualities and thus could not be considered fully human. As the philosopher E. C. Eze notes, for Kant, "the ideal skin color is the 'white' (the *white brumette*) and the others are superior or inferior as they approximate whiteness" (Eze 1995, 217). To Kant, nonwhites counted as subpersons who were of considerably less value than whites because they were nonmoral agents (Mills 1997; Hachee 2011). Furthermore, nonmoral agents lacked moral worth and became mere objects to be used as means to the ends of others. They were nothing but irrational animals whom superior moral agents (true humans) could master and rule at will.

As with his contemporaries, Kant's theories were based on travelers' tales and on his own personal opinions. Rephrasing Hume directly, Kant stated: "The Negroes of Africa have by nature no feeling that rises above the trifling. Mr. Hume challenges anyone to cite a single example in which a Negro has shown talents, and asserts that hundreds of thousands of blacks who have been transported elsewhere from their countries, although many of them have been set free, still not one was ever found who presented anything great in art or science or any other praiseworthy quality. . . . So fundamental is the difference between these two races of man, and it ap-

pears to be as great in regard to mental capacities as in color" ([1764] 1965, 110–111).

Kant also generalized his depiction of nonpersonhood to Jews. Motives could be good or moral only if they were not motivated by a desire for material benefit, and he saw Judaism as an inherently materialist religion. He equated the Jewish religion with such undesirable traits as superstition, dishonesty, worldliness, and cowardliness (Mack 2003). Of course, Kant's views on nonwhites and on Jews were not original. They supported already existing, long- and widely held stereotypes of Western and Christian thought (Polakov 1971; Jablonski 2012). The United Jewish Appeal of Toronto (2003) points out that

going back to at least the 12th century, European culture had developed a rich and ghastly tableau of imaginary Jews. . . . Kant's division of humanity reiterated and reinvigorated the religious and racial hierarchies of the past. . . . He took this earlier religious hostility toward Jews and reformulated it in philosophical language. . . . Kant set the stage for modern secular anti-Semitism. . . . [and] provided the framework for future anti-Semites, notably G. W. F. Hegel and the musician Richard Wagner. Since Wagner was a cultural hero for Adolf Hitler, Kant's own anti-Semitism can be seen as having a far-reaching effect.

Kant taught a combination of physical geography and anthropology courses for forty years (1756–1797), introducing a "scientific" concept of race and a particular brand of physical racial anthropology first in Germany, then in Europe and the United States (Kant [1775] 1950, [1798] 1974, 1802; May 1970; Eze 1995; Mills 1997; Elden 2011; Jablonski 2012). Kant had an exalted reputation; there was great respect for his work, and his writings were widely circulated. As the anthropologist Nina Jablonski (2012, 130) stated: "Through his writings and lectures, Kant successfully instilled some of the most trenchant and potent classifications of humanity into the minds of inexperienced and unsophisticated readers and students." He became one of the most influential racists of all times, and his racial philosophy was passed on for centuries. Because Kant is widely thought of as the most important moral theorist of modern times and the father of modern moral theory, his theories on race have, until recently, been essentially ignored in discussions of the history of racism (Eze 1995; Mills 1997; Hachee 2011). However, as Jablonski (2012, 135) states: "In the history of humanity, few intellectual constructs have carried so much weight and

produced such a river of human suffering.” As philosopher Charles W. Mills summarized (1997, 72, emphasis in original): “The embarrassing fact for the white West (which doubtless explains its concealment) is that their most important moral theorists of the past three hundred years is also the foundational theorist in the modern period of the division between Herrenvolk and Untermenschen, persons and subpersons, upon which Nazi theory would later draw. Modern moral theory and modern racial theory have the same father.”

The moral contract Kant and his colleagues developed is underlain first by a racial (or color) contract—it only applies to those of the white hue. Furthermore, as Matthew Hachee emphasized (2011): “Not only is it the case that the image of Kant passed on to succeeding generations of philosophers . . . is one excessively sanitized, but it also seems reasonable at this point to infer that this ‘selective memory’ is simply too extensive to be the result of mere accident or chance. Rather, it appears to be the result of a tradition conveniently blind to its own racism.”

By the end of the eighteenth century, as the controversy about slavery and the place of “the Negro” in nature and society heated up, Charles White (1728–1813), an English physician, again focused on the question of whether black Africans were products of the same act of creation as whites in *An Account of the Regular Gradation in Man* (1799). He denounced the views of the degeneration theorists (see Gould 1996). White proposed that black Africans were inferior both physically and intellectually and were an intermediate form between true humans (white Europeans) and apes, with other races intermediate between these extremes. Each race was seen as a separate species, the product of separate creation that was adapted for a particular geographic region. Although others had propounded this view, White’s rendition was considered to be the most scientific. As we shall see in Chapter 6, a theory very similar to this one, in which the great apes are invoked to explain the differences among the races, surfaced again in the early 1900s (Urbani and Vilorio 2008; Marks 2012).

In the early 1800s in Europe and America there was a revival of Isaac La Peyrère’s pre-Adamite theory and continued attempts to reconcile it with the Bible. As described in detail by Popkin ([1974] 1983), Gould (1996), and Brace (2005), the nineteenth-century scientific version of the pre-Adamite theory was developed by the American Dr. Samuel Morton (1799–1851), an accomplished eclectic physician and paleontologist, and his disciples, who became known as the Mortonites. Morton is well known for his technique of measuring the cranial capacity of human

skulls by filling them with pepper seeds. His research, which compared different human groups, was published in two volumes, *Crania Americana* (1839) and *Crania Aegyptiaca* (1844).

Morton and his followers, George R. Gliddon, Josiah Nott, and Louis Agassiz, reformulated or resurrected a powerful case for pre-Adamism. Their argument went as follows: (1) the cranial sizes and characteristics of various human racial groups were fixed and remained the same throughout recorded history, at least 3,000 years, as could be seen by skull measurements and Egyptian artwork; (2) the fixed cranial traits included a progressive decrease in cranial capacity from whites to Asians to Native Americans to African blacks; (3) these fixed differences did not fit biblical chronology; and therefore the best explanation was a separate creation of the different types of mankind (Popkin [1974] 1983). Brace (2005) believes that Morton was the founder of what is often called the American School of Anthropology and that he was a true scholar and a careful and innovative scientist and that he has been forgotten because his legacy was carried on in the hands of his followers, who forwarded the cause of slavery and racism. However, Morton, like his followers, strongly professed the inferiority of other races over white Europeans. When he died in 1851, his obituary in the *Charleston Medical Journal* read: “We of the South should consider him as our benefactor, for aiding most materially in giving to the negro his true position as an inferior race. We believe the time is not far distant, when it will be universally admitted that neither can ‘the leopard change his spots, nor the Ethiopian his skin.’”

Morton died before *Origin of Species* was published. However, Morton’s followers bring us right up to Darwin’s then-controversial volume. Josiah Nott (1804–1873) became the main spokesman for the American School of Anthropology. He was a highly respected physician and surgeon from a prominent southern family. His father was a lawyer who graduated from Yale, served one term in Congress, and then became a judge and the president of the South Carolina Court of Appeals. Josiah first practiced medicine in South Carolina and then followed his wife’s family to Mobile, Alabama. He married the daughter of a wealthy southern plantation owner. He was brought up on the coast of South Carolina, the region where the largest number of slaves in the world lived, and shared the racist attitudes of the South in the era just before the Civil War. His biographer (Forsman 1987) stated “as a Southern Gentleman, Nott expected to be believed . . . though he had raised his innate prejudices to the level (of what he assumed to be) scientific truth” (87, 296).

Although he claimed to be a scientific realist, Nott's writings on race between 1843 and the outbreak of the Civil War in 1861 and again in 1866 were colored by arrogant racist prejudice. Nott gave two lectures in 1843–1844 that he called his “lectures on Niggerology” and subsequently published in 1844 as a pamphlet entitled *Two Lectures on the Natural History of the Caucasian and Negro Races* (Hammond 1981). In these he claimed there were several species of man that differed in the perfection of their moral and intellectual endowments. Nott claimed he was separating the actual history of mankind from the biblical account by showing that the Bible dealt with the creation and development of the Adamites, the Caucasians, and not with that of the pre-Adamites, the rest of mankind (Popkin [1974] 1983). Morton and Nott corresponded regularly after Morton read Nott's published lectures “with pleasure and instruction.” In 1847, Nott wrote to Morton exclaiming, “my niggerology, so far from harming me at home, has made me a greater man than I ever expected to be—I am the big gun of the profession here” (quoted in Erickson 1986, 110). In 1850, Nott's views on polygenics were read at the annual meetings of the American Association for the Advancement of Science (AAAS) in Charleston, South Carolina, again with the backing of Morton. Indeed, he came to be regarded as one of the main articulators of southern views on race in the period leading up to the Civil War and after.

Louis Agassiz (1807–1873) added international scientific credence and respectability to this group of pre-Adamites. Agassiz, son of a Protestant minister in French Switzerland, was a zoologist, paleontologist, and geologist and a disciple of Cuvier. He was most known for his work on fossil fish. Until his death, he was an anti-Darwinist. He believed in “the teleologically egocentric stance of traditional Christianity, which regarded human beings as the object and end of divine creation and assumed that the world and its contents had been put there specifically to be exploited for human use” (Brace 2005, 98). After he experienced some financial difficulties in Europe related to financing his own publications (not unusual at that time), Agassiz came to the United States in 1846. In fact, he came to the United States as a public scientific lecturer in order to rid himself of debt. Soon after arriving in America, Agassiz visited Morton in Philadelphia. Morton was to become an influence on him second only to Cuvier. At the hotel where he was staying, he was served by the first black African he had ever encountered. Having been brought up in Lily-white Switzerland and France, he was shocked by his first view of human variation. Shortly thereafter, Agassiz wrote a letter to his mother describing his re-

pulsion at seeing someone so different from himself and the people he was used to seeing in white, upper-class Europe. This emotional reaction was to influence his “scientific” views for the remainder of his life. At this point, he joined Morton and Nott in their views that different types of humans were separate species, not created from Adam, and that mixture between these “species” was leading to biological and intellectual inferiority (Popkin [1974] 1983; Gould 1996; Smedley 1999; Brace 2005).

Agassiz's first American lectures were delivered in Boston in 1846 and were very successful. In fact, as a result of these lectures, he was offered and accepted a professorship of zoology and geology and directorship of the Lawrence Scientific School at Harvard. He remained in the United States for the rest of his life. In 1859, the Harvard Museum of Comparative Zoology was built for Agassiz with the hope that he and this museum would serve as an antidote to the threat of Darwinism. In 1850, at the AAAS meetings in Charleston, Agassiz (who had just been elected as the association's president) heard Nott's paper declaring that people of African descent were innately inferior to Europeans. He rose after the reading of Nott's paper to declare his support of Nott's polygenic position. Soon after that, Nott wrote to Morton: “With Agassiz in the war, the battle is ours. . . . We shall not only have his name, but the timid will come out of their hiding places” (quoted in Brace 2005, 101). In the same year Agassiz wrote an essay (1850b) in the *Christian Examiner and Religious Miscellany* entitled “The Diversity of Origins of the Human Races.” Although he insisted that he was dealing with scientific matters and not politics, he wrote: “It seems to us to be mock-philanthropy and mock-philosophy to assume that all races have the same abilities, enjoy the same powers, and show the same natural dispositions, and that in consequence of this equality are entitled to the same position in human society. History speaks for itself” (quoted in Popkin [1974] 1983, 147).

Furthermore, Agassiz asserted that the Bible “never meant to say that all men originated from a single pair, Adam and Eve, nor that the animals had a similar origin from one common centre or from a single pair” (Agassiz 1850a, 185). In the Bible, “there is nowhere any mention of these physical differences characteristic of the colored races of men, such as the Mongolians and negroes. . . . Have we not, on the contrary, the distinct assertion that the Ethiopian cannot change his skin nor the leopard his spots?” (Agassiz 1850b, 135).

Agassiz's basic view was that all humans were created differently, with different talents. People of color had different but inferior talents to those

of whites, and these differences should be studied so the best could be gotten out of each race. Just as Hume and Kant had before him, he based his theory on the supposition that Africans had never created a civilization, never developed "regulated societies," had always been slaves and therefore should remain so. Furthermore, Agassiz believed that because of this, it was a waste of time and effort to give Africans the educational and cultural benefits of European civilization (Popkin [1974] 1983; Brace 2005). In fact, he argued along with the pre-Adamites "that God had created blacks and whites as separate species" (quoted in Gould 1977a, 243).

As Brace (2005, 102) stated: "These judgments were not reached by anything remotely like scientific procedure. They were simply the assertions of opinions, and that opinion was largely a reflection of the attitudes held by Agassiz's prominent slave-owning friends of the American South." In addition, these same opinions were being foisted on scientific and popular audiences by the American School of Anthropology, with Morton as the respected American scientist, Agassiz adding Harvard and European scientific distinction, and Nott becoming the principal spokesperson of this polygenics "school." It is interesting that similar unscientific arguments reassert themselves in a very similar manner in the neoracists of today, as we shall see later.

The high point of the American School of Anthropology was the publication of a textbook entitled *Types of Mankind* (Nott and Gliddon 1854). This volume carried the ideas of the Mortonites past the Civil War, past Darwin's *Origin*, and up into the twentieth century. The co-editor, George R. Gliddon (1809–1857), was an English businessman and entrepreneur who had been brought up in Egypt and had provided Morton with Egyptian skulls for his anthropometry collection. He also had befriended Morton and Nott and become a junior associate of the American School of Anthropology and a spokesperson who popularized this group's racist ideas. Sensing the time was right, Gliddon got Nott and others involved in producing a book expressing the ideas and position of the American School. Brace (2005) gives more detail on this interesting character. *Types of Mankind* was first published in 1854. It sold out immediately and went through ten printings by 1871. It was dedicated to Morton and contained a chapter by Agassiz.

The main purpose of the book was to show that the findings of science justified the institution of slavery (Brace 2005). Using Morton's data on fixity of skull size and shape and the "historical approach" of Nott and Agassiz, its theme was that the human races had different origins and in

fact were different species, that mixture between the races led to inferior people both biologically and intellectually, that the people of the white race were superior to other races and were the only truly civilized race, and that mixture of whites with other races was causing a deterioration of civilization and a danger to the future. Even with slavery, the book claimed, it was necessary to keep the races apart, and there was no reason to afford people of color an education or other accoutrements of civilization. Agassiz's essay in the book summarized the polygenic views of the group:

The differences existing between the races of men are of the same kind as the differences observed between different families, genera, and species of monkeys or other animals: and these different species of animals differ in the same degree one from the other as the races of men—nay, the differences between distinct races are often greater than those distinguishing species of animals one from the other. The chimpanzee and gorilla do not differ more one from the other than the Mandingo and the Guinea Negro: they together do not differ more from the orang than the Malay or white man differs from the Negro. (1854, lxxv)

As anthropologist Audrey Smedley (1999, 234) emphasized, *Types of Mankind* "was perhaps the single most important book to set the issue of race into a peculiarly scientific context for the general public. It was the culmination of a trend begun in the latter part of the eighteenth century and was encouraged by the tremendous growth in the reputation of science." For the next few generations, this text was used by students and laypersons as a major source of scientific data on different kinds of human beings. Smedley goes on: "It succeeded in backing with the awesome prestige of science what were actually folk views of the Negro in the nineteenth century, expanded into racial ideology."

Though because of religious tradition Cuvier was a monogenist, his views were congenial with polygenics, and his protégé Agassiz easily fell into the tradition of polygenism in America. Uninhibited by religious orthodoxy, the American School of Anthropology adopted a Cuvierian static, non-evolutionary, classificatory, comparative anatomy approach to human variation. As the anthropologist George W. Stocking (1968) pointed out, the polygenists assumed environment had no influence in the modification of living forms. They were teleological in their view of biological "types": they based their classifications on skeletal and especially cranial measurements, and they assumed a correlation between cranial and mental differences

and racial achievement. By the time Darwin's *Origin* appeared, polygenism was dominant among those who might now be called "physical anthropologists." This form of polygenism was popular in the United States and was epitomized by the American School of Anthropology of Morton, Nott, Glidden, and Agassiz (with influences from Cuvier).

While the Mortonites represented the science of polygenic racism in America, racist theories also were brewing in Europe. The most prominent European biological determinist who was motivated by ideas about race during the time of the American School of Anthropology was the Frenchman Joseph-Arthur, comte de Gobineau (1816-1882), author of a number of novels and nonfiction history books. His most influential work, *Essai sur l'Inégalité des Races Humaines*, was published in four volumes from 1853 to 1855 (Gould 1996) and thus was contemporary with *Types of Mankind*. It was immensely popular in Europe and America in the late nineteenth and well into the twentieth century and in fact outlived the Mortonites' text. With Josiah Nott's assistance, a selectively abridged version of the first two volumes of this book was translated into English in 1856 under the title of *The Moral and Intellectual Diversity of Races* (Biddiss 1970; Brace 2005). Nott (1856) wrote a long appendix to this translation. Ultimately, Gobineau's *Essai* played an important role in Hitler's racial philosophy and horrific politics. Gould (1996, 379) referred to Gobineau as the grandfather of modern academic racism and "the most influential academic racist of the nineteenth century."

Gobineau had a loose relationship to French aristocracy and although he had no proper right to it, he adopted the title of "comte" (Count). He served most of his life as an official in the French diplomatic service, but his aspirations and claim to nobility colored Gobineau's views of the world. He saw the overthrow of the aristocracy during the French Revolution in 1789 as a major symptom of an ongoing deterioration of civilization (Biddiss 1970; Poliakov 1971). In fact, during the eighteenth century, prior to the French Revolution, many writers had set out to explain why certain groups had a divine right to superior status, or nobility. One of these renditions was the "Nordic" myth that may have begun with the writings of an earlier French nobleman, Henri comte de Boulainvilliers (1658-1722) (Poliakov 1971; Smedley 1999). In this myth, the noble classes of Europe were thought to be originally German Franks and Anglo-Saxons, and the Germanic peoples were claimed as most superior. In this argument, the claim of superiority had shifted from being theologically based to being more dependent on biological qualities, although these qualities were seen to be

divinely endowed. These writers proposed an inherent biological superiority of those in power. As Smedley (1999, 254) states: "The racial theories of Henri de Boulainvilliers were essentially rooted in the class conflicts of the times, but they carried the invidious notion that each class had distinct and unalterable hereditary qualities derived from separate origins. The weaker classes were naturally inferior to the stronger and owed obedience to them."

Through these writings, there was a popular belief in France that three racial strains inhabited the country: Nordics, Alpines, and Mediterraneans. The light-skinned, tall, blond Nordics were assumed to be the descendants of ancient Germanic tribes, the originators of all civilization, and the only peoples capable of leadership. Gobineau's *Essai* expressed these popular myths vividly and inserted these views into the popular science of the day. His book fed a developing idea that not only were whites superior over all others but also that a certain group among whites was even more superior to other whites. He used the term *Aryan*, coined by a British colonial administrator, to designate the common ancestral language of what is now referred to as the Indo-European language. Around 1819, the term began to gain widespread authority due to the lectures and writings of Friedrich Schlegel, a German poet and scholar. The most influential promoter of the Aryan myth was Jacob Grimm, of Brothers Grimm's fairytales fame, in his *History of the English Language* (1848), which reached a large public audience in the second half of the nineteenth century (Poliakov 1971). Gobineau, however, attributed innate biological and behavioral qualities to Aryan speakers (Biddiss 1970; Brace 2005). He argued that there was a hierarchy of languages that corresponded with a hierarchy of races and that race was a driving force of history. The "Aryan" race was supreme and constituted an aristocratic caste. However, his views were mainly a synthesis of currently popular ideas (Weindling 1989). For example, anti-Semitism existed in Germany long before the Aryan myth, and this just gave the myth a stronger hold (Poliakov 1971). As the historian Léon Poliakov (1971, 233) pointed out, "Gobineau merely systematized in a very personal way ideas which were already deeply rooted in his time. His own contribution consisted mainly in his pessimistic conclusions, which sounded like the death knell of civilization."

To Gobineau, the Aryans were the most noble, intelligent, and vital branch of the white race. Thus, he essentially created a fictitious race of which he imagined himself a member (Hankins 1926). As Marks (1995, 66) stated: "His general theory of the rise and fall of civilization by

recourse to those different inborn propensities of human groups, his isolation of the single group responsible for *all* civilization, and his identification of cultural decadence and decline with biological admixture, was an original synthesis and made his theory attractive for its simplicity and apparent scholarship.”

In his *Essai*, Gobineau proclaimed that the success of civilization was directly dependent upon the purity of “Aryan” blood within it. Those designated Aryans were seen to be the founders of civilization; as more interbreeding occurred, the genius for civilization declined and dissipated. Gobineau believed that the white races, and especially the Aryans, could remain in command only if they could eliminate interbreeding with the morally and intellectually inferior yellow and black peoples (Gobineau 1856).

This notion of racial purity and the dangers of interbreeding became extremely popular in the U.S. South in 1856, being contemporary with the Dred Scott case and the brink of the Civil War. As we shall see, Gobineau had a major influence on the politics of the early twentieth century, both in Europe and America (Biddiss 1970; Gossett 1965; Brace 2005). In 1876, he met German musician Richard Wagner (1813–1883), who was impressed by his work, as was Friedrich Nietzsche (1812–1883) (Engs 2005). In fact, Wagner and Gobineau became close friends and Wagner used Gobineau’s theories of racial inequality, anti-Semitism, and Aryan superiority as scientific backing for his own racial theories of culture. Wagner “set the foundations, between 1848 and 1850, of the anti-semitic apocalypse. He evoked the image of the Jew as an agent of corruption, a ferment of decomposition” (Poljakov 1971, 198). In the late 1880s, Wagnerism represented a popular condemnation of liberalism and materialism. A Gobineau Society for aristocrats and other elites was established in 1894, and Gobineau was seen as an inspiration for the regeneration of the German aristocracy (Weindling 1989). Gobineau’s brand of racism could be seen as compatible with certain interpretations of the new theories of Darwin, and his writings influenced such writers as Houston Stewart Chamberlain, William Z. Ripley, and Ernst Haeckel (see below), who in turn had a direct influence on Madison Grant and U.S. immigration policies and on Hitler’s policies in Europe (Biddiss 1970; Marks 1995; Montagu 1997; Brace 2005).

In fact, these men were the core of the eugenics movement in European and American science. Although I have included Gobineau in this

section on polygenism, in reality, he rejected polygenics because he perceived that it conflicted with Catholicism. Although he did no original research, instead echoing Kant’s theories and thus producing ideas that were much more compatible with biblical theory, Gobineau claimed that once racial divergence had taken place, the different racial types were permanent and unchangeable (Brace 2005). As Poljakov (1971, 234) stated: “In a word, he was a monogenist in theory and a polygenist in practice.”

Thus, with Gobineau and again in the footsteps of Kant, subtle but major changes could take place in this school of racism, moving beyond biblical interpretations and more into “hereditary” ones. Biological determinists could claim biological separation among human races (and other groupings of humans, such as strains and even economic classes) using “blood” or heredity and not necessarily invoking biblical separation. They could use the same “biological” arguments to claim that racial and group distinctions were biologically fixed and unchangeable. Thus, racism could become more acceptable to biblical traditionalists, giving biological deterministic racism a more widespread following and making it compatible with the growth of Darwinism and genetic theory. You might think of Mormonism as the end of an old Bible- (or anti-Bible-) based polygenics and Gobinism (in a Kantian tradition) as a revision of a “blood” or hereditary-based racism that was potentially compatible with Darwinism. The different races of mankind need not have been created separately as explained, or not, by the Bible. They merely needed to be genetically distinct and thus different in their basic biology. In both cases, these biological distinctions were basically fixed, and admixture would lead to inferiority, weakness, and even increased mortality. Little or nothing could be changed by environmental influences.

Just before the turn of the twentieth century, many of Gobineau’s (and Kant’s) views were introduced to German readers by Houston Stewart Chamberlain (1855–1927) in his *Die Grundlagen des neunzehnten Jahrhunderts* (*Foundations of the Nineteenth Century*) (first written in German in 1899, translated into English in 1910). Chamberlain was the son-in-law of the German composer Richard Wagner (Montagu 1997; Smedley 1999). The anti-Semitic, racist Wagner had brought Gobineau’s views to the German public (Stein 1950). Chamberlain was English, born into a British military family. He had arrived in Germany in his youth, and after meeting Wagner, he increasingly adopted the German culture and language. He

became an ardent Wagnerian. Although he wrote a number of books, his most influential was the 1,200-page *Foundations*. In it, following Gobineau, Chamberlain extolled the superiority of the Germanic peoples, related the accomplishments of civilization in the nineteenth century to the Germans, and credited the rise and fall of nations to the amount of "Teutonic" blood in their population. He attacked Virchow's concept of racial equality and criticisms of the concept of Aryan and Jewish races (Weindling 1989). Chamberlain was highly influenced by Immanuel Kant and wrote two volumes on Kant's work (Chamberlain [1905] 1914). Like Kant, Chamberlain was a virulent anti-Semite, claiming that Jews had an inherent morally defective character. His anti-Semitism became a core of Nazi racial philosophy (Oakesmith 1919, Montag 1997). In the late 1800s and early 1900s, the Pan-German League, a movement of radical German nationalists, joined the Gobineau Society in using the popularity of Chamberlain and Gobineau to disseminate Aryan racial theories and popularize nationalist versions of racial anthropology. These organizations and "racial anthropologists" . . . rallied to crusade for racial purification. The linking of Aryan theories with the ultranationalist and anti-Semitic right was achieved in the decade prior to 1914" (Weindling 1989, 111-112; see Table 1.1).

A second influential volume, which appeared in 1899, was Haeckel's *The Riddle of the Universe: At the Close of the Nineteenth Century*, translated from German in 1900. Ernst Haeckel (1834-1919) was one of the most respected scientists of his time and an avid Darwinian, Lamarckian, and eugenicist (Shipman [1994] 2002; Spiro 2009). He believed that the living nonwhite races provided links documenting the evolution of humans from apes to the more advanced Europeans (Marks 2010b; 2012). Although not aware of Chamberlain, Haeckel also cited Gobineau in his claims about the superiority of the Aryan race, and like Chamberlain, he was fervently anti-Semitic. He was greatly concerned, as were many of his colleagues of the time, with the dilution of German blood by inferior types who were causing the degeneration of the Aryan race. He called for the halting of immigration of the "filthy" Jews and, claiming that since inferior races are "nearer to the mammals (apes and dogs) than to civilized Europeans, we must, therefore, assign a totally different value to their lives" (quoted in Spiro 2009, 124). As did Galton (see Chapter 2) and Chamberlain before him, Haeckel pointed out that in ancient Sparta the weak, sickly, or those affected with bodily infirmity were killed and only the perfectly healthy were allowed to live and propagate

Table 1.1. Monogenism vs. Polygenism from 1600 to 1900

Monogenism: (degenerate) environmental influence	Polygenism (pre-Adamite): biologically fixed
Locke, <i>An Essay Concerning Human Understanding</i> (1690)	1600s La Peyrère, <i>Præ-Adamitæ</i> (1655)
Linnæus, <i>Systema Naturæ</i> (1758) Buffon, <i>Histoire naturelle</i> (1785) Blumenbach, <i>On the Natural Variety of Mankind</i> (1795)	1700s Hume, <i>A Treatise of Human Nature</i> (1740) Kant, <i>On the Different Races of Man</i> (1775)
Lamarck, <i>Philosophie zoologique</i> (1809)	1800s Mortonites Morton, <i>Crania Americana</i> (1839) Nott and Gliddon, <i>Types of Mankind</i> (1854) Gobineau, <i>Essay on the Inequality of Human Races</i> (1853-1855)
Dugdale, <i>The Jukes</i> (1877)	Darwin, <i>The Origin of Species</i> (1859) Spence, <i>Principles of Biology</i> (1864) Galton, <i>Hereditary Genius</i> (1869) Chamberlain, <i>Foundations</i> (1899) Weismann vs. Lamarck (1889)
[End of monogenism, or environmental influence]	

their race (Haeckel 1892). Haeckel maintained a huge following among the German public and was seen as a messiah of national and racial regeneration. His book, *The Riddle of the Universe*, sold over 100,000 copies in its first year, was translated into twenty-five languages, and sold 500,000 copies during its revival at the time of World War II (Shipman [1994] 2002).

A third book published in 1899 was William Z. Ripley's *The Races of Europe*, in which the views of Gobineau essentially were translated into English for the U.S. audience. Ripley (1867-1941) taught sociology and anthropology both at the Massachusetts Institute of Technology and (with Franz Boas; see Chapters 5 and 6) at Columbia University. In his book, Ripley divided Europeans into three racial groups, Teutonic, Alpine, and Mediterranean, with each of these having distinct behavioral differences and biological capabilities. Thus, Ripley "introduced Americans to what was

generally perceived to be the latest and most sophisticated European thinking on the concept of 'race'” (Brace 2005, 169). Gobineau, through both Chamberlain and Ripley, soon would have a profound influence on Madison Grant (see Chapter 3), and all of these authors would in turn greatly influence Hitler and the Third Reich.

The Birth of Eugenics

Up until 1900, Lamarck's theory had been one of the main scientific rebuttals to strict biological determinism. Environment was still seen as a factor that could have an important influence on certain morphological and behavioral traits. This was about to change in most of Western Europe and in the United States.

The abandonment of the belief in acquired characters was the stimulus for the eugenics movement. . . . By showing that environment could not change behavior based on race or biology, [Darwinism and] the new genetics had given racism a scientific basis it had lacked so long as acquired characters were an accepted principle. (Degler 1991, 24)

Many eugenicists believe that Degler's claim that the abandonment of Lamarckism was a major factor in the development of eugenics is an overemphasis and misleading. For example, in countries such as France and some Latin American countries such as Brazil the eugenics movement was tempered by “neo-Lamarckism.” Consequently, in France before 1930, eugenics was often coupled with programs for public health reforms and attention to improving environmental conditions (Paul 1995; Weis 2010; Science Encyclopedia 2013; Garland Allen, personal communication, 2013). However, the debunking of Lamarck was certainly one of the influential factors in the more radical eugenics movements in Western Europe and the United States, and the countries that were more prone to accepting Weismann and Mendel adopted the harshest eugenics policies (Paul 1995).