## Racism and Recapitulation

The adult who retains the more numerous fetal, [or] infantile ... traits is unquestionably inferior to him whose development has progressed beyond them. Measured by these criteria, the European or white race stands at the head of the list, the African or negro at its foot.

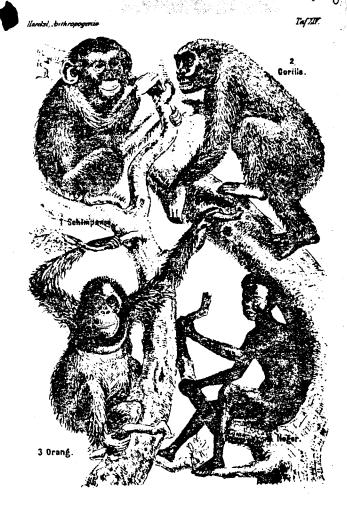
D.G. Brinton, 1890

On the basis of my theory, I am obviously a believer in the inequality of races. . . . In his fetal development the negro passes through a stage that has already become the final stage for the white man. If retardation continues in the negro, what is still a transitional stage may for this race also become a final one. It is possible for all other races to reach the zenith of development now occupied by the white race.

L. Bolk, 1926

CAUSE ARE inferior, Brinton tells us, because they retain juvenile traits. Blacks are inferior, claims Bolk, because they develop beyond the juvenile traits that whites retain. I doubt that anyone could construct two more contradictory arguments to support the same opinion.

The arguments arise from different readings of a fairly technical subject in evolutionary theory: the relationship between ontogeny (the growth of individuals) and phylogeny (the evolutionary history of lineages). My aim here is not to explicate this subject but rather to make a point about pseu-



The 1874 edition of Ernst Haeckel's Anthropogenie contains this racist illustration of evolution. (Courtesy of the American Museum of Natural History)

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doscientific racism. We like to think that scientific progress drives out superstition and prejudice. Brinton linked his racism to the theory of recapitulation, the belief that individuals, in their own embryonic and juvenile growth, repeat the adult stages of their ancestors—that each individual, in its own development, climbs up its family tree. (To supporters of recapitulation, the embryonic gill slits of human fetuses represent the adult fish from which we descended. And, in the racist reading, white children will pass through and beyond the intellectual stages that characterize adults of "lower" races.) During the late nineteenth century, recapitulation provided one of the two or three leading "scientific" arguments in the racist arsenal.

By the end of the 1920s, however, the theory of recapitulation had utterly collapsed. In fact, as I argue in essay 7, anthropologists began to interpret human evolution in precisely the opposite manner. Bolk led the movement, arguing that humans evolved by retaining the juvenile stages of our ancestors and losing previously adult structures-a process called neoteny. With this reversal, we might have expected a rout of white racism: at least, a quiet putting aside of previous claims; at best, an honest admission that the old evidence, interpreted under the new theory of neoteny, affirmed the superiority of blacks (since the retention of juvenile features now becomes a progressive trait). No such thing happened. The old evidence was quietly forgotten, and Bolk sought new data to contradict the old information and support once again the inferiority of blacks. With neoteny, "higher" races must retain more juvenile traits as adults; so Bolk discarded all the embarrassing "facts" once used by recapitulationists and enlisted the few juvenile features of adult whites in his support.

Clearly, science did not influence racial attitudes in this case. Quite the reverse: an a priori belief in black inferiority determined the biased selection of "evidence." From a rich body of data that could support almost any racial assertion, scientists selected facts that would yield their favored conclusion according to theories currently in vogue. There is, I believe, a general message in this sad tale. There is not now

and there never has been any unambiguous evidence for genetic determination of traits that tempt us to make racist distinctions (differences between races in average values for brain size, intelligence, moral discernment, and so on). Yet this lack of evidence has not forestalled the expression of scientific opinion. We must therefore conclude that this expression is a political rather than a scientific act—and that scientists tend to behave in a conservative way by providing "objectivity" for what society at large wants to hear.

To return to my story: Ernst Haeckel, Darwin's greatest popularizer, saw great promise for evolutionary theory as a social weapon. He wrote:

Evolution and progress stand on the one side, marshaled under the bright banner of science; on the other side, marshaled under the black flag of hierarchy, stand spiritual servitude and falsehood, want of reason and barbarism, superstition and retrogression. . . . Evolution is the heavy artillery in the struggle for truth; whole ranks of dualistic sophisms fall before [it] . . . as before the chain shot of artillery.

Recapitulation was Haeckel's favorite argument (he named it the "biogenetic law" and coined the phrase "ontogeny recapitulates phylogeny"). He used it to attack nobility's claim to special status—are we not all fish as embryos?—and to ridicule the soul's immortality—for where could the soul be in our embryonic, wormlike condition?

Haeckel and his colleagues also invoked recapitulation to affirm the racial superiority of northern European whites. They scoured the evidence of human anatomy and behavior, using everything they could find from brains to belly buttons. Herbert Spencer wrote that "the intellectual traits of the uncivilized... are traits recurring in the children of the civilized." Carl Vogt said it more strongly in 1864: "The grown up Negro partakes, as regards his intellectual faculties, of the nature of the child.... Some tribes have founded states, possessing a peculiar organization, but, as to the rest, we may boldly assert that the whole race has, neither in the past nor in the present, performed anything tending to the

progress of humanity or worthy of preservation." And the French medical anatomist Etienne Serres really did argue that black males are primitive because the distance between their navel and penis remains small (relative to body height) throughout life, while white children begin with a small separation but increase it during growth—the rising belly button as a mark of progress.

The general argument found many social uses. Edward Drinker Cope, best known for his "fossil feud" with Othniel Charles Marsh, compared the cave art of Stone Age man with that of white children and "primitive" adults living today: "We find that the efforts of the earliest races of which we have any knowledge were similar to those which the untaught hand of infancy traces on its slate or the savage depicts on the rocky faces of hills." A whole school of "criminal anthropology" (see next essay) branded white wrongdoers as genetically retarded and compared them again with children and adult Africans or Indians: "Some of them [white criminals]," wrote one zealous supporter, "would have been the ornament and moral aristocracy of a tribe of Red Indians." Havelock Ellis noted that white criminals, white children, and South American Indians generally do not blush.

Recapitulation had its greatest political impact as an argument to justify imperialism. Kipling, in his poem on the "white man's burden," referred to vanquished natives as "half devil and half child." If the conquest of distant lands upset some Christian beliefs, science could always relieve a bothered conscience by pointing out that primitive people, like white children, were incapable of self-government in a modern world. During the Spanish-American War, a major debate arose in the United States over whether we had a right to annex the Philippines. When antiimperialists cited Henry Clay's contention that the Lord would not have created a race incapable of self-government, Rev. Josiah Strong replied: "Clay's conception was formed before modern science had shown that races develop in the course of centuries as individuals do in years, and that an underdeveloped race, which is incapable of self-government, is no more of a reflection on the Almighty than is an undeveloped child who is

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incapable of self-government." Others took the "liberal" viewpoint and cast their racism in the paternalist mode: "Without primitive peoples, the world at large would be much what in small it is without the blessing of children. ... We ought to be as fair to the 'naughty race' abroad as we are to the 'naughty boy' at home."

But the theory of recapitulation contained a fatal flaw. If the adult traits of ancestors become juvenile features of descendants, then their development must be speeded up to make room for the addition of new adult characters onto the end of a descendant's ontogeny. With the rediscovery of Mendelian genetics in 1900, this "law of acceleration" collapsed, carrying with it the whole theory of recapitulationfor if genes make enzymes and enzymes control the rates of processes, then evolution may act either by speeding up or slowing down the rate of development. Recapitulation requires a universal speeding up, but genetics proclaims that slowing down is just as likely. When scientists began to look for evidences of slowing down, our own species took the limelight. As I argue in essay 7, humans have, in many respects, evolved by retaining juvenile features common to primates and even to mammals in general-for example, our bulbous cranium and relatively large brain, the ventral position of our foramen magnum (permitting upright posture), small jaws, and relative hairlessness.

For a half century the proponents of recapitulation had collected racial "evidence"; all of it argued that adults of "lower" races were like white children. When the theory of recapitulation collapsed, supporters of human neoteny still had these data. An objective reinterpretation should have led to an admission that "lower" races are superior; for as Havelock Ellis (an early supporter of neoteny) wrote: "The progress of our race has been a progress in youthfulness." Indeed, the new criterion was accepted—the more childlike race would henceforward wear the mantle of superiority. But the old evidence was simply discarded, and Bolk scurried about for some opposing information to prove that adult whites are like black children. He found it, of course (you always can if you want to badly enough): adult blacks have

long skulls, dark skins, strongly prognathous jaws, and an "ancestral dentition"; while adult whites and black babies have short skulls, light (or at least lighter) skins, and small, nonjutting jaws (we'll pass on the teeth). "The white race appears to be the most progressive, as being the most retarded," said Bolk. Havelock Ellis had said much the same in 1894: "The child of many African races is scarcely if at all less intelligent than the European child, but while the African as he grows up becomes stupid and obtuse, and his whole social life falls into a state of hidebound routine, the European retains much of his childlike vivacity."

Lest we dismiss these statements as lapses of a bygone age, I note that the neotenic argument was invoked in 1971 by a leading genetic determinist in the IQ debate. H. Eysenck claims that African and black American babies display faster sensorimotor development than whites. He also argues that rapid sensorimotor development in the first year of life correlates with lower IQ later. This is a classic example of a potenfially meaningless, noncausal correlation: suppose that differences in IQ are completely determined by environment; then, rapid motor development does not cause low IQ-it is merely another measure of racial identification (and a poorer one than skin color). Nonetheless, Eysenck invokes neoteny to support his genetic interpretation: "These findings are important because of a very general view in biology according to which the more prolonged the infancy the greater in general are the cognitive or intellectual abilities of the species."

But there is a hooker in the neotenic argument, one that white racists have generally chosen to ignore. It can scarcely be denied that the most juvenilized of human races are not white, but mongoloid (something the American military never understood when it claimed that the Vietcong were manning their armies with "teen-agers"—many of whom turned out to be in their thirties or forties). Bolk darted around it; Havelock Ellis met it squarely and admitted defeat (if not inferiority).

If the racist recapitulationists lost their theory, perhaps the racist neotenists will lose on facts (even though history sug-

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gests that facts are simply selected to fit prior theories). For there is another embarrassing point in the data of neotenynamely, the status of women. All was well under recapitulation. Women are more childlike in their anatomy than men -a sure sign of inferiority, as Cope argued so vociferously in the 1880s. Yet, in the neotenic hypothesis, women should be superior by the same evidence. Again, Bolk chose to ignore the issue. And again, Havelock Ellis met it honestly to admit the position that Ashley Montagu later championed in his treatise on "the natural superiority of women." Ellis wrote in 1894: "She bears the special characteristics of humanity in a higher degree than man. . . . This is true of physical characters: the largeheaded, delicate-faced, smallboned man of urban civilization is much nearer to the typical woman than is the savage. Not only by his large brain, but by his large pelvis, the modern man is following a path first marked out by woman." Ellis even suggested that we might seek our salvation in the closing lines of Faust:

Eternal womanhood Lead us on high.