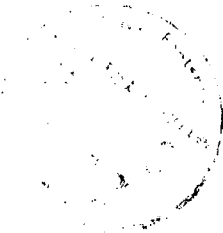


**Four statements  
on the  
race question**

Unesco



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# I Statement on race

Paris, July 1950

1. Scientists have reached general agreement in recognizing that mankind is one: that all men belong to the same species, *homo sapiens*. It is further generally agreed among scientists that all men are probably derived from the same common stock; and that such differences as exist between different groups of mankind are due to the operation of evolutionary factors of differentiation such as isolation, the drift and random fixation of the material particles which control heredity (the genes), changes in the structure of these particles, hybridization, and natural selection. In these ways groups have arisen of varying stability and degree of differentiation which have been classified in different ways for different purposes.

2. From the biological standpoint, the species *homo sapiens* is made up of a number of populations, each one of which differs from the others in the frequency of one or more genes. Such genes, responsible for the hereditary differences between men, are always few when compared to the whole genetic constitution of man and to the vast number of genes common to all human beings regardless of the population to which they belong. This means that the likenesses among men are far greater than their differences.

3. A race, from the biological standpoint, may therefore be defined as one of the group of populations constituting the species *homo sapiens*. These populations are capable of interbreeding with one another but, by virtue of the isolating barriers which in the past kept them more or less separated, exhibit certain physical differences as a result of their somewhat different biological histories. These represent variations, as it were, on a common theme.

4. In short, the term 'race' designates a group or popu-

lation characterized by some concentrations, relative as to frequency and distribution, of hereditary particles (genes) or physical characters, which appear, fluctuate, and often disappear in the course of time by reason of geographic and/or cultural isolation. The varying manifestations of these traits in different populations are perceived in different ways by each group. What is perceived is largely preconceived, so that each group arbitrarily tends to misinterpret the variability which occurs as a fundamental difference which separates that group from all others.

5. These are the scientific facts. Unfortunately, however, when most people use the term 'race' they do not do so in the sense above defined. To most people, a race is any group of people whom they choose to describe as a race. Thus, many national, religious, geographic, linguistic or cultural groups have, in such loose usage, been called 'race', when obviously Americans are not a race, nor are Englishmen, nor Frenchmen, nor any other national group. Catholics, Protestants, Moslems, and Jews are not races, nor are groups who speak English or any other language thereby definable as a race; people who live in Iceland or England or India are not races; nor are people who are culturally Turkish or Chinese or the like thereby describable as races.

6. National, religious, geographic, linguistic and cultural groups do not necessarily coincide with racial groups: and the cultural traits of such groups have no demonstrated genetic connexion with racial traits. Because serious errors of this kind are habitually committed when the term 'race' is used in popular parlance, it would be better when speaking of human races to drop the term 'race' altogether and speak of ethnic groups.

7. Now what has the scientist to say about the groups of mankind which may be recognized at the present time? Human races can be and have been differently classified by different anthropologists, but at the present time most anthropologists agree on classifying the greater part of the present-day mankind into three major divisions as follows: (a) the Mongoloid division; (b) the Negroid division; and (c) the Caucasoid division. The biological processes which the classifier has here embalmed, as it were, are dynamic, not static. These divisions were not

the same in the past as they are at present, and there is every reason to believe that they will change in the future.

8. Many sub-groups or ethnic groups within these divisions have been described. There is no general agreement upon their number, and in any event most ethnic groups have not yet been either studied or described by the physical anthropologists.

9. Whatever classification the anthropologist makes of man, he never includes mental characteristics as part of those classifications. It is now generally recognized that intelligence tests do not in themselves enable us to differentiate safely between what is due to innate capacity and what is the result of environmental influences, training and education. Wherever it has been possible to make allowances for differences in environmental opportunities, the tests have shown essential similarity in mental characters among all human groups. In short, given similar degrees of cultural opportunity to realize their potentialities, the average achievement of the members of each ethnic group is about the same. The scientific investigations of recent years fully support the dictum of Confucius (551-478 B.C.): 'Men's natures are alike; it is their habits that carry them far apart.'

10. The scientific material available to us at present does not justify the conclusion that inherited genetic differences are a major factor in producing the differences between the cultures and cultural achievements of different peoples or groups. It does indicate, however, that the history of the cultural experience which each group has undergone is the major factor in explaining such differences. The one trait which above all others has been at a premium in the evolution of men's mental characters has been educability, plasticity. This is a trait which all human beings possess. It is indeed, a species character of *homo sapiens*.

11. So far as temperament is concerned, there is no definite evidence that there exist inborn differences between human groups. There is evidence that whatever group differences of the kind there might be are greatly overridden by the individual differences, and by the differences springing from environmental factors.

12. As for personality and character, these may be considered raceless. In every human group a rich variety of personality

and character types will be found, and there is no reason for believing that any human group is richer than any other in these respects.

13. With respect to race mixture, the evidence points unequivocally to the fact that this has been going on from the earliest times. Indeed, one of the chief processes of race formation and race extinction or absorption is by means of hybridization between races or ethnic groups. Furthermore, no convincing evidence has been adduced that race mixture of itself produces biologically bad effects. Statements that human hybrids frequently show undesirable traits, both physically and mentally, physical disharmonies and mental degeneracies, are not supported by the facts. There is, therefore, no biological justification for prohibiting intermarriage between persons of different ethnic groups.

14. The biological fact of race and the myth of 'race' should be distinguished. For all practical social purposes 'race' is not so much a biological phenomenon as a social myth. The myth of 'race' has created an enormous amount of human and social damage. In recent years it has taken a heavy toll in human lives and caused untold suffering. It still prevents the normal development of millions of human beings and deprives civilization of the effective co-operation of productive minds. The biological differences between ethnic groups should be disregarded from the standpoint of social acceptance and social action. The unity of mankind from both the biological and social viewpoints is the main thing. To recognize this and to act accordingly is the first requirement of modern man. It is but to recognize what a great biologist wrote in 1875: 'As man advances in civilization, and small tribes are united into larger communities, the simplest reason would tell each individual that he ought to extend his social instincts and sympathies to all the members of the same nation, though personally unknown to him. This point being once reached, there is only an artificial barrier to prevent his sympathies extending to the men of all nations and races.' These are the words of Charles Darwin in *The Descent of Man* (2nd ed., 1875, p. 187-8). And, indeed, the whole of human history shows that a co-operative spirit is not only natural to men, but more deeply rooted than any self-seeking tendencies. If this were not so we should

not see the growth of integration and organization of his communities which the centuries and the millenniums plainly exhibit.

15. We now have to consider the bearing of these statements on the problem of human equality. It must be asserted with the utmost emphasis that equality as an ethical principle in no way depends upon the assertion that human beings are in fact equal in endowment. Obviously individuals in all ethnic groups vary greatly among themselves in endowment. Nevertheless, the characteristics in which human groups differ from one another are often exaggerated and used as a basis for questioning the validity of equality in the ethical sense. For this purpose we have thought it worth while to set out in a formal manner what is at present scientifically established concerning individual and group differences.

- (a) In matters of race, the only characteristics which anthropologists can effectively use as a basis for classifications are physical and physiological.
- (b) According to present knowledge there is no proof that the groups of mankind differ in their innate mental characteristics, whether in respect of intelligence or temperament. The scientific evidence indicates that the range of mental capacities in all ethnic groups is much the same.
- (c) Historical and sociological studies support the view that genetic differences are not of importance in determining the social and cultural differences between different groups of *homo sapiens*, and that the social and cultural changes in different groups have, in the main, been independent of changes in inborn constitution. Vast social changes have occurred which were not in any way connected with changes in racial type.
- (d) There is no evidence that race mixture as such produces bad results from the biological point of view. The social results of race mixture whether for good or ill are to be traced to social factors.
- (e) All normal human beings are capable of learning to share in a common life, to understand the nature of mutual service and reciprocity, and to respect social obligations and contracts. Such biological differences as exist between members of different ethnic groups have no relevance to

problems of social and political organization, moral life and communication between human beings.

Lastly, biological studies lend support to the ethic of universal brotherhood; for man is born with drives toward co-operation, and unless these drives are satisfied, men and nations alike fall ill. Man is born a social being who can reach his fullest development only through interaction with his fellows. The denial at any point of this social bond between men and man brings with it disintegration. In this sense, every man is his brother's keeper. For every man is a piece of the continent, a part of the main, because he is involved in mankind.

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DUSK OF DAWN  
An Essay Toward  
an Autobiography of  
a Race Concept

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W. E. B. Du Bois

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# Contents

SERIES INTRODUCTION: THE BLACK LETTERS ON THE SIGN	xi
INTRODUCTION	xxv
APOLOGY	xxxiii
I. THE PLOT	1
II. A NEW ENGLAND BOY AND RECONSTRUCTION	4
III. EDUCATION IN THE LAST DECADES OF THE NINETEENTH CENTURY	13
IV. SCIENCE AND EMPIRE	26
V. THE CONCEPT OF RACE	49
VI. THE WHITE WORLD	68
VII. THE COLORED WORLD WITHIN	88
VIII. PROPAGANDA AND WORLD WAR	111
IX. REVOLUTION	134
INDEX	163
WILLIAM EDWARD BURGHARDT DU BOIS: A CHRONOLOGY	171
SELECTED BIBLIOGRAPHY	179

## CHAPTER V

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# The Concept of Race

I want now to turn aside from the personal annals of this biography to consider the conception which is after all my main subject. The concept of race lacks something in personal interest, but personal interest in my case has always depended primarily upon this race concept and I wish to examine this now. The history of the development of the race concept in the world and particularly in America, was naturally reflected in the education offered me. In the elementary school it came only in the matter of geography when the races of the world were pictured: Indians, Negroes and Chinese, by their most uncivilized and bizarre representatives; the whites by some kindly and distinguished-looking philanthropist. In the elementary and high school, the matter was touched only incidentally, due I doubt not to the thoughtfulness of the teachers; and again my racial inferiority could not be dwelt upon because the single representative of the Negro race in the school did not happen to be in any way inferior to his fellows. In fact it was not difficult for me to excel them in many ways and to regard this as quite natural.

At Fisk, the problem of race was faced openly and essential racial equality asserted and natural inferiority strenuously denied. In some cases the teachers expressed this theory; in most cases the student opinion naturally forced it. At Harvard, on the other hand, I began to face scientific race dogma: first of all, evolution and the "Survival of the Fittest." It was continually stressed in the community and in classes that there was a vast difference in the development of the whites and the "lower" races; that this could be seen in the physical development of the Negro. I remember once in a museum, coming face to face with a demonstration: a series of skeletons arranged from a little monkey to a tall well-developed white man, with a Negro barely outranking a chimpanzee. Eventually in my classes stress was quietly transferred to brain weight and brain capacity, and at last to the "cephalic index."

In the graduate school at Harvard and again in Germany, the emphasis again was altered, and race became a matter of culture and cultural history. The history of the world was paraded before the observation of students. Which was the superior race? Manifestly that which had a history, the white race; there was some mention of Asiatic culture, but no course in Chinese or Indian history or culture was offered at Harvard, and quite unanimously in America and Germany,

Africa was left without culture and without history. Even when the matter of mixed races was touched upon their evident and conscious inferiority was mentioned. I can never forget that morning in the class of the great Heinrich von Treitschke in Berlin. He was a big aggressive man, with an impediment in his speech which forced him to talk rapidly lest he stutter. His classes were the only ones always on time, and an angry scraping of feet greeted a late comer. Clothed in black, big, bushy-haired, peering sharply at the class, his words rushed out in a flood: "Mulattoes," he thundered, "are inferior." I almost felt his eyes boring into me, although probably he had not noticed me. "Sie fühlen sich niedriger!" "Their actions show it," he asserted. What contradiction could there be to that authoritative dictum?

The first thing which brought me to my senses in all this racial discussion was the continuous change in the proofs and arguments advanced. I could accept evolution and the survival of the fittest, provided the interval between advanced and backward races was not made too impossible. I balked at the usual "thousand years." But no sooner had I settled into scientific security here, than the basis of race distinction was changed without explanation, without apology. I was skeptical about brain weight; surely much depended upon what brains were weighed. I was not sure about physical measurements and social inquiries. For instance, an insurance actuary published in 1890 incontrovertible statistics showing how quickly and certainly the Negro race was dying out in the United States through sheer physical inferiority. I lived to see every assumption of Hoffman's "Race Traits and Tendencies" contradicted; but even before that, I doubted the statistical method which he had used. When the matter of race became a question of comparative culture, I was in revolt. I began to see that the cultural equipment attributed to any people depended largely on who estimated it; and conviction came later in a rush as I realized what in my education had been suppressed concerning Asiatic and African culture.

It was not until I was long out of school and indeed after the World War that there came the hurried use of the new technique of psychological tests, which were quickly adjusted so as to put black folk absolutely beyond the possibility of civilization. By this time I was unimpressed. I had too often seen science made the slave of caste and race hate. And it was interesting to see Odum, McDougall and Brigham eventually turn somersaults from absolute scientific proof of Negro inferiority to repudiation of the limited and questionable application of any test which pretended to measure innate human intelligence.

So far I have spoken of "race" and race problems quite as a matter of course without explanation or definition. That was our method in the nineteenth century. Just as I was born a member of a colored family, so too I was born a member of the colored race. That was obvious and no definition was needed. Later I adopted the designation "Negro" for the race to which I belong. It seemed more definite and logical. At the same time I was of course aware that all members of the Negro race were not black and that the pictures of my race which were current were not authentic nor fair portraits. But all that was incidental. The world was divided into great primary groups of folk who belonged naturally together through heredity of physical traits and cultural affinity.

I do not know how I came first to form my theories of race. The process was probably largely unconscious. The differences of personal appearance between me and my fellows, I must have been conscious of when quite young. Whatever distinctions came because of that did not irritate me; they rather exalted me because, on the whole, while I was still a youth, they gave me exceptional position and a chance to excel rather than handicapping me.

Then of course, when I went South to Fisk, I became a member of a closed racial group with rites and loyalties, with a history and a corporate future, with an art and philosophy. I received these eagerly and expanded them so that when I came to Harvard the theory of race separation was quite in my blood. I did not seek contact with my white fellow students. On the whole I rather avoided them. I took it for granted that we were training ourselves for different careers in worlds largely different. There was not the slightest idea of the permanent subordination and inequality of my world. Nor again was there any idea of racial amalgamation. I resented the assumption that we desired it. I frankly refused the possibility while in Germany and even in America gave up courtship with one "colored" girl because she looked quite white, and I should resent the inference on the street that I had married outside my race.

All this theory, however, was disturbed by certain facts in America, and by my European experience. Despite everything, race lines were not fixed and fast. Within the Negro group especially there were people of all colors. Then too, there were plenty of my colored friends who resented my ultra "race" loyalty and ridiculed it. They pointed out that I was not a "Negro," but a mulatto; that I was not a Southerner but a Northerner, and my object was to be an American and not a Negro; that race distinctions must go. I agreed with this in part and as an ideal, but I saw it leading to inner racial distinction in the colored group. I resented the defensive mechanism of avoiding too dark companions in order to escape notice and discrimination in public. As a sheer matter of taste I wanted the color of my group to be visible. I hotly championed the inclusion of two black school mates whose names were not usually on the invitation list to our social affairs. In Europe my friendships and close contact with white folk made my own ideas waver. The eternal walls between races did not seem so stern and exclusive. I began to emphasize the cultural aspects of race.

It is probably quite natural for persons of low degree, who have reached any status, to search feverishly for distinguished ancestry, as a sort of proof of their inherent desert. This is particularly true in America and has given rise to a number of organizations whose membership depends upon ancestors who have made their mark in the world. Of course, it is clear that there must be here much fable, invention and wishful thinking, facilitated by poor vital statistics and absence of written records. For the mass of Americans, and many Americans who have had the most distinguished careers, have been descended from people who were quite ordinary and even less; America indeed has meant the breaking down of class bars which imprisoned personalities and capabilities and allowing new men and new families to emerge. This is not, as some people assume, a denial of the importance of heredity and family. It is rather its confirmation. It shows us that the few in the past who have emerged are not necessarily the best;

and quite certainly are not the only ones worthy of development and distinction; that, on the contrary, only a comparatively few have, under our present economic and social organization, had a chance to show their capabilities.

I early began to take a direct interest in my own family as a group and became curious as to that physical descent which so long I had taken for granted quite unquestioningly. But I did not at first think of any but my Negro ancestors. I knew little and cared less of the white forebears of my father. But this chauvinism gradually changed. There is, of course, nothing more fascinating than the question of the various types of mankind and their intermixture. The whole question of heredity and human gift depends upon such knowledge; but ever since the African slave trade and before the rise of modern biology and sociology, we have been afraid in America that scientific study in this direction might lead to conclusions with which we were loath to agree; and this fear was in reality because the economic foundation of the modern world was based on the recognition and preservation of so-called racial distinctions. In accordance with this, not only Negro slavery could be justified, but the Asiatic coolie profitably used and the labor classes in white countries kept in their places by low wage.

It is not singular then that here in America and in the West Indies, where we have had the most astonishing modern mixture of human types, scientific study of the results and circumstances of this mixture has not only lagged but been almost non-existent. We have not only not studied race and race mixture in America, but we have tried almost by legal process to stop such study. It is for this reason that it has occurred to me just here to illustrate the way in which Africa and Europe have been united in my family. There is nothing unusual about this interracial history. It has been duplicated thousands of times; but on the one hand, the white folk have bitterly resented even a hint of the facts of this intermingling; while black folk have recoiled in natural hesitation and affected disdain in admitting what they know.

I am, therefore, relating the history of my family and centering it around my maternal great-great-grandfather, Tom Burghardt, and my paternal grandfather, Alexander Du Bois.

Absolute legal proof of facts like those here set down is naturally unobtainable. Records of birth are often nonexistent, proof of paternity is exceedingly difficult and actual written record rare. In the case of my family I have relied on oral tradition in my mother's family and direct word and written statement from my paternal grandfather; and upon certain general records which I have been able to obtain. I have no doubt of the substantial accuracy of the story that I am to tell.

Of my own immediate ancestors I knew personally only four: my mother and her parents and my paternal grandfather. One other I knew at second hand—my father. I had his picture. I knew what my mother told me about him and what others who had known him, said. So that in all, five of my immediate forebears were known to me. Three others, my paternal great-grandfather and my maternal great-grandfather and great-great-grandfather, I knew about through persons who knew them and through records; and also I knew many of my collateral relatives and numbers of their descendants. My known ancestral family, therefore, consisted of eight or more persons. None of these had reached

any particular distinction or were known very far beyond their own families and localities. They were divided into whites, blacks and mulattoes, most of them being mulattoes.

My paternal great-grandfather, Dr. James Du Bois, was white and descended from Chrétien Du Bois who was a French Huguenot farmer and perhaps artisan and resided at Wicres near Lille in French Flanders. It is doubtful if he had any ancestors among the nobility, although his white American descendants love to think so. He had two, possibly three, sons of whom Louis and Jacques came to America to escape religious persecution. Jacques went from France first to Leiden in the Netherlands, where he was married and had several children, including a second Jacques or James. In 1674 that family came to America and settled at Kingston, New York. James Du Bois appears in the Du Bois family genealogy as a descendant of Jacques in the fifth generation, although the exact line of descent is not clear; but my grandfather's written testimony establishes that James was a physician and a landholder along the Hudson and in the West Indies. He was born in 1750, or later. He may have been a loyalist refugee. One such refugee, Isaac Du Bois, was given a grant of five hundred acres in Eleuthera after the Revolutionary War.

The career of Dr. James Du Bois was chiefly as a plantation proprietor and slave owner in the Bahama Islands with his headquarters at Long Cay. Cousins of his named Gilbert also had plantations near. He never married, but had one of his slaves as his common-law wife, a small brown-skinned woman born on the island. Of this couple two sons were born, Alexander and John. Alexander, my grandfather, was born in 1803, and about 1810, possibly because of the death of the mother, the father brought both these boys to America and planned to give them the education of gentlemen. They were white enough in appearance to give no inkling of their African descent. They were entered in the private Episcopal school at Cheshire, Connecticut, which still exists there and has trained many famous men. Dr. James Du Bois used often to visit his sons there, but about 1812, on his return from a visit, he had a stroke of apoplexy and died. He left no will and his estate descended to a cousin.

The boys were removed from school and bound out as apprentices, my grandfather to a shoemaker. Their connection with the white Du Bois family ceased suddenly, and was never renewed. Alexander Du Bois thus started with a good common school and perhaps some high school training and with the instincts of a gentleman of his day. Naturally he passed through much inner turmoil. He became a rebel, bitter at his lot in life, resentful at being classed as a Negro and yet implacable in his attitude toward whites. Of his brother, John, I have only a picture. He may have been the John Du Bois who helped Bishop Payne to purchase Wilberforce University.

If Alexander Du Bois, following the footsteps of Alexander Hamilton, had come from the West Indies to the United States, stayed with the white group and married and begotten children among them, anyone in after years who had suggested his Negro descent would have been unable to prove it and quite possibly would have been laughed to scorn, or sued for libel. Indeed the legal advisers of the publishers of my last book could write: "We may assume as a

general proposition that it is libelous to state erroneously that a white man or woman has colored blood." Lately in Congress the true story, in a WPA history, of miscegenation affecting a high historic personage raised a howl of protest.

Alexander Du Bois did differently from Hamilton. He married into the colored group and his oldest son allied himself with a Negro clan but four generations removed from Africa. He himself first married Sarah Marsh Lewis in 1823 and then apparently set out to make his way in Haiti. There my father was born in 1825, and his elder sister, Augusta, a year earlier, either there or just as the family was leaving the United States. Evidently the situation in Haiti did not please my grandfather or perhaps the death of his young wife when she was scarcely thirty turned him back to America. Within a year he married Emily Basset who seems to have been the widow of a man named Jacklyn and lived in New Milford. Leonard Bacon, a well-known Congregational clergyman, performed his second marriage.

The following year, Alexander began his career in the United States. He lived in New Haven, Springfield, Providence, and finally in New Bedford. For some time, he was steward on the New York-New Haven boat and insisted on better treatment for his colored help. Later about 1848 he ran a grocery store at 23 Washington Street, New Haven, and owned property at different times in the various cities where he lived. By his first wife, my grandmother, he had two children, and by his second wife, one daughter, Henrietta. Three or four children died in infancy. Alexander was a communicant of Trinity Parish, New Haven, and was enrolled there as late as 1845; then something happened, because in 1847 he was among that group of Negroes who formed the new colored Episcopal Parish of St. Luke, where he was for years their senior warden. Probably this indicates one of his bitter fights and rebellions, for nothing but intolerable insult would have led him into a segregated church movement. Alexander Crummell was his first rector here.

As I knew my grandfather, he was a short, stern, upstanding man, sparing but precise in his speech and stiff in manner, evidently long used to repressing his feelings. I remember as a boy of twelve, watching his ceremonious reception of a black visitor, John Freedom; his stately bow, the way in which the red wine was served and the careful almost stilted conversation. I had seen no such social ceremony in my simple western Massachusetts home. The darkened parlor with its horsehair furniture became a very special and important place. I was deeply impressed. My grandfather evidently looked upon me with a certain misgiving if not actual distaste. I was brown, the son of his oldest son, Alfred, and Alfred and his father had never gotten on together.

The boy Alfred was a throwback to his white grandfather. He was small, olive-skinned and handsome and just visibly colored, with curly hair; and he was naturally a play-boy. My only picture of him shows him clothed in the uniform of the Union Army; but he never actually went to the front. In fact, Alfred never actually did much of anything. He was gay and carefree, refusing to settle long at any one place or job. He had a good elementary school training but nothing higher. I think that my father ran away from home several times. Whether he got into any very serious scrapes or not, I do not know, nor do I know whether

he was married early in life; I imagine not. I think he was probably a free lance, gallant and lover, yielding only to marital bonds when he found himself in the rather strict clannishness of my mother's family. He was barber, merchant and preacher, but always irresponsible and charming. He had wandered out from eastern New England where his father lived and come to the Berkshire valley in 1867 where he met and married my brown mother.

The second wife of Alexander Du Bois died in 1865. His oldest daughter, Augusta, married a light mulatto and has descendants today who do not know of their Negro blood. Much later Alexander Du Bois married his third wife, Annie Green, who was the grandmother that I knew, and who knew and liked my father Alfred, and who brought me and my grandfather together. Alexander Du Bois died December 9, 1887, at the age of eighty-four, in New Bedford, and lies buried today in Oak Grove Cemetery near the Yale campus in New Haven, in a lot which he owned and which is next to that of Jehudi Ashmun of Liberian fame.

My father, by some queer chance, came into western Massachusetts and into the Housatonic Valley at the age of forty-two and there met and quickly married my brown mother who was then thirty-six and belonged to the Burghardt clan. This brings us to the history of the black Burghardts.

In 1694, Rev. Benjamin Wadsworth, afterwards president of Harvard College, made a journey through western Massachusetts, and says in regard to the present site of the town of Great Barrington, "Ye greatest part of our road this day was a hideous, howling wilderness." Here it was that a committee of the Massachusetts General Court confirmed a number of land titles in 1733-34, which had previously been in dispute between the English, Dutch, and Indians. In the "fifth division" of this land appears the name of a Dutchman, who signed himself as "Coenraet Borghhardt." This Borghhardt, Bogoert or Burghardt family has been prominent in Dutch colonial history and its descendants have been particularly identified with the annals of the little town of about five thousand inhabitants which today still lies among the hills of middle Berkshire.

Coenrod Burghardt seems to have been a shrewd pushing Dutchman and is early heard of in Kinderhook, together with his son John. This family came into possession of an African Negro named Tom, who had formerly belonged to the family of Etsons (Ettens?) and had come to the Burghardts by purchase or possibly by marriage. This African has had between one hundred and fifty and two hundred descendants, a number of whom are now living and reach to the eighth generation.

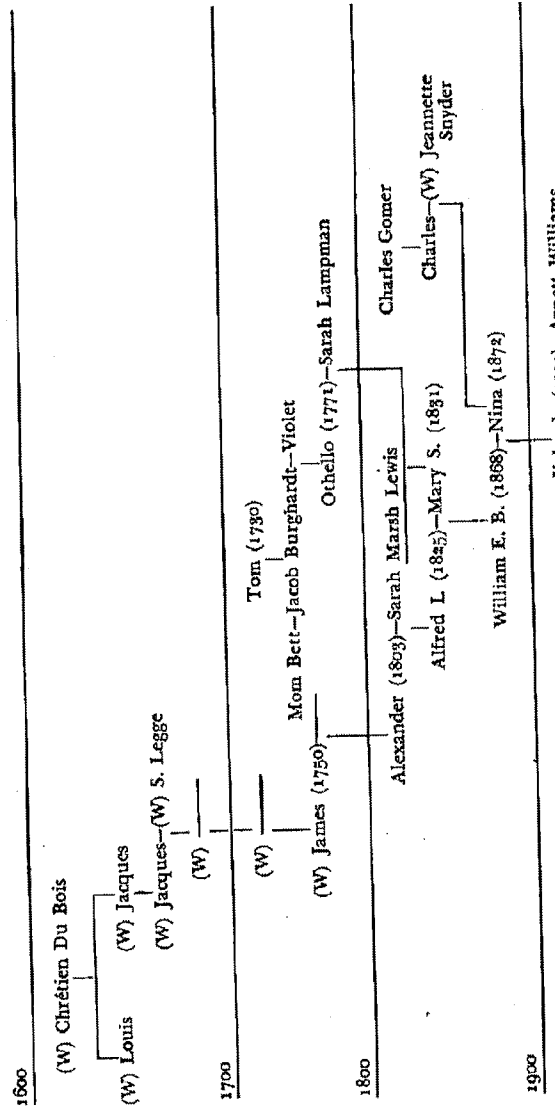
Tom was probably born about 1730. His granddaughter writes me that her father told her that Tom was born in Africa and was brought to this country when he was a boy. For many years my youthful imagination painted him as certainly the son of a tribal chief, but there is no warrant for this even in family tradition. Tom was probably just a stolen black boy from the West African Coast, nameless and lost, either a war captive or a tribal pawn. He was probably sent overseas on a Dutch ship at the time when their slave trade was beginning to decline and the vast English expansion to begin. He was in the service of the Burghardts and was a soldier in the Revolutionary War, going to the front probably several times; of only one of these is there official record when he appeared

with the rank of private on the muster and payroll of Colonel John Ashley's Berkshire County regiment and Captain John Spoor's company in 1780. The company marched northward by order of Brigadier-General Fellows on an alarm when Fort Anne and Fort George were taken by the enemy. It is recorded that Tom was "reported a Negro." (Record Index of the Military Archives of Massachusetts, Vol. 23, p. 2.)

Tom appears to have been held as a servant and possibly a legal slave first by the family of Etsons or Ettens and then to have come into the possession of the Burghardts who settled at Great Barrington. Eventually, probably after the Revolutionary War, he was regarded as a freeman. There is record of only one son, Jacob Burghardt, who continued in the employ of the Burghardt family, and was born apparently about 1760. He is listed in the census of 1790 as "free" with two in his family. He married a wife named Violet who was apparently newly arrived from Africa and brought with her an African song which became traditional in the family. After her death, Jacob married Mom Bett, a rather celebrated figure in western Massachusetts history. She had been freed under the Bill of Rights of 1780 and the son of the judge who freed her wrote, "Even in her humble station, she had, when occasion required it, an air of command which conferred a degree of dignity and gave her an ascendancy over those of her rank, or color. Her determined and resolute character, which enabled her to limit the ravages of Shays's mob, was manifested in her conduct and deportment during her whole life. She claimed no distinction, but it was yielded to her from her superior experience, energy, skill and sagacity. Having known this woman as familiarly as I knew either of my parents, I cannot believe in the moral or physical inferiority of the race to which she belonged. The degradation of the African must have been otherwise caused than by natural inferiority."

Family tradition has it that her husband, Jacob, took part in suppressing this Shays's Rebellion. Jacob Burghardt had nine children, five sons of whom one was my grandfather, and four daughters. My grandfather's brothers and sisters had many children: Harlow had ten and Ira also ten; Maria had two. Descendants of Harlow and Ira still survive. Three of these sons, Othello, Ira, Harlow, and one daughter Lucinda settled on South Egremont plain near Great Barrington, where they owned small adjoining farms. A small part of one of these farms I continue to own.

Othello was my grandfather. He was born November 18, 1791, and married Sarah Lampman in 1811. Sarah was born in Hillsdale, New York, in 1793, of a mother named Lampman. There is no record of her father. She was probably the child of a Dutchman perhaps with Indian blood. This couple had ten children, three sons and seven daughters. Othello died in 1872 at the age of eighty-one and Sarah or Sally in 1877 at the age of eighty-six. Their sons and daughters married and drifted to town as laborers and servants. I thus had innumerable cousins up and down the valley. I was brought up with the Burghardt clan and this fact determined largely my life and "race." The white relationship and connections were quite lost and indeed unknown until long years after. The black Burghardts were ordinary farmers, laborers and servants. The children usually learned to read and write. I never heard or knew of any of them of my mother's



[NOTE: "W" indicates white persons; others are Negroes or Mulattoes.]

generation or later who were illiterate. I was, however, the first one of the family who finished in the local high school. Afterward, one or two others did. Most of the members of the family left Great Barrington. Parts of the family are living and are fairly prosperous in the Middle West and on the Pacific Coast. I have heard of one or two high school graduates in the Middle West branch of the family.

This, then, was my racial history and as such it was curiously complicated. With Africa I had only one direct cultural connection and that was the African melody which my great-grandmother Violet used to sing. Where she learned it, I do not know. Perhaps she herself was born in Africa or had it of a mother or father stolen and transported. But at any rate, as I wrote years ago in the "Souls of Black Folk," "coming to the valleys of the Hudson and Housatonic, black, little, and lithe, she shivered and shrank in the harsh north winds, looked longingly at the hills, and often crooned a heathen melody to the child between her knees, thus:

Do bana coba, gene me, gene me!  
Do bana coba, gene me, gene me!  
Ben d' nuli, nuli, nuli, nuli, ben d' le.

The child sang it to his children and they to their children's children, and so two hundred years it has traveled down to us and we sing it to our children, knowing as little as our fathers what its words may mean, but knowing well the meaning of its music."

Living with my mother's people I absorbed their culture patterns and these were not African so much as Dutch and New England. The speech was an idiomatic New England tongue with no African dialect; the family customs were New England, and the sex mores. My African racial feeling was then purely a matter of my own later learning and reaction; my recoil from the assumptions of the whites; my experience in the South at Fisk. But it was none the less real and a large determinant of my life and character. I felt myself African by "race" and by that token was African and an integral member of the group of dark Americans who were called Negroes.

At the same time I was firm in asserting that these Negroes were Americans. For that reason and on the basis of my great-great-grandfather's Revolutionary record I was accepted as a member of the Massachusetts Society of the Sons of the American Revolution, in 1908. When, however, the notice of this election reached the headquarters in Washington and was emphasized by my requesting a national certificate, the secretary, A. Howard Clark of the Smithsonian Institution, wrote to Massachusetts and demanded "proof of marriage of the ancestor of Tom Burghardt and record of birth of the son." He knew, of course, that the birth record of a stolen African slave could not possibly be produced. My membership was, therefore, suspended.

Countee Cullen sings:

What is Africa to me:  
Copper sun or scarlet sea,  
Jungle star or jungle track,

Strong bronzed men, or regal black  
Women from whose loins I sprang  
When the birds of Eden sang?  
*One three centuries removed  
From the scenes his fathers loved,  
Spicy grove, cinnamon tree,  
What is Africa to me?*

What is Africa to me? Once I should have answered the question simply: I should have said "fatherland" or perhaps better "motherland" because I was born in the century when the walls of race were clear and straight; when the world consisted of mutually exclusive races; and even though the edges might be blurred, there was no question of exact definition and understanding of the meaning of the word. One of the first pamphlets that I wrote in 1897 was on "The Conservation of Races" wherein I set down as the first article of a proposed racial creed: "We believe that the Negro people as a race have a contribution to make to civilization and humanity which no other race can make."

Since then the concept of race has so changed and presented so much of contradiction that as I face Africa I ask myself: what is it between us that constitutes a tie which I can feel better than I can explain? Africa is, of course, my fatherland. Yet neither my father nor my father's father ever saw Africa or knew its meaning or cared overmuch for it. My mother's folk were closer and yet their direct connection, in culture and race, became tenuous; still, my tie to Africa is strong. On this vast continent were born and lived a large portion of my direct ancestors going back a thousand years or more. The mark of their heritage is upon me in color and hair. These are obvious things, but of little meaning in themselves; only important as they stand for real and more subtle differences from other men. Whether they do or not, I do not know nor does science know today.

But one thing is sure and that is the fact that since the fifteenth century these ancestors of mine and their other descendants have had a common history; have suffered a common disaster and have one long memory. The actual ties of heritage between the individuals of this group, vary with the ancestors that they have in common and many others: Europeans and Semites, perhaps Mongolians, certainly American Indians. But the physical bond is least and the badge of color relatively unimportant save as a badge; the real essence of this kinship is its social heritage of slavery; the discrimination and insult; and this heritage binds together not simply the children of Africa, but extends through yellow Asia and into the South Seas. It is this unity that draws me to Africa.

When shall I forget the night I first set foot on African soil? I am the sixth generation in descent from forefathers who left this land. The moon was at the full and the waters of the Atlantic lay like a lake. All the long slow afternoon as the sun robed herself in her western scarlet with veils of misty cloud, I had seen Africa afar. Cape Mount—that mighty headland with its twin curves, northern sentinel of the realm of Liberia—gathered itself out of the cloud at half past three and then darkened and grew clear. On beyond flowed the dark low undulating land quaint with palm and breaking sea. The world grew black. Africa

faded away, the stars stood forth curiously, twisted—Orion in the zenith—the Little Bear asleep and the Southern Cross rising behind the horizon. Then afar, ahead, a lone light shone, straight at the ship's fore. Twinkling lights appeared below, around, and rising shadows. "Monrovia," said the Captain.

Suddenly we swerved to our left. The long arms of the bay enveloped us and then to the right rose the twinkling hill of Monrovia, with its crowning star. Lights flashed on the shore—here, there. Then we sensed a darker shading in the shadows; it lay very still. "It's a boat," one said. "It's two boats!" Then the shadow drifted in pieces and as the anchor roared into the deep, five boats outlined themselves on the waters—great ten-oared barges with men swung into line and glided toward us.

It was nine at night—above, the shadows, there the town, here the sweeping boats. One forged ahead with the flag—stripes and a lone star flaming behind, the ensign of the customs floating wide; and bending to the long oars, the white caps of ten black sailors. Up the stairway clambered a soldier in khaki, aide-de-camp of the President of the Republic, a customhouse official, the clerk of the American legation—and after them sixty-five lithe, lean black stevedores with whom the steamer would work down to Portuguese Angola and back. A few moments of formalities, greetings and good-bys and I was in the great long boat with the President's aide—a brown major in brown khaki. On the other side, the young clerk and at the back, the black barelegged pilot. Before us on the high thwarts were the rowers: men, boys, black, thin, trained in muscle and sinew, little larger than the oars in thickness, they bent their strength to them and swung upon them.

One in the center gave curious little cackling cries to keep up the rhythm, and for the spurts and the stroke, a call a bit thicker and sturdier; he gave a low guttural command now and then; the boat, alive, quivering, danced beneath the moon, swept a great curve to the bar to breast its narrow teeth of foam—"t'chick-a-tickity, t'chick-a-tickity," sang the boys, and we glided and raced, now between boats, now near the landing—now cast aloft at the dock. And lo! I was in Africa.

Christmas Eve, and Africa is singing in Monrovia. They are Krus and Fanti—men, women and children, and all the night they march and sing. The music was once the music of mission revival hymns. But it is that music now transformed and the silly words hidden in an unknown tongue—liquid and sonorous. It is tricked out and expounded with cadence and turn. And this is that same rhythm I heard first in Tennessee forty years ago: the air is raised and carried by men's strong voices, while floating above in obbligato, come the high mellow voices of women—it is the ancient African art of part singing, so curiously and insistently different.

So they come, gay appareled, lit by transparency. They enter the gate and flow over the high steps and sing and sing and sing. They saunter round the house, pick flowers, drink water and sing and sing and sing. The warm dark heat of the night steams up to meet the moon. And the night is song.

On Christmas Day, 1923, we walk down to the narrow, crooked wharves of Monrovia, by houses old and gray and step-like streets of stone. Before is the wide St. Paul River, double-mouthed, and beyond, the sea, white, curling on the

sand. Before us is the isle—the tiny isle, hut-covered and guarded by a cotton tree, where the pioneers lived in 1821. We board the boat, then circle round—then up the river. Great bowing trees, festoons of flowers, golden blossoms, star-faced palms and thatched huts; tall spreading trees lifting themselves like vast umbrellas, low shrubbery with gray and laced and knotted roots—the broad, black, murmuring river. Here a tree holds wide fingers out and stretches them over the water in vast incantation; bananas throw their wide green fingers to the sun. Iron villages, scarred clearings with gray, sheet-iron homes staring, grim and bare, at the ancient tropical flood of green.

The river sweeps wide and the shrubs bow low. Behind, Monrovia rises in clear, calm beauty. Gone are the wharves, the low and clustered houses of the port, the tight-throated business village, and up sweep the villas and the low wall, brown and cream and white, with great mango and cotton trees, with lighthouse and spire, with porch and pillar and the color of shrubbery and blossom.

We climbed the upright shore to a senator's home and received his wide and kindly hospitality—curious blend of feudal lord and modern farmer—sandwiches, cake, and champagne. Again we glided up the drowsy river—five, ten, twenty miles and came to our hostess, a mansion of five generations with a compound of endless native servants and cows under the palm thatches. The daughters of the family wore, on the beautiful black skin of their necks, the exquisite pale gold chains of the Liberian artisan and the slim, black little granddaughter of the house had a wide pink ribbon on the thick curls of her dark hair, that lay like sudden sunlight on the shadows. Double porches, one above the other, welcomed us to ease. A native man, gay with Christmas and a dash of gin, sang and danced in the road. Children ran and played in the blazing sun. We sat at a long broad table and ate duck, chicken, beef, rice, plantain, collards, cake, tea, water and Madeira wine. Then we went and looked at the heavens, the uptwisted sky—Orion and Cassiopeia at zenith; the Little Bear beneath the horizon, now unfamiliar sights in the Milky Way—all awry, a-living—sun for snow at Christmas, and happiness and cheer.

The shores were lined with old sugar plantations, the buildings rotting and falling. I looked upon the desolation with a certain pain. What had happened, I asked? The owners and planters had deserted these homes and come down to Monrovia, but why? After all, Monrovia had not much to offer in the way of income and occupation. Was this African laziness and inefficiency? No, it was a specimen of the way in which the waves of modern industry broke over the shores of far-off Africa. Here during our Civil War, men hastened to raise sugar and supply New York. They built their own boats and filled the river and sailed the sea. But afterwards, Louisiana came back into the Union, colored Rillieux invented the vacuum pan; the sugar plantations began to spread in Cuba and the Sugar Trust monopoly of refining machinery, together with the new beet sugar industry, drove Liberia quickly from the market. What all this did not do, the freight rates finished. So sugar did not pay in Liberia and other crops rose and fell in the same way.

As I look back and recall the days, which I have called great—the occasions in which I have taken part and which have had for me and others the widest

significance, I can remember none like the first of January, 1924. Once I took my bachelor's degree before a governor, a great college president, and a bishop of New England. But that was rather personal in its memory than in any way epochal. Once before the assembled races of the world I was called to speak in London in place of the suddenly sick Sir Harry Johnston. It was a great hour. But it was not greater than the day when I was presented to the President of the Negro Republic of Liberia.

Liberia had been resting under the shock of world war into which the Allies forced her. She had asked and been promised a loan by the United States to bolster and replace her stricken trade. She had conformed to every preliminary requirement and waited when waiting was almost fatal. It was not simply money, it was world prestige and protection at a time when the little republic was sorely beset by creditors and greedy imperial powers. At the last moment, an insurgent Senate peremptorily and finally refused the request and strong recommendation of President Wilson and his advisers, and the loan was refused. The Department of State made no statement to the world, and Liberia stood naked, not only well-nigh bankrupt, but peculiarly defenseless amid scowling and unbelieving powers.

It was then that the United States made a gesture of courtesy; a little thing, and merely a gesture, but one so unusual that it was epochal. President Coolidge, at the suggestion of William H. Lewis, a leading colored lawyer of Boston, named me, an American Negro traveler, Envoy Extraordinary and Minister Plenipotentiary to Liberia—the highest rank ever given by any country to a diplomatic agent in black Africa. And it named this Envoy the special representative of the President of the United States to the President of Liberia, on the occasion of his inauguration; charging the Envoy with a personal word of encouragement and moral support: It was a significant action. It had in it nothing personal. Another appointee would have been equally significant. But Liberia recognized the meaning. She showered upon the Envoy every mark of appreciation and thanks. The Commander of the Liberian Frontier Force was made his special aide, and a sergeant, his orderly. At ten a.m. New Year's morning, 1924, a company of the Frontier Force, in red fez and khaki, presented arms before the American Legation and escorted Solomon Porter Hood, the American Minister Resident, and myself as Envoy Extraordinary and my aide to the Presidential Mansion—a beautiful white, verandaed house, waving with palms and fronting a grassy street.

Ceremonials are old and to some antiquated and yet this was done with such simplicity, grace and seriousness that none could escape its spell. The Secretary of State met us at the door, as the band played the impressive Liberian National hymn, and soldiers saluted:

All hail! Liberia, hail!  
 In union strong, success is sure.  
 We cannot fail.  
 With God above,  
 Our rights to prove,  
 We will the world assail.

We mounted a broad stairway and into a great room that stretched across the house. Here in semi-circle were ranged the foreign consuls and the cabinet—the former in white, gilt with orders and swords; the latter in solemn black. Present were England, France, Germany, Spain, Belgium, Holland, and Panama, to be presented to me in order of seniority by the small brown Secretary of State with his perfect poise and ease. The President entered—frock-coated with the star and ribbon of a Spanish order on his breast. The American Minister introduced me, and I said:

“The President of the United States has done me the great honor of designating me as his personal representative on the occasion of your inauguration. In so doing, he has had, I am sure, two things in mind. First, he wished publicly and unmistakably to express before the world the interest and solicitude which the hundred million inhabitants of the United States of America have for Liberia. Liberia is a child of the United States, and a sister Republic. Its progress and success is the progress and success of democracy everywhere and for all men; and the United States would view with sorrow and alarm any misfortune which might happen to this Republic and any obstacle that was placed in her path.

“But special and peculiar bonds draw these two lands together. In America live eleven million persons of African descent; they are citizens, legally invested with every right that inheres in American citizenship. And I am sure that in this special mark of the President’s favor, he has had in mind the wishes and hopes of Negro Americans. He knows how proud they are of the hundred years of independence which you have maintained by force of arms and by brawn and brain upon the edge of this mighty continent; he knows that in the great battle against color caste in America, the ability of Negroes to rule in Africa has been and ever will be a great and encouraging reenforcement. He knows that the unswerving loyalty of Negro Americans to their country is fitly accompanied by a pride in their race and lineage, a belief in the potency and promise of Negro blood which makes them eager listeners to every whisper of success from Liberia, and eager helpers in every movement for your aid and comfort. In a special sense, the moral burden of Liberia and the advancement and integrity of Liberia is the sincere prayer of America.”

And now a word about the African himself—about this primitive black man: I began to notice a truth as I entered southern France. I formulated it in Portugal. I knew it as a great truth one Sunday in Liberia. And the Great Truth was this: efficiency and happiness do not go together in modern culture. Going south from London, as the world darkens it gets happier. Portugal is deliciously dark. Many leading citizens would have difficulty keeping off a Georgia “Jim Crow” car. But, oh, how lovely a land and how happy a people! And so leisurely. Little use of trying to shop seriously in Lisbon before eleven. It isn’t done. Nor at noon; the world is lurching or lolling in the sun. Even after four p.m. one takes chances, for the world is in the Rocio. And the banks are so careless and the hotels so leisurely. How delightfully angry Englishmen get at the “damned, lazy” Portuguese!

But if this of Portugal, what of Africa? Here darkness descends and rests on lovely skins until brown seems luscious and natural. There is sunlight in great

gold globules and soft, heavy-scented heat that wraps you like a garment. And laziness; divine, eternal, languor is right and good and true. I remember the morning; it was Sunday, and the night before we heard the leopards crying down there. Today beneath the streaming sun we went down into the gold-green forest. It was silence—silence the more mysterious because life abundant and palpitating pulsed all about us and held us drowsy captives to the day. Ahead the gaunt missionary strode, alert, afire, with his gun. He apologized for the gun, but he did not need to, for I saw the print of a leopard's hind foot. A monkey sentinel screamed, and I heard the whir of the horde as they ran.

Then we came to the village; how can I describe it? Neither London, nor Paris, nor New York has anything of its delicate, precious beauty. It was a town of the Veys and done in cream and pale purple—still, clean, restrained, tiny, complete. It was no selfish place, but the central abode of fire and hospitality, clean-swept for wayfarers, and best seats were bare. They quite expected visitors, morning, noon, and night; and they gave our hands a quick, soft grasp and talked easily. Their manners were better than those of Park Lane or Park Avenue. Oh, much better and more natural. They showed breeding. The chief's son—tall and slight and speaking good English—had served under the late Colonel Young. He made a little speech of welcome. Long is the history of the Veys and comes down from the Eastern Roman Empire, the great struggle of Islam and the black empires of the Sudan.

We went on to other villages—dun-colored, not so beautiful, but neat and hospitable. In one sat a visiting chief of perhaps fifty years in a derby hat and a robe, and beside him stood a shy young wife done in ebony and soft brown, whose liquid eyes would not meet ours. The chief was taciturn until we spoke of schools. Then he woke suddenly—he had children to "give" to a school. I see the last village fading away; they are plastering the wall of a home, leisurely and carefully. They smiled a good-by—not effusively, with no eagerness, with a simple friendship, as we glided under the cocoa trees and into the silent forest, the gold and silent forest.

And there and elsewhere in two long months I began to learn: primitive men are not following us afar, frantically waving and seeking our goals; primitive men are not behind us in some swift foot-race. Primitive men have already arrived. They are abreast, and in places ahead of us; in others behind. But all their curving advance line is contemporary, not prehistoric. They have used other paths and these paths have led them by scenes sometimes fairer, sometimes uglier than ours, but always toward the Pools of Happiness. Or, to put it otherwise, these folk have the leisure of true aristocracy—leisure for thought and courtesy, leisure for sleep and laughter. They have time for their children—such well-trained, beautiful children with perfect, unhidden bodies. Have you ever met a crowd of children in the east of London or New York, or even on the Avenue at Forty-second or One Hundred and Forty-second Street, and fled to avoid their impudence and utter ignorance of courtesy? Come to Africa, and see well-bred and courteous children, playing happily and never sniffing and whining.

I have read everywhere that Africa means sexual license. Perhaps it does. Most folk who talk sex frantically have all too seldom revealed their source

material. I was in West Africa only two months, but with both eyes wide. I saw children quite naked and women usually naked to the waist—with bare bosom and limbs. And in those sixty days I saw less of sex dalliance and appeal than I see daily on Fifth Avenue. This does not mean much, but it is an interesting fact.

The primitive black man is courteous and dignified. If the platforms of Western cities had swarmed with humanity as I have seen the platforms swarm in Senegal, the police would have a busy time. I did not see one respectable quarrel. Wherefore shall we all take to the Big Bush? No. I prefer New York. But my point is that New York and London and Paris must learn of West Africa and may learn.

The one great lack in Africa is communication—communication as represented by human contact, movement of goods, dissemination of knowledge. All these things we have—we have in such crushing abundance that they have mastered us and defeated their real good. We meet human beings in such throngs that we cannot know or even understand them—they become to us inhuman, mechanical, hateful. We are choked and suffocated, tempted and killed by goods accumulated from the ends of the earth; our newspapers and magazines so overwhelm us with knowledge—knowledge of all sorts and kinds from particulars as to our neighbors' underwear to Einstein's mathematics—that one of the great and glorious joys of the African bush is to escape from "news."

On the other hand, African life with its isolation has deeper knowledge of human souls. The village life, the forest ways, the teeming markets, bring in intimate human knowledge that the West misses, sinking the individual in the social. Africans know fewer folk, but know them infinitely better. Their intertwined communal souls, therefore, brook no poverty nor prostitution—these things are to them un-understandable. On the other hand, they are vastly ignorant of what the world is doing and thinking, and of what is known of its physical forces. They suffer terribly from preventable disease, from unnecessary hunger, from the freaks of the weather.

Here, then, is something for Africa and Europe both to learn; and Africa is eager, breathless, to learn—while Europe? Europe laughs with loud guffaws. Learn of Africa? Nonsense. Poverty cannot be abolished. Democracy and firm government are incompatible. Prostitution is world old and inevitable. And Europe proceeds to use Africa as a means and not as an end; as a hired tool and welter of raw materials and not as a land of human beings.

I think it was in Africa that I came more clearly to see the close connection between race and wealth. The fact that even in the minds of the most dogmatic supporters of race theories and believers in the inferiority of colored folk to white, there was a conscious or unconscious determination to increase their incomes by taking full advantage of this belief. And then gradually this thought was metamorphosed into a realization that the income-bearing value of race prejudice was the cause and not the result of theories of race inferiority; that particularly in the United States the income of the Cotton Kingdom based on black slavery caused the passionate belief in Negro inferiority and the determination to enforce it even by arms.

I have wandered afield from miscegenation in the West Indies to race blending and segregation in America and to a glimpse of present Africa. Now to return to

the American concept of race. It was in my boyhood, as I have intimated, an adventure. In my youth, it became the vision of a glorious crusade where I and my fellows were to match our mettle against white folk and show them what black folk could do. But as I grew older the matter became more serious and less capable of jaunty settlement. I not only met plenty of persons equal in ability to myself but often with greater ability and nearly always with greater opportunity. Racial identity presented itself as a matter of trammels and impediments as "tightening bonds about my feet." As I looked out into my racial world the whole thing verged on tragedy. My "way was cloudy" and the approach to its high goals by no means straight and clear. I saw the race problem was not as I conceived, a matter of clear, fair competition, for which I was ready and eager. It was rather a matter of segregation, of hindrance and inhibitions, and my struggles against this and resentment at it began to have serious repercussions upon my inner life.

It is difficult to let others see the full psychological meaning of caste segregation. It is as though one, looking out from a dark cave in a side of an impending mountain, sees the world passing and speaks to it; speaks courteously and persuasively, showing them how these entombed souls are hindered in their natural movement, expression, and development; and how their loosening from prison would be a matter not simply of courtesy, sympathy, and help to them, but aid to all the world. One talks on evenly and logically in this way, but notices that the passing throng does not even turn its head, or if it does, glances curiously and walks on. It gradually penetrates the minds of the prisoners that the people passing do not hear; that some thick sheet of invisible but horribly tangible plate glass is between them and the world. They get excited; they talk louder; they gesticulate. Some of the passing world stop in curiosity; these gesticulations seem so pointless; they laugh and pass on. They still either do not hear at all, or hear but dimly, and even what they hear, they do not understand. Then the people within may become hysterical. They may scream and hurl themselves against the barriers, hardly realizing in their bewilderment that they are screaming in a vacuum unheard and that their antics may actually seem funny to those outside looking in. They may even, here and there, break through in blood and disfigurement, and find themselves faced by a horrified, implacable, and quite overwhelming mob of people frightened for their own very existence.

It is hard under such circumstances to be philosophical and calm, and to think through a method of approach and accommodation between castes. The entombed find themselves not simply trying to make the outer world understand their essential and common humanity but even more, as they become inured to their experience, they have to keep reminding themselves that the great and oppressing world outside is also real and human and in its essence honest. All my life I have had continually to haul my soul back and say, "All white folk are not scoundrels nor murderers. They are, even as I am, painfully human."

One development continually recurs: any person outside of this wall of glass can speak to his own fellows, can assume a facile championship of the entombed, and gain the enthusiastic and even gushing thanks of the victims.

But this method is subject to two difficulties: first of all, not being possibly among the entombed or capable of sharing their inner thought and experience, this outside leadership will continually misinterpret and compromise and complicate matters, even with the best of will. And secondly, of course, no matter how successful the outside advocacy is, it remains impotent and unsuccessful until it actually succeeds in freeing and making articulate the submerged caste.

Practically, this group imprisonment within a group has various effects upon the prisoner. He becomes provincial and centered upon the problems of his particular group. He tends to neglect the wider aspects of national life and human existence. On the one hand he is unselfish so far as his inner group is concerned. He thinks of himself not as an individual but as a group man, a "race" man. His loyalty to this group idea tends to be almost unending and balks at almost no sacrifice. On the other hand, his attitude toward the enviroing race congeals into a matter of unreasoning resentment and even hatred, deep disbelief in them and refusal to conceive honesty and rational thought on their part. This attitude adds to the difficulties of conversation, intercourse, understanding between groups.

This was the race concept which has dominated my life, and the history of which I have attempted to make the leading theme of this book. It had as I have tried to show all sorts of illogical trends and irreconcilable tendencies. Perhaps it is wrong to speak of it at all as "a concept" rather than as a group of contradictory forces, facts and tendencies. At any rate I hope I have made its meaning to me clear. It was for me as I have written first a matter of dawning realization, then of study and science; then a matter of inquiry into the diverse strands of my own family; and finally consideration of my connection, physical and spiritual, with Africa and the Negro race in its homeland. All this led to an attempt to rationalize the racial concept and its place in the modern world.



# Racial Categories in Medical Practice: How Useful Are They?

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## The Trouble with Race

Is it good medical practice for physicians to “eyeball” a patient’s race when assessing their medical status or even to ask them to identify their race? This question was captured in a 2005 episode of “House M.D.,” Fox television’s medical drama. In the episode, a black patient with heart disease refuses a hospital physician’s prescription for what is clearly supposed to be BiDil, the drug approved by the United States Food and Drug Administration only for “self-identified” African-Americans [1]. Dr. House, on seeing the patient for follow-up, insists on the same prescription. The patient again refuses, telling House, “I’m not buying into no racist drug, OK?” House, a white physician asks, “It’s racist because it helps black people more than white people? Well, on behalf of my peeps, let me say, thanks for dying on principle for us.” The patient replies, “Look. My heart’s red, your heart’s red. And it don’t make no sense to give us different drugs.”

Who is right here, House or his patient? And what does this episode tell us about the way race plays itself out in the physician–patient clinical encounter? What of clinical importance can be learned by making a quick racial assessment [2]? That an ACE (angiotensin-converting enzyme) inhibitor may not be effective? That screening for sickle cell anemia is a waste of time? Sorting patients by race may seem useful during a time-constrained interview, but we argue that acting on rapid racial assessment can lead to missed diagnoses and inappropriate treatments.

Both historical evidence and contemporary genetic research suggest that “racial profiling” in medicine

can lead to serious medical errors. Assessing risk through race is more problematic than its typical depiction in the media and in scholarly literature [3]. Some argue that race can stand in for human genetic variance until individualized genetic medicine is fully developed. But such a position produces a critical paradox: the rates of morbidity and death from particular diseases are not uniformly distributed among socially defined racial and ethnic groups throughout the world [4–6]. In order to monitor the success of attempts to address these health inequalities, we need to keep health records based on racial and ethnic categories. This is a descriptive use of ethnoracial categories. Descriptive statistics derived from population surveys using racial definitions based on self-identity, however, are not biological or attribute categories appropriate for individual treatment [7]. How should physicians treat individuals who present with a perceived race but who may not bear the average characteristics of a studied population, even while collecting data based on perceived race or ethnicity and qualifying individuals for clinical research trials [8,9]? This problem is illustrated in Box 1, which describes an “on the ground” dilemma of administering a drug to individuals who do not fit “standard” racial categories.

## From Census Categories to Research Plans

Racial categories, with shifting meanings and culturally determined parameters, have always shaped medical practice and thinking, leading to vigorous debates about their use in epidemiology, public health, and medical research journals [10–17]. Throughout the 20th century, race had no standard definition in medical, epidemiological, or health services research [18–21]. In epidemiology, race vaguely referred to “persons who

are relatively homogenous with respect to biologic inheritance” [18]. One survey of medical and epidemiological

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The Essay section contains opinion pieces on topics of broad interest to a general medical audience.

## Box 1. Grace's Dilemma

"What should I do with my Cape Verdean patient?" insists Grace, a third-year medical student. "The clinical protocol for hypertension requires me to identify his race but I don't know how. Is he black or white? This man immigrated to the US at a young age. Is he now African American or should I consider his health needs from the perspective of his immigrant status?" The data on response to therapy seem to suggest that hypertension in blacks is somehow special, implying a separate genetic factor for blacks. But the enormous national differences in hypertension rates do not support this argument. African Americans suffer at rates 3.5 times those of Nigerians living in Africa, although African Americans experience only 0.75 the rates of Germans in Germany [79]. Which category matters more for Grace's patient, country of origin or social status in the adopted nation?

Physicians everywhere face similar dilemmas. In clinical research projects or in the clinic, the assignment of race assumes an equivalence between census categories and genetics embodied by patients. The large Cape Verdean population in New England resists any simple categorization. The inhabitants are the descendents of Portuguese colonists, former slaves, explorers, and sailors of various nationalities. We suggest that, as with Cape Verdeans, census race cannot be assumed to reflect a particular genetic make-up.

dictionaries found that well into the 1980s definitions assumed that race reflects "underlying genetic homogeneity" rather than (or even in addition to) shared social experience [22]. Few of the studies making claims for race controlled for socioeconomic status or lifestyle variables.

The embedding of legal and social practices into the "common sense" meaning of race in medical research has been developing for centuries [23]. In the last several decades, poorly defined racial categories became reified in biomedical research practices, in part because of the widespread use of US census categories [24]. Since 2001, NIH-funded researchers have been required to categorize study participants into the five racial or ethnic categories defined by US Office of Management and Budget Directive No. 15 (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or other Pacific Islander, or White, and Hispanic/Latino or not Hispanic/Latino) [25]. Thus, state-sanctioned but ill-defined categories of race have entered medical research and practice with the admirable intent of ensuring full racial and gender inclusion in clinical trials, but with unanticipated consequences for health outcomes [26].

Researchers rely on respondents' self-identification to collect data on race and ethnicity. Every research grant must report its study population in these terms, leading to their universal use in recruitment of research subjects.

It thus becomes almost "natural" to use these same variables in the subsequent analysis and theoretical framing of the research, even though there is nothing particularly "natural" about the census categories. While the Office of Management and Budget's categories dominate researchers' analyses of human differences in disease, granting agencies' regulations do little to clarify the extent to which racial and ethnic categories are intended to capture biological, cultural, or social dimensions of human diversity. The US Institute of Medicine, for example, holds that race should not be considered a biological reality, but rather "a construct of human variability based on perceived differences in biology, physical appearance, and behavior" [27]. And self-identities are given reality by the very categories we use to describe them [28,29].

Over the past several years, editors at leading medical and scientific journals have promoted a much needed dialogue among researchers and practitioners on the meaning of racial categories [30–40]. The current situation, however, remains confusing. As genetic findings assume an increasingly prominent place in biomedical research, some have concluded that self-identified race/ethnicity, routinely collected in biomedical research studies, is a reasonable proxy for genetic homogeneity and may lead to important insights into health disparities [36,41–43]. Others, citing the genetic heterogeneity within self-

identified groups [44–46], argue that race should not be used in genetic research [47–50]. A related perspective comes from those who argue that self-identified racial/ethnic categories may be practical for recruitment into studies, but should not be used in genetic analyses, given that more biologically precise measures of human genetic heterogeneity are available [17,51]. A recent study of geographic patterns of genetic variation, for example, found that "commonly used ethnic labels are both insufficient and inaccurate representations of the inferred genetic clusters, and that drug-metabolizing profiles...differ significantly among the clusters" [52].

## Racial Categories Are Historical, Not Natural

Historically created racial categories often carry hidden meanings. Until 2003 medical reports were cataloged in PubMed/MEDLINE and in the old Surgeon General's Index Catalogue using 19th century racial categories such as Caucasoid, Mongoloid, Negroid and Australoid [53]. Originally suggesting a scale of inferiority and superiority, today such groupings continue to connote notions of human hierarchy [27,54,55]. More importantly, PubMed's newer categories, such as continental population group and ancestry group, merely overlay the older ones. Assuming that "African" origin can capture the complexity of migrations, artificial boundaries, and gene drift is scientifically unsupportable. So too is continued use of the concept of Caucasian (meaning from the central Asian countries surrounding the Caucasus Mountains) to emphasize the similarities between disparate European groups rather than their population substructures or variations.

Racial definitions are historically and nationally specific. In her comparison of the history of racial categories in the US and Brazilian census from the late 18th century to the present, political scientist Melissa Nobles demonstrated that categories emerge and are deployed in different ways over time [56]. For example, during the mid-19th to the early 20th centuries, at the height of US anxiety about "miscegenation," categories such as "mulatto" were vehicles for expressing and containing cultural anxiety about

racial purity. Bolstered by scientific ideas about race, data collected on the numbers of “mulattoes” were shaped by the desire to prove that “hybrids” would die out.

Another example of the creation and stabilization of racial categories occurred in the mid-20th century under the apartheid government in South Africa. Obsessed with racial purity, the nationalist government passed the first Population Registration Act in 1950, which defined three groups—coloured, white, and native. According to the Act, a “coloured person” means a person who is not a white person, or a native... ‘native’ means a person who in fact is or is generally accepted as a member of any aboriginal race or tribe of Africa... ‘white person’ means a person who in appearance obviously is, or who is generally accepted as a white person, but does not include a person who, although in appearance obviously a white person, is generally accepted as a coloured person” [57].

Over the next 30 years, however, numerous amendments attempted to harden those boundaries. By 1967, the definition of a white person was extended to include “his habits, education and speech and deportment and demeanor in general” [58]. Coloured became a residual category, comprised of any person who could not be neatly assigned to one of the two main racial groups. In this definition, as with racial categories in both the United States and Brazil, cultural, class, and biological aspects of human variability are confounded. Since the 1994 dismantling of the apartheid state, racial or “population” categorization remains a subject of discomfort and public debate [59–61]. Categories such as white/European, African, coloured, and Asian, nonetheless, are still widely used in health care settings and in studies of genetic predisposition to disease in South Africa. Differing local conventions in racial categorization present difficulties in transnational collaborative research and peer review in international publications. South African researchers, for example, may feel pressured to employ categories that make no sense in their context (A. Mall, personal communication).

In the early 20th century in the United States, shades of blackness were assumed to affect medical outcomes. This view generated supposed facts

## Box 2. The Future of Research on Race and Health Disparities

Race-related differences in health outcomes can be analyzed at the societal, individual, cellular, and subcellular levels. Studies focusing exclusively on one level often lose track of inter-level connections. Two research groups exemplify efforts to integrate research on health disparities at the level of cellular effects (e.g., on tumor production and growth), of societal level events (e.g., social support or toxin exposure), and individual life history events (e.g., reproductive history, stress, diet).

Epidemiologist Nancy Krieger [80–82] applies the concept of embodiment to an understanding of how the social effects of racism and social inequality become symptoms [83] and illnesses that manifest as racially related health disparities (on embodiment, see also Fausto-Sterling, 2005 [84]). Krieger understands embodiment to be a multilevel phenomenon that serves as “an antonym to disembodied genes, minds and behaviors” [82]. Similarly, Masi and Olopade [85] propose a multilevel perspective on racial and ethnic disparities in breast cancer. Their model illustrates how the dynamics of societal and individual events over the life cycle can have specific cellular outcomes resulting in neoplasms with particular cellular characteristics. To the extent that societal and individual events vary systematically with social race, biological outcomes may *result from* social inequalities. The key to future understandings of health disparities lies in using frameworks such as those proposed by Krieger and Masi and Olopade to design and interpret research at every level, from the social to the cellular.

(the “fact” that blacks have lesser lung function, for example). Once a “fact” was linked to race rather than unhealthy living and working conditions, it resisted further challenge and became part of clinical judgments. For example, until the widespread use of penicillin, induced malarial fevers were used to treat neurosyphilis and differing malarial strains were deployed based on racial lines [62,63]. As one key 1932 textbook explained, black resistance to tertian malaria could be overcome “the lighter or closer to the Caucasian the particular Negro is” [64,65]. None of the texts explained how to measure color or why it was assumed that blacks, unlike whites, would be exposed to differing malarial strains, as if the mosquitoes respected residential segregation and could not cross a road or tracks. Even though retrospective data made it clear that syphilis was more likely to attack the cardiovascular rather than the neurological system in both blacks and whites, it was assumed that since African Americans did more labor than “brainwork,” they were more at risk for cardiovascular complications. Black cardiovascular deaths, in turn, were often labeled syphilitic in origin without the benefit of autopsy, or misread when postmortems were done (S. M. Reverby, work in progress).

### “Knowing” Race: From Research Plans to Individual Treatment

But the debate remains. Even given the history of the (mis)use of racial

categories, are they nevertheless useful in the physician’s office? Does a quick administrative assessment of race help to diagnose a presenting ailment, or accurately assess future risk of illness? Environmental exposures, family histories, the stress of dealing with racism, access to and quality of care may be left unexamined if a physician simply diagnoses “race” [66]. In the United States a rule that assumes “one drop” of African blood defines an individual as African American [28] seems to prevail [67]. Presented with a black patient, in the face of medical uncertainty, rather than applying individual analysis the doctor can fall back upon general statements that derive from population studies, such as “You should get tested for glaucoma because you are African American and African Americans have a higher rate of glaucoma.”

A dark-skinned, curly-headed person who identifies as African American may, indeed, have much in his or her history and upbringing to justify that identification. But he or she may also have a white grandparent and several Cherokee ancestors. Thus, returning to the example of glaucoma, it is more important to know a patient’s family history than to assess his or her race. And collecting family history ought to mean not only compiling a list of which diseases family members have, but making some attempt to assess common (familial) habits such as diet and life experiences (e.g., first- versus second-generation immigrants, living

conditions, or same versus widely varied work experience and geographical locations). Similarly, when the history of passing for white is ignored, those who identify themselves as “white” are assumed to have no ancestral “black blood.” Finally, immigration patterns constantly change. A “black” person walking into a Boston, Massachusetts clinic could easily be the child of a recent immigrant from Ethiopia or Brazil who has a genetic makeup as well as cultural and environmental exposures that differ significantly from the descendants of 19th century US slaves from the western coast of Africa [68,69].

Once race is presumed, the ways in which multiple genetic inheritances interact with the environment within that individual seem to disappear (see Box 2). Clinical clues can become invisible. Even with the relatively few diseases “known” to have a 1:1 relationship between a single mutant allele and a disease phenotype, reliance on a general idea of race can lead to misdiagnosis. In a different American television series, ER, a “white” patient with sickle cell anemia was misdiagnosed because the condition is known as a “black” illness. Sickle cell anemia (homozygous HbSS) results from a genetic alteration affecting the hemoglobin protein. Its high prevalence in some populations bespeaks their historical burden of falciparum malaria. The simple gene change responsible for sickle hemoglobin spans the continent of Africa and beyond. Its prevalence in the sub-Saharan region ranges between 10% to 40% [70]. Within even smaller geographical areas this diversity is also apparent. In the tiny West African country of The Gambia, the Mandinka people have an extremely low incidence at 4%, the Wolof are nearly on par with black Americans at 14%, and the more socially endogenous Fula hover just below 30% [71]. Nonetheless, in a clinical encounter in North America, where census category definitions of race prevail, these groups and their descendants would, most likely, occupy the category “Black or African American.” Moreover, some of the highest rates in the world are found in India, with rates of 33% and 35% in the Pardhan and Oktar people, respectively [72]. Sickle cell disease is thus not “race-bound.”

So what is the practicing physician to do? In the case of sickle cell disease, it would be best to work from symptoms rather than racial assumptions, and to enquire about geographic ancestry since sickle cell is more prevalent in populations from the Mediterranean region, sub-Saharan Africa, and the Indian subcontinent [70].

### Is Cultural Competency the Answer?

Clinicians will make better educated patient evaluations if they familiarize themselves with the history of the particular communities they serve. For the clinical encounter, the cultural competency paradigm is sometimes offered as a tool for improving quality of care. Cultural competency advocates have spurred curricular reform so that clinicians in training learn to be attentive to cross-cultural issues. A cultural competency paradigm has recently been suggested as a powerful tool in the arsenal to combat the prevalence of racial and ethnic health disparities [73]. However, when not thoughtfully executed, the cultural competency paradigm can abet the simplistic thinking on race it seeks to address. On the one hand, this perspective brings greater attention to the attitudes and behaviors that patients may bring to the clinical encounter. On the other hand such cultural stereotyping could produce poor health outcomes if the clinician is more attentive to what he or she *thinks* they know about this “type” of patient than to the individual before them [74].

### Race in the Era of Individually Tailored Treatment

Medical researchers want tools that will allow physicians to understand how the individual biosocial system represented by a patient standing before them has either produced symptoms, or has a certain future likelihood of doing so. Whether or not the recent announcement of a \$10 million cash award for the first team to sequence 100 genomes in 10 days will get us closer to individual genomic medicine remains to be seen [75]. But in the meantime, race remains a social characteristic of populations and it is inappropriate to use it as a central diagnostic tool for an individual patient.

The case of BiDil, the drug the fictional Dr. House prescribed to his skeptical African American patient, stands as a cautionary tale [76]. Depending on how the age-specific morbidity data on heart disease are read, the case for the urgency of additional treatments for African Americans can be made. Those advocating for BiDil argued that the dangers of the disease are so grave that there was a moral necessity for a race-specific drug, while others found the statistical case for differential morbidity to be unconvincing [77]. By primarily relying on a clinical trial that only included black men and women, claims were made that the drug worked for those who defined themselves as African American. Further, earlier studies that purported to show that ACE inhibitors—another medication for heart failure and an alternative to the active therapies in BiDil—did not work as well on blacks failed to acknowledge that this was not true for all black people in the study [51]. Other researchers who work on drug metabolizing enzymes have argued bluntly that “skin pigment is a lousy surrogate for drug-metabolism status or most any aspect of human physiology” [51].

BiDil’s real impact may therefore be less on actual patient care (since physicians are being encouraged to use the drug “off-label” for anyone they please) and more on the fact that the US government gave its stamp of approval for what bioethicist Sandra Soo-Jin Lee labels “racial profiling in biomedicine” [78]. Although the drug may reify race, this may not be a useful guide to determine who needs it. In the end Dr. House may be right about how medicine is practiced and how drugs are marketed, but his patient understands more about the underlying biology.

### Thoughts for the 10-Minute Clinical Encounter

Improved medical training about race can sharpen diagnostic skills. Cultural competency instruction should be modified to include information on the history of racial categories, current controversies about their biological significance, and the limits of their utility. A teaching unit on race would also contrast the differences between race as a population concept with

its meaning when applied to the lives of individuals. In this context it would be appropriate to teach about geographical variations in specific allele frequencies for genes linked to particular disease processes, as well as the cultural practices, historical trends, and environmental conditions that favor their prevalence or not.

Physicians face huge demands for time efficiency and product output, often being called upon to process as many as six patients per hour. No wonder that rapid racial assessment is an attractive means to figure out what to do with a presenting patient. But we argue that even if there are short cuts for the medical interview, race is not a good one. There is, in the end (in addition to noting physical symptoms), no substitute for an inquiry into family history, an assessment of current circumstances, and knowledge about the biological and cultural histories of specific populations serviced by a particular treatment center.

### What Is To Be Done?

In the long run, the problem of whether or how to use race as a diagnostic aid and research category requires an international consensus meeting with representatives from all the biomedical fields. Such a meeting should be organized by the US National Institutes of Health, the World Health Organization, and other international health institutes. In the short run, the National Institutes of Health needs to re-examine its race-based research rules, weighing the balance between attempting to include minority populations in our health care system, on the one hand, without forcing us into a misconstrual of race as biology on the other. Medical courses also need to improve the teaching of the complexities of using race in the clinic. The overall goal of such an effort would be to make clear that "For meaningful statements to be made about health disparities, careful consideration must be given to the way in which race and ethnicity are conceptualized, the choice of definition categories, and the way in which individuals are assigned to categories" [66]. Anthropologist Michael Montoya's distinction between using ethnoracial categories in a *descriptive* mode, to document progress in the health status of populations, but not using basically social categories to

produce biological *attribution* of causes will be an essential part of this effort [7]. In the end we have to be able to answer the patient's question—if all hearts are red then why do we need different drugs for different individuals based on race? To provide the best health care we must be able to say why and when race matters and why and when it doesn't. ■

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### References

- Witten M (2005) Humpty Dumpty. House MD. Fox Television. Aired September 27, 2005. Available: <http://www.twitv.com/scripts/house/season2/house-203.htm>. Accessed 17 August 2007.
- Garcia R (2003) The misuse of race in medical diagnosis. *Chron High Educ* 49: B15.
- Hacking I (2006) Genetics, biosocial groups and the future of identity. *Daedalus* 51: 81–95.
- Papas G, Queen S, Hadden W, Fisher G (1993) The increasing disparity in mortality between socioeconomic groups in the United States, 1960 and 1986. *New Engl J Med* 329: 103–109.
- Haynes MA, Smedley BD, editors (1999) *The unequal burden of cancer: An assessment of NIH research and programs for ethnic minorities and the medically underserved*. Washington (D. C.): National Academy Press.
- Banks J, Marmor M, Oldfield Z, Smith JP (2006) Disease and disadvantage in the United States and in England. *JAMA* 295: 2037–2043.
- Montoya MJ (2007) Bioethnic conscription: Genes, race, and mexicana/o ethnicity in diabetes research. *Cultural Anthropology* 22: 94–128.
- Warren P, Tomaskovic-Devey D, Smith W, Zingraff M, Mason M (2006) Driving while black: Bias and racial disparity in police stops. *Criminology* 44: 709–738.
- Fiske ST (2005) This old stereotype: The pervasiveness and persistence of the elderly stereotype. *J Soc Issues* 6: 267–285.
- Cooper R, Williams DR (1986) The biological concept of race and its application to public health epidemiology. *J Health Polit Policy Law* 11: 96–116.
- LaVeist TA (1994) Beyond dummy variable and sample selection: What health services researchers ought to know about race as a variable. *Health Serv Res* 29: 1–16.
- Muntaner C, Nieto FJ, O'Campo P (1996) The bell curve: On race, social class, and epidemiologic research. *Am J Epidemiol* 144: 531–536.
- Freeman H (1998) The meaning of race in science—Considerations for cancer research. *Cancer* 82: 219–225.
- Krieger N (2003) Does racism harm health? Did child abuse exist before 1962? On explicit questions, critical science, and current controversies: An ecosocial perspective. *Am J Public Health* 93: 194–199.
- Kaufman JS, Cooper RS (2001) Commentary: Considerations for use of racial/ethnic classification in etiologic research. *Am J Epidemiol* 154: 291–298.
- Duster T (2005) Race and reification in science. *Science* 307: 1050–1051.
- Shields AE, Hammonds EM, King PA, Lerman C, Rapp R, et al. (2005) The use of race variables in genetic studies of complex traits and the goal of reducing health disparities: A transdisciplinary perspective. *Am Psychol* 60: 77–103.
- Jones C, LaVeist T, Lillie-Blanton M (1991) "Race" in epidemiologic literature: An examination of the *American Journal of Epidemiology*, 1921–1990. *Am J Epidemiol* 134: 1079–1084.
- Kreiger N, Rowley DL, Herman AA, Avery B, Phillips MT (1993) Racism, sexism, and social class: Implications for studies of health, disease, and well being. *Am J Prev Med* 9 (Suppl 6): 82–122.
- Williams DR (1994) The concept of race in health services research. *Health Serv Res* 29: 216–274.
- Oppenheimer G (2001) Paradigm lost: Race, ethnicity, and the search for a new population taxonomy. *Am J Public Health* 91: 1049–1053.
- Williams DR (1997) Race and health: Basic questions, emerging directions. *Ann Epidemiol* 7: 322–333.
- Epstein S (2007) *Inclusion: The politics of difference in medical research*. Chicago: University of Chicago Press. 413 p.
- United States Code (1993) National Institutes of Health Revitalization Act of 1993. Public Law 103–43 §§131–151, 107, Stat 122, 133–140. Codified as amended at 42 USC §§ 283–290 (2004).
- National Institutes of Health (2001) NIH policy and guidelines on the inclusion of women and minorities as subjects in clinical research. Amended October 2001. Available: [http://grants.nih.gov/grants/funding/women\\_min/guidelines\\_amended\\_10\\_2001.htm](http://grants.nih.gov/grants/funding/women_min/guidelines_amended_10_2001.htm). Accessed 17 August 2007.
- Epstein S (2004) Bodily differences and collective identities: The politics of gender and race in biomedical research in the United States. *Body and Society* 10: 183–203.
- Institute of Medicine (2003) *Unequal treatment: Confronting racial and ethnic disparities in health care*. Available: <http://www.nap.edu/openbook.php?isbn=030908265X>. Accessed 20 August 2007.
- Wright L (1994) One drop of blood. *The New Yorker*. Available: <http://www.lawrencerwright.com/art-drop.html>. Accessed 20 August 2007.
- Bowker G, Leigh SS (1997) *Sorting things out: Classification and its consequences*. Cambridge (MA): MIT Press. 377 p.
- Council of Biology Editors, Style Manual Committee (1994) *Scientific style and format: The CBE manual for authors, editors, and publishers*. 6th edition. Cambridge: Cambridge University Press. 825 p.
- Editor (2000) Census, race and science. *Nat Genet* 24: 97–98.
- Bhopal R, Donaldson I. (1998) White, European, Western, Caucasian, or what? Inappropriate labeling in research on race, ethnicity, and health. *Am J Public Health* 88: 1303–1307.
- Schwartz RS (2001) Racial profiling in medical research. *N Engl J Med* 344: 1392–1393.
- Wood AJ (2000) Racial differences in the response to drugs—Pointers to genetic differences. *N Engl J Med* 344: 1394–1396.
- [No authors listed] (2001) Genes, drugs, and race. *Nat Genet* 29: 239–240.
- Burchard EG, Ziv E, Coyle N, Gomez SL, Tang H, et al. (2003) The importance of race and ethnic background in biomedical research and clinical practice. *N Engl J Med* 348: 1170–1175.
- Cooper RS (2003) Race, genes, and health—New wine in old bottles? *Int J Epidemiol* 32: 23–25.
- Karter AJ (2003) Commentary: Race, genetics, and disease—In search of a middle ground. *Int J Epidemiol* 32: 26–28.

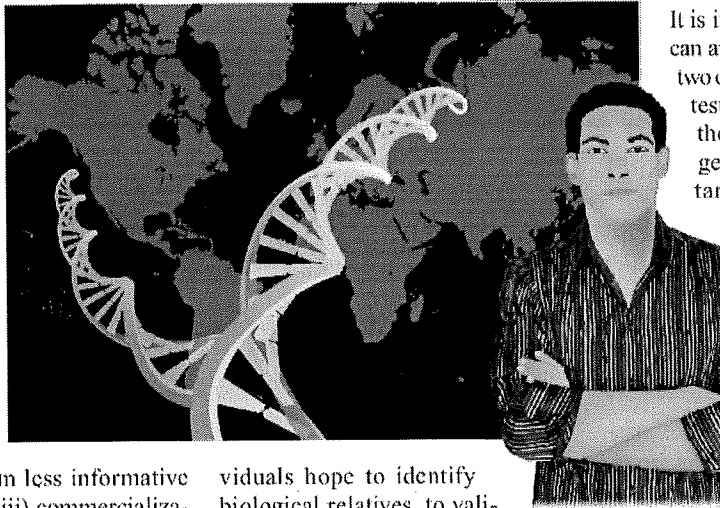
39. Ellison GTH (2005) Population profiling and public health risk: When and how should we use race/ethnicity? *Crit Public Health* 15: 65–74.
40. Braum I. (2006) Reifying human difference: The debate on genetics, race, and health. *Int J Health Serv* 36: 557–573.
41. Sankar P, Cho MK, Condit CM, Hunt LM, Koenig B, et al. (2004) Genetic research and health disparities. *JAMA* 291: 2985–2989.
42. Risch N, Burchard E, Ziv E, Tang H (2002) Categorization of humans in biomedical research: Genes, race and disease. *Genome Biol* 3: comment2007. E-pub 1 July 2002.
43. Tang H, Quertermous I, Rodriguez B, Kardias SL, Zhu X, et al. (2005) Genetic structure, self-identified race/ethnicity, and confounding in case-control association studies. *Am J Hum Genet* 76: 268–275.
44. Baum BD (2006) The rise and fall of the Caucasian race: A political history of racial identity. New York: New York University Press. 352 p.
45. Bauchet M, McEvoy B, Peouson LN, Quillen EE, Sarkisian T, et al. (2007) Measuring European population stratification with microarray genotype data. *Am J Hum Genet* 80: 948–956.
46. Fullwiley D (2007) The molecularization of race. *Sci Cult* 16: 1–30.
47. Cooper RS, Kaufman JS, Ward R (2003) Race and genomics. *N Engl J Med* 348: 1166–1170.
48. Jackson F (1993) Evolutionary and political economic influences on biological diversity in African Americans. *J Black Stud* 23: 539–540.
49. King RC (2000) Racialization, recognition, and rights: Lumping and splitting multiracial Asian Americans in the 2000 Census. *J Asian-Am Stud* 32: 191–217.
50. Tishkoff S, Kidd K (2004) Implications of biogeography of human populations for 'race' and medicine. *Nat Genet* 36(11 Suppl): S21–S27.
51. McLeod HL (2001) Pharmacogenetics: More than skin deep. *Nat Genet* 29: 247–248.
52. Wilson JF, Weale ME, Smith AC, Gratrix F, Fletcher B, et al. (2001) Population genetic structure of variable drug response. *Nat Genet* 29: 265–269.
53. Sankar P (2003) MEDLINE definitions of race and ethnicity and their application to genetic research. *Nat Genet* 31: 119.
54. Sankar P, Cho MK (2002) Toward a new vocabulary of human genetic variation. *Science* 298: 1337–1338.
55. Painter N (2003) Why white people are called 'Caucasian.' Proceedings of the Fifth Annual Gilder Lehrman Center International Conference at Yale University. Available: <http://www.yale.edu/glc/events/race/Painter.pdf>. Accessed 20 August 2007.
56. Nobles M (2000) Shades of citizenship: Race and the census in modern politics. Palo Alto (CA): Stanford University Press. 248 p.
57. Population Registration Act, Act No. 30 of 1950, Republic of South Africa, Government Gazette.
58. Population Registration Act, Act No. 64 of 1967, Republic of South Africa, Government Gazette.
59. Ellison GTH, de Wei T, Ijsselmuizen CB, Richter LM (1996) Desegregating health statistics and health research in South Africa. *S Afr Med J* 86: 1257–1262.
60. Ellison GTH, de Wei T (1997) The use of 'racial' categories in contemporary South African health research. *S Afr Med J* 87: 1671–1679.
61. West ME, Boonzaier EA (1989) Population groups, politics and medical science. *S Afr Med J* 76: 185–186.
62. Callis HA (1929) Comparative therapy in syphilis. *Journal of the National Medical Association* XXI: January–March. Reprinted in: Wesley CH (1977) Henry Arthur Callis, life and legacy. Chicago: Foundation Publishers. pp. 186–204.
63. Callis HA (1929) Primary syphilis. *J Nat Med Assoc* XXI April–June. Reprinted in: Wesley CH (1977) Henry Arthur Callis, life and legacy. Chicago: Foundation Publishers. pp. 186–204.
64. Schamberg J, Wright CS (1932) Treatment of syphilis. New York: D. Appleton. 525 p.
65. Moore JE (1947) The modern management of syphilis. 2nd edition. Springfield: Charles C. Thomas Publishers. 717 p.
66. Kaplan JB, Bennet T (2003) Use of race and ethnicity in biomedical publication. *JAMA* 289: 2709–2716.
67. Oni M, Winant H (1994) Racial formation in the United States: From the 1960's to the 1990's. New York: Routledge. 226 p.
68. Lee J, Bean FD (2001) America's changing color lines: Immigration, race/ethnicity, and multiracial identification. *Annu Rev Sociol* 30: 221–242.
69. Roberts S (2005 February 21) More Africans enter U.S than in days of slavery. *The New York Times*. Available: <http://www.nytimes.com/2005/02/21/nyregion/21africa.html?ex=1266728400&en=0ea8081ad263210&ei=508&partner=rssnyt>. Accessed 20 August 2007.
70. World Health Organization (2006) Sickle-cell anaemia: Report by the Secretariat. Available: [http://www.who.int/gb/ebwha/pdf\\_files/EB117/B117\\_34-en.pdf](http://www.who.int/gb/ebwha/pdf_files/EB117/B117_34-en.pdf). Accessed 20 August 2007.
71. Ackerman II, Usen S, Jallow M, Sisay-Joof F, Pinder M, et al. (2005) A comparison of case-control and family-based association methods: The example of sickle-cell and malaria. *Am Hum Genet* 69 (Pt 5): 559–565.
72. Kate SL (2001) Health problems of tribal population groups from the state of Maharashtra. *Indian J Med Sci* 55: 99–108.
73. Betancourt JR, Green AR, Carrillo JE, Ananeh-Firempong IO (2003) Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Rep* 118: 293–302.
74. Kleinman A, Benson P (2006) Anthropology in the clinic: The problem of cultural competency and how to fix it. *PLoS Med* 3: e29 L doi:10.1371/journal.pmed.0030294
75. Wade N (2006 October 5) \$10 million prize set up for speedy DNA decoding. *The New York Times*. Available: <http://select.nytimes.com/search/restricted/article?res=F50F12FD3E540C768CDDA90994DE404482>. Accessed 20 August 2007.
76. Reverby SM (2006 April 16) "Special treatment": BiDiL, Tuskegee and the logic of race. Paper given at the MIT Conference on Race, Pharmaceuticals and Medical Technology.
77. Kahn J (2004) How a drug becomes 'ethnic': Law, commerce, and the production of racial categories in medicine. *Yale J Health Policy Law Ethics* 4: 1–46.
78. Lee SJS (2005) Racializing drug design: Implications of pharmacogenomics for health disparities. *Am J Public Health* 95: 2135–2138.
79. Cooper RS, Wolf-Maier K, Luke A, Adeyemo A, Banegas JR, et al. (2005) An international comparative study of blood pressure in populations of European vs. African descent. *BMC Med* 3: 2.
80. Krieger N (2005) Defining and investigating social disparities in cancer: Critical issues. *Cancer Causes Control* 16: 5–11.
81. Krieger N (2005) Stormy weather: Race, gene expression and the science of health disparities. *Am J Public Health* 95: 2155–2160.
82. Krieger N (2005) Embodiment: A glossary for epidemiology. *J Epidemiol Community Health* 59: 350–355.
83. Krieger N, Smith K, Naishadham D, Hartman C, Barbeau EM (2003) Experiences of discrimination: Validity and reliability of a self-report measure for population health research on racism and health. *Soc Sci Med* 61: 1576–1596.
84. Fausto-Sterling A (2005) The bare bones of sex: Part I. sex and gender. *Signs* 30: 1491–1498.
85. Masi C, Olopade O (2005) Racial and ethnic disparities in breast cancer: A multilevel perspective. *Med Clin North Am* 89: 753–770.

## GENETICS

# The Science and Business of Genetic Ancestry Testing

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At least two dozen companies now market “genetic ancestry tests” to help consumers reconstruct their family histories and determine the geographic origins of their ancestors. More than 460,000 people have purchased these tests over the past 6 years (1), and public interest is still skyrocketing (1–4). Some scientists support this enterprise because it makes genetics accessible and relevant; others view it with indifference, seeing the tests as merely “recreational.” However, both scientists and consumers should approach genetic ancestry testing with caution because (i) the tests can have a profound impact on individuals and communities, (ii) the assumptions and limitations of these tests make them less informative than many realize, and (iii) commercialization has led to misleading practices that reinforce misconceptions.



## The Impact of “Recreational Genetics”

Although genetic ancestry testing is often described as “recreational genetics,” many consumers do not take these tests lightly. Each test costs \$100 to \$900, and consumers often have deep personal reasons for purchasing these products. Many indi-

viduals hope to identify biological relatives, to validate genealogical records, and to fill in gaps in family histories. Others are searching for a connection to specific groups or places in Eurasia and Africa. This search for a “homeland” is particularly poignant for many African-Americans, who hope to recapture a history stolen by slavery. Others seek a more nuanced picture of their genetic backgrounds than the black-and-white dichotomy that dominates U.S. racial thinking.

Genetic ancestry testing also has serious consequences. Test-takers may reshape their personal identities, and they may suffer emotional distress if test results are unexpected or undesired (5). Test-takers may also change how they report their race or ethnicity on governmental forms, college or job applications, and medical questionnaires (6). This could make it more difficult to track the social experiences and effects of race and racism (6). Genetic ancestry testing also affects broader communities: Tests have led African-Americans to visit and financially support specific

Commercially available tests of genetic ancestry have significant scientific limitations, but are serious matters for many test-takers.

African communities. Other Americans have taken the tests in hope of obtaining Native American tribal affiliation (and benefits like financial support, housing, education, health care, and affirmation of identity) or to challenge tribal membership decisions (7).

## Limitations

It is important to understand what these tests can and cannot determine. Most tests fall into two categories. Mitochondrial DNA (mtDNA) tests sequence the hypervariable region of the maternally inherited mitochondrial genome. Y-chromosome tests analyze short tandem repeats and/or single nucleotide polymorphisms (SNPs) in the paternally inherited Y chromosome. In both cases, the test-taker’s haplotype (set of linked alleles) is determined and compared with haplotypes from other sampled individuals. These comparisons can identify related individuals who share a common maternal or paternal ancestor, as well as locations where the test-taker’s haplotype is found today.

However, each test examines less than 1% of the test-taker’s DNA and sheds light on only one ancestor each generation (8). A third type of test (DNA Print’s Ancestry-ByDNA test) attempts to provide a better measure of overall ancestry by using 175 autosomal markers (inherited from both parents) to estimate an individual’s “biogeographical ancestry.”

Although companies acknowledge that mtDNA and Y-chromosome tests provide no information about most of a test-taker’s ancestors, more important limitations to all three types of genetic ancestry tests are often less obvious. For example, genetic ancestry testing can identify some of the groups and locations around the world where a test-taker’s haplotype or autosomal markers are found, but it is unlikely to identify all of them. Such inferences depend on the samples in a company’s database, and even databases with 10,000 to 20,000 samples may fail to capture the full array of human genetic diversity in a particular population or region.

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Another problem is that questionable scientific assumptions are sometimes made when companies report results of a genetic ancestry test. For instance, when an allele or haplotype is most common in one population, companies often assume it to be diagnostic of that population. This can be problematic because high genetic diversity exists within populations and gene flow occurs between populations. Very few alleles are therefore diagnostic of membership in a specific population (9), but companies sometimes fail to mention that an allele could have been inherited from a population in which it is less common. Consequently, many consumers do not realize that the tests are probabilistic and can reach incorrect conclusions.

Consumers often purchase these tests to learn about their race or ethnicity, but there is no clear-cut connection between an individual's DNA and his or her racial or ethnic affiliation. Worldwide patterns of human genetic diversity are weakly correlated with racial and ethnic categories because both are partially correlated with geography (9). Current understandings of race and ethnicity reflect more than genetic relatedness, though, having been defined in particular sociohistorical contexts (i.e., European and American colonialism). In addition, social relationships and life experiences have been as important as biological ancestry in shaping individual identity and group membership.

Many genetic ancestry tests also claim to tell consumers where their ancestral lineage originated and the social group to which their ancestors belonged. However, present-day patterns of residence are rarely identical to what existed in the past, and social groups have changed over time, in name and composition (10). Databases of present-day samples may therefore provide false leads.

Finally, even though there is little evidence that four biologically discrete groups of humans ever existed (9), the AncestryByDNA test creates the appearance of genetically distinct populations by relying on "ancestry informative markers" (AIMs). AIMs are SNPs or other markers that show relatively large (30 to 50%) frequency differences between population samples. The AncestryByDNA test examines AIMs selected to differentiate between four "parental" populations (Africans, Europeans, East Asians, and Native Americans). However, these AIMs are not found in all peoples who would be classed together as a given "parental" population. The AIMs that characterize "Africans," for example, were chosen on the basis of a sample of West Africans. Dark-skinned East Africans might be omitted from the AIMs reference panel of "Africans"

because they exhibit different gene variants (11–13). Furthermore, some of the most "informative" AIMs involve loci that have undergone strong selection (14), which makes it unclear whether these markers indicate shared ancestry or parallel selective pressures (such as similar environmental exposures in different geographic regions) or both.

The problems described here are likely responsible for the most paradoxical results of this test. For instance, the AncestryByDNA test suggests that most people from the Middle East, India, and the Mediterranean region of Europe have Native American ancestry (15). Because no archaeological, genetic, or historical evidence supports this suggestion, the test probably considers some markers to be diagnostic of Native American ancestry when, in fact, they are not.

Thus, these tests should not be seen as determining the race or ethnicity of a test-taker. They cannot pinpoint the place of origin or social affiliation of even one ancestor with exact certainty. Although wider sampling and technological advancements may help (16), many of the tests' problems will remain.

#### Effects of Commercialization

Although it is important for consumers to understand the limitations of genetic ancestry testing and the complex relation between DNA, race, and identity, these complexities are not always made clear. Web sites of many companies state that race is not genetically determined, but the tests nevertheless promote the popular understanding that race is rooted in one's DNA (17)—rather than being an artifact of sampling strategies, contrasting geographical extremes, and the imposition of qualitative boundaries on human variation. Because race has such profound social, political, and economic consequences, we should be wary of allowing the concept to be redefined in a way that obscures its historical roots and disconnects it from its cultural and socioeconomic context.

It is unlikely that companies (and the associated scientists) deliberately choose to mislead consumers or misrepresent science. However, market pressures can lead to conflicts of interest, and data may be interpreted differently when financial incentives exist. For scientists, these incentives include paid consultancies, patent rights, licensing agreements, stock options, direct stock grants, corporate board memberships, scientific advisory board memberships, media attention, lecture fees, and/or research support. Because scientific pronouncements carry immense weight in our society, claims must be carefully evaluated when scientists have a financial

stake in them. Unfortunately, peer-review is difficult here, because most companies maintain proprietary databases.

As consumers realize that they have been sold a family history that may not be accurate, public attitudes toward genetic research could change. Support for molecular and anthropological genetics might decrease, and historically disadvantaged communities might increase their distrust of the scientific establishment (18). These tests may also come up in medical settings: Many consumers are aware of the well-publicized association between ancestry and disease, and patients may ask doctors to take their ancestry tests into consideration when making medical decisions. Doctors should be cautious when considering such results (19).

We must weigh the risks and benefits of genetic ancestry testing, and as we do so, the scientific community must break its silence and make clear the limitations and potential dangers. Just as the American Society of Human Genetics recently published a series of recommendations regarding direct-to-consumer genetic tests that make health-related claims (20), we encourage ASHG and other professional genetic and anthropological associations to develop policy statements regarding genetic ancestry testing.

#### References and Notes

1. H. Wolinsky, *EMBO Rep.* **7**, 1072 (2006).
2. J. Simons, *Fortune* **155**, 39 (2007).
3. Thirteen/WNET New York, *African American Lives*, "Episode 2: The Promise of Freedom," press release (27 July 2007).
4. P. Harris, *Observer* [London], 15 July 2007, p. 22.
5. *Motherland*, "A Genetic Journey" (Takeaway Media Productions, London, 2003).
6. A. Harmon, *New York Times*, 12 April 2006, p. A1.
7. B. Hoerner, *Wired* **13** (2005).
8. A. Yang, *Chance* **20**, 32–39 (2007).
9. K. Weiss, M. Fullerton, *Evol. Anthropol.* **14**, 165 (2005).
10. C. Rotimi, *Dev. World Bioethics* **3**, 151–158 (2003).
11. S. Tishkoff et al., *Nature Genet.* **39**, 31–40 (2006).
12. A. Mourant, A. Kopeck, K. Domaniewska-Sobczak, *The Distribution of the Human Blood Groups and Other Polymorphisms* (Oxford Univ. Press, London, 1976).
13. M. Hamblin, A. Di Rienzo, *Am. J. Hum. Genet.* **66**, 1669–1679 (2002).
14. J. Akey et al., *Genome Biol.* **12**, 1805–1814 (2002).
15. www.ancestrybydna.com/welcome/productsandservices/ancestrybydna/ethnicities.
16. M. Shriver, R. Kittles, *Nature Rev. Genet.* **5**, 611 (2004).
17. DNAPrint, Frequently asked questions, no. 1, www.ancestrybydna.com/welcome/faq/#q1.
18. J. Reardon, *Race to the Finish: Identity and Governance in an Age of Genomics* (Princeton Univ. Press, Princeton, NJ), 2004).
19. In contexts such as gene mapping and genome-wide associations, genetic ancestry information can protect against confounding by population stratification or provide evidence of the population origin of specific susceptibility alleles (21). These applications are much narrower than determination of individual ancestry.
20. K. Hudson et al., *Am. J. Hum. Genet.* **81**, 635 (2007).
21. M. Enoch et al., *J. Psychopharmacol.* **20**, 19 (2006).

10.1126/science.1150098