

THE FOUNDATION OF MODERN RACIAL CATEGORIES AND IMPLICATIONS FOR RESEARCH ON BLACK/WHITE DISPARITIES IN HEALTH

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The persistence of black/white disparities in health outcomes has led some to question the approaches public health, biomedical and clinical researchers use to classify, describe, and analyze race. Although these fields appear ready for the emergence of new strategies for studying race, they must first develop a solid understanding of the historical bases for the concept. This article adds to the health disparities discourse by explaining the origins of the US race and ethnicity concepts and clarifying ways in which race is 'real.' The idea of distinct and hierarchically valued races is a dominant, though problematic paradigm for explaining human diversity. We propose that the construct of race is inseparable from the term's origins and, in research must be treated as such. Doing so appropriately may enhance cross-disciplinary efforts to target the fundamental causes of racial disparities in health. We draw on multi-disciplinary research to explain how race became fixed within the American mind, describe how it structures human interactions, and highlight limitations of the official racial/ethnic categories enumerated by the US Office of Management and Budget. (*Ethn Dis.* 2009;19:209–217)

Key Words: Population Characteristics, Population Groups, History, Blacks, Race, Ethnicity, Social Environment

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INTRODUCTION

Inconsistent progress in narrowing the black/white racial gap in health outcomes^{1,2} has led many to question how health researchers classify, describe, and analyze race in their efforts to understand racial disparities in health. As Braun explains, "the notion of 'inequality' or 'disparity' implies group difference in the experience of health"; therefore, "much of the debate over health disparities has necessarily centered on the issue of human classification."³ p. 557 Researchers have recommended a focus on ethnic rather than racial variation,^{4,5} proposed alternative terminology for racial and ethnic categories,^{6–8} questioned the exchangeability assumptions intrinsic to efforts to explain racial disparities,⁹ suggested abandoning racial comparisons altogether,⁴ and debated whether strong associations between genetic markers, continental ancestry, and standard racial/ethnic categories validate the latter's biologic relevance.^{3,10–12} Researchers and the public, however, lack a uniform understanding about what the terms race and ethnicity refer to and how they should be categorized.^{6,10,13,14} Furthermore, despite the current national focus on understanding and reducing health disparities between racially designated groups, terse attention is given to the origins of racial terminology and classifications. Advancing our ability to address racial/ethnic disparities in health requires an historically informed understanding of these issues, including how the notion of fixed and distinct races became fixed in the American mind.

Example

A dark-skinned Dominican-American woman may be viewed as black by a police officer pursuing a black

suspect, Dominican by an employer who subscribes to the belief that Hispanics/Latinos possess a better work ethic than do African Americans, and simply Dominican by herself and her family. In other words, the manner in which she self identifies may rarely involve race, but ideas about race and ethnicity may affect her likelihood of being subjected to police surveillance or brutality, opportunities for employment, self-identity, cultural milieu, and associated stressors.

As demonstrated by research on social and contextual health influences, all of these factors may affect her health and life expectancy. Health investigations that seek to understand the mechanisms through which racial and ethnic factors operate must recognize and differentiate the various aspects of identity outlined in this example.

The inclusion of race/ethnicity in an epidemiologic triad with age and sex has become routine.^{14–17} For example, from 1996 through 1999, 77% of studies published in the *American Journal of Epidemiology* and the *American Journal of Public Health* made some reference to race or ethnicity.¹⁴ Race, sex and age, all may be thought of as physical attributes with social relevance. Race, however, differs conceptually from both sex and age because it lacks agreed-upon criteria for classification¹⁶ or a direct biological component. Because no set of biological traits determines race¹⁸ and because racial/ethnic designations represent the needs of various stakeholders, racial categories change over time^{19,20} and are used inconsistently and unreliably.^{14,21,22}

There is no 'gold standard' for the use of race in health research; however, the Office of Management and Budget (OMB) establishes racial and ethnic

standards for census and other official data collection and the NIH requires that investigators categorize clinical research study participants into the OMB-defined racial/ethnic categories. These are as follows with the descriptions in parentheses referring to “a person having origins in the”: American Indian or Alaska Native (original peoples of North, Central, and South America who maintain tribal affiliation or community attachment), Asian (original peoples of the Far East, Southeast Asia, or the Indian subcontinent), Black or African American (black racial groups of Africa), Native Hawaiian or other Pacific Islander (original peoples of Hawaii, Guam, Samoa, or other Pacific Islands), or white (original peoples of Europe, the Middle East, or North Africa), and Hispanic/Latino (Cuban, Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race) or not.²³ This commentary’s uses of the terms race and ethnicity follow these official designations.

Efforts to explain racial disparities in health are expanding with increased attention and funding for this area. We suggest that the historical context in which racial categorization evolved in the United States provides the appropriate starting point for conducting and critiquing research on race, ethnicity, and health, including proposals to abandon

the race variable. Many disparities researchers may lack training and expertise in this area. To this end, we briefly review the origins of the term and the history of racial classification in the American context, focusing most of our attention on how race has been applied to peoples of African and European descent because overall health disparities are greatest between these groups.

RACE: ORIGINS OF THE TERM

The precise origins of the term “race” are obscure, but it appears that the word evolved in Romance languages during the Middle Ages and was used to describe distinct breeding lines of animals. The application of the English word race to classify humans of varying geographic origins and phenotypes likely stems from the Italian, *razza* or *raza*, a classificatory term for animals similar to type or species.²⁴ As a taxonomic category, race falls below the level of species, implying biologically (and genetically) distinct populations that may interbreed and produce viable offspring.²⁵ The scientific and popular North American versions of the modern concept of human races and formal race taxa for human populations emerged in the 17th century, which precedes modern genetic theory and thus challenges

present-day assumptions that the origins of race are genetic endeavors.

The first known scientific descriptions of human “races” was published by the French physician Francis Bernier in 1684. It described four groups distinguished by geography but described by phenotype.²⁶ Numerous other racial classification systems were published subsequently as the new discipline of anthropology evolved and colonial exploration expanded during the following century. In 1735 the Swedish-American naturalist and father of modern taxonomy, C. Linnaeus, first published *System Naturae*. In it, Linnaeus proposed four distinct racial groups for human beings that encompassed not only phenotype and geographic origin but also personality traits, skills, and abilities generally thought to be inherent to each group (Figure 1).^{27,28} The categories in these early “scientific racial classifications” were often explicitly or implicitly ordered, with descriptions or rankings that regularly placed blacks (Africans) at the bottom and whites (Europeans) at or near the top.²⁷ Interestingly, the 1990 US Census used essentially the same four racial groupings – Indian (Amer.)/Eskimo/Aleut, Asian/Pacific Islander subgroups, black or Negro, and white²³ — demonstrating how relevant the history is to our current understandings and uses of race.

<p>Americanus (American Indian): <i>reddish</i>, choleric, and erect; hair black, straight, thick, wide nostrils, scanty beard; obstinate, merry, free; paints himself with fine red lines; <i>regulated by customs</i></p> <p>Asiaticus (Asian): <i>sallow</i>, melancholy, stiff; hair black; dark eyes; severe, haughty, avaricious; covered with loose garments; <i>ruled by opinions</i></p> <p>Africanus (black): <i>black</i>, phlegmatic, relaxed; hair black, frizzled; skin silky, nose flat; lips tumid; women without shame, they lactate profusely; crafty, indolent, negligent; anoints himself with grease; <i>governed by caprice</i></p> <p>Europeaeus (white): <i>white</i>, sanguine, muscular; hair long, flowing; eyes blue; gentle, acute, inventive; covers himself with close vestments; <i>governed by laws</i></p>
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Fig 1. Racial classification scheme by Linnaeus (as summarized from *Systemae Naturae*²⁵ p. 164)

EVOLUTION OF THE RACE CONCEPT

The concept of inherently distinct and unequal subpopulations of human beings termed "races" continued to evolve during the period of Spanish and British colonial expansion, the extermination and removal of various American Indian tribes, and the massive enslavement of Africans on American shores.²⁸⁻³⁰ We and others propose that, over time, these beliefs about race coalesced into an "ideology," or systematic body of ideas³¹ that reflected the social and economic needs and aspirations of the dominant classes and (in this case) the emerging United States government.^{32,33} Ideologies shape the organizing principles by which societies operate and help establish how individuals understand themselves in relationship to others and the world around them.³⁴ The birth of racial categories was the product of these sociopolitical organizing principles: "Racism appeared and gained currency with the beginning of 'modern science' which coincided with the development of one of the ideological systems that gave legitimacy to the bourgeoisie who was then acceding to political and economic power."³⁵ p. 291

In the United States, early racial classifications and descriptions (ie, labels such as 'white,' 'red,' and 'black') reflected the striking skin color differences that distinguished European settlers, American Indians, and West Africans. As populations representing the full skin color continuum between these groups (ie, the 'shades of grey' between black and white) were not present, the phenotypic distinctions between them seemed discrete. These striking phenotypic differences helped shape North America's particular manifestation of slavery.^{28,32} For example, European indentured servants originally held a somewhat similar status to African servants and composed the major portion of the free labor pool in the first half of the 1600s.²⁸ Through-

out the second half of the 1600s, however, social, economic, and legislative changes altered the character of forced servitude in the colonies, making it a permanent status for African servants and eventually reserving this slavery solely for Africans and their descendants:

"There is, or should be, no doubt that the Africans' physical differences facilitated their reduction to the kind of servitude that the English had long wanted and that agricultural circumstances demanded. The visibility of Africans made it possible to structure the demarcation point of permanent slavery solely on the basis of color. Captured Africans, removed from any possible source of aid and comfort, thrown together with others who did not share their language, culture, or religion, were the most vulnerable of all of the subordinate populations, ..."²⁸p. 107

Increasingly, only members of one group were both born into slavery and died as slaves: Africans with dark skins. Scientific and religious theories that blacks were of a separate and inferior race flourished and served to both justify slavery's institutionalization and reinforce the idea of distinct and distinctly inferior human races.

As black slavery became institutionalized, distinctions between blacks and whites were coded into legislation, such as post-1650 colonial laws that allowed white indentured servants to marry with their masters' permission, earn their freedom, and even carry weapons.³⁶ Eventually, none of these rights were afforded to black slaves. Moreover, socioeconomic status became secondary to the dictates of race laws, such that even free blacks were not permitted rights and privileges afforded whites of similar classes. As the threat of rebellions from unified poor whites and blacks grew, laws were passed to prevent fraternization between white servants and black slaves and to better reward

white servants for their labor.^{28,36} Although many non-English European immigrants (particularly the Irish) were initially seen as inferior to the English and even depicted as subhuman, savage, or animal in scientific writings, printed advertisements, and popular culture,³⁷ the rigid boundaries among European groups blurred, disappeared, or became non-divisive over time^{38,39} and the disparaging notions eventually came to be largely reserved for African Americans and American Indians.²⁸

Through legislative and social processes, race in the North American context, evolved into a rigidly hierarchical framework for jointly conceptualizing human differences and labor divisions, with white relative to non-white, and ultimately black, forming the major dividing line.³⁶ Although frameworks existed differentiating Europeans according to nativity, class, and phenotype, Indians according to tribe, and Africans according to tribe and clan, these were slowly superseded by an ideology promoting white/non-white distinctions as more fundamental than any other.¹⁹ The phenotypic variation that existed among the different peoples who populated the Americas during the colonial period was real²⁵; however, "race," the means used to understand it, was an ideology. This race ideology supported the survival and aspirations of British settlers by legitimating the perpetual ownership and mistreatment of some human beings, the violent quest for land already inhabited by others, and the enactment of laws to prevent rebellion by poor whites and blacks who, despite their shared experiences of mistreatment and desperate economic conditions,^{28,36} were largely kept apart by racial classifications. In other words, racism, defined by Merriam-Webster as "a belief that race is the primary determinant of human traits and capacities and that racial differences produce an inherent superiority of a particular race" was encoded in the modern idea of race itself.³¹

The pre-17th century uses of the word “race” referred, in a sometimes-neutral fashion, to national groups, generations, or types and not to classifications so broad that they subsumed entire continents of people or predetermined individuals’ inherent capacities.³³ Similar to the modern-day notions of ethnicity, European explorers and scholars once used race as a means to refer to different tribes, clans, language groups, and nations,^{28,40} as these were the primary bases for group identification, conflict, and prejudice. Lumping very diverse peoples together, by, for example, stripping enslaved Africans of their tribal identities and race-ing them as black, ultimately facilitated the domination of these populations for their land, their labor, and their bodies. Religious and pseudoscientific theories linking mental and physical inferiority and superiority to newly formed racial categories served to legitimize this oppression.²⁸ For example, the exploitation of minority females in the slavery area was justified by notions regarding the untouchable and pure nature of white female bodies vs the crude, public, and inherently violable nature of black and other female bodies. It included the rape of slaves by slaveholders and the perfection of surgical techniques, without consent or anesthesia, on enslaved black women and on Eastern European immigrant women, who were not yet considered white.⁴¹

RACE: MODERN USES

The early post-slavery period, 1870–1930, saw large in-migrations of non-Anglo Saxon Europeans such as European Jews and Italians. Most were not initially classified as white but, within a few generations, became white through processes heavily influenced by labor, housing segregation, and the “Great Migration” of African Americans from the rural South to Northern urban centers where they threatened to com-

pete with Whites in the emerging industrial sector. The reclassification of these Eastern and Southern European ethnic groups occurred as whites fortified their social position while undermining black efforts to access institutions, such as labor unions and home ownership, that would improve their own.^{38,42} Racial reclassification processes continue to unfold with various implications for the growing populations of non-European people in the United States.⁴³ In some instances, however, they may reflect and reinforce perceptions of white and black as polar opposites on an American racial continuum as the quote below suggests.

“Are Lebanese white people?” we asked a 71-year-old Ned Holder, a former sheriff [in Sunflower County, MI]. “Yes,” he said, “although they’re real dark.” How about Italian Catholics; are they white? Sure. And Jews? “Yes,” he said, “they go to the white schools.” And Mexicans? “They’re becoming more white. More of them are getting an education.” Then what’s a white person, we asked? After some confusion over the meaning of the question, he concluded that it was probably anybody “who isn’t black.”⁴⁴ —Rodriguez G. “Definitions of Whiteness and the Delta Blues,” *LA Times*, 1/14/2007.

The apparent physical reality of race has become rooted in our collective consciousness even though it is not difficult today to find individuals whose phenotype is not consistent with his or her racial identity. Since 1970, those who fill out the phenotypic continuum between white and black have been at the forefront of challenging official race categories and popular notions about race. During the intervening nearly 40 years, the foreign-born population has doubled – primarily through immigration from non-European areas.^{45,46} Interracial couples, marriages and offspring have also increased dramatically.^{47,48} Many im-

migrants and interracial parents have found race notions ill-fitting to how they perceive themselves or their children.^{39,49} Persons born to different race parents have agitated for a multiracial category²³ and questioned the paradigms of white purity and non-white pollution implied in the one-drop rule that asked them to choose one race. Those from East India and Middle East have resisted being classified as Asian and white, respectively.²³ Hispanics/Latinos, whose native ideas of race and color differ markedly from U.S. ideas,^{50,51} have widely resisted racial categorization, with 42% selecting “other” race in the 2000 Census.⁵² Asian American organizations have also pushed for more detailed information on their subpopulations¹⁹ whose SES and cultures differ markedly by national origin.⁴⁶ It is for these groups – those in between the poles of black and white – that the notions of separate and distinct races most consistently break down, as evident from inconsistent racial codings on birth and death certificates,^{21,53} in multiple wave of follow-up surveys,⁵⁴ or between respondents and interviewers.⁵⁴

The 1990 and 2000 Census questions on race and ethnicity show a substantial move from an inflexible *race* based on phenotype or supposed blood quantum to a more flexible notion that captures ancestry or nationality. For example, the 2000 Census categorizes Hispanics, Asians, and Pacific Islanders by national ancestry and American Indians and Alaska Natives by tribal affiliation. Conversely, although non-Hispanic whites and blacks together compose about 80% of the US population, the Census does not further categorize these two racial groups.²³ Hence, while recognizing that a complex and inherently fluid heritage exists and should be distinguished among some peoples, the questions continue to reinforce fixed and distinct notions of black and white races, the new “select all” option for multiracial individuals, notwithstanding.

RACE: DEFINITIONS AND IMPLICATIONS

Races are not defined consistently on the basis of specific combinations of physical or cultural criteria; rather, the concept of race, derives its meaning within societal contexts.⁵⁵ Phenotypic differences, sometimes striking ones, exist across racially designated groups, but these are described in some countries without referring to the same rigid and finite racial classification system.²⁸ For example, in Brazil, individuals are categorized primarily according to skin color and class,²² with those with some African ancestry classified as white if they have light skin or large bank accounts.⁵⁶ A few other societies (eg, South Africa) operate under different, but still rigid and hierarchical racial schemata.⁵⁶ Many others focus on ethnic or religious, rather than racial, divisions.⁵⁷

In the United States, race was historically classified according to ancestry and blood quantum in official statistics and popular opinion (eg, origins of the infamous ‘one-drop rule’ are laid out in 1870, 1880, and 1890 instructions for Census takers).^{49,58} Official racial designations are now based on self-identification (many offi-

cial forms), active cultural identification (in the case of Native Americans) , mother’s race (birth certificates), geographic origin (Census), and phenotype (death certificates).^{21,59} Individuals, however, still regularly group others into racial categories based on their phenotypes without any knowledge of their ancestral origins, cultural identification, or parents’ race. Furthermore, the white and black race categories persist and many disparities in the health and social status of these groups have remained constant or worsened over the past century.¹

Approaches to presenting racial health disparities that are not historically informed have the potential to reinforce racial ideologies that assume the inferiority or superiority of racially designated groups. Acknowledging that race is a worldview whose current meanings cannot be separated from its historical origins enables health researchers to develop solid foundations for understanding and eliminating existing racial disparities in health and healthcare delivery (Figure 2). This includes the behaviors of healthcare providers who may not consciously subscribe to prejudiced ideas against minorities but whose practice of medicine is differential by patient race.²⁴

Several studies,^{60–62} including randomized controlled trials with video pseudopatients,⁶³ have documented differential treatment by patient race. This research allows us to discuss race in a causal, counterfactual sense – similar patients of white rather than black race would have been more likely to receive aggressive care.⁶⁴ However, the actual causal mechanism – the so-called “race effect”– relates not to personal race attributes but to the relative positions these pseudopatients occupy within the racial hierarchy of the physicians’ society. In other words, racial hierarchies establish value systems and prejudices in individual’s minds that can lead them to differentially react to others’ phenotypes. As no feasible interventions can change a patient’s race, interventionists must target interpersonal factors (eg, the conscious or subconscious racial ideology of healthcare providers) and structural factors (eg, the institutional systems in which clinicians operate) to insure equitable care.⁶⁵

The manifestation of racial ideologies in the structural features of institutions can lead them to operate in ways that can create or reinforce racial inequalities without any intentionality on the part of those involved (ie, institutionalized racism).^{66,67} Structural

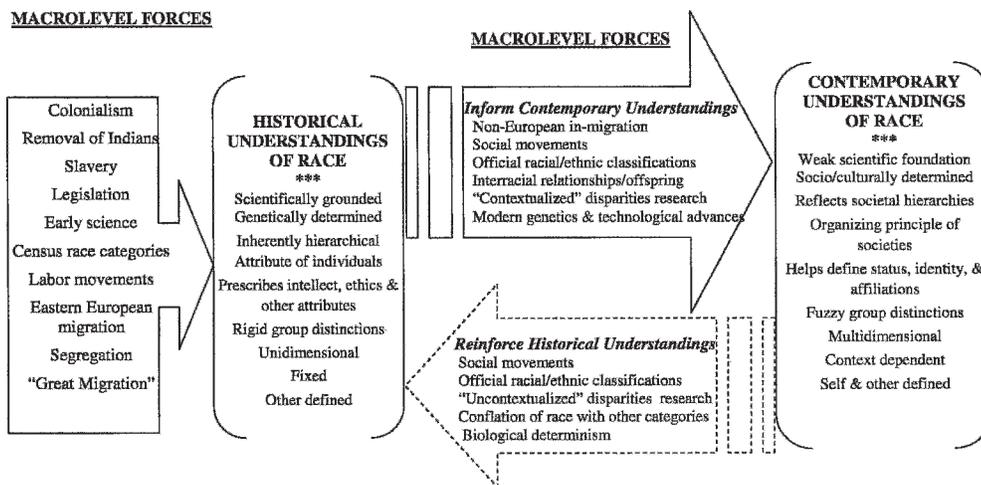


Fig 2. Examples of macrolevel forces leading to and influencing the historical and contemporary understandings of race in the United States of America

racism, together with sexism and classism, may thus be a fundamental cause of health disparities⁶⁸⁻⁷⁰ and limit the effectiveness of public health interventions that do not acknowledge and address it.⁶⁶ The following examples are just a few of many that indicate the importance of contextualizing disparities research given the implications of such structural inequalities: 1) black patients' adherence to prescribed treatment regimens may be hampered by pharmacies' refusal to dispense narcotic pain medications in some predominately black neighborhoods,⁷⁰ 2) HIV/STD prevention approaches that fail to acknowledge the influence of sexual network characteristics on risk⁷¹⁻⁷⁴ may be ineffective and reinforce negative stereotypes about the sexuality of men and women of color,^{75,76} and 3) in addition to contributing to access issues and risky sexual networks, steering and redlining in real estate (ie, withholding home-loan funds or insurance from neighborhoods considered poor-economic risks) may limit opportunities for affected minority groups to reside in areas that are low in pollutants and supportive of physical activity.⁷⁰

Some describe the resulting impact of differential treatment on health as "the effect of racism" not "the effect of race" itself.^{4,64} This framing of the issue helps to shift research away from attributes commonly associated with race and toward those forces differentially impacting racially defined groups, but it can be problematic, too. First, like race, racism continues to be conceived of erroneously as an individual-level characteristic or as interpersonal discriminatory treatment; therefore, researchers may infer that unfair or differential treatment occurs solely as a result of specific individuals' (eg, physicians') attitudes or behaviors. In truth, racism is an integral feature of society. It is not merely an individual attribute but a fundamental system attribute.^{41,77} Counteracting the inequality built into systems and the multiple inequalities

this generates – including who has the opportunity to become a physician – requires this shift in focus to institutionalized racism.

Second, even when very strong evidence indicates that discriminatory practices may be at work, scholarly discourse tends to avoid describing them as racist or reacts negatively to such descriptions. This presents challenges for publication of research that might advance this line of inquiry and ultimately reduce disparities.²⁸ Finally, posing questions like, "Is it race or racism?"⁷⁸ can inadvertently suggest that there exists a neutral 'race' that is neither a product of nor affected by racial stratification. We contend that there is an effect of being racially categorized that reflects the experience of living in a society where one's racialized phenotype influences one's social status.⁷⁹ This effect can be blunted or compounded by whether and how an individual identifies with his or her racial designation, internalizes society's ideas about his or her racial group, and copes with racism.^{80,81}

CONCLUSIONS

Although immigration, multiracial offspring and social movements for racial and gender equality have radically changed the racial landscape and dialogue in the United States, the origins of the modern American race concept continue to have important implications for our contemporary ideas about race and its relevance to health. These ideas reflect perceptions about the sharp phenotypic differences observed during the initial contacts between British colonists, various American Indian peoples, and enslaved Africans in what is now the United States. The import awarded to skin color in determining race fostered the acquisition of land by whites and the perpetuation of chattel slavery for free labor. These processes and institutions strengthened and were

strengthened by the false notion that hierarchical racial categories reflected biological realities. *Finally*, the ongoing debate about whether race is a social or biological category is unlikely to be resolved if race continues to be conceived of as solely an attribute of individuals because it does not address why race seems to be a scientific fact.⁵⁵

We argue that race is a social category with some relevant biologic linkages; however, these can often be more precisely described by other variables. For example, a recent *San Francisco Chronicle* article describing a newly discovered genetic variant that may help explain elevated HIV rates among blacks contained the following statement,

Certain species of malaria parasites latch on to the Duffy protein and use it as a gateway to enter red blood cells. Africans overwhelmingly carry a gene that disables this gateway - and Weiss believes this may have been the result of an evolutionary battle between humans and malaria. The genetic trait is also prevalent among African Americans, who typically carry a mixture of African and European bloodlines.⁸²

The use here of African, African American, and European provides readers a clear understanding of whom this gene most affects and its evolutionary etiology. Replacing African and African American with black and European with white would obfuscate the information, failing to clarify that some blacks are less likely to have this gene than others and implying that the gene's distribution in non-European whites (some of whom come from areas affected by malaria) is similar to that of European whites. Adding the term black in front of "African" and white in front of "European" might further clarify that the terms refer to people of African and European descent rather than, for example, the white and Indian populations of sub-Saharan Africa.

There are few simple solutions to the challenge of understanding or even discussing racial disparities in disease risk. In fact, efforts to simplify the complexity of human phenotypic, genetic, cultural, and socioeconomic variation have made race-related research a minefield of often premature and ultimately wrong conclusions.⁸³ Health researchers are both reactors to and agents of the processes by which racial distinctions and race itself become meaningful to the general public.⁸⁴ Given the contested nature of racial terminology and the fact that even sociobehavioral approaches to health seek to understand influences on biological processes, we must allow little room for misinterpretation of how we as researchers define race and ethnicity constructs. Health researchers need to understand the origins of the race concept so as not to inadvertently reinforce now debunked assumptions about it. In other words, neither reliance upon simplistic, nominal changes to group nomenclature (eg, "African American" instead of "black") nor ignoring the historical origins of our racial thinking challenge ideas at the core of U.S. racial ideologies – that some phenotypically defined groups are inherently superior to others, whether in intelligence, physical power, morals, ability to self-govern, cultural practices, or health. Only through critical and transparent approaches based on understandings of the origins of race can we begin to break from the habit of racialized thinking.

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REFERENCES

1. Levine RS, Foster JE, Fullilove RE, et al. Black-white inequalities in mortality and life expectancy, 1933–1999: implications for healthy people 2010. *Public Health Rep.* 2001;116(5):474–83.
2. Harper S, Lynch J, Burris S, Davey, Smith G. Trends in the black-white life expectancy gap in the United States, 1983–2003. *JAMA.* 2007;297(11):1224–32.
3. Braun L. Reifying human difference: the debate on genetics, race, and health. *Int J Health Serv.* 2006;36(3):557–73.
4. Fullilove MT. Comment: abandoning "race" as a variable in public health research—an idea whose time has come. *Am J Public Health.* 1998;88(9):1297–1298.
5. Williams DR. Race and health: basic questions, emerging directions. *Ann Epidemiol.* 1997;7(5):322–333.
6. Bhopal R. Glossary of terms relating to ethnicity and race: for reflection and debate. *J Epidemiol Community Health.* 2004;58(6):441–445.
7. Hayes-Bautista DE, Chapa J. Latino terminology: conceptual bases for standardized terminology. *Am J Public Health.* 1987;77(1):61–68.
8. Agyemang C, Bhopal R, Bruijnzeels M. Negro, Black, Black African, African Caribbean, African American or what? Labelling African origin populations in the health arena in the 21st century. *J Epidemiol Community Health.* 2005;59(12):1014–1018.
9. Kaufman JS, Cooper RS. Seeking causal explanations in social epidemiology. *Am J Epidemiol.* 1999;150(2):113–120.
10. Cooper RS, Kaufman JS, Ward R. Race and genomics. *N Engl J Med.* 2003;348(12):1166–1170.
11. Risch N, Burchard E, Ziv E, Tang H. Categorization of humans in biomedical research: genes, race and disease. *Genome Biol.* 2002;3(7), comment.
12. Tang H, Quertermous T, Rodriguez B, et al. Genetic structure, self-identified race/ethnicity, and confounding in case-control association studies. *Am J Hum Genet.* 2005;76(2):268–275.
13. Manly JJ. Deconstructing race and ethnicity: implications for measurement of health outcomes. *Med Care.* 2006;44(11 Suppl 3):S10–S16.
14. Comstock RD, Castillo EM, Lindsay SP. Four-year review of the use of race and ethnicity in epidemiologic and public health research. *Am J Epidemiol.* 2004;159(6):611–619.
15. Jones CP, LaVeist TA, Lillie-Blanton M. "Race" in the epidemiologic literature: an examination of the American Journal of Epidemiology, 1921–1990. *Am J Epidemiol.* 1991;134(10):1079–1084.
16. Lin SS, Kelsey JL. Use of race and ethnicity in epidemiologic research: concepts, methodological issues, and suggestions for research. *Epidemiologic Reviews.* 2000;22(2):187–202.
17. Williams DR, Lavizzo-Mourey R, Warren RC. The concept of race and health status in America. *Public Health Rep.* 1994;109(1):26–41.
18. Cooper RS. A case study in the use of race and ethnicity in public health surveillance. *Public Health Rep.* 1994;109(1):46–52.
19. Lee S. Racial classifications in the U.S. Census - 1890–1990. *Ethnic and Racial Studies.* 1993;16:16.
20. McKenney NR, Bennett CE. Issues regarding data on race and ethnicity: the Census Bureau experience. *Public Health Rep.* 1994;109(1):16–25.
21. Hahn RA, Mulinare J, Teutsch SM. Inconsistencies in coding of race and ethnicity between birth and death in US infants. A new look at infant mortality, 1983 through 1985. *JAMA.* 1992;267(2):259–63.
22. Nobles M. History counts: a comparative analysis of racial/color categorization in US and Brazilian censuses. *Am J Public Health.* 2000;90(11):1738–1745.
23. Office of Management and Budget. *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity.* Washington, DC: US White House; 1997 October.
24. Smedley BD, Stith AY, Nelson AR, eds. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.* First ed. Washington D.C.: National Academies Press; 2002.
25. Gould S. *The Mismeasure of Man.* New York: W.W. Norton & Company; 1996, 1981.
26. Bernier F. *A New Division of the Earth.* Translated by T Bendyphe in "Memoirs Read Before the Anthropological Society of London" 1863–1864;1:360–64.
27. Patterson T, Spencer F. Racial hierarchies and buffer races. *Transform Anthropol.* 1994;5:20–27.
28. Smedley A. *Race in North America: Origin and Evolution of a Worldview.* Boulder: Westview Press; 1993.
29. Baker L. Race, racism, and the history of U.S. Anthropology. *Transform Anthropol.* 1994;5:1–7.
30. Montagu A. *Man's Most Dangerous Myth: the Fallacy of Race.* Walnut Creek: AltaMira Press; 1997.
31. Merriam-Webster. In: *Merriam-Webster's Online Dictionary:* Merriam-Webster Inc; 2007–2008.
32. Franklin JH, Moss A. *From Slavery to Freedom: A History of African Americans.* New York: Alfred A. Knopf; 2000.
33. Guillaume C. The idea of race and its elevation to autonomous scientific and legal

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- status. In: UNESCO, ed. *Sociological Theories: Race and Colonialism*. Paris: United Nations Educational Scientific and Cultural Organization; 1980:37-68.
34. Krieger N, Rowley DL, Herman AA, Avery B, Phillips MT. Racism, sexism, and social class: implications for studies of health, disease, and well-being. *Am J Prev Med*. 1993;9(6 Suppl): 82-122.
 35. Rozat G, Bartra R. Racism and capitalism. In: United Nations Educational Scientific and Cultural Organization (UNESCO), ed. *Sociological Theories: Race and Colonialism*. Poole, England: Sydenhams Printers; 1980: 287-304.
 36. Zinn H. *A People's History of the United States*. New York: HarperCollins Publishers, Inc; 1995.
 37. Ignatiev N. *How the Irish Became White*. New York: Routledge; 1995.
 38. Roediger D. *Working Toward Whiteness: How America's Immigrants Became White*. New York: Basic Books; 2005.
 39. Waters MC. Immigration, intermarriage, and the challenges of measuring racial/ethnic identities. *Am J Public Health*. 2000;90(11): 1735-1737.
 40. McDaniel A. The dynamic racial composition of the United States. In: Clayton O, ed. *An American Dilemma Revisited: Race Relations in a Changing World*. New York: Russell Sage Foundation; 1996:269-287.
 41. Washington HA. In: *Medical Apartheid - The Dark History of Medical Experimentation on Black Americans from Colonial Times to the Present*. New York: Doubleday; 2006:25-74.
 42. Roediger D. *The Wages of Whiteness: Race and the Making of the American Working Class*. Revised ed. London and New York: Verso Books; 1999.
 43. Waterson A. Are Latinos becoming "White" folk? And what that still says about race in America. *Transform Anthropol*. 2006;14(2): 133-50.
 44. Rodriguez G. Definitions of whiteness and the Delta blues. *Los Angeles Times*. January 14, 2007;Sect. 1.
 45. Malone N, Baluja KF, Constanzo JM, Davis CK. *The Foreign-Born Population: 2000*. Census 2000 Brief; December 2003.
 46. United States Bureau of the Census. *We the American Foreign Born*. 1993.
 47. United States Bureau of the Census. Table MS-3. Interracial Married Couples: 1980 to 2002: <http://www.census.gov/population/socdemo/hh-fam/tabMS-3.pdf>; September 15 2004.
 48. Perlmann J, Waters M, eds. *The New Race Question: How the Census Counts Multiracial Individuals*. New York: Russell Sage Foundation; 2002.
 49. Wright L. One drop of blood. *New Yorker*. 1994.
 50. Rodriguez C, Corderoguzman H. Placing race in context. *Ethnic and Racial Studies*. 1992;15:523-542.
 51. Rodriguez CE. Race, culture, and Latino "otherness" in the 1980 census. *Soc Sci Qtrly*. 1992;73(4):930-937.
 52. United States Census Bureau. *Overview of Race and Hispanic Origin 2000: Census Brief 2000*. 2001.
 53. Hahn RA. Why race is differentially classified on U.S. birth and infant death certificates: an examination of two hypotheses. *Epidemiology*. 1999;10(2):108-111.
 54. Hahn RA, Truman BI, Barker ND. Identifying ancestry: The reliability of ancestral identification in the United States by self, proxy, interviewer, and funeral director. *Epidemiology*. 1996;7(1):75-80.
 55. Muntaner C. Invited commentary: social mechanisms, race, and social epidemiology. *Am J Epidemiol*. 1999;150(2):121-126; discussion 7-8.
 56. Margolis M. The invisible issue: race in Brazil. *The Ford Foundation Report*. 1992;23: 3-7.
 57. Lott JT. Policy purposes of race and ethnicity: an assessment of federal racial and ethnic categories. *Ethn Dis*. 1993;3(3):221-8.
 58. United States Bureau of the Census. *200 Years of Census-Taking: Population and Housing Questions, 1790-1990*. Washington, DC.
 59. Hahn RA, Stroup DF. Race and ethnicity in public health surveillance: criteria for the scientific use of social categories. *Public Health Rep*. 1994;109(1):7-15.
 60. Cooper LA, Roter DL, Johnson RL, Ford DE, Steinwachs DM, Powe NR. Patient-centered communication, ratings of care, and concordance of patient and physician race. *Ann Intern Med*. 2003;139(11):907-915.
 61. King WD, Wong MD, Shapiro MF, Landon BE, Cunningham WE. Does racial concordance between HIV-positive patients and their physicians affect the time to receipt of protease inhibitors? *J Gen Intern Med*. 2004;19(11): 1146-153.
 62. Geiger HJ. Race and health care—an American dilemma? *N Engl J Med*. 1996;335(11): 815-816.
 63. Schulman KA, Berlin JA, Harless W, et al. The effect of race and sex on physicians' recommendations for cardiac catheterization. *New Engl J Med*. 1999;340:618-626.
 64. Kaufman JS, Cooper RS. Commentary: considerations for use of racial/ethnic classification in etiologic research. *Am J Epidemiol*. 2001; 154(4):291-298.
 65. Corbie-Smith G, Ford CL. Distrust and poor self-reported health. Canaries in the coal mine? *J Gen Intern Med*. 2006;21(4):395-397.
 66. Jones CP. Levels of racism: a theoretic framework and a gardener's tale. *Am J Public Health*. 2000;90(8):1212-5.
 67. Bonilla-Silva E. Rethinking racism: toward a structural interpretation. *Am Sociological Rev*. 1996;62:465-80.
 68. Acevedo-Garcia D. Residential segregation and the epidemiology of infectious diseases. *Soc Sci Med*. 2000;51(8):1143-1161.
 69. Thomas JC, Thomas KK. Things ain't what they ought to be: social forces underlying racial disparities in rates of sexually transmitted diseases in a rural North Carolina county. *Soc Sci Med*. 1999;49:1075-1084.
 70. Williams DR, Collins C. Racial residential segregation: a fundamental cause of racial disparities in health. *Public Health Rep*. 2001;116(5):404-416.
 71. Laumann EO, Youm Y. Racial/ethnic group differences in the prevalence of sexually transmitted diseases in the United States: a network explanation. *Sex Transm Dis*. 1999;26(5):250-261.
 72. Adimora AA, Schoenbach VJ. Social context, sexual networks, and racial disparities in rates of sexually transmitted infections. *J Infect Dis*. 2005;191(Suppl 1):S115-S222.
 73. Adimora AA, Schoenbach VJ, Doherty IA. HIV and African Americans in the southern United States: sexual networks and social context. *Sex Transm Dis*. 2006;33(7 Suppl): S39-S45.
 74. Bingham TA, Harawa NT, Johnson DF, Secura GM, MacKellar DA, Valleroy LA. The effect of partner characteristics on HIV infection among African American men who have sex with men in the Young Men's Survey, Los Angeles, 1999-2000. *AIDS Educ Prev*. 2003;15(1 Suppl A):39-52.
 75. Schneider BE. AIDS and class, gender, and race relations. In: Schneider BE, ed. *The Social Context of AIDS*. Newbury Park, CA: Sage Publications; 1992:19-43.
 76. Ford CL, Whetten KD, Hall SA, Kaufman JS, Thrasher AD. Black sexuality, social construction, and research targeting 'The Down Low' ('The DL'). *Ann Epidemiol*. 2007;17(3): 209-16.
 77. Omi M, Winant H. *Racial Formation in the United States from the 1960's to the 1990's*. New York: Routledge; 1994.
 78. Greenberg R. American College of Epidemiology Tenth Annual Scientific Meeting. Introductory Comments. *Ann Epidemiol*. 1993; 3:125.
 79. Krieger N. Embodying inequality: a review of concepts, measures and methods for studying health consequences of discrimination. *Int J Health Services*. 1999;29(2):295-352.
 80. James SA. Racial and ethnic differences in infant mortality and low birth weight. A

- psychosocial critique. *Ann Epidemiol.* 1993; 3(2):130-6.
81. James SA. John Henryism and the health of African-Americans. *Cult Med Psychiatry.* 1994;18(2):163-82.
82. Russell S. Newfound genetic clue to HIV rate in blacks. *San Francisco Chronicle.* 2008 July 17, 2008.

83. Braun L, Fausto-Sterling A, Fullwiley D, et al. Racial categories in medical practice: how useful are they? *PLoS Med.* 2007; 4(9):e271.
84. Mackenzie S. Scientific silence: AIDS and African Americans in the medical literature. *Am J Public Health.* 2000;90(7): 1145-6.

AUTHOR CONTRIBUTIONS

Design concept of study: Harawa
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Secondly, health disparities result from the difficulties racial and ethnic groups encounter when trying to enter a seemingly fragmented health care delivery system. Hill and colleagues²⁵ note the relationship between perceived discrimination and racism on health status and outcomes. Asthma care. Minorities are less likely than whites to be offered both diagnostic and therapeutic procedures, such as revascularization procedures that could result in better patient outcomes.^{1,12,26} Patients from minority backgrounds may not receive recommended health promotion and preventive health care services. Racial and ethnic minorities find themselves enrolled in health insurance plans with limited health service coverage and a limited number of health care providers. Research indicates that there are large health disparities based on social status that are pervasive and persistent. These health disparities reflect the inequalities that exist in our society. It is important to understand how various social statuses intersect, because race and socioeconomic status affect health exclusively as well as mutually (Williams & Mohammed, 2013). New evidence regarding racial and ethnic disparities in mental health: Policy implications. *Health Affairs*, 27, 393-403. doi:10.1377/hlthaff.27.2.393. Understanding the Black and White earnings gap: Why do African Americans continue to earn less despite dramatic gains in education? Retrieved from http://www.prospect.org/cs/articles?article=understanding_the_black_white_earnings_gap. The foundation of modern racial categories and implications for research on black/white disparities in health. *Ethnicity and Disease*, 19(2), 209-217. PubMedGoogle Scholar. Harding, S. G. (2004). Explaining disparities in HIV infection among black and white men who have sex with men: A meta-analysis of HIV risk behaviors. *AIDS*, 21(15), 2083-2091. CrossRefPubMedGoogle Scholar. Millett, G. A., Malebranche, D., & Peterson, J. L. (2007b). HIV/AIDS prevention research among Black men who have sex with men: Current progress and future directions. In I. H. Meyer & M. E. Northridge (Eds.), *The health of sexual minorities: Public health perspectives on lesbian, gay, bisexual and transgender populations* (pp. 539-565). Boston, MA: Springer, US. CrossRefGoogle Scholar.