PDK
PHI DELTA KAPPA International

How Real Is Race? Using Anthropology to Make Sense of Human Diversity
Author(s): Carol Mukhopadhyay and Rosemary C. Henze
Source: *The Phi Delta Kappan*, Vol. 84, No. 9 (May, 2003), pp. 669-678
Published by: Phi Delta Kappa International
Stable URL: http://www.jstor.org/stable/20440455
Accessed: 23-03-2017 04:33 UTC

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

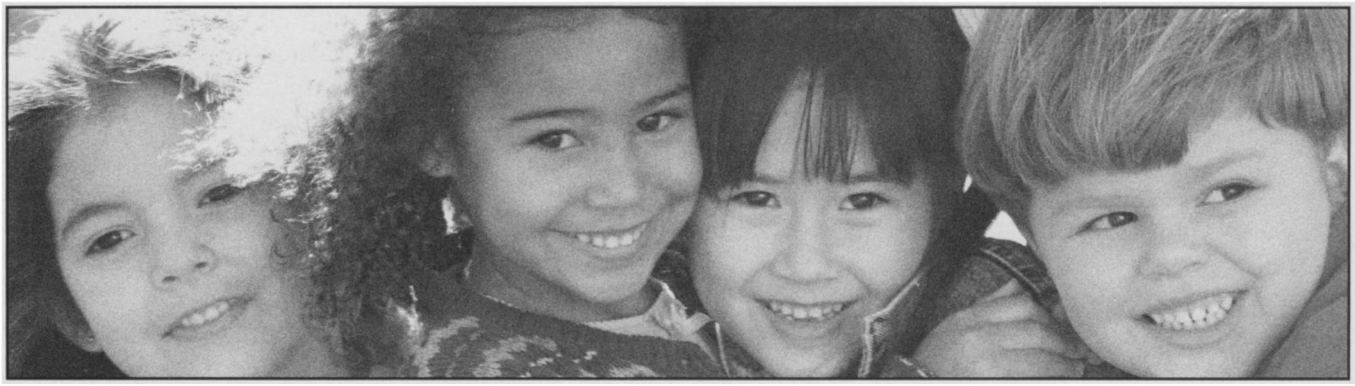
Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at http://about.jstor.org/terms

JSTOR

Phi Delta Kappa International is collaborating with JSTOR to digitize, preserve and extend access to *The Phi Delta Kappan*

This content downloaded from 207.233.42.242 on Thu, 23 Mar 2017 04:33:20 UTC
All use subject to http://about.jstor.org/terms

How Real Is Race?



Using Anthropology to Make Sense Of Human Diversity

Race is not a scientifically valid biological category, and yet it remains important as a socially constructed category. Once educators grasp this concept, they can use the suggestions and resources the authors offer here to help their students make sense of race.

BY CAROL MUKHOPADHYAY AND ROSEMARY C. HENZE

SURELY WE'VE all heard people say there is only one race — the human race. We've also heard and seen overwhelming evidence that would seem to contradict this view. After all, the U.S. Census divides us into groups based on race, and there are certainly observable physical differences among people — skin color, nose and eye shape, body type, hair color and texture, and so on. In the world of education, the message of racial differences as biological "facts" is reinforced when we are told that we should understand specific learning styles and behavior patterns of black, Asian, Native American, white, and Latino children and when books such as *The Bell Curve* make pseudoscientific claims about race and learning.[1]

How can educators make sense of these conflicting messages about race? And why should they bother? Whether we think of all human beings as one race, or as four or five distinct races, or as hundreds of races, does anything really change? If we accept that the concept of race is fundamentally flawed, does that mean that young African Americans are less likely to be followed by security guards in department stores? Are people going to stop thinking of Asians as the "model" minority? Will racism become a thing of the past?

CAROL MUKHOPADHYAY is a professor in the Department of Anthropology, San José State University, San José, Calif., where ROSEMARY C. HENZE is an associate professor in the Department of Linguistics and Language Development. *They wish to thank Gilberto Arriaza, Paul Erickson, Alan Goodman, and Yolanda Moses for their comments on this article.*

Photo: EyeWire Images

This content downloaded from 207.233.42.242 on Thu, 23 Mar 2017 04:33:20 UTC
All use subject to http://about.jstor.org/terms

Many educators understandably would like to have clear information to help them teach students about human biological variability. While multicultural education materials are now widely available, they rarely address basic questions about why we look different from one another and what these biological differences do (and do not) mean. Multicultural education emphasizes respecting differences and finding ways to include all students, especially those who have been historically marginalized. Multicultural education has helped us to understand racism and has provided a rich body of literature on antiracist teaching strategies, and this has been all to the good. But it has not helped us understand the two concepts of race: the biological one and the social one.

In this article, we explain what anthropologists mean when they say that "races don't exist" (in other words, when they reject the concept of race as a scientifically valid biological category) and why they argue instead that "race" is a socially constructed category. We'll also discuss why this is such an important understanding and what it means for educators and students who face the social reality of race and racism every day. And finally, we'll offer some suggestions and resources for teachers who want to include teaching about race in their classes.

WHY RACE ISN'T BIOLOGICALLY REAL

For the past several decades, biological anthropologists have been arguing that races don't really exist, or, more precisely, that the concept of race has no validity as a biological category. What exactly does this mean?

First, anthropologists are unraveling a deeply embedded ideology, a long-standing European and American racial world view.[2] Historically, the idea of race emerged in Europe in the 17th and 18th centuries, coinciding with the growth of colonialism and the transatlantic slave trade. Attempts were made to classify humans into "natural," geographically distinct "races," hierarchically ordered by their closeness to God's original forms. Europeans were, not surprisingly, at the top, with the most perfect form represented by a female skull from the Caucasus Mountains, near the purported location of Noah's ark and the origin of humans. Hence the origins of the racial term "Caucasian" or "Caucasoid" for those of European ancestry.[3]

For the past several decades, biological anthropologists have been arguing that the concept of race has no validity as a biological category.

In the late 19th century, anthropologists sought to reconstruct human prehistory and trace the evolution of human cultural institutions. Physical and cultural evolution were seen as moving in tandem; "advances" in human mental capacity were thought to be responsible for human cultural inventions, such as marriage, family, law, and agriculture. If cultural "evolution" was propelled by biological evolution, according to this logic, the more "advanced" cultures must be more biologically and intellectually evolved. Physical indicators of evolutionary rank, such as skull size, were sought in order to classify and rank human groups along an evolutionary path from more "primitive" to more "advanced" races.

Nineteenth-century European scientists disagreed on when the "races" began. Theologians had long argued that there was "one human origin," Adam and Eve, and that certain races subsequently "degenerated" (predictably, the non-Europeans). Some evolutionary scientists, however, began to argue for multiple origins, with distinct races evolving in different places and times. By the beginning of the 20th century, European and American science viewed races as natural, long-standing divisions of the human species, evolving at different rates biologically and hence culturally. By such logic was racial inequality naturalized and legitimized.

When contemporary scientists, including anthropologists, assert that races are not scientifically valid, they are rejecting at least three fundamental premises of this old racial ideology: 1) the archaic subspecies concept, 2) the divisibility of contemporary humans into scientifically valid biological groupings, and 3) the link between racial traits and social, cultural, and political status.

1. *There were no distinct, archaic human subspecies.* The first premise anthropologists reject is that humans were originally divided, by nature or God, into a small set of biologically distinct, fixed species, subspecies, or races. Anthropologists now know conclusively, from fossil and DNA evidence, that contemporary humans are one variable species, with our roots

This content downloaded from 207.233.42.242 on Thu, 23 Mar 2017 04:33:20 UTC
All use subject to http://about.jstor.org/terms

in Africa, which moved out of Africa into a wide range of environments around the world, producing hundreds, perhaps thousands, of culturally and genetically distinct populations. Local populations, through natural selection as well as random genetic mutation, acquired some distinctive genetic traits, such as shovel-shaped incisor teeth, hairy ears, or red hair. Adaptation to human cultural inventions — such as agriculture, which creates concentrations of water that allow malaria-carrying mosquitoes to breed — also produced higher frequencies of sickle-cell genes (related to malaria resistance) in human populations in some parts of Africa, India, Arabia, and the Mediterranean.[4] At the same time, continuous migration and intermating between local populations prevented us from branching off into distinct subspecies or species and instead created a richer and more variable gene pool, producing new combinations and permutations of the human genome.

Human prehistory and history, then, are a continuing story of fusion and fission, of a myriad of populations, emerging and shifting over time and space, sometimes isolated temporarily, then fusing and producing new formations. There have been thousands and thousands of groups throughout human history, marrying in and, more often, out; they have disappeared and reemerged in new forms over time.

In short, there are no "basic" or "ancient" races; there are no stable, "natural," permanent, or even long-standing groupings called races. There have never have been any "pure" races. All human populations are historically specific mixtures of the human gene pool. This is human evolution, and we see these same processes at work in the 19th and 20th centuries and today. "Races" are ephemeral — here today, gone tomorrow.

2. *Contemporary humans are not divisible into biological races.* When anthropologists say races aren't biologically real, they also reject the idea that *modern* humans can be divided into scientifically valid, biologically distinct groupings or races. For races to be real as biological categories, the classification must be based on objective, consistent, and reliable biological criteria. The classification system must also have predictive value that will make it useful in research.

Scientists have demonstrated that both the concept of race and racial criteria are subjective, arbitrary, and inconsistently applied.[5] U.S. racial categories, such as the ones used in the Census, aren't valid in part because the biological attributes used to define races and create racial classifications rely on only a few visible, superficial, genetic traits — such as skin color and hair texture — and ignore the remaining preponderance of human variation. Alternative, equally visible racial classifications could be constructed using such criteria as hair color, eye color, height, weight, ear shape, or hairiness. However, there are less visible genetic traits that have far greater biological significance. For example, there are at least 13 genetic factors related to hemoglobin, the protein that helps carry oxygen to tissues, and there is also significant variation in the ABO, RH, and other blood systems. We could create racial classifications based on genetic factors that affect susceptibility to diabetes or to certain kinds of breast cancer or to the ability to digest milk. In sum, given the variety of possible biologically based traits for classifying human beings, the criteria used in U.S. racial categorizations are highly arbitrary and subjective. Our discussion here focuses on the U.S. concept of race. While racial concepts are no doubt similar in Canada and Europe, this is not true in other parts of the Americas.[6]

The number of potential biologically based racial groupings is enormous. Not only are there millions of



This content downloaded from 207.233.42.242 on Thu, 23 Mar 2017 04:33:20 UTC
All use subject to http://about.jstor.org/terms

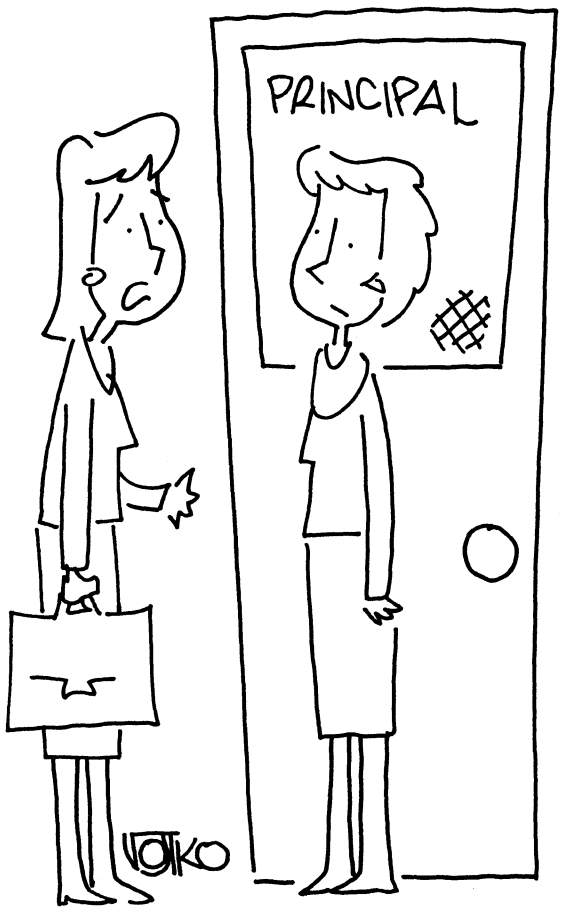
genetic traits, but most genetic traits — even culturally salient but superficial traits such as skin color, hair texture, eye shape, and eye color — do not cluster together. Darker skin can cluster with straight hair as well as with very curly hair or with hairy or nonhairy bodies; paler skin can cluster with straight or curly hair or with black or blond hair or with lighter to darker eyes. Each trait could produce a different racial classification. For example, if one used height as a criterion rather than skin pigmentation, then the Northern Afghan population would be in the same racial category as the Swedes and the Tutsi of Rwanda. There are huge numbers of genetically influenced traits, visible and nonvisible, which could be used to classify humans into biologically distinct groups. There is no "natural" classification — no co-occurring clusters of racial traits. There are just alternatives, with different implications and uses.

Racial classifications are also unscientific because they are unreliable and unstable over time. Individuals cannot reliably be "raced," partly because the criteria are so subjective and unscientific. Robert Hahn, a medical anthropologist, found that 37% of babies described as Native American on their birth certificates ended up in a different racial category on their death certificates.[7] Racial identifications by forensic anthropologists, long touted as accurate, have been shown to be disturbingly unreliable, even in relatively ethnically homogeneous areas, such as Missouri and Ohio.[8] Forensic evidence from such urban areas as San José, California, or New York City is even more problematic.

Racial categories used by the U.S. Census Bureau have changed over time. In 1900, races included "mulatto, quadroon, or octoroon" in addition to "black." Southern Europeans and Jews were deemed to be separate races before World War II. Asian Indians ("Hindus") were initially categorized as "Caucasoid" — except for voting rights. The number and definitions of races in the most recent U.S. Census reflect the instability — and hence unreliability — of the concept of race. And U.S. racial classifications simply don't work in much of the rest of the world. Brazil is a classic, often-studied example, but they also don't work in South Asia, an area that includes over one-fifth of the world's population.

Historical and contemporary European and American racial categories are huge, biologically diverse macrocategories. Members of the same racial group tend to be similar in a few genetic ways that are often biologically irrelevant. Moreover, the genetic variability found within each racial grouping is far greater than the genetic similarity. Africa, by itself, is home to distinct populations whose average height ranges from less than five feet (the Mbuti) to over six feet (the Tutsi). Estimates suggest that contemporary racial variation accounts for less than 7% of all human genetic variation.[9] U.S. races, then, are not biologically distinct or biologically meaningful, scientifically based groupings of the human species.

3. *Race as biology has no scientific value.* An additional critique of the concept of race is that racial categories, as defined biologically, are not



"My dog ate my lesson plans for today."

This content downloaded from 207.233.42.242 on Thu, 23 Mar 2017 04:33:20 UTC
All use subject to http://about.jstor.org/terms

very useful in understanding other phenomena, whether biological or cultural.

There is no substantial evidence that race, as a biological category, and "racial" characteristics, such as skin color, hair texture, and eye shape, are causally linked to behavior, to capacities, to individual and group accomplishments, to cultural institutions, or to propensities to engage in any specific activities. In the area of academic achievement, the focus on race as biology can lead researchers to ignore underlying nonbiological causal factors. One classic study found that controlling for socioeconomic and other environmental variables eliminated purported "racial" differences in I.Q. scores and academic achievement between African American, Mexican American, and European American students.[10]

Health professionals have also critiqued the concept of race. Alan Goodman and others have shown that race does not help physicians with diagnosis, prevention, or treatment of medical diseases.[11] Racial categories and a false ideology of race as "biology" encourage both doctors and their patients to view medical conditions as necessarily genetic, ignoring possible environmental sources. Hypertension, infant birthweights, osteoporosis, ovarian cysts — all traditionally viewed as "racial" (i.e., genetically based) — now seem to reflect environmental rather than racially linked genetic factors. The Centers for Disease Control concluded in 1993 that most associations between race and disease have no genetic or biological basis and that the concept of "race" is therefore not useful in public health.

As a result of recent evolution and constant interbreeding between groups of humans, two individuals from different "races" are just as likely to be more similar to one another genetically than two individuals from the same "race." This being so, race-as-biology has no predictive value.

IF NOT RACE, THEN WHAT?

Classifications are usually created for some purpose. Alan Goodman and other biological anthropologists suggest that investigators focus on using traits relevant to the problem at hand. For example, if a particular blood factor puts an individual at risk for a disease, then classify individuals on that basis for that purpose.

Some suggest using the term "population" or "breeding population" to refer to the multitude of small, often geographically localized, groups that have developed high frequencies of one or more somewhat distinctive biological traits (e.g., shovel-shaped incisors) in response to biological, historical, and cultural factors. But others point out that there could be thousands of such groups, depending on the classifying criteria used, and that the groups would be merging and recombining over time and space. Moreover, the variability "captured" would reflect only a fraction of the variability in the human species.

Most anthropologists now use the concept of "clines" to help understand how genetic traits are distributed.[12] New data indicate that biological traits, such as blood type or skin color, are distributed in geographic gradations or "clines"; that is, the frequency of a trait varies continuously over a geographic area. For example, the genes for type B blood increase in frequency in an east-to-west direction (reflecting, in part, the travels of Genghis Khan and his army). In contrast, skin pigmentation grades from north to south, with increasing pigmentation as one gets closer to the equator. The frequency of the gene for sickle cell decreases from West Africa moving northeast.

Virtually all traits have distinct geographic distributions. Genes controlling skin color, body size and shape (head, limbs, lips, fingers, nose, ears), hairiness, and blood type are each distributed in different patterns over geographic space. Once again, for biological races to exist, these traits would have to co-vary, but they don't. Instead, biological traits produce a nearly infinite number of potential races. This is why anthropologists conclude that there are no scientifically distinguishable biological races — only thousands of clines!

SO WHAT IS RACE THEN?

We hope we have made the point that the concept of separate, biologically distinct human races is not scientifically defensible. Unfortunately, racial ideology, by focusing on a few physical attributes, traps us into a discourse about race as biology rather than race as a cultural construction. The concept of race is a cultural invention, a culturally and historically specific way of thinking about, categorizing, and treating human beings.[13] It is about social divisions within society, about social categories and identities, about power and privilege. It has been and remains a particular type of ideology for legitimizing social inequality between groups with different ancestries, national origins, and histories. Indeed, the concept of race is also a major system of social identity, affecting one's own self-perception and how one is perceived and treated by others.

But race does have a biological component, one that can trick us into thinking that races are scientifically valid, biological subdivisions of the human species. As noted earlier, geographically localized populations — as a result of adaptation, migration, and chance

This content downloaded from 207.233.42.242 on Thu, 23 Mar 2017 04:33:20 UTC
All use subject to http://about.jstor.org/terms

— tend to have some characteristic physical traits. While these may be traits that characterize an entire population, such as hairy ears, it is more accurate to talk about the relative frequency of a particular trait, such as blood type O, in one population as compared to another, or the relative amount of pigmentation of individuals in a population, relative to other populations. Some traits, such as skin color, reflect climatic conditions; others, such as eye color and shape, probably reflect random, historical processes and migration patterns. The U.S. was peopled by populations from geographically distinct regions of the world — voluntary immigrants, forced African slaves, and indigenous American groups. Therefore, dominant northwestern European ethnic groups, such as the English and Germans, were able to exploit certain visually salient biological traits, especially skin color, as markers of race.

The effectiveness of these physical traits as markers of one's race depended, of course, on their being preserved in future generations. So dominant cultural groups created elaborate social and physical barriers to mating, reproduction, and marriage that crossed racial lines. The most explicit were the so-called anti-miscegenation laws, which outlawed sex between members of different races, whether married or not. These laws were not declared unconstitutional by the U.S. Supreme Court until the 1967 case of *Loving* v. *Virginia*.[14] Another vehicle was the cultural definition of kinship, whereby children of interracial (often forced) matings acquired the racial status of their lower-ranking parent; this was the so-called one-drop rule or hypodescent. Especially during the time of slavery, the lower-ranking parent was generally the mother, and thus the long-standing European cultural tradition of affiliating socially "legitimate" children with the father's kinship group was effectively reversed.

In contrast, there have been fewer social or legal barriers in the U.S. to mating and marriage between Italians, British, Germans, Swedes, and others of European ancestry. Consequently, the physical and cultural characteristics of European regional populations are less evident in the U.S. With intermarriage, distinct European identities were submerged in the culturally relevant macroracial category of "white" — more accurately, European American.

Thus even the biological dimension of contemporary racial groupings is the result of sociocultural processes. That is, humans as cultural beings first gave social significance to some physical differences between groups and then tried to perpetuate these "racial markers" by preventing social and physical intercourse between members of the groups. Although the dominant racial ideology was about maintaining racial "purity," the issue was not about biology; it was about maintaining social, political, and economic privilege.[15]

Race, racial classifications, racial stratification, and other forms of racism, including racial ideology, rather than being part of our biology, are part of our culture.

WHY IS THIS UNDERSTANDING IMPORTANT FOR EDUCATORS?

We hope we've convinced you that race isn't biologically "real" and that race in the U.S. and elsewhere is a historical, social, and cultural creation. But so what? What is the significance of this way of viewing race for teachers, students, and society?

1. *The potential for change.* First, it is important to understand that, while races are biological fictions, they are social realities. Race may not be "real" in a biological sense, but it surely is "real" socially, politically, economically, and psychologically. Race and racism profoundly structure who we are, how we are treated, how we treat others, and our access to resources and rights.

Perhaps the most important message educators can take from the foregoing discussion is that race, racial classifications, racial stratification, and other forms of racism, including racial ideology, rather than being part of our biology, are part of our culture. Like other cultural forms, both the concept of race and our racial classifications are part of a system we have created. This means that we have the ability to change the system, to transform it, and even to totally eradicate it. Educators, in their role as transmitters of official culture, are particularly well poised to be active change agents in such a transformation.

But how, you may well ask, can teachers or anybody else make people stop classifying by race? And are there any good reasons to do so? These

This content downloaded from 207.233.42.242 on Thu, 23 Mar 2017 04:33:20 UTC
All use subject to http://about.jstor.org/terms

familiar categories — black, white, Asian, Native American, and so on — seem so embedded in U.S. society. They seem so "natural." Of course, that's how culture works. It seems "natural" to think of chicken, but not rats, as food. But, as we have shown above, the labels and underlying constructs that we use to talk about human diversity are unstable, depending on particular social, political, and historical contexts. Individuals in positions of authority, of course, have the ability to change them institutionally. But ordinary people also have the ability to change how they classify and label people in their everyday lives.

Several questions arise at this point. Do we as educators consciously want to change our way of conceptualizing and discussing human biological variation? What makes the "race as biology" assumption so dangerous? Are we going to continue to classify people by race, even while recognizing that it is a social construct? What vested interests do people have in holding onto — or rejecting — racial categories? How can we become more sophisticated in our understanding of how systems of classification work while also becoming more critical of our own ways of classifying people? Are there alternative ways of thinking about, classifying, and labeling human beings that might be more empowering for students, teachers, and community members? By eliminating or changing labels, will we change the power structures that perpetuate privilege and entitlement? Moving beyond race as biology forces us to confront these and other issues.

2. *The dangers of using racial classifications.* Categories and classifications are not intrinsically good or bad. People have always grouped others in ways that were important within a given society. However, the myth of race as biology is dangerous because it conflates physical attributes, such as skin color, with unrelated qualities, such as intelligence. Racial labels delude people into thinking that race predicts such other outcomes and behaviors as achievement in sports, music, or school; rates of employment; pregnancies outside marriage; or drug use. Race was historically equated with intelligence and, on that basis, was used to justify slavery and educational discrimination; it later provided the rationale that supported the genocide of Jews, blacks, Gypsies, and other "inferior" races under Hitler. So using racial categories brings along this history, like unwanted baggage.

Macroracial categories are dangerous in that the categories oversimplify and mask complex human differences. Saying that someone is Asian tells us virtually nothing concrete, but it brings with it a host of stereotypes, such as "model minority," "quiet," "good at math," "inscrutable," and so on. Yet the Asian label includes a wide range of groups, such as Koreans, Filipinos, and Vietnamese, with distinct histories and languages. The same is true for "white," a term that homogenizes the multiple nationalities, languages, and cultures that constitute Europe. The label "African American" ignores the enormous linguistic, physical, and cultural diversity of the peoples of Africa. The term "black" conflates people of African descent who were brought to the U.S. as slaves with recent immigrants from Africa and the Caribbean. These macroracial labels oversimplify and reduce human diversity to four or five giant groups. Apart from being bad science, these categories don't predict anything helpful — yet they have acquired a life of their own.

Macroracial categories, such as those used in the U.S. Census and other institutional data-collection efforts, force people to use labels that may not represent their own self-identity or classifying system. They must either select an existing category or select "other" — by definition, a kind of nonidentity. The impossibility, until recently, of selecting more than one ethnic/racial category implicitly stigmatizes multiracial individuals. And the term "mixed" wrongly implies that there are such things as "pure" races, an ideology with no basis in science. The recent expansion of the number of U.S. Census categories still cannot accommodate the diversity of the U.S. population, which includes people whose ancestry ranges from Egypt, Brazil, Sri Lanka, Ghana, and the Dominican Republic to Iceland and Korea.

3. *How macroracial categories have served people in positive ways.* Having noted some negative aspects, it is equally important to discuss how macroracial categories also serve society. Recall that labels are not intrinsically "good" or "bad." It depends on what people do with them. During the 1960s, the U.S. civil rights movement helped bring about consciousness and pride in being African American. This consciousness — known by terms such as ethnic pride and black power — united people who had been the victims of racism and oppression. From that consciousness sprang such educational interventions as black and Chicano history classes, ethnic studies departments, Afrocentric schools, and other efforts to empower young people. The movement to engender pride in and knowledge of one's ancestry has had a powerful impact. Many individuals are deeply attached to these racial labels as part of a positive identity. As one community activist put it, "Why should I give up being a race? I like being a race."

Racial classification can also have positive impact by allowing educators to monitor how equitably our

This content downloaded from 207.233.42.242 on Thu, 23 Mar 2017 04:33:20 UTC
All use subject to http://about.jstor.org/terms

institutions are serving the public. Racial categories are used by schools to disaggregate data on student outcomes, including achievement, attendance, discipline, course placements, college attendance rates, and other areas of school and student performance. These data are then used to examine whether certain groups of students are disproportionately represented in any outcome areas. For example, a school might discover that the percentage of Latino students who receive some type of disciplinary intervention is higher than that for other school populations. The school can then consider what it can do to change this outcome. Teachers might ask, Is there something about the way Latino students are treated in the school that leads to higher disciplinary referral rates? What other factors might be involved?

The racial classifications that educators use to monitor student outcome data reflect our society's social construction of race. As such, the categories represent groups that have been historically disenfranchised, oppressed, or marginalized. Without data disaggregated by race, gender, and other categories, it would be difficult to identify problems stemming from race-based institutional and societal factors that privilege certain groups, such as the widespread U.S. practice of tracking by so-called ability. Without data broken out according to racial, gender, and ethnic categories, schools would not be able to assess the positive impact intervention programs have had on different groups of students.

4. *Shifting the conversation from biology to culture.* One function of the myth of race as biology has been to distract us from the underlying causes of social inequality in the United States. Dismantling the myth of race as biology means that we must now shift our focus to analyzing the social, economic, political, and historical conditions that breed and serve to perpetuate social inequality. For educators, this means helping students to recognize and understand socioeconomic stratification, who benefits and who is harmed by racial discrimination, and how we as individuals and institutional agents can act to dismantle ideologies, institutions, and practices that harm young people.

There is another, more profound implication of the impermanence of race. Culture, acting collectively, and humans, acting individually, can make races disappear. That is, we can mate and marry across populations, thus destroying the racial "markers" that have been used to facilitate categorization and differential treatment of people of different ancestry and social rank. An understanding of human biological variation reveals the positive, indeed essential, role that intermating and intermarriage have played in human evolution and human adaptation. Rather than "mongrelizing" a "pure species," mating between different populations enriches the genetic pool. It is society, rather than nature — and socially and economically stratified societies, for the most part — that restricts social and sexual intercourse and severely penalizes those who mate across racial and other socially created lines.

SUGGESTIONS AND RESOURCES FOR EDUCATORS

Anthropological knowledge about race informs us about what race is and is not, but it cannot guide educational decision making. The underlying goal of social justice can help educators in making policy decisions, such as whether to use racial and ethnic categories to monitor educational outcomes. As long as we continue to see racially based disparities in young peoples' school achievement, then we must monitor and investigate the social conditions that produce these disparities. We must be careful, however, to avoid "biologizing" the classification; that is, we must avoid assuming genetic explanations for racial differences in behaviors and educational outcomes or even diseases.

As we pursue a more socially just world, educators should also continue to support young people's quest for knowledge about the history and struggles of their own people, as well as those of other groups, so that students in the future will not be able to point to their textbooks and say, "My people are not included in the curriculum." In the process, we can encourage both curiosity about and respect for human diversity, and we can emphasize the importance that historical and social context plays in creating social inequality. We can also encourage comparative studies of racial and other forms of social stratification, further challenging the notion that there is a biological explanation for oppression and inequality. In short, students will understand that there is no biological explanation for a group's historical position as either oppressed — or oppressor. We can encourage these studies to point out variations and fine distinctions within human racial groupings.

In addition to viewing the treatment of race and racial categories through a social-justice lens, we would apply another criterion that we call "depth of knowledge." We believe that it is important to challenge and inspire young people by exposing them to the best of our current knowledge in the sciences, social sciences, and other disciplines. Until now, most students in our education system have not been exposed to systematic, scientifically based teaching about race and human biological variation. One

This content downloaded from 207.233.42.242 on Thu, 23 Mar 2017 04:33:20 UTC
All use subject to http://about.jstor.org/terms

reason is that many social studies teachers may think they lack sufficient background in genetics and human biology. At the same time, many biology teachers may feel uncomfortable teaching about race as a social construct. The null move for teachers seems to be to say that we should all be "color blind." However, this does not help educate students about human diversity, both biological and social. In rare cases when students have the opportunity to engage in studies of race, ethnicity, culture, and ways to end racism, they are both interested and intellectually challenged.[16] One high school teacher who teaches students about race said he wants to dispel the notion that teaching about diversity is "touchy feely." "We don't just want to touch diversity; we want to approach it academically. . . . We feel we have a definite discipline."[17]

Rather than shield students and ourselves from current scientific knowledge about race, including its contradictions and controversies, we submit that educators should be providing opportunities for students to learn what anthropologists, geneticists, and other scientists, including social scientists, have to say about human biological variation and the issue of race. Particularly in middle schools, high schools, and beyond, students should be involved in inquiry projects and social action projects, in critical examination of the labels we currently use, and in analysis of the reasons for and against using them in particular contexts. Rather than tell students that they should or should not use racial labels (except for slurs), educators should be creating projects in which students explore together the range of possible ways of classifying people and the implications and political significance of alternative approaches in different contexts.

We would like to conclude by offering readers some ideas for student inquiry and by suggesting some resources that can serve to get teachers in all subject areas started on the quest to learn about human biological variation and ways to teach about it.

1. *Ideas for student inquiry.* Here are some examples of how teachers might engage students in critically examining the social, historical, and cultural construction of racial categories.

• Have students create and employ alternative "racial" classification schemes using as many observable and nonobservable physical differences as they can think of (e.g., foot size, height, ear shape, eyebrow shape, waist/shoulder ratio, hairiness). What do the groups look like? What does this tell us about macroracial classifications based on skin pigmentation and other surface features?

• Show students U.S. Census forms from 1870, 1950, and 2000, and ask them to place themselves in the most appropriate category. Or show a photograph of a person of multiple ethnic ancestry and ask students to place this person in one of the categories from these three censuses. Ask them why they think the census form has changed over time and what that says about the meaning of "race."

• Ask immigrant students to investigate the racial/ethnic categories used in their country of origin and to reflect on how well they mesh with the U.S. categories. For example, have students from Mexico taken on an identity as Latino or Hispanic? And what does it mean for them to become part of a larger "macro" race in the U.S.?[18]

• Ask students how they feel when someone asks them to "represent their race." For example, how do students who identify themselves as African Americans feel when someone asks, "How do African Americans feel about this issue?" or "What's the African American perspective on this?"

• Discuss "reverse discrimination." When did this term come into use and why? Who is being discriminated against when discrimination is reversed?

• Discuss "political correctness." Where did this term come from? Who uses it and for what purposes? And why did it emerge?

2. *Resources for teachers.* The following examples will give readers a place to start



"Do I have a computer virus if I'm sick of my computer?"

This content downloaded from 207.233.42.242 on Thu, 23 Mar 2017 04:33:20 UTC
All use subject to http://about.jstor.org/terms

in compiling resources available for teaching about race.

• Two major anthropological associations have produced highly readable position statements on the topic of race and human biological variation. First, the American Anthropological Association website features both the AAA position and a summary of testimony given in conjunction with the debates on the 2000 census categories. Second, the official statement of the American Association of Physical Anthropologists has appeared in that organization's journal.[19]

• The American Anthropological Association is making a special effort to disseminate understandings about race and human variation to the broader public. *AnthroNotes*, designed for precollege teachers, is a superb resource that offers concrete approaches to teaching about race, human diversity, and human evolution. It is available at no charge from the Anthropology Outreach Office (anthroutreach@nmnh.si.edu). Several past issues of *AnthroNotes* treat race and ethnicity.[20] Anthropologists have produced materials for precollege teachers and teacher educators that deal with cultural diversity; some include strategies for teaching about culture and human diversity.[21] Others provide useful overviews of relevant topics.[22]

• The AAA is currently engaged in a public education initiative called Understanding Race and Human Variation, which will involve a traveling museum exhibit and a website. The Ford Foundation has contributed one million dollars to this project.

• In 1999, the AAA created a special commission called the Anthropology Education Commission (AEC) to "help achieve significant progress towards the integration of anthropological concepts, methods, and issues into pre-K through community college and adult education as a means of increasing public understanding of anthropology." The two teaching modules by Leonard Lieberman and by Lieberman and Patricia Rice, which we cited above, are available at no charge on the AEC website (www.aaanet.org/committees/commissions/aec). The AEC webpage contains extensive resources that teachers can use to teach anthropological concepts and methods, including some that address race.

Anthropologists recognize an obligation to disseminate their knowledge of human biological variation and the social construction of race to the wider public. We hope that this article and the resources we have provided will contribute to this effort.

1. Richard Herrnstein and Charles Murray, *The Bell Curve: Intelligence and Class Structure in American Life* (New York: Free Press, 1994).

2. Audrey Smedley, *Race in North America: Origin and Evolution of a Worldview* (Boulder, Colo.: Westview Press, 1998).

3. Jonathan Marks, *Human Biodiversity: Genes, Race, and History* (New York: Aldine de Gruyter, 1995).

4. Leonard Lieberman and Patricia Rice, "Races or Clines?," p. 7, available on the Anthropology Education Commission page of the American Anthropological Association website, www.aaanet.org/committees/commissions/aec — click on Teaching About Race.

5. George J. Armelagos and Alan H. Goodman, "Race, Racism, and Anthropology," in Alan H. Goodman and Thomas L. Leatherman, eds., *Building a New Biocultural Synthesis: Political-Economic Perspectives on Human Biology* (Ann Arbor: University of Michigan Press, 1998).

6. Jeffrey M. Fish, "Mixed Blood," in James Spradley and William McCurdy, eds., *Conformity and Conflict*, 11th ed. (New York: Allyn & Bacon, 2002), pp. 270-80.

7. Alan Goodman, "Bred in the Bone?," *Sciences*, vol. 37, no. 2, 1997, p. 24.

8. Ibid., p. 22.

9. Leonard Lieberman, "'Race' 1997 and 2001: A Race Odyssey," available on the Anthropology Education Commission page of the American Anthropological Association website, www.aaanet.org/committees/commissions/aec — click on Teaching About Race.

10. Jane Mercer, "Ethnic Differences in IQ Scores: What Do They Mean? (A Response to Lloyd Dunn)," *Hispanic Journal of Behavioral Sciences*, vol. 10, 1988, pp. 199-218.

11. Goodman, op. cit.

12. Lieberman and Rice, op. cit.

13. Carol Mukhopadhyay and Yolanda Moses, "Reestablishing 'Race' in Anthropological Discourse," *American Anthropologist*, vol. 99, 1997, pp. 517-33.

14. Janet Hyde and John DeLamater, *Understanding Human Sexuality*, 6th ed. (New York: McGraw-Hill, 1997).

15. Smedley, op. cit.

16. Karen Donaldson, *Through Students' Eyes: Combating Racism in United States Schools* (Westport, Conn.: Praeger, 1996); and Rosemary C. Henze, "Curricular Approaches to Developing Positive Interethnic Relations," *Journal of Negro Education*, vol. 68, 2001, pp. 529-49.

17. Henze, p. 539.

18. Clara Rodriguez, *Changing Race: Latinos, the Census, and the History of Ethnicity in the United States* (New York: New York University Press, 2000); and Gilberto Arriaza, "The School Yard as a Stage: Missing Culture Clues in Symbolic Fighting," *Multicultural Education Journal*, Spring 2003, in press.

19. American Anthropological Association, "AAA Statement on Race," www.aaanet.org/stmts/racepp.htm; and American Association of Physical Anthropologists, "AAPA Statement on Biological Aspects of Race," *American Journal of Physical Anthropology*, vol. 101, 1996, pp. 569-70.

20. Alison S. Brooks et al., "Race and Ethnicity in America," in Ruth O. Selig and Marilyn R. London, eds., *Anthropology Explored: The Best of Smithsonian AnthroNotes* (Washington, D.C.: Smithsonian Institution Press), pp. 315-26; E. L. Cerrini-Long, "Ethnicity in the U.S.A.: An Anthropological Model," *AnthroNotes*, vol. 15, no. 3, 1993; William L. Merrill, "Identity Transformation in Colonial Northern Mexico," *AnthroNotes*, vol. 19, no. 2, 1997, pp. 1-8; and Boyce Rensberger, "Forget the Old Labels: Here's a New Way to Look at Race," *AnthroNotes*, vol. 18, no. 1, 1996, pp. 1-7.

21. Hilda Hernandez and Carol C. Mukhopadhyay, *Integrating Multicultural Perspectives in Teacher Education: A Curriculum Resource Guide* (Chico: California State University, 1985); and Conrad P. Kottak, R. Furlow White, and Patricia Rice, eds. *The Teaching of Anthropology: Problems, Issues, and Decisions* (Mountain View, Calif.: Mayfield Publishing, 1996).

22. Faye Harrison, "The Persistent Power of 'Race' in the Cultural and Political Economy of Racism," *Annual Review of Anthropology*, vol. 24, 1995, pp. 47-74; and Ida Susser and Thomas Patterson, eds., *Cultural Diversity in the United States: A Critical Reader* (Malden, Mass.: Blackwell, 2001).

This content downloaded from 207.233.42.242 on Thu, 23 Mar 2017 04:33:20 UTC
All use subject to http://about.jstor.org/terms