Introduction to Anthropology: Holistic and Applied Research on Being Human

Indiana University of Pennsylvania

Department of Anthropology
## CONTENTS

<table>
<thead>
<tr>
<th>Acknowledgments</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is Anthropology</td>
<td>23</td>
</tr>
<tr>
<td>A Brief History of Anthropology</td>
<td>23</td>
</tr>
<tr>
<td>Research Methods</td>
<td>55</td>
</tr>
<tr>
<td>Evolution and Genetics</td>
<td>90</td>
</tr>
<tr>
<td>Primates</td>
<td>118</td>
</tr>
<tr>
<td>Early Hominin Evolution</td>
<td>149</td>
</tr>
<tr>
<td>Genus Homo and First Cultures</td>
<td>180</td>
</tr>
<tr>
<td>Upper Paleolithic and Ice Age</td>
<td>214</td>
</tr>
<tr>
<td>Development of Agriculture</td>
<td>238</td>
</tr>
<tr>
<td>Sociopolitical Classification</td>
<td>269</td>
</tr>
<tr>
<td>Culture Change and Globalization</td>
<td>293</td>
</tr>
<tr>
<td>Communication and Language</td>
<td>322</td>
</tr>
<tr>
<td>Politics, Economics, and Inequality</td>
<td>357</td>
</tr>
<tr>
<td>Gender and Sex</td>
<td>383</td>
</tr>
<tr>
<td>Kinship and Marriage</td>
<td>408</td>
</tr>
<tr>
<td>The Issue with Race</td>
<td>437</td>
</tr>
<tr>
<td>Health and Medicine</td>
<td>466</td>
</tr>
<tr>
<td>Religion</td>
<td>494</td>
</tr>
<tr>
<td>Human Rights and Activism</td>
<td>519</td>
</tr>
<tr>
<td>Climate Change and Human Lifeway Adaptation</td>
<td>546</td>
</tr>
</tbody>
</table>
MODULE 16: THE ISSUE WITH RACE

What is Race?

Race is a commonly discussed issue; however, the term is poorly defined and understood. This is because race is a sociohistorical construct, which means that the idea and definition are not permanent and vary within and among cultures. Even within a single culture, our understanding of these concepts has changed substantially over time. In the United States, race based on skin color was established during slavery, but prior to that and in other regions of the world, race was and is based on many other characteristics such as physical appearance, family history, nationality, religion, status, class, and/or language.

In this chapter, we examine sociohistorical and genetic differences of human groups around the world, emphasizing the clinal variation expressed by many human traits. Humans share 99.9% of their genetic make-up, and variation in populations accounts for only approximately 0.1%. We provide definitions for race, ancestry, and ethnicity to distinguish between social labels, biological differences, and self-identity. Lastly, we also describe examples of how the concept of race is applied in health care, medicine, and forensic anthropology.

Race represents the way people classify one another rather than a genetically determined reality. Despite being a sociohistorical construct, race is a very real concept. In the U.S., your race can impact where and how you
live. Anthropologists and public health specialists now know that these differences are caused by social inequalities like racism and not by biological differences between groups.

Anthropologist Yolanda Moses argues that to think anthropologically about race, we must challenge three common misconceptions about race in U.S. culture. They are the fallacies that 1) human beings can be naturally divided into a small number of distinct races, 2) races have certain inherent strengths and weaknesses, particularly in terms of intelligence, morality, and character, and 3) racial differences are due to definitive and definable biological heritage. Over the course of our discipline, anthropology has been complicit with colonialist and racial hierarchies and is also actively working to dismantle these systems of oppression.

When faced with the information that race is not biologically real, one might think it is time for the U.S. to become a colorblind society. However, scholars point out that racism still exists and to decide that race no longer exists would be inaccurate and deny people’s voice in their experiences in a society with institutional racism. Instead, scholars like Michelle Alexander propose a position of color consciousness, wherein we celebrate ethnic differences and recognize social justice issues such as mass incarceration, environmental racism, and unequal access to healthcare as relevant to anthropologists and others studying race among human cultures.

While race may not be a biologically “real” concept, it is significant because of its implications on status, health, and other aspects of life. Today, anthropologists define race as the grouping of human beings based on the presumption (but not the reality) that biological differences separate people into distinct populations. By WWII, anthropologists recognized the harmful implications of racial misconceptions and their own contributions towards these ideas. In subsequent decades, anthropologists have struggled to overcome this shameful legacy and right the wrongs of their forebearers. This includes raising awareness of biological versus social differences among human groups and encouraging appreciation of diverse peoples and inclusive practices. Major organizations, such as the American Anthropological Association, have adopted statements on race denouncing the use of prejudiced terms.
A Short History of Race Studies and Politics

In 1990, scientists began mapping the human genome as part of the Human Genome Project, and after 13 years, the mapping was completed in 2003. However, more recent advances in genetic mapping technologies allow researchers to map the human gene in less than a day. These processes help us understand many different things about the human species from a biological and genetic perspective. Importantly, geneticists and evolutionary biologists determined that human genetic variation is small because we are a relatively new species. Modern humans became widespread about 100,000 years old, and some recent estimates place Homo sapien’s first appearance around 300,000 years ago (see Module 7: Genus Homo and First Cultures). Unlike many animals, modern humans have not been around long enough nor have their populations been isolated enough to evolve into separate subspecies or races. Additionally, scientists determined that the small amount of genetic difference between humans does not map to the idea of race. In other words, there is no gene found in one “race” that does not exist in other “races.”

Race is not a genetic or biological fact. However, it has been and is used to perpetuate unequal, discriminatory, and inhumane treatment of other humans (see Module 19: Human Rights and Activism). Throughout U.S. history, race and slavery have been inexorably linked. Even though slavery was abolished more than 150 years ago, the link between race and inequality persists into the present day. There is still an underlying assumption that skin color, heritage, and other aspects of culture or appearance reflect meaningful differences between people, but this is simply not true. Although there are efforts to recognize and change these prejudiced perspectives, we still have much work to do as a society. Social activist movements, like Black Lives Matter, continue to raise awareness of racial injustice, such as the brutal treatment or killing of individuals based on their appearance or perceived race.

Racial classification systems differ from society-to-society. What is considered Black in one society (e.g., Brazil) is likely different from another society (e.g., U.S.). This points to the social construction of racial difference. How racial categories are recognized, and the meanings attached
to these categories change over time because they are historically produced. The racial categories that most Americans use are rather new, originating in the 19th century. As anthropology was emerging as a new discipline, colonialism was a pervasive global power. We must consider history, including that of our own discipline, when working to understand racism today. Modern racism and racial categories trace back to the history of European colonization of much of the world. Additionally, we are very aware that early anthropologists, including Bronislaw Malinowski, had strongly ethnocentric attitudes of racial supremacy and ethnocentrism (see Module 2: A Brief History of Anthropology).

Social ideas of race in the United States adhere more closely to morphological differences between Black and white individuals for several reasons. First, Black and white populations arrived in America from different continents, already expressing contrasting cultural and morphological differences. Second, institutional racism is pervasive in the United States, which has limited gene flow between Black and white populations. For example, Jim Crow laws reinforced racial segregation in the Southern United States to disenfranchise Black people and eliminate their political and economic gains for nearly 100 years until they were abolished in 1965.

This institutional racism was enforced by scientific thought of the day. Carl Linnaeus, who developed the first scientific taxonomic classification system in 1735, separated humans into different subspecies or races based on appearance and geography. However, he inaccurately described each “subspecies” based on perceived mental capacity and cultural practices, which were overgeneralizations, often slanderous, and not biological. These categorizations were reinforced through later scientific racism research, including Samuel Morton (see Module 2: A Brief History of Anthropology), Johann Blumenbach, Louis Agassiz, and other prominent anthropologists and anatomists of the day. These racial distinctions were combined with evolutionary biology tenets to promote Social Darwinism and justify European colonization and missionary efforts. The idea was inaccurately promoted that “subspecies” of people represented different levels of progress or social evolution. In fact, the mixing of “natural” races was viewed as unnatural, impure, inferior and dangerous as they threatened to destabilize established protocols and practices.
Anthropology, as a field, developed as people sought to legitimize ideas about race. Drawing in large part on the now-discredited science of phrenology, scientists (including some anthropologists) of the 18th and 19th centuries interpreted people with European ancestry as endowed with clear superiority to other races in both intellectual and moral faculties. Phrenology is a pseudoscience primarily focused on measurements of the human skull (see Figure 11.1). Of course, findings were based on their own social valuations and preconceptions, not actual data, because there is no biological reality to racial differences. However, society and social marginalization can create the illusion of race as real biology.

Even when research described the inefficacy of race, it was hotly contested and largely ignored. For example, Franz Boas studied head shapes among siblings from immigrant families. He identified differences between European- and American-born siblings and determined that environmental factors and economic status impacted head shape more than race. However, it took more than 40 years for this idea to be accepted in society (see Module 2: A Brief History of Anthropology).

Figure 16.1. Depiction of measuring apparatuses used in phrenological studies. Image from Wikimedia Commons.
Instead, the scientific racism mindset was used extensively to defend forced migration, removal, segregation, missionization, and extermination of communities the world over. Dominant groups were afraid of immigrants and people with different appearances or skills. In fact, this can still be observed today through policies and practices that disproportionately impact people of color (see Module 19: Human Rights and Activism). Jim Crow segregation laws and racial eugenics are only two well-known examples.

Racial eugenics in the early 20th century emphasized the inaccurate idea that human races could be “improved” or pruned through selective or planned breeding. Eugenics involves means such as involuntary sterilization, social segregation, and exclusion to remove “unsuitable” individuals from society and prevent them from reproducing. An “improved” or “suitable” society and individuals within that society, however, were determined from the inaccurate and detrimental perspectives of empowered groups in society at the expense of marginalized groups and without their consent. The state of Indiana was the first to pass a eugenics law in 1907. The law targeted individuals in state institutions such as “confirmed criminals,” “rapists,” “idiots,” and “imbeciles” and were among those targeted for eugenic sterilization. Until 1970, more than 30 states adopted similar laws.

However, it also bears mention that rates of incarceration and wrongful conviction, historically and presently, are skewed along racial lines. The Innocence Project is a nonprofit organization committed to exonerating wrongful convictions. Since 1992, they have helped overturn more than 200 wrongful incarcerations, and among these cases, they have documented the disproportionate impact of wrongful convictions on Black people in the United States (58% of cases as of December 2021). These perspectives, laws, and organizations highlight how racist ideas have perpetuated to the present day and still have significant impacts on people’s rights and lived experiences in the U.S., as can be seen in Vulchi and Guo’s TED Talk:

Video 16.1. Check out the video from TED talk featuring Priya Vulchi and Winona Guo discussing racial literacy.
Race is Not Ancestry

Ancestry is defined as genetic or geographic differences among populations that reflect the evolution of one’s ancestors. Typically, these are minor variations among human populations that reflect adaptation to environmental or social challenges, such as disease resistance, oxygen levels in high altitudes, body proportions based on climate (see Module 4: Evolution and Genetics), vitamin deficiency in polar conditions, or solar radiation in equatorial or high elevation zones. Regardless of where one’s ancestors evolved, all people belong to one human race. All humans share similarities in their abilities to learn, innovate, and feel compassion. The minor variations observed in ancestral traits do not impact one’s humanity. Commonly, anthropologists bin ancestral variation based on clusters of traits per continent (e.g., European, African, Asian, or Native American). However, these categories become increasingly difficult to use or describe in a globalized world where people from different ancestral backgrounds migrate, live together, and reproduce.

Race, on the other hand, is defined by community perception and opinion. Society ascribes race to an individual or group, and labels will vary depending on who is assigning race. Additionally, it changes over time as political and sociological concerns shift. This emphasizes the difference between race and ancestry. Most importantly, this confirms there are no real or appropriate racial categories. Although skin color has geographic associations, someone couldn’t predict what other physical traits an individual has based solely on skin color. In fact, as you try to incorporate additional physical traits into racial categories, it becomes even more difficult to describe races because many traits are independent.

If race was real, everyone would agree about what skin color, hair and blood type, eye shape, body proportions, language, religion, or nationality constituted race. However, people don’t agree because these traits do not fit cleanly into discrete racial categories. For example, skin color is commonly used to classify race in the U.S. However, light and dark skin shades developed in many different places throughout the world (see Figure 11.2). Skin pigmentation and melanin production are adaptive traits that have variously developed over time in response to solar radiation and UV intensity.
Additionally, although socially we refer to categories like Black and white, skin colors are gradations of reds, yellows, browns, and other hues. There are not strictly white or black hues, and these categories are oversimplifications created by humans that ignore the diversity of appearances in the world. Lighter skin shades may be observed in people whose ancestors adapted to northern latitudes with less UV exposure, while darker skin shades typically are observed in people whose ancestors adapted to equatorial latitudes or sunnier regions where UV protection was critical.

In other words, skin color is not a **discrete** category (see Module 4: Evolution and Genetics). Instead, skin color is a **continuous** trait, where many genes contribute to the overall appearance. Many human traits, including skin color, exhibit **clinal variation**. Clinal traits cannot be unequivocally subdivided into discrete categories because they demonstrate gradual changes over geographic space. Therefore, many different, unrelated groups of people may exhibit similar shades of skin, but they may have few other traits in common genetically or culturally.

![Figure 16.2. Clinal variation of skin color, predicted based on multiple environmental factors. Image modified from Flickr/GRID-Arendal.](image)

Unfortunately, using racial categories only serve to reify their existence and perpetuate inequality. Furthermore, they incorrectly imply racial “purity,” and when people from different ancestral groups reproduce, their
offspring are often characterized as “biracial” or “multiracial.” The idea of biracial or multiracial offspring can only exist when discrete, social categories are used to describe people because we are all one human race and species. Labeling people by race perpetuates racist ideas under the notion that parents with different appearances or cultural backgrounds produce hybridized or biracial children.

Furthermore, the historical emphasis on skin color in the U.S. clouds our ability to comprehend the genetic diversity of the human population. There is more genetic diversity within populations of African ancestry than within people with ancestry from all other continents combined. This makes sense because data indicates that the human species developed in Africa, and smaller groups migrated outside of Africa later (see Modules 6 and 7). Our emphasis on skin color and oversimplified racial categories illustrate extreme biases in our understandings of humanity, and a failure to look beyond appearance to understand and appreciate what it means to be human. Our use of sociocultural racial constructs upholds historic misperceptions and inequalities, and these racial terms do not reflect anything about human identity, culture, intelligence, creativity, or compassion. There is no scientific basis to the idea of race. Although people do exhibit geographic or ancestral variation, these are minor and not explained by the concept of races.

**Race is Not Ethnicity**

To counter the reification or the social solidification of racial categories through scientific and academic discourse, anthropologists use the concept of **ethnicity** to study human cultural difference. Ethnicity describes people’s self-determined cultural heritage or nationality. However, this term frequently has racial overtones.

For example, the Aylmer twins represent the conflation of race and ethnicity. Their parents have different ancestral backgrounds and are socially labeled as different races. Lucy and Maria Aylmer are fraternal twins meaning that they are not identical in appearance. Socially, Lucy is labeled as white, and Maria is labeled as Black, and people rarely recognize the girls are siblings, much less twins. Lucy and Maria Aylmer have similarities in likeness and genetics that are more common among non-twin siblings. While stories
report that their father is white (a racial term), their mother is variously described as Black (a racial term) and half-Jamaican (an ethnic term). These twins, and others like them, are embellished as “rare” biracial exhibits. However, being born with different skin tones does not mean anything implicitly about ancestry or culture. Highlighting these types of stories in the media only shows and compounds our misunderstanding of these concepts and the fact that race is not a scientific reality.

The conflation of race and ethnicity can also be seen in the U.S. Census. In 1790, the United States began taking census data. Every census has included racial and ethnic categories, highlighting the significance of this topic throughout American history. The categories have changed between each census, indicating changes in political views and science over time. The earliest racial categories in 1790 distinguished between “free Whites,” “other free people,” and “slaves.” In 1850, categories changed to “White” and “Black or Mulatto.” Additional categories, including “American Indian” and “Chinese,” were added and modified in subsequent decades. Consider, too, that these subjective categories were adjusted based on political and social ideologies of the day. For example, Irish immigrants were not initially considered white in the U.S. Instead, they were associated with Black individuals, and it was only through acculturation processes their descendants achieved the status of white. Although today Irish culture and ethnicity are accepted and celebrated, this was not always the case.

Furthermore, during early censuses, people did not record their own answers. An enumerator, or census taker, determined an individual’s race based on the enumerator’s perceptions or accepted practices at the time. For example, enumerators determined the amount of “black blood” in one’s lineage to assess race during the 1890 census, or, later, utilized the “one-drop rule,” wherein any Black ancestor, no matter how far in the past, mandated that an individual was classified as “Black” (hypodescent). Furthermore, people could not select their own race until 1960, and people could not select more than one race to describe themselves until 2000. However, since the 1980s, the number of Americans who identify with multiple racial or ethnic associations has doubled.
Despite the Census Bureau’s attempts for a more inclusive and expansive categorization of race, the concept is still fraught with controversy and poorly defined. As of 2020, people are free to explain their designated racial characterization in more detail, and the Census Bureau recommends that individuals describe their ethnicity as well. However, people remain limited to a set of predetermined options that are not consistently defined. For example, “White” is defined as anyone identifying with “one or more nationalities or ethnic groups originating in Europe, the Middle East, or North Africa,” while “Black or African American” is defined as anyone identifying with “one or more nationalities or ethnic groups originating in any of the Black racial groups of Africa.” Note that skin color and race are not underscored in the “White” definition, and only in the “Black” definition. “American Indian or Alaska Natives” must “maintain tribal affiliation or community attachment,” and so this definition potentially excludes disenfranchised or unrecognized populations, regardless of how they identify, while “Asian” groups are partially subdivided by ethnicity based on political concerns today. Chinese and Vietnamese are among several groups identified as “Asian” subgroups, while others, such as Pakistani, Hmong, and Cambodians, are grouped together as “Other Asians.” These inconsistent definitions and cherry-picking of heritages highlight the persistent political nature of the race (and ethnicity) question in the U.S. and the inefficacy of racial categories.

Race has Real Impacts on Lived Lives

Social structures continue to perpetuate racism and restrict the lives of racial minorities or immigrant groups. Hypodescent practices are used to enforce social hierarchies, ensuring that minority groups remain minorities. One of the most well-known examples of hypodescent is President Barrack Obama, the 44th president of the United States. Largely considered the first Black president, Obama has one Black and one white parent. Because of hypodescent, where people of “mixed races” are automatically assigned to the minority race of their parents, Obama is considered Black instead of white or mixed. This is purely for social reasons. This strict definition of who can be recognized as the dominant race increases the selectivity and status of the dominant group, making it more difficult to be a member.
Other historic legislation enforced social and racial separation between people. For example, prior to the Civil War, in Maryland, a white woman married to an enslaved Black individual was considered the owner of her husband and his parents. Any offspring from their union were also born into slavery. Although the particulars of these laws changed over time, many states continued to ban “mixed” marriages well into the 20th century. In 1967, the Supreme Court decision on Loving v. Virginia resulted in all remaining anti-miscegenation laws being repealed in the U.S., but at that time, 16 U.S. states still had anti-miscegenation laws. Until future-president Barrack Obama was six-years-old, his parents’ marriage was considered illegal in many U.S. states.

Despite repeals in legislation and civil rights movements, our behaviors as a society continue to belie implicit biases, or mental shortcuts that we may not be aware of. These biases are ingrained in us from childhood through observations, interactions, media, and many other venues. We learn associations and may carry those associations with us through life without critically reflecting on what these associations mean. These associations have been shown to reify racial, gender, and other social stereotypes. For example, a patient in a hospital assumes that the women in scrubs are nurses and men in scrubs are doctors (see Module 14: Gender and Sex), or a patient assumes their doctor is foreign based on their appearance or accent, or the doctor assumes differences in pain perception based on the patient’s skin color. In each of these situations, an individual makes what they consider a harmless or factual observations, but the implications, assumptions, and stereotypes strengthen inaccurate and demeaning labels. These types of comments are considered microaggressions that, intentionally or not, perpetuate inequality in society (see Figure 16.3).
The following examples are provided to acknowledge specific cases where perceptions of race have impacted real lives and extended beyond implicit bias.

**Tuskegee Syphilis Experiment (1932-1972)**

Designed to study the impact of syphilis, the Tuskegee Syphilis Experiment was active for 40 years but unethical and built upon scientific
racism. Participants, specifically African American, were intentionally mislead (believing that they were receiving treatment rather than placebos) and were never informed about the purpose or the proceedings of the experiment. This study indubitably crossed ethical boundaries in 1947 when penicillin became an effective and widely available treatment for syphilis but was withheld from participants. Instead, researchers observed the long-term impacts of untreated syphilis (blindness, severe health problems, insanity, and death) on “participants” and their families.

Also troubling, participants were not allowed to quit the study. They were never informed about their rights and never offered the option to stop participating and seek alternative treatments. This study continued for decades, and researchers justified their actions through scientific racism. In the 1960s, a Public Health Services Employee discovered the ongoing experiment and voiced concern to his superiors. The organization reviewed the syphilis study and did not stop the proceedings. Instead, they allowed the study to continue, reasoning that they should track the last few participants through death and autopsy to understand the long-term effects of syphilis.

The employee leaked the story to the Associated Press, and the ensuing public outrage finally led the project to cease. This is just one of many examples of racial injustice and health-based racial profiling that have been done and continues to perpetuate in society. It has led to increased distrust of medical practices among Black communities. However, the Tuskegee Syphilis study resulted in reform regarding how studies with human participants are conducted including the use of Institutional Review Boards (Module 19: Human Rights and Activism). Studies must provide confidentiality for participants, research cannot cause harm to participants, and participants must be informed about the purpose of the study so they can make an informed decision regarding participation.

Reproducing Race in Pregnancy

In more recent studies, the anthropologist and legal scholar Khiara Bridges demonstrates how race continues to be reconstructed as biological reality in discourse surrounding the bodies of poor, pregnant women of color as they experience medical monitoring during pregnancy care at their
ob/gyn. Based on 15 months of ethnographic research at a New York City clinic that Bridges calls the “Alpha Hospital,” she illustrates how the **racialization** of poor women is accomplished by using racial perceptions to equate poor, Black women with the racially disempowered.

Women who received prenatal care at the Alpha clinic experienced a *Blackening"*/"alien"-ation* or what Bridges describes as a not-so-subtle racial un-privileging that is constituted through their underprivileged class status. Bridges delineates how the racialization of poor women seeking prenatal care at the clinic was also attained by the flattening of their individual difference into a singular experience of poorness. The women weren’t viewed as individuals but instead conflated into racial and economic stereotypes. Bridges also explores the contradictory realities when poor women, after receiving first-rate medical care elsewhere, are labeled as problematic reproducers whose reproduction is socially undervalued when they visited the Alpha clinic.

The not-so-distant history of racial eugenics in hospitals continues to impact practitioners today. Prior to the 1970s, more than 30 states had laws that resulted in the involuntary sterilization of more than 60,000 people to “improve” society. The vestige of this is observed today when poor Black women are not viewed as medical clients but as part of the discourse of medical and social risk. Bridges writes, “shared risk makes poor, pregnant, uninsured women into a coherent population. Shared risk erases the vast diversity of health states, of relationships to biomedical discourse, of desire for the medicalization of their bodies and pregnancies, etc., within this sizable and dissimilar group of individuals” (Bridges 2010). The presupposition of risk in the population of poor, pregnant women in New York City created a singular type of patient that was viewed by the medical establishment as already-not-proper mothers.

Bridges’ study of race in a medical setting is important in many capacities and extends beyond race and economic status as there are also documented pregnancy disparities in middle- and upper-class women of color. For example, internationally renowned tennis icon, Serena Williams, expressed concerns when she fell short of breath after the cesarean birth of her daughter. Having a prior history of pulmonary embolisms, she notified
hospital staff, but they dismissed her concerns. Only at her insistence was Williams tested and several small blood clots were found in her lungs. Even after treatment, she developed a cough from the embolisms that were powerful enough to re-open her cesarean scar. The medication she’d been prescribed caused a hematoma in her abdomen, and she required additional treatments for the hematoma and blood clots. However, staff didn’t initially review her medical history or take her concerns seriously.

Many medical providers still practice under the assumption that race is biologically real, which has direct impacts on the health outcomes of Black Americans. For example, in 2021 Black women had more than three times the maternal mortality of white women in America. A better way to understand these health differences is through an analysis of the social determinants of health (see Module 17: Health and Medicine). Implicit biases impact people on entirely new levels when they are transferred to medicine and health. Racial biases in medical treatment can be observed throughout U.S. history; Dorothy Roberts explores this concept more in her TED Talk on medicine and race.

Video 16.3. Check out the video from TED Med talk featuring Dorothy Roberts discussing the problem with race-based medicine.

Forensic Anthropologists, Medicolegal Contexts, and the Race Question

Other types of anthropologists grapple with concerns over racism as well. Forensic anthropologists are applied anthropologists who specialize in the recovery and analysis of human skeletal remains, particularly, in medicolegal contexts. They typically work with law enforcement, juries, and/or families of the missing and analyze unknown human bones to interpret sex, age, ancestry, stature, trauma, and other important traits. Forensic anthropologists can determine whether the skeletal remains belong to a male or a female, someone who was young or old, tall or short, and other information or characteristics. When law enforcement or other agencies find human remains and want to identify who the person was in life,
anthropological analyses help investigators reduce the universe of possible unknown individuals.

Forensic anthropologists are trained to interpret ancestral associations in skeletal remains and are proficient in assessing visual traits and measurements to determine if an individual was likely of European, African, Asian, Native American, or other ancestral background. This analysis, however, is tricky and potentially treacherous for several reasons. First, as noted above, ancestral traits are continuous, not discrete. There is no clear-cut difference or threshold in ancestral traits. Second, ancestry is not race, but when law enforcement and investigators use anthropological analyses, they may conflate ancestral assessments with racial categories.

For example, nasal width is a common trait used in ancestry assessment. Like skin color, nose width varies along a cline. Nasal widths range from narrow to wide, reflecting evolutionary adaptations to different climates. Humans adapted to temperate or tropical regions displayed relatively broad nasal widths because there were no constraints of breathing in warm air. On the other hand, narrow nasal widths are associated with adaptations to cold climates as theories suggest that a narrow nasal width provides a bottleneck for cold air, which allows air to be warmed prior to inhalation. Therefore, individuals with broader nasal widths have ancestors who likely adapted to warmer regions, and individuals with narrow nasal widths likely have ancestors who adapted to cooler regions. However, it is common to see a range of nasal widths in all populations, and the frequency or prevalence will be skewed based on environmental conditions.

Therefore, multiple data points are required to interpret ancestry. One trait alone cannot be used. However, other variable such as head shape, eye shape, or dental patterns, may present contradictory or confusing data. Not all traits cline in the same way, so, interpreting results can be contentious and problematic, regardless of experience levels. In other words, there are no traits exclusive to specific ancestral groups, and no analytical methods can be used to provide 100% accurate interpretations. Forensic anthropologists and those who use their work must understand that there is always room for error in a subjective analysis.
The implications extend far beyond ancestral interpretation. Arguably, the biggest issue with ancestry assessment in forensic anthropology is how it may contribute to continued racialization in the US because anthropologists cannot control how non-forensic anthropologists will use ancestry assessments. Often, ancestry becomes a proxy for race in unknown skeletal remains. Investigators may read “European ancestry” and interpret this to mean white race, although, where one’s ancestors evolved may or may not impact racial labels or ethnicity. While ancestry is arguably important to narrow down missing persons lists and ensure that appropriate methods are used to interpret sex, age, and stature, forensic anthropologists must consider that by assessing ancestry, they may be reaffirming racial categories and contributing to unjust or inhumane treatment of individuals from marginalized groups (see Module 19: Human Rights and Activism). While an individual may predominantly express traits consistent with European ancestry, that does not imply or confirm that the individual was socially considered “white,” or that they associated with “white” ethnicities, or vice versa. Because race and ancestry represent very different things, people may express ancestral traits that do not correlate with their social race or ethnicity.

It is crucial that analysts consider as many lines of evidence as possible to identify an unknown person including the location the remains were found, how they were discarded, and clothing or material possessions. Forensic anthropology is only one line of evidence and shouldn’t be taken as the only or most important evidence. Furthermore, forensic anthropologists have a duty to clarify and explain race, ancestry, and ethnicity to law enforcements, families, and other interested parties to ensure that gross assumptions are avoided and all people (living or deceased) are afforded the respect deserved as human beings. As others have argued, if our analyses are misused and contribute to the harm of others, we have an ethical obligation to stop or alter those practices. While completing ignoring geographical variation in humans may be like adopting a colorblind perspective, there are ways to conduct ancestry analyses while being color conscious. Allysha Winburn is a forensic anthropologist who describes the contention surrounding race and ancestry in her casework.
Summary

Historically in the U.S., we have conflated the terms race, ethnicity, and ancestry. This has led to continued confusion and misuse of these terms today. Race is a sociocultural construct that has significant impacts on people’s lives and is not based on biological or scientific fact. Rather, it is imposed upon people based on superficial traits. Additionally, racial categories change through time and space. Recall that while, initially, many European immigrants were not considered white in the US, through acculturation processes, their descendants have achieved the status of white. Furthermore, what it means to be Black in the United States in not the same as what it means to be Black in Brazil, which differs from France, which also differs from South Africa.

Ancestry describes geographic and genetic based differences in populations, but it does not align with race. We do not exhibit a high degree of genetic diversity, and our diversity has no genetic concordance. It is used to describe why people have different traits like skin pigmentation, nose morphologies, and body proportions. Conversely, ethnicity offers a third way to describe human difference. Ethnicity refers to one’s heritage and cultural associations and may have nothing to do with appearance, race, or ancestry. Regardless of ancestral, race, and ethnic labels, we are all one human species with more commonalities than differences. Anthropologists must be conscious of the how their work interfaces with racial issues, and the potential implications of their work on living peoples.
Review Questions

- **T/F.** Race, ancestry, and ethnicity have distinct meanings and cannot be used interchangeably.

- **T/F.** Institutional racism is pervasive in the U.S. today.

- **T/F.** President Barrack Obama is considered the first Black president for social reasons.

- **T/F.** All people have implicit racial biases, whether intentional or not.

- **T/F.** Forensic anthropologists have perfected ancestry assessments so they can be 100% confident in their interpretations.

Discussion Questions

- Define race, ancestry, and ethnicity. How are these terms different?

- How do current practices in the U.S. contribute to misconceptions and misuse of race and ancestry?

- How do past policies, laws, and perceptions continue to impact people and reify the idea of race?

- Should medical treatment be streamlined based on race?

- Should forensic anthropologists assess the ancestry of unknown skeletal remains? What social concerns must be addressed when interfacing with non-anthropologists?
Activities

1. **Tell Me Who You Are Activity**
   Our readings and videos this week demonstrate that races are socio-historical constructs with real implications for living people. However, races are not genetic or biological. Read the introduction, then select one additional story from *Tell me who you are* (Guo and Vulchi 2019), for your response to the following questions.
   - In your own words, what is racial or diversity literacy?
   - Who are the individuals in the story you read? How does society impact how they are perceived, their opportunities, or their perceptions? How do they perceive themselves? How did this excerpt help you understand their story and the inequalities built into social structures?
   - How did this story help you consider privilege and marginalization in the United States—both your own and others?

2. **Racialized Medicine**
   Our readings and videos this week demonstrate that races are socio-historical constructs with real implications for living people. However, races are not genetic or biological. Despite this, racialized health and medicine practices can be identified in the United States for the past hundreds of years to the present day.
   - What is the difference between race, ethnicity, and ancestry? Provide an example of each. These terms are not synonymous and cannot be used interchangeably.
   - What does it mean that medicine is racialized?
   - Explain one example of racialized medicine or healthcare in the past. What were the major assumptions behind these health practices? How did they re-enforce the social structure in the past? Do these inaccurate assumptions still exist in society today?
   - Describe a specific example of racialized medicine or health practices that occurs today. What are the issues and hazards surrounding this practice?
3. Race, Ethnicity, and Ancestry

Our readings and videos this week demonstrate that races are socio-historical constructs with real implications for living people. However, races are not genetic or biological. This is explained well in the PBS “Race: the power of illusion” website(opens in a new tab). Please visit the website and review the sites and activities.

- Review the “Sorting People” activity(opens in a new tab) at the PBS link above. How did you do? Did any individuals not match your preconceived ideas about race? What traits led you astray? How did that individual self-identify? Are you supposed to do well on this activity? Why or why not? What does this suggest about race and its use in society?

- Supreme Court Justice O'Connor made the observation that, of course, this is a white country. Based on “Me, My Race, and I,”(opens in a new tab) what does this mean? What are the implications? Why is this hard for people to accept?

- In your own words, define race, ancestry, and ethnicity. These terms are NOT synonyms and cannot be used interchangeably! How are these terms different from one another? Provide an example of each.
Key Terms

**Ancestry**: Genetic or geographic differences among populations that reflect the evolution of one’s ancestors.

**Anti-Miscegenation laws**: Laws that enforce racial segregation by criminalizing interracial marriages and intimate relationships between members of different races.

**Black Lives Matter (BLM)**: A political and social movement dedicated to raising awareness of racial injustices committed against Black people, in order to end racial inequality and discrimination.

**Blackening**: A not-so-subtle racial un-privileging that is constituted through underprivileged class status.

**Clinal variation**: Gradual changes in traits and inherited characteristics amongst groups and species that correlate with defined geographical or ecological spaces.

**Colonialism**: The historical practice of more powerful countries claiming possession of less powerful ones through full or partial political control, occupation, and economic exploitation.

**Colorblind**: A racial ideology that believes that society should not see racial group membership and race-based differences in order to end discrimination and bring about racial harmony.

**Color conscious**: A racial ideology that believes society needs to be aware of and actively acknowledging race in order to celebrate ethnic differences and recognize social justice issues.

**Continuous trait**: Polygenic traits controlled by multiple genes, with ranges of expressions such as hair color, weight, or skin color.

**Discrete trait**: Traits controlled by a small number of genes, generally one, and two alleles. For example, dimples or no dimples.
Enumerator: A person employed in collecting the census data of a population.

Ethnicity: Self-determined cultural differentiations among populations, usually based upon attributes such as language, religion, lifestyle, cultural heritage, and/or nationality or geographic territory.

Forensic Anthropology: The analysis and identification of human skeletal remains for legal purposes.

Human Genome Project: An international scientific research project between 1990 and 2003 whose goal was to identify and map all the genetic material in humans.

Hypodescent: A practice used to enforce social hierarchies, ensuring that minority groups remain minorities, by classifying or identifying biracial or multiracial individuals as members of the perceived lower or lowest socially ranking racial group from which that person has ancestry.

Implicit bias: Mental shortcuts that we may not be consciously aware of, such as stereotypes or attitudes, that can affect our perceptions, understandings, and even actions.

Innocence Project: A nonprofit, national litigation and public policy organization committed to exonerating wrongfully convicted people using DNA testing. They also seek to reform the criminal justice system to prevent future injustices from taking place.

Institutional racism: Racism perpetuated by social and political institutions, embedded in the laws and regulations of society, imposing oppressive and negative conditions on those of identifiable racial or ethnic groups.

Institutional Review Boards (IRB): A committee established to review applications and monitor biomedical research and studies conducted at academic research institutions that involve human subjects, in order to protect their welfare.
Jim Crow Laws: State and local laws that enforced racial segregation in the Southern United States to disenfranchise Black people and eliminate their political and economic gains for nearly 100 years until they were abolished in 1965.

Microaggression: A statement, action, or incident regarded as an instance of indirect, subtle, intentional, or unintentional discrimination against members of a marginalized group such as a racial or ethnic minority.

“One-Drop” Rule: A social classification prominent in the 20th century in the United States, wherein any individual with a Black ancestor, no matter how far in the past, was identified and classified as “Black.”

Phrenology: A pseudoscience primarily focused on measurements of the human skull as a supposed indication of mental abilities and character traits.

Race: A system that organizes people into hierarchical groups based on specific physical traits that are thought to reflect fundamental and innate differences that are rooted in genetic and biological differences.

Racial eugenics: An early 20th century scientific theory that emphasized the inaccurate and immoral idea that human races could be “improved” or pruned through selective or planned breeding.

Racialization: The social, economic, and political processes of transforming populations into defined races and creating racial meanings.

Racialized medicine: When health care providers use a person’s race as an element to define their health and prescribe their treatments.

Scientific racism: The pseudoscientific belief that empirical evidence exists to justify or support racism.

Social Darwinism: The now largely discredited theory that was common in the late 19th and early 20th centuries that stated that individuals, groups, and peoples are subject to the same Darwinian laws of natural selection as plants and animals. It was used to justify political conservatism, imperialism, and
racism, and to discourage intervention and reform.

**Social determinants of health**: Non-medical factors that influence health, including the conditions into which people are born, develop, live, and work, as well as political and economic policies and systems, social norms, and other factors that impact daily life.

**Syphilis**: A chronic, sexually transmitted disease (STD) caused by the bacterium *Treponema pallidum* that is contracted chiefly by infection during sexual intercourse.

**Transparency**: Implies openness, communication, and accountability, to be practiced within institutions and societies at all levels.
Suggested Readings


Videos

Dorothy Roberts TED: The problem with race-based medicine
https://www.youtube.com/watch?v=KxLMjn4WPBY

Winburn  https://www.youtube.com/watch?v=ZRqsJHbiC_E


California Newsreel – “Race: The house we live in”
https://www.youtube.com/watch?v=mW764dXEJ_8

PBS The Origin of Everything – “The Origin of Race in the USA”
https://www.pbs.org/video/the-origin-of-race-in-the-usa-wbm41s/