**Human Mismeasure 1**

- Overview
  - The history of biology can be split into pre-Darwinian and post-Darwinian periods.
  - In the pre-Darwinian period biology was a tangle of disconnected empirical observations.
  - Ideas of race revolved around religious ideology wherein God created races along a scale of perfection.
  - One of the earliest sciences was the invention of taxonomy.
  - How the world is organized, though, culturally informed (to one’s central theory).
  - The Western, socially-constructed concept of race was rooted in ‘biological’ features. In fact, the scale of nature (remember scala naturae?) was the basis for human biology in the 19th century and was perfected in the 20th century.

- For centuries, students of human variation searched for ‘scientific’ measures of racial differences.
- These attempts are the focus of this chapter.
- We will be looking at the basis for and the consequences of scientific racism.
- Scientific racism or what the authors call the “sciences of race” are derived from politics not from attempts to understand the effects of the environment or evolution of human diversity.
- Later in the book we will revisit human physical diversity in this context.
- The concepts we are discussing here are linked to pseudoscientific views.
- In fact, beginning in the 18th century, during the period of the European Age of Enlightenment, that science was brought in to justify folk taxonomies of race.

**Human Mismeasure 2**

- Monogenesis versus polygenesis
  - There were two ‘camps’, per se, which focused on a different story for human origins, a different taxonomy.
  - Those who supported monogenism and those who were advocates of polygenism.
  - Some 18th century naturalists (the term used then to mean the biologists of today) believed in the hierarchy of human races, they did think they were all the same species (monogenism).
    - One way to distinguish the races then was the ‘fall from grace’.
    - This idea was that God had created all people equally but some groups had disobeyed their deity’s edicts and were being punished.
    - The story of Ham was used as an example; Noah cursed him and his offspring. This became the “Ham’s curse”.
    - The physical mark of the curse was dark skin.
  - Other 18th century naturalists believed in some form of polygenism. These ideas hark back to the Great Chain of Being idea we outlined previously.
    - While many deeply religious people supported monogenesis (as it was seen to be closer to biblical accounts) they were also strongly represented among American slave owners.
    - “The four horsemen of polygeny”
      - Four men are seen as the primary proponents of polygenism: Louis Agassiz (theorist), Samuel Morton, (experimenter) & Josiah Mott and George Robin Glidden (both popularizers).
      - Louis Agassiz was ‘psychologically’ repulsed by Negroes.
        - Even so he did not support slavery, as he did not feel that polygenesis meant one should mistreat one of the other races.
        - He disliked the concept of admixture of the races.
    - This dislike caused him to reject the classic definition of a species (producing of fertile offspring, remember from earlier in your readings?).

**Human Mismeasure 3**

- Monogenesis versus polygenesis (continued)
  - “The four horsemen of polygeny”
    - Samuel Morton became the leader of the polygenist school of thought.
• He is most famous for his measurements of cranial capacity (the volume of the brain) by pouring birdseed into the hole and measuring its volume.
• Stephen Jay Gould (the late writer and evolutionist) showed up Morton’s errors (he was not sure they were intentional or subconsciously altered by Morton.
• Read Gould’s book, Mismeasure of man (exceptional reading) for more on Morton.
• After 1851, Josiah Nott and George Robin Glidden continued to popularize the polygenist views.
  • Nott went throughout the South talking about ‘niggerology’.
  • Together they wrote Types of mankind and Indigenous races of the Earth. Both are still available today (indicating how popular the books were in their time that they were reprinted).
    • They identified 8 races by geography, physiology and linguistics.
    • Looking at their data one sees the overlaps between the categories between populations, an observation they ignored.

• Craniometry
  • There is a long history of trying to use cranial measurements (and actually a wide range of measurements) to differentiate the races physically. Watch this film clip to learn more.
  • Key idea of the naturalists was differential worth (races were ranked on various criteria judged to assess intelligence or moral standards).
    • The rankings were used either to bolster the scala naturae or proto-evolutionary relationships.
    • Such rankings were highly subjective and loaded with potential for ethnocentric abuse, with the highest rank always being reserved for the race of the anthropologist doing the ranking.

Human Mismeasure 4
• Craniometry (continued)
  • Petrus Camper, a Dutch anatomist, reported on the use of facial angle in 1799 and suggested this could be used to range all living species hierarchically.
  • By the late 1700s, A German anatomist, Johann Blumenbach is often called reputedly the founder of modern physical anthropology.
    • Blumenbach introduced his typology of the Races of mankind
    • Called five racial groups or human varieties: Causasoid (Europeans, “white race”); Mongoloids (Asians, “yellow race”); Ethiopians (Africans, “black race”); Americans (Amerindians, “red race) and Malays (Polynesians, “brown race”)
      • He recognized that his classification system had limitations and overlaps. Even so, it was Blumenbach who coined the term "Caucasian" to refer to Europeans
      • He thought all other humans had devolved from the peoples of the originated in the Caucasus Mountains of Russia.
    • One of the early researchers. Anders Retzius, introduced the idea of using the cephalic index (maximum breadth of head/maximum length X 100).
      • Terms for head shape:
        • Doliocephalic heads are long and narrow.
        • Brachycephalic heads are broad.
        • Mesocephalic are intermediate between these other two.
      • Head shape went out of fashion as an indicator of superiority when Northern Europeans and many African populations were found to be similar in measurement.
    • Subsequently, craniometry morphed into criminal anthropology, somatotyping (also called constitutional psychology) and today racial profiling.

Human Mismeasure 5
• Craniometry (continued)
  • Again, the measurements of the cranium do not represent all the efforts of these early scientists to label racial groups. Other physical features and both real and imagined diseases were used.
  • Samuel Cartwright coined a term, drapetomania.

Goodman et al Chapter 4 Page 2
• This condition was the underlying reason slaves tried to escape.
• The solution? Whip them.
• J. Marion Sims performed gynecologic experiments on impoverished white women and enslaved African Americans.
  • Because he thought the slave women were more resistant to pain he used no anesthesia.
  • The website devoted to the J. Marion Sims Foundation states, “Dr. James Marion Sims was one of the most famous physicians of his time, renowned as a surgical genius and as one of the founders of operative gynecology.”

Frederick Douglas and the polygenists
• The polygenists gain in popularity prompted a response form Frederick Douglas.
• Frederick Douglas, who gained his freedom from slavery by escaping his owners, is renowned for his abolitionist work in the 1800s.
• Challenged the data of the polygenists by listing the shared characteristics of all humanity.
• He challenged Morton’s *Crania Americana*, where Morton talked to the idea that the Egyptians were not black. (If that were true, this would negate the polygenist view of black inferiority).
  • He called Morton’s work anti-Negro propaganda.
  • He challenged the idea that if one drop of black blood made you a slave, how could one drop of white blood make you intelligent?
  • He then challenged the classification on the basis that they were ignoring social inequalities.

Human Mismeasure 6
• Let’s return to the craniometry of Morton
  • He never found a relationship between his measurements on brain size and intelligence
    • For instance, Friedrich Tiedemann, in 1838 measuring both Negro and European cadavers did not find a link.
    • Joseph Deniker, in 1900, looked at 1,100 brains and also no difference.
    • Joseph P. Mall, did not find any either.
  • In the mid-20th century, Ashley Montagu determined the average differences between blacks and whites to be 50 cm³. No real difference at all.
    • Major idea: There is more variation in morphological (and genetic) features within a ‘race’ than there is between ‘races’.
    • This finding is briefly discussed later in the book, but I urge you to read more.
  • This link is particularly useful: *Is race real?*
• What we do know: Brain size is linked to the body size of the species (although humans have a very high ratio of brain size to body size, as a species)
• Obviously the polygenists' use of brain size was built on pseudoscience.

Human Mismeasure 7
• After 1850, race was a constant source of debate.
• Many of our American heroes held biological deterministic (racist) views.
• Perhaps the iconic example of racial hierarchies is that published by Lewis H. Morgan, *Ancient society: Researches in the lines of human progress from savagery through barbarism to civilization*.
  • In this book he outlines his views on technological, biological and cultural determinism.
  • His proposed that cultures developed through progressive stages: savagery, barbarism, and civilization.
  • FYI: These categories, today, are renamed, but the concepts not as gone as one would expect.
    • First World, Second World, Third World.
    • Developed, Less Developed, Least Developed.
• We mentioned earlier that biology is demarcated as pre-Darwin and post-Darwin.
• So what happened after Charles Darwin introduced his famous work, *The Origins of Species*, and subsequently, his work more closely linked to our discussion, *The Descent of Man?*
  • *The Descent of Man* had three purposes:
    • To consider if humans, like other species, are descended from a previously existing form.
    • To describe the manner of their development.
Establish the value of the differences among the so-called races.
While he rejected the polygenists, he was not free of racist interpretations

<table>
<thead>
<tr>
<th>Biological Evolution</th>
<th>Cultural Evolution</th>
<th>Technological Evolution</th>
</tr>
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<tbody>
<tr>
<td>Caucasian</td>
<td>Civilized</td>
<td>Advanced, Industrial</td>
</tr>
<tr>
<td>Mongoloid</td>
<td>Barbaric</td>
<td>Peasant-based, Pre-industrial</td>
</tr>
<tr>
<td>Negroid</td>
<td>Savage</td>
<td>Primitive</td>
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</tbody>
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Human Mismeasure 8
- Our interests in this class lay less with Darwin as what others did with his ideas to justify their preconceptions about race.
- We need to expand our understanding of what is a pseudoscience. Pseudosciences:
  * are characterized by the use of techniques to confuse, distract, and coerce people into believing in them.
  * employ scientific-sounding terminology.
  * lack falsifiability, a key ingredient of a science.
  * tend to explain their results based on wild and unsubstantiated theories, while systematically ignoring scientific explanations.
  * often present biased and methodologically flawed evaluations as evidence.
  * appeal to pseudo-authority.
- Eugenics (“good breeding” or “good genes”)
  * Building on Charles Darwin’s work, but not condoned by him, two researchers are particularly linked to the eugenics movement: Francis Galton and Herbert Spencer.
  * As the founder of psychometry, Francis Galton (a cousin of Darwin) originated the eugenics approach to “race improvement”.
    * He began to study the variations in human intelligence.
    * Galton used an earlier statistician's idea called the law of the deviation from the average to develop a schema for classes of human intelligence.
      * He included dogs in his descriptions and suggested many races were of similar intelligence. This system was arbitrary, but was embraced as scientific.
      * He expanded further to discuss the idea of dysgenesis where the less intelligent classes bred more offspring than the more intelligent, upper classes.


Human Mismeasure 9
- Eugenics (“good breeding” or “good genes”) (continued)
  * In the writing of two essays, Herbert Spencer coined the term “survival of the fittest”.
    * That this was attributable to Darwin (incorrectly) has had significant consequences.
    * Darwin was not favorably inclined towards Spencer and found him to be a bore.
  * Spencer would have a much greater impact on American social thought than Darwin!
    * His influence is directly linked to the advent of the eugenics movement in a number of European countries, and in both the US and in Canada.
    * Spencer represents the scientific spirit of the day.
  * The views of Galton and Spencer became known as social Darwinism.
  * Spencer’s Opponents
    * The opponents of Spencer were also racist. The opponents of Spencer were also arguing that Whites were superior, they agreed with that concept.
    * They argued that the lesser races should be treated with more compassion than was proposed by social Darwinism.
    * This is a nurture version of racism rather than a nature version (Galton).
• The eugenics movement had massive impact on the Western world so we will only cover a few examples here: immigration restriction in the US, Eugenics Record Office (ERO), and American influences on Nazi Germany.

Human Mismeasure 10

• Eugenics & Immigration to the US
  • The champions of Anglo-Saxonism in the US established eugenics as a political tool.
  • Between the end of the Civil War and the beginning of the 20th century, Anglo-Saxonism gained popularity (nativism movement).
  • This is the idea that Anglo-Saxons (AS) was responsible for all the great accomplishments of the Western world (although others had copied these accomplishments).
  • This view resulted in shift away from the acceptance of European immigration after about 1850.
  • Most before this time were from the Teutonic nations (Germany, Austria, the Netherlands, England, and so forth).
  • By 1883, non-Teutonic immigrants (Italians, Jews, Serbs, Hungarians, Greeks and others) had answered the call for a new labor force and were immigrating.

• Immigration Restriction League
  • The IRL (Immigration Restriction League) was formed in 1894 by Prescott F. Hall, Robert DeCourcy Ward and Charles Warren.
  • The next year its manifesto was published in the Atlantic Monthly by General Francis Walter. Walker was afraid that the pauper classes would out produce the Anglo/Nordic stock; that immigration would dilute the Anglo/Nordic stock.
  • By 10 more years the list of supporters was a Who’s Who of the elite.
  • The IRL devised a literacy test for immigrants and others for IQ tests (Here is an example of a WWI version of the IQ test given potential military recruits: http://historymatters.gmu.edu/d/5293).

Human Mismeasure 11

• Eugenics & Immigration to the US
  • Immigration laws:
    • Adding to a long list of immigration laws such as the Chinese Exclusion Act of 1882 and the Gentlemen’s Agreement was the 1917 Immigration Act (later revised as the Immigration and Nationality Act of 1952).
    • The IRL successfully lobbied for the 1924 Immigration Act (also called the Johnson-Reed Act)
    • Not until the Cellar Act of 1965 was the order of application the determinant of who would immigrate.

• Charles Benedict Davenport and the ERO
  • Charles Benedict Davenport was an American student of Galton and Pearson (statistics student).
  • In 1910, with the financial support of the Harriman and Rockefeller families, he established the Eugenics Record Office at Cold Spring Harbor and appointed Harry Laughlin as its superintendent
  • Goals of the ERO
    • Repository and clearinghouse for data on human genetic traits.
    • Build analytic index of American families.
    • Study forces controlling the heredity consequences of marriages, differential fecundity an survival migration.
    • Manner of inheritance of specific genetic traits.
    • Train fieldworkers.
    • Create new eugenics centers.
    • Publish research.
    • Published the Eugenical News, a monthly newsletter.

Human Mismeasure 12

• Charles Benedict Davenport and the ERO (continued)
  • Davenport created a Trait Book which listed physical, emotional, and mental traits. Individual Analysis Cards were filled out for each family member included in a pedigree.
  • Included observation of such traits as the ability to ‘take a joke’ and ‘patriotism’. My favorite: nomadic is a sex-linked trait.
  • Created pedigree charts that reported to document genetic causality of just about everything.
• The data was meant to guide families concerning the fitnesses of their marriages.
• It was also meant to guide sterilization policies. Laughlin made many recommendations.

**Effects of ERO Research**

- The results in the US have been the sterilization of 65,000 persons by the year 1968
- One of the most famous cases was that of Carrie Buck in 1925
  - The Buck vs. Bell decision became paved the way for a new wave of sterilization efforts.
  - Oliver Wendell Holmes: “…. three generations of imbeciles is enough”.
- As causes of institutionalization of the mentally ill, the mentally challenged and criminals increased, so did the support for sterilization:
  - 1937. Fortune magazine: 66% approved for mental defectives, 63% for criminals, only 15% for neither
  - For the most part the American eugenics movement was directed at whites like Carrie Buck, rather than at blacks.
  - The primary reasons included the fear of degradation of whites by those who looked white but were undesirable (the poor white trash).
  - Blacks were ‘recognizable’; (although ‘passing’ was a fear of many whites).

**Human Mismeasure 13**

- In physical anthropology, during the first decades of the 20th century, the focus was on the study of racial types and differences.
  - Even so, there were opponents in anthropology to these ideas.
  - The most famous was Franz Boas. Boas was very anti-eugenics.
  - Mostly the challenges came from Franz Boas and his students.
- Boas’ work
  - He measured the heads of immigrants at Ellis Island and over time compared with those of children born in U.S.
  - His findings were startling: Head form changed under new environmental conditions.
  - Even so, Boas collected the bones of natives to place on display (see the video preview called Minik: The Lost Eskimo).
  - He founded the historical particularism school were cultural relativism and nurture, not nature, was emphasized.
  - The response of these types of findings that cranial data do not deter the eugenic researchers; they shifted to the study of IQ with a vengeance, picking up the thread from Galton’s earlier work.

**American scientists and Hitler**

- A common sentiment among the eugenicists of the 1930s was that ‘the Germans are beating us at our own game”
  - The relationship between the U.S. and Germany included the reporting of German ‘advancements’ in ERO publications by Laughlin.
  - By the late-1920s, he was also reporting on American work in German publications.

**Human Mismeasure 14**

**American scientists and Hitler (continued)**

- American scientists worked hand-in-hand with German eugenicists in the 1920s and 1930s.
  - The publication, “Sterilization for Human Betterment” was first published in 1929 with a contribution by Laughlin. Within one year, it was translated into German.
  - American scientists continued to carry forth these relationships during the Nazi period of the 1930s.
  - Estimates of sterilizations in Germany (mostly in first 4 years of Nazi Regime): 320-400, 000 persons
- Americans influenced German policies

**Law for the Prevention of Genetically Diseased Progeny**

- A voluntary sterilization proposal of the Weimar Republic was quickly revised and enacted after Hitler rose to power.
- Doctors required to register cases
- Mandatory sterilization for many conditions, including both mental and physical health problems, even if not institutionalized.
- Genetic health courts were implemented.
- By 1935, abortion was also allowed.
• Positive eugenics solutions also devised:
  • Grants and loans for breeding were provided to those who were considered Aryan.
  • Lebenshorn (Well-of-Life) provided birthing facilities to the women who passed the racial tests.
  • Think this policy is out-of-date? Read these!
  • In France, in Germany and in Japan
  • All are experiencing combination of immigration and decrease in ‘native’ birth rates.

Human Mismriage 15
• Post-WWII changes in physical anthropology
  • I often say it was post-WWII that physical anthropology turned into biological anthropology, to a great extent to anthropologists shock over the Nazi version of social Darwinism the views began to change.
  • Now evolutionary principles guide the research
  • Now anthropology dispels the fixity of racial typologies (also called typological model)
    • A few set of researchers continue to use typological classifications:
      • Forensic anthropologists must deal with the race concept because they are asked by law enforcement agencies to identify an individual’s race from skeletal remains.
      • Medical research often argues for the use of racial categories.
  • More often today, though, populational models and clinal models are used.
    • Populational model
      • Differs from typological classification as it defines groupings based on breeding populations, then by phenotypes.
    • The problem today is that there are very few populations so isolated that they can be separated from other groups of people.
    • Clinal model
      • The distribution of many “racial” traits are clinal in nature (Cline: A gradual change in the frequency of genotypes and phenotypes from one geographical region to another.).
      • The distribution of the A and B alleles in the Old World as does does the Old World distribution of skin color are examples of clines.
  • We come back to a discussion of how modern biological anthropology looks at human physical diversity in future chapters.

Human Mismriage 16
• The idea of biological races was not commonly discussed after the Civil Rights movement but when The Bell Curve was published this started a new round of debates.
• One of the most famous responses to The Bell Curve was the work by Stephen Jay Gould, called the The Mismeasure of Man.
  • In this book, Gould not only challenges the eugenics ideas yet again, he addresses many of the same issues covered in this book, including ideas about IQ.
  • In particular he challenges the idea of biological determinism. Biological determinism links behaviors with physical traits
    • The concept that phenomena, including various aspects of behavior (e.g., intelligence, values, morals), are governed by biological (genetic) factors.
    • The inaccurate association of various behavioral attributes with certain biological traits, such as skin color.
  • The authors of this text suggest that the mos recent findings of science would seem to be suggesting that race is unreal. But, the debate rages on, in spite of the accumulation of evidence against the concept of biological race.
• Deracializing the past (Joe Watkins)
  • Race versus ethnicity
    • We tend to use the terms loosely so that social and cultural units become fuzzy categories (unbounded and poorly defined).
      • Culture or cultural identity
      • Euphemism for race
      • Other meanings for the term “ethnicity” abound.
• American Indian is a politically created term rather than a racial one.
• American Indians are defined by their association with a specific tribe rather than by their genetics.
• Even those tribes that base membership on blood quantum (some denotation of ‘tribal blood’ versus ‘non-tribal blood’) do not use genetics.

Human Mismeasure 17
• Deracializing the past (Joe Watkins) (continued)
  • Anthropology and American Indians
    • There is a long history of archaeologists digging up the remains and collecting the artifacts of American Indians.
    • In part this was justified by the idea “in the name of science” that dominated much of Western research for decades.
    • In part it was based on the idea that American Indians were ‘vanishing peoples” and it was important to preserve their cultures after they were gone.
    • But as time progressed the issues came to be seen as more complex.
    • In fact, I remember many discussions of these issues in my early days of study in anthropology and my impression of the discord between the scientists and many American Indian groups.
    • To say that American Indians had other views is an understatement. As pointed out in the book, many American Indians see little difference between grave looters and archaeologists. These are personal issues.
    • Legal changes came into the mix.
      • Prior to 1990 there was a patchwork of local and state laws governing the handling of these persons and materials.
      • These differences can to a head once the Civil Rights Movement and American Indian Movement (AIM) can into play in the 1960s/1970s and politics shifted.
      • In 1990 a new law changed everything: NAGPRA.

Human Mismeasure 18
• NAGPRA (Native American Graves Protection and Repatriation Act)
  • The US government invoked NAGPRA (Native American Graves Protection and Repatriation Act) -- The federal law that puts restrictions on the study of ancient American skeletal remains and authorizes their return to modern tribes.
  • Some anthropologists saw these laws as an opportunity, others as a threat to archaeological work.
    • Most saw the remains of recent origin as legitimately deserving of return.
    • It was those remains that represent the ‘deep past’ that are the source of debate.
      • Most archaeologists do not believe these belong to any modern group and are also concerned over the loss of information concerning such rare finds (Prior to 9,500 years ago there are fewer than 2 dozen examples of skeletal remains).
  • Many American Indian groups consider this work as disrespectful and racist. A brief discussion of Kennewick Man, perhaps the most controversial for the general public, represents this debate.
    • The remains of a mid-40s man were accidently discovered in 1996 at the end of the Columbia River, in Kennewick, Washington. The estimated date for the remains is 9,300 years ago, in the Holocene.
    • A group of biological anthropologists sued and a group of 5 American Indian tribes counter-sued.
      • The law suit was ‘settled’ in favor of the anthropologists, but cost $8.5 million to “settle” and 9 years in court.
      • The cost in relationships between many American Indian groups and archaeologists is astronomical; years will be spent re-establishing trust.
  • This debate remains at the center of many discussions, both among American Indians groups involved and among archaeologists.
  • Indigenous archaeology: A new trend in archaeology is called indigenous archaeology. Your book talks about the new controversies this trend has evoked.