Race ≠ Human Biological Variation 1

- Most Americans assume that race is a tangible truth, that there is scientific validation for this view.
- Human variation is real, but this does not mean that races are real.
  - In Part 2 of Goodman et al we will see a discussion of:
    - Human variation
    - The patterns of differences and similarities between individuals and between groups.
  - An important question becomes, how did the variation we see come to be? For that we will delve into human adaptation (how our species responses to different physical environments).
  - We do differ in skin tone, hair color and texture, nose shape, our height and out built. But these differences are not RACE.
    - As an illustration, Goodman et al discuss a famous American Express commercial that shows Will Chamberlain and Willie Shoemaker together.
    - They go on to introduce the concept they call “Page 1” where often not easy to “see” without trying to “explain”. Of course this is difficult as we all have filters, many times our filters are about race
  - So what is meant/not meant when we say “race does not explain human variation? Goodman et al discuss 4 ideas that will be addressed:
    - The idea of race is real. A term I like to borrow from sociology highlights this idea, the Thomas Theorem: Those things we treat as real become real in their consequences.
    - Humans vary biologically and this variation is real.
  - The idea of race to describe human variation is outmoded and inaccurate.
  - We would be better off socially and scientifically if we stopped using race as a proxy for human variation.

Race ≠ Human Biological Variation 2

- So race and human biological variation are both real, but in different ways.
  - Remember the earlier discussion where the concept of race was invented than became real?
  - In this chapter we discuss how human variation is real, but not biological race.
  - Why is it important to “divorce” race from human biological variation?
    - Because the juxtaposition of the two is being used as a weapon by racists.
    - Ideas have power!
  - So in this chapter we will discuss how human biological variation is explained by evolution and not by race.
  - Goodman, et al. compare racial ideology to a loaded gun. That stated they argue we need to unload the gun, one bullet at a time.
  - So, today, when anthropologists discuss human variation we use the biocultural model.
    - This is a simple (by definition) but complex (by practice) concept.
    - It is the idea that human biology interacts with the physical environment as well as the cultural milieu.
      - Humans live in cultural environments that are continually modified by their activities.
      - Evolutionary processes can be understood only within this cultural context.
    - The recognition of these interactions means anthropologists must take a holistic approach to their studies (realize that there are connections between the several parts).

Race ≠ Human Biological Variation 3

- Humans do vary biologically
  - Adherents of the “biological race concept assumed that a species can be easily be categorized into several discrete races. Goodman et al. start with a thought experiment concerning human variation, one in which they introduce the concept of a cline (even though they do not so label it).
    - They present the most often discussed cline: the variation in skin color across geographic distance (Chapter 8).
  - Other well-known examples of clines in the distribution of the sickle cell gene (Chapter 9), stature (shorter in cold environments, taller in hot, dry places), and, of course, skull shape varies with the environment.
  - In fact, we often think that the color of our skin, our hair and our eyes are linked. A concept called concordance.
    - This is not true.
• See the examples: blond Melanesians and the “Afghan girl”.
• Remember phenotype (how we look) and genotype (our genetic make-up at the gene level) are associated.
  • But not all genes are on the same chromosomes, even for skin color and so forth.
  • Also, most phenotypic traits are influenced by many genes.
• All that said, some traits TEND to group together. Why?
  • As Goodman, et al. remind us, human variation is linked to “location, location, location”.
  • These traits give humans some advantage in a SPECIFIC environment. This concept underlies the study of human adaptation.

Race ≠ Human Biological Variation 4

• Variation ≠ race
  • In the 18th and 19th century the dominant, even only, worldview was that human variation equated to race
  • The idea of race became reified (making an abstract idea into something concrete). It transformed into a unity with the reality of biological variation.
    • This is another way to describe the Thomas Theorem
    • On consequence of this reification was that it justified the social inequalities. If there are real biologically superior/inferior people the sense of injustice is lessened.
  • There are 5 key ideas why race ≠ human variation:
    • Evolution, rather than race, explains human biological variation.
      • Race-as-biology is based on the typological model of variation; that the variation is fixed, ideal and unchanging.
      • This goes back to our discussion in Chapter 4 concerning the fixity of species and the Great Chain of Being.
      • Some researchers continue to treat race as typological: forensic scientists and some medical researchers, for instance.
    • Human variation is continuous.
      • Allele frequencies (alleles are variants of individual genes) tend to vary gradually (clinal).
      • There is no clear-cult place to draw a line between races. Try this illustration (sort people).
      • This is also true about AVERAGE variation within groups.
      • For instance, think about lining up all the persons in the room. Who are the “short people” and who are the “tall people”?

Race ≠ Human Biological Variation 5

• Variation ≠ race (continued)
  • There are 5 key ideas why race ≠ human variation:
    • Human biological variation involves many traits that typically vary independently.
      • Again this is about concordance, or in fact, what is called discordance.
      • Most human phenotypic traits are discordant.
      • The important ideas here is that knowing what gene version (allele) one has for Trait 1 does not help you to guess what gene version (allele) you will have for Trait 2. [See Figure 7.5 for an illustration.]
    • Genetic variation within so-called races is much greater that the variation among them.
      • First of all, we are going to come back to this in much greater detail in Chapter 10. I mention this as it is a simple/complex idea that if you do not grasp the first time, no worry.
      • There is little variation BETWEEN the groups we call races.
      • Two persons who self-identify as “white” can be very different genetically. Racial typologies represent an arbitrary means of simplifying biological complexity.
        • We look at a few traits as if they describe the TOTALITY of each person’s genetic make-up (genome).
        • We need to start thinking of groups as different looking subsets of Africans. We are ALL Africans.
    • There is no way to consistently classify human beings by race.
      • Racial groups are impossible to define in a stable and universal way.
      • If it is not definable it is not able to be studied as science.
      • The instability of race classification is due to changes in where we draw the line (arbitrarily). For instance, who is black in Brazil is not necessarily who is black in the United States.
• Height, history and human variation
  • Height is a good choice to illustrate human variation as it is less directly linked to what we think of as “race” than such traits as skin color.
  • Also, while height differs between groups, it is the degree of variation within each group that is of particular interest.
  • Additionally, height differences have been noticed across time.
    • For instance, for decades the average height of both American men and women exceeded that of Europeans.
    • In 2006 a report came out that reversed these findings, some groups of Europeans are now taller.
  • Factors that influence height include nutrition, health, and other living conditions.
    • Our bodies are capable of significant plasticity (the ability to respond to environmental changes physically or behaviorally, or both).
    • One clear example associated with height is the response called stunted growth or stunting (the failure to reach one’s potential height).
      • This is most often seen as a response to nutritional stressors.
      • At one time it was thought this was a “small, but healthy” adaptation.
      • We now know this is not correct; stunting not only affects one’s height, but also cognitive growth.
      • Which country has the highest prevalence of stunted children? India!