What Does Our DNA Say About Race?

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All we have to do is look around to see an astonishing variety of individual differences in sizes, shapes, and facial features. Equally clear are individual differences in susceptibility to disease, and in athletic, mathematical, and musical abilities. Individual differences extend to differences between group averages. Most of these average differences are inconspicuous, but some—such as skin color—stand out.

What are the causes of the differences we perceive between individuals and between groups of human beings? Most of the differences that we notice are caused by a very tiny fraction of our DNA. We have been given six billion base-pairs per cell. For the sake of time, I am not going to get into base pairs, but just think of it as a portion of a cell. A tiny fraction of that is 1/1000 of six billion base-pairs, which is still six million different base-pairs per cell that determine our unique genetic design. So, there is plenty of room for genetic differences among us.

Although we differ from each other in a very tiny proportion of our DNA (only 0.1%), this tiny fraction is still a very large number of base-pairs. Genetically, it is only from this 0.1% of our DNA that no two human beings are alike. Some people are tall, others are short; some are stocky, others thin; some are gifted musically, others tone deaf; some are athletic, others awkward; some are outgoing, others introverted; some can write great poetry or music, most cannot. And so on.

Of course, not every human difference has a genetic cause. Many are environmental or are the result of interactions between genes and environment. Even genetically identical twins develop into distinct individuals.

The ability to learn a language is largely innate, built into the nervous system of all normal people, as demonstrated so beautifully in the effortless way in

which young children learn to speak. But the language any individual learns obviously depends on the social setting. Beethoven was a great composer partly, because of his genes and partly because of his training.

Just as there are great differences among individuals, there are average differences, usually much smaller, between groups. Italians and Swedes differ in hair color. Sometimes the differences are more conspicuous, such as the contrasting skin color and hair shape of Africans and Europeans. But for the most part, group differences are small and largely overshadowed by individual differences.

In a sense, genetics makes a mockery of racism. The characteristics of normal human variation we use to determine broad social categories of race—such as black, Asian, or white—are mostly things like skin color, structural features, or hair texture, and those are all biologically encoded. But when we look at the full genomes from people all over the world, those differences represent a tiny fraction of the differences between people.

There is more genetic diversity within Africa than in the rest of the world put together. If you take someone from Ethiopia and someone from the Sudan, they are more likely to be more genetically different from each other than either one of those people is to anyone else on the planet!

Does our DNA separate us into different racial categories?

Racial discrimination has a long and sad history, but the Bible consistently views it as contrary to God’s moral will. The entire human race has descended from Adam and Eve (Genesis 1:26-28), and Eve is “the mother of all living” (Genesis 3:20), that is, of all living human beings. This means that all human beings share equally in the exalted status of being made “in the image of God” (Genesis 1:27). Furthermore, Paul says that God

> **Acts 17:26** . . . has made from one blood every nation of men to dwell on all the face of the earth, and has determined their preappointed times and the boundaries of their dwellings.

The biblical record clearly indicates there is only one fundamental race of human beings, all descended from a single set of parents. We are all of the *human* race.

Recent genetic studies from the Human Genome Project give interesting confirmation to the very large degree of genetic similarity shared by all human beings and the extremely small degree of genetic dissimilarity distinguishing one people group from another. The best contemporary science shows that the human genome sequence is almost (exactly) the same in all people. Based on an examination of our DNA, any two human beings are 99.9% identical. The genetic differences between different groups of human beings are equally minute.

DNA studies do not indicate that separate classification subspecies (of races) exist within humans. While different genes for physical traits such as skin and hair color can be identified between individuals, no consistent patterns of genes across the human genome exist to distinguish race from another. There is no genetic basis for divisions of human ethnicity.

Why, then, do people with different racial characteristics originate from different regions of the world? The human race, starting with Adam and Eve, has always included not only genetic variations of eye color, height, and facial appearance, but also skin and hair color now associated with different racial groups. At some early point when people began migrating to various parts of the earth, some variations within the one human gene pool became geographically isolated from other variations, so that people living in what is now northern Europe came to look more like each other and different from people living in what is now Africa, or Asia, or North America.

Another interesting implication of this has to do with genetic inheritance of skin color. Modern genetic studies show that when a lighter-skin person has a child with a darker-skin person, none of their children will have skin darker than that of the darkest parent. This means that if the hereditary transfer of skin color has operated in the same way from the beginning of human history, then the genetic variety of skin color (which is a very tiny difference

from the standpoint of human genetics) must have existed from the very beginning. This suggests that Adam and Eve's children (see Genesis 5:4) would have likely had different skin colors.

Because all populations are genetically diverse, and because there is a complex relation between ancestry, genetic makeup, and observable physical features, and because racial categories are based on subjective evaluations of the traits, there is no specific gene that can be used to determine a person's race. Race is not a thing, according to genetics.

The DNA sequence similarities revealed by the genome project, valuable as these are for answering many interesting and important questions, are misleading regarding important human differences. The cause of the important observed differences between the races is not based on genetics, but on environmental, diet, family structure, education, or any number of other possible biological and social factors.

It is a tragedy when Christians of any racial background exclude others from participating in certain local churches. Such thinking is completely contrary to what God intends. In the book of Revelation John's heavenly vision of the great multitude is described as people of diverse racial and ethnic backgrounds:

> **Revelation 7:9-10** After these things I looked, and behold, a great multitude which no one could number, of all nations, tribes, peoples, and tongues, standing before the throne and before the Lamb, clothed with white robes, with palm branches in their hands, and crying out with a loud voice, saying, "Salvation belongs to our God who sits on the throne, and to the Lamb!"

If this is God's great plan from the beginning of time until the end, then surely God's church of today should be a living example of racial harmony, characterized by full inclusion of people from all racial and ethnic backgrounds, united in serving God and Christ.

Although genetics is somewhat complex, I hope this short commentary basically shows that our DNA does not separate us into different racial categories any more than a person with blue eyes is separated from people

with brown eyes. Genetically, when it comes to race, there is no difference. For the most part, we are all 99.9% the same, which means we are all of the same human race!