



Lesson 6

The Origin of Human “Races” and Blood Groups

Apologetics Press Advanced Christian Evidences Correspondence Course.

THE ORIGIN OF HUMAN “RACES” AND BLOOD GROUPS

INTRODUCTION

Humans come in a rainbow of colors: sandy yellows, reddish-tans, creamy whites, pale pinks. Who among us is not curious about the skin colors, hair textures, bodily structures, and facial features associated with racial background. Why do many Africans have deep black skin, while that of most Europeans is pale pink? Why do the eyes of most “white” people and “black” people look pretty much alike but differ so much from the eyes of Orientals? Why do some “races” have kinky hair, while others have straight hair? Why do some “races” grow to be over 7 feet tall (e.g., African Watusis), while others are less than 5 feet tall (e.g., African Pygmies)? Additionally, science has determined that humans possess four different blood types. How could four blood types have all come from just two individuals—Adam and Eve? Is the blood that courses through your veins similar to the blood of animals—due to evolution? The following material was designed to answer these questions, and to document that the Genesis account of creation is accurate, defensible, and believable.

WHAT IS A “RACE”?

A human race most often is defined as a group of people with certain features in common that distinguish them from other groups of people. Currently there are three or four major “races” of humans, as the word race commonly is defined: (a) Caucasoid; (b) Mongoloid; (c) Negroid; and (d) Australoid. Generally speaking, the Australoids are considered a subgroup of the Caucasoids, simply because the two groups have so many features in common, despite the fact that Australoids possess dark skin (the Australoid group often is known as the Australian Aboriginal group). If a breakdown by percentages of world’s population were attempted, the groups would look like this:

Caucasoid	55%
Mongoloid	33%
Negroid	8%
Australoid	4%

While it is possible to classify a great many people on the basis of certain physical characteristics, there are no known features, or groups of features, that will do the job in all cases. Some have suggested that skin color be the criterion. Yet, this provides innumerable difficulties because while most Africans from south of the Sahara and their descendants around the world have skin that is darker than that of most Europeans, there are millions of people in India, whom many anthropologists classify as members of the Caucasoid race, who have darker skins than most American Negroes. And some Africans from the sub-Saharan regions have skin coloration that is no darker than that of some Spaniards, Italians, Greeks, or Lebanese.

To accommodate this immense diversity, many different classification systems have been proposed. Some have suggested as many as two or three dozen races. But none ever has been able to accomplish its task of successfully defining just how, in the end, a race should be accurately determined.

WHY SO MANY RACIAL CHARACTERISTICS?

Why are there so many different racial characteristics? What is their origin? And how long did it take for all this to occur? Evolutionists affirm that racial differentiation allegedly is dependent upon genetic mutations. Yet since (as every evolutionist knows) information-enhancing mutations occur rarely, it is obvious that the production of races via such a process would be painfully slow.

Consider the creationist alternative, however. Biologists determine species (among other ways) by including in a species all individuals that are capable of interbreeding to produce fertile offspring. There is only one species of man on the Earth—*Homo sapiens*. That, on the face of it, is an interesting fact. Anthropologists and biologists place all races in existence today into a single species, which points to the fact that the differences between human races are not really all that great. Members of all races can intermarry and produce fertile offspring.

It also is interesting to note that these “differences” **within** the groups are just as pronounced as differences **among** the groups. Negroid people range in color from black to sallow; Mongoloid people range from yellow to white to bronze-brown; Caucasoids range from pink (as in England) to dark brown (as in Southern India). These skin colors—to which most people refer when they speak of a “race” of people—are caused by the brown pigment in the skin known as melanin. The more melanin a person has, the darker the skin will be as an adult. Conversely, the less melanin in the skin, the lighter the skin will be as an adult. A person whose skin possesses **no** melanin is referred to as an **albino**, and cannot produce body pigment. [The albino’s pinkish-white color is caused by blood vessels showing through the colorless skin.] The claim that there are many different skin colors in the world is not altogether accurate. The **apparent** differences in color are merely differences in the amount of the melanin found in the skin, not differences in the type of color. There is only one coloring agent for the human race; the shade of color depends upon how much melanin a person possesses.

Melanin does far more than simply provide the body with pigmentation. Its most important role is in protecting the body by absorbing ultraviolet (UV) radiation from sunlight that falls on the skin. UV radiation can damage the skin and produce skin cancer if not filtered out by the melanin. People who have large amounts of melanin in their skin generally are very resistant to the effects of UV radiation. People with only small amounts of melanin may suffer badly if exposed to too much UV light. The energy of the UV light penetrates deeper into their skin and can cause damage to the skin tissues.

There are at least three factors to be considered, from a creationist point of view, in any attempt to explain the origin of what we today call races: (a) the origin of man; (b) the known historical and/or biblical facts regarding man; and (c) the nature of the areas to which man migrated. Here are some pertinent facts bearing on each of these points.

First, the biblical record makes it abundantly clear that God created man. As a part of the whole Creation, man was pronounced “very good.” Thus, man did not “evolve” his skin color. God gave him the best possible combination of skin-color genes. The writer of Acts observed that God “made of one every nation of man to dwell on all the face of the earth.” (17:26). This fits perfectly with both recorded history and current scientific facts—man always has been man. Adam was the first man (1 Corinthians 15:45). And, through Eve, all humans would descend (Genesis 3:20). This becomes critical in determining the origin of racial characteristics.

Second, we know that historically, and biblically, the line of human descent passed through Adam and Eve and their descendants to Noah and his family. However, whatever genetic material had been dispersed into the human race prior to the global Flood was severely limited by the destruction of that Flood. Third, after the Flood, the Tower of Babel incident occurred. Men refused to obey God and cover the Earth. So God confused their languages and, as a natural result, men migrated to various parts of the globe where they could be with others who spoke their language.

THE ORIGIN OF HUMAN “COLORS”

Most people, when they speak of a “race,” refer to the racial characteristic of skin coloration. For the purpose of the present discussion, we will limit our discussion, for the most part, to the origin of such a characteristic (being careful to do so only in an accommodative sense). In humans, skin color is caused by melanin. But that pigment is controlled in its production mainly by two pairs of genes. Geneticists designate them as **Aa** and **Bb**, where the capital letters represent dominant genes and the small letters represent recessive genes. **A** and **B**, being dominant, produce melanin very well. Being recessive, **a** and **b** produce melanin to a lesser degree.

If Adam and Eve were both **AABB**, they could have produced only children that were the darkest Negroid coloration possible, and they themselves likewise would have been Negroid. That (barring genetic mutations) would have produced a world composed only of Negroid people. But, as has already been noted, the Negroid race composes less than 10% of the world’s population, so by a process of elimination, this choice can be ruled out.

If Adam and Eve had both been **aabb** (again, barring genetic mutations), they could have had only children who were **aabb** and who were the lightest Caucasoid coloration possible. Then, the world would contain no other groupings. But it does. So, this option also can be ruled out by a process of elimination. The real question is this: Is there a mechanism by which the racial characteristics that we see today could have originated with one human couple—in the short, few-thousand-year history of the Earth?

The answer is a resounding yes! If Adam and Eve had been “heterozygous” (**AaBb**; two dominant, two recessive genes), they would have been middle-brown in color. And, from them—in one generation—racial differences easily could have occurred. To illustrate this, examine the chart at the

AaBb — AaBb

	AB	Ab	aB	ab
AB	AA BB	AA Bb	Aa BB	Aa Bb
Ab	AA Bb	AA bb	Aa Bb	Aa bb
aB	Aa BB	Aa Bb	aa BB	aa Bb
ab	Aa Bb	Aa bb	aa Bb	aa bb

left (known to geneticists as a Punnett square). From these possibilities, one theoretically could obtain the following:

- 1 — Darkest Negroid
- 1 — Lightest Caucasoid
- 4 — Light
- 4 — Dark
- 6 — Medium skin

The Punnett square shows the racial possibilities (in the offspring) that can be expected (in the theory) from a husband and wife in **one** generation.

A person born **AABB** carries genes for the darkest Negroid coloration possible, and since all genes are dominant, has no genes for lightness. If that person married another person who similarly carried all dominant genes, and moved to an area where no intermarriage with people of different colors occurred, the offspring resulting from this marriage then would carry the same dominant genes and would have “lost” the ability to be “white.” Conversely, if a person who is **aaab** (and hence the lightest Caucasoid possible) marries another person who likewise carries all recessive genes, and moves into an area where no intermarriage with people of other colors occurs, henceforward this union will produce only offspring of the lightest possible Caucasoid coloration. The offspring so produced would have “lost” the ability to be “black” since they no longer possessed the genes necessary to produce enough melanin for the black color.

Thus, starting with two parents who were heterozygous (i.e., middle-brown in color), extreme racial colors (black and white, to name only two examples) could be produced in such a way that races would have permanently different colors. Of course, it also is possible to produce a middle-brown race that will have a fixed middle-brown color. If the original middle-brown parents produced offspring of either **AAbb** (or **aaBB**), and these offspring married only their own kind (i.e., avoiding intermarriage with those not of their own genetic makeup), their descendants would be a fixed middle-brown color.

The whole process is “put into reverse,” however, when people from different colored races intermarry. Different combinations of genes (i.e., different from those originally carried by the two parents) occur, and the offspring thus begin to show a rainbow effect of skin colors, ranging from black to white. Is it likely that people of various colorations intermarried? The preponderance of so many colorations in the world is evidence aplenty that they did.

OTHER FACTORS

There can be little doubt that racial characteristics existed before the Flood, at least to some degree. But once the Flood had come and gone (drastically

altering both the Earth and man's environment), and once the Tower of Babel incident had occurred (Genesis 11), man found himself migrating to new (and different) environments.

Besides environment, other physical characteristics play a part in what we call racial characteristics. For example, the yellowish color in Mongoloid races is due to the extra thickening of the keratin layer in the skin, which causes the sunlight to be reflected from the skin. The normal brown color produced by the melanin is "altered," and the end result is a yellow brown. Or, consider the Mongoloid eye as opposed to the Caucasoid eye. The Caucasoid eye has only one layer of fat; the Mongoloid eye has a double fold of fat, producing an almond-shaped eye. Races were produced in a very short time span, and the racial variations we see today are merely an expression of the original genetic endowment of Adam and Eve as carried through to us by Noah. No "evolutionary process" produced them.

BLOOD AND HUMAN ORIGINS

But what about human blood groups? How did they originate? Blood has been called the "elixir of life." With it, life can be saved, while a tremendous blood loss can result in the end of life. It is through this crimson liquid that oxygen is carried to all parts of the body. Even organs that play an active role in the circulatory system—such as the heart that pumps the blood, or the endocrine system which secretes hormones or salts into the vascular system—are themselves dependent on it. Evolutionists tout the idea that the blood running through the human circulatory system is similar in nature to the blood coursing through fish, bears, and birds.

When God created all living creatures, He did so knowing that we all would have different needs. With those needs come different requirements. Human blood does not need to be specialized for long periods of hibernation like the blood of North American bears. Additionally, our oxygen needs are very different from fish and birds, and therefore the composition of our blood varies as well. Scientists themselves categorize animals into two broad classes, warm-blooded and cold-blooded (according to how the animals heat themselves), yet they still would have us to believe that blood from all living creatures shares a similar origin.

COMPONENTS OF HUMAN BLOOD

The study of blood is called hematology. Blood is one of the few substances in the human body that is not "fixed" in place. Tissues such as nerves, muscles, and organs have specific function and are limited in movement. Blood, however, is not limited to any one part of the body. Its job is to provide these "fixed" tissues with nourishment and then carry off waste products. Blood is composed of a cellular portion referred to as **formed elements**, and a fluid portion known as **plasma**. The formed elements constitute approximately 45% of the total volume of blood and are comprised of two types of blood cells: erythrocytes and leukocytes. Plasma is a straw-colored liquid that consists primarily of water and dissolved solutes.

Through blood testing, we can determine a person’s blood type by identifying the so-called ABO alleles (the pieces of DNA that cause a particular trait, like “blue eyes”). Most of us, for example, know our blood type in the ABO system (O-negative, AB-negative, B-positive (the positive or negative refers to the so-called Rhesus factor, which is another type of antigen on the surface of red blood cells). People with type O-negative blood are so-called universal donors, and can donate blood to people with types A, B, AB, or O. However, a person with AB blood type can give blood only to persons with AB blood.

Blood Type	Percent of Population	Possible Recipients
O+	37%	O+,A+,B+,AB+
O-	6%	Anyone
A+	34%	A+,AB+
A-	6%	A+,A-,AB+,AB-
B+	10%	B+,AB+
B-	2%	B+,B-,AB+,AB-
AB+	4%	AB+
AB-	1%	AB+,AB-

Does the fact that humans possess **four** blood types prove that we could not all have descended from a single pair of original parents? No, it does not. Are human blood and animal blood the same? No, they are not. Do the four different human blood types mesh with the biblical Creation account? Yes, they do. From these four phenotypic blood groups (A, B, AB, and O), there are six possible genotypes: AA, AO, BB, BO, AB, OO. [Genotype refers to the genetic make-up—the actual genes; phenotype refers to observable characteristics.] No medical difference exists between AA, and AO; both are type “A” and behave the same. In a similar fashion, there is no significance to BB or BO; both are “B.”

Type “A” and “B” are said to be codominant, which means that they both are dominant to type “O,” but equal to each other. So, if a mother and father are type AO and BO, then the blood type of their offspring can be, A, B, AB, or O. For instance, if Adam were type AO and Eve were type BO, then by crossing types AO and BO, the possibilities for the blood types within the offspring would be:

		Adam		25%	AO
		A	O	25%	AB
Eve	B	AB	BO	25%	BO
	O	AO	OO	25%	OO

OTHER CONSIDERATIONS

The red blood cells of all non-mammalian vertebrates (i.e., fish, amphibians, reptiles, and birds) are nucleated, flattened, and ellipsoidal, whereas human red blood cells are anucleated. Chimpanzees have blood types A and minimal O, but never type B. Gorillas have blood types B and minimal O, but never A. There is no blood type AB in either of these primates, while some humans possess AB type blood. Furthermore consider that cats have 11 blood types, dogs have 8, and cows are reported to have almost 800 different blood types. Evolving 800 different blood types is no small feat, considering that man has yet to evolve even one. Also, the blood of many animals is specialized. Bears possess in their blood an element known as hibernation inducement trigger (HIT). The blood of fish is much thicker than humans, and is pumped by a heart with only two chambers. Birds, on the other hand, share a similar circulatory system, yet their red blood cells are nucleated.

CONCLUSION

Could we all have descended from just one pair of original humans? Definitely. The colors that we see around us today are a product of that original pair (and direct descendants from the eight individuals that survived the global Flood of Noah). When you take into account the genetics that human blood is **inherited**, and must be kept at a specific volume, osmolality (a measurement of the concentration of solutes per liter of solution), and pH, and must consist of specific amounts of ions, proteins, and organic molecules, it very quickly becomes apparent that there was a Designer for this incredible “elixir of life.” The Bible reveals that Designer to us as God.



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Questions—Lesson 6

TRUE OR FALSE

Write TRUE or FALSE in the blanks before the following statements.

- _____ 1. African Watusis often grow to be over 7 feet tall.
- _____ 2. A person whose skin produces very little melanin is said to be an albino.
- _____ 3. It is likely that Adam and Eve were homozygous (AABB) for skin-color genes.
- _____ 4. Humans possess four blood types, all of which came from Adam and Eve.
- _____ 5. The cellular portion of blood is known as plasma.
- _____ 6. Mongoloids are considered to be a subgroup of Caucasoids.
- _____ 7. The Mongoloid eye has a double fold of fat that produces an almond-shaped eye.
- _____ 8. After the Tower of Babel, people were dispersed according to race.

MULTIPLE CHOICE

Circle the correct answer(s).

- 1. The designation for heterozygous skin types is:
(a) aabb (b) AaBb (c) AABB (d) AAbb
- 2. Erythrocytes and leukocytes constitute approximately what total of human blood volume?
(a) 25% (b) 35% (c) 45% (d) 55%
- 3. Gorillas and chimpanzees do not possess which blood type?
(a) A (b) O (c) AB (d) B
- 4. Cows are reported to have how many different blood types?
(a) 4 (b) 7 (c) 200 (d) 800
- 5. Human skin color comes primarily from:
(a) Melatonin (b) Vitamin K (c) Keratin (d) Melanin

FILL IN THE BLANKS

1. Human blood does not need to be specialized for long periods of _____ like the blood of North American bears.
2. If Adam and Eve had been “_____” they would have been middle-brown in color.
3. The yellowish color in Mongoloid races is due to the extra thickening of the _____ layer in the skin.
4. Members of all races can _____ and produce fertile offspring.
5. People who have large amounts of _____ in their skin generally are very resistant to the effects of UV radiation.

MATCHING

Match the related concepts (place the correct letter in the space provided by each number).

- | | |
|--|----------------------------------|
| 1. ____ Australoids | A. 8% |
| 2. ____ Location of origin of human languages | B. Noahic Flood |
| 3. ____ Carries oxygen around the body | C. Tower of Babel |
| 4. ____ Two major classes of animals | D. Warm-blooded and cold-blooded |
| 5. ____ Important event that limited the dispersal of human genetic material | E. Subgroup of Caucasoids |
| 6. ____ Percent of the population that is Negroid | F. Blood |

COMPLETE THE BIBLE VERSE (NEW KING JAMES VERSION)

1. Genesis 1:31: "Then God saw everything that He had made, and indeed it was very _____. So the evening and the morning were the sixth day."
2. Acts 17:26: "And He has made from one _____ every nation of men to dwell on all the face of the earth, and has determined their preappointed times and boundaries of their dwellings."
3. Genesis 3:20: "And Adam called his wife's name Eve, because she was the _____ of all living."

NOTES

NAME _____

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