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PSY470: Integration of Psychology and Theology

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" Essay 3"

Chapter 3:

1.

Genotype is the genetic makeup of a person and phenotype is more based on the physical characteristics, which are the mixture of genetic and environmental influences. For example, his father has dominant Brown eyes and his mother has recessive blue eyes. Therefore, the child ended up with Brown eyes because it is stronger. On the other hand, my Mother's blood type was A+, so my blood type is also A+, which is a good example of what phenotype is.

2.

Charles Darwin's theory of evolution by natural selection stated that organisms will get better or survive in an environment that is the very best for them. Whereas, if they are in the wrong environment, they will die. For example, the two sisters who got malaria and the one who lives in Africa got it bad because where she lives in the home of Malaria. Whereas, malaria is very uncommon in the U.S.A. I agree with this theory because it is very valid and accurate. The environment has a big impact on people and their immune systems.

4.

Chromosomes: An egg and the sperm both have 23 chromosomes, which is a long string of genetic material known as deoxyribonucleic acid (DNA).

DNA: A helix-shaped molécule made from nucleotide base pairs.

In each chromosome, there are sequences of DNA that makeup genes that control the number of visible characteristics.

Genes: The basic physical and functional unit of hereditary. Genes are from DNA.

5.

Glial cells are one of the parts of the nervous system. The glial cells provide scaffolding on which the nervous system is built. This also helps neurons line up closely with each other so it allows neuronal communication, providing insulation to neurons. Glial cells support the role of neurons.

6.

Neuronal communication is often referred to as an electrochemical event because the movement of the action potential down the length of the axon is an electrical event. The neurons use a variety of ion channels and transporters, which are all electrochemical. Also, the human body comprises billions of cells, and each has its unique communication system.

10.

The frontal lobe and Broca's area which is essential for language production. Broca's area is also known as the motor speech area. The motor cortex is utilized in speech production, which is located in the inferior frontal gyrus. This area is a breakdown between one's thoughts and one's language abilities. Some people might often feel that they know what they wish to say but are unable to produce the words.

15.

Agonists are chemicals that mimic a neurotransmitter at the receptor site and strengthen its effects and the antagonist blocks the normal activity of a neurotransmitter at the receptor. In similarity, they both operate by binding to receptor sites.

17.

Sickle-cell anemia is a genetic condition in which red blood cells that are round take on a crescent-like shape. Since sickle cells can clog blood and block blood flow, which may cause some people to have a high temperature, pain, and tissue damage. Sickle cell is mostly affected by people who are from Africa. Sickle Cell does not benefit anyone in the United State because it is not too tropical a climate and it is very rare to have malaria in America so no one is going to get benefited from the sickle cell gene.

22.

Thé SSRIs treat depression by increasing levels of serotonin in the brain. Serotonin is one of the chemical messengers that carry signals between brain nerve cells. SSRIs also block the réabsorption of serotonin into neurons.

Myelin sheath glial cells wrapped around axons that act as insulators of the neuron’s signal

Brain plasticity is the ability of the brain to modify its connections or rewire itself. Without this ability, any brain would be unable to develop from infancy through to adulthood or recover from brain injury.

21.

This chapter explains and describes the biopsychology of humans, the brain, and how different parts function. As a Christian, I would say that before we were all born God had to make sure that we had every part of the brain, so we can be able to think, speak, hear, eat, and even see

different colors and forms. This chapter seems to be more about God’s creation and how each function is so important.