CRJS 215S – Weekly Assignment 6

This assignment covers chapter 6 (p. 128-153) of Schram and Tibbets (2021). Please complete the questions as you read through the assigned readings for the week. You will be graded on a PASS/FAIL basis for this assignment. Completing and submitting this assignment (with effort; i.e., attempting an answer) will earn you full points. Please submit your assignment through the link in Canvas.

Schram & Tibbets (2021) Chapter 6: 128-153

1. What was the goal of the *family studies* that were conducted in the early 20th century? What were the important findings from these studies? Hint: p. 131
   These studies were conducted to test the proposition that criminality was more likely to be found in certain families which criminal behavior can be seen as hereditary.

2. Why were *twin studies* useful in researching the *nature versus nurture* debate?
   Because it backed the idea of nature via nurture that we all know today.

3. According to *adoption studies* which combination of criminal biological parents and criminal adoptive parents led to the highest likelihood of the child committing crime? Both adoptive and biological parents being criminals.

4. Based off the four types of studies described (i.e., family studies, twin studies, adoption studies, and twins separated at birth), is there evidence to support that biology influences crime? State whether you think nature or nurture has a bigger impact on criminal behavior (2-3 sentences). When looking at family studies and adoption studies, you can argue that biology may have some influence on the criminal behavior of an individual. For me, nurture definitely has more of an effect on criminal behavior. Depending on the environment(s) that an individual is raised in, that individual may be more likely to commit crime.

5. Typically, males are born with XY chromosomes and females are born with XX chromosomes. According to your book, chromosomal makeup has been found to lead to crime when an individual has mutations that produce more of *what* hormones? What is the impact that these hormones have on behavior? Male hormones. This might lead to an individual committing crimes and other deviant behavior.

6. Which *neurotransmitters* are most often studied in relation to criminal behavior? What do each of these neurotransmitters do? Dopamine and serotonin. Dopamine is the neurotransmitter associated to individuals feeling good. Serotonin deals with information processing.

7. Damage to which lobes of the brain are thought to have an impact on criminal behavior? What do each of these lobes control? Frontal and temporal lobes.

Frontal lobe controls the executive functions of the brain like problem-solving. Temporal lobe controls things like emotions and memory.

8. In your own words, define *phenotype*. Physical characteristics that are observable when looking at an individual.

9. According to meta-analyses of behavioral genetics studies, behavioral genetics account for what percentage of antisocial behavior? 50%

10. Fill out the table based on the “Summary of Theories” table on page 151.

Theories	Key Proponents	Concepts/Factors	Key Propositions
Family Studies	Richard L. Dugdale H. H. Goddard	Criminality	N/A
Twin Studies	Various	Concordance for criminality	MZ twins have higher concordance than DZ twins
Adoption Studies	Sarnoff Mednick and colleagues	Criminality among various adoptees	Adoptees with criminal biological parents compared with criminal adoptive parents
MZ Twins Separated at Birth	Various	Concordance rates of MZ twins raised apart	Criminality among MZ twins reared apart are similar
Cytogenic Studies	Patricia A. Jacobs	Chromosomal Mutations	XYY individuals have more criminality
Hormonal Theory	Various	Testosterone and estrogen levels	Higher levels of testosterone and lower levels of estrogen predict criminality
Neurotransmitters	Various	Dopamine and serotonin	Low levels of serotonin predict more criminality, whereas finding for other neurotransmitters are mixed
Brain Injury	Various	Various lobes and brain structures	Trauma to certain portions of the brain (e.g., frontal lobes) and structures (e.g., limbic structures) predict criminality.
Central Nervous System Functioning	Various	Brain-wave patterns	Slower brain-wave patterns predict criminality
Autonomic Nervous System Functioning	Various	Heart rate, sweating, and other indicators	Lower functioning predicts criminality
Biosocial Interaction Theory	Various	A variety of both physiological and developmental factors	Weak physiological factors interact with weak social and environmental factors to predict criminality