

Chapter 3 Review Guide

Chapter 3: Nature and Nurture

Chromosomes: threadlike structures made of DNA molecules that contain the genes.

Genes: the biochemical units of heredity that make up the chromosomes; a segment of DNA capable of synthesizing a protein.

DNA: (deoxyribonucleic acid) a complex molecule that makes up the chromosomes. (A DNA molecule has two strands-forming a "double helix").

Genome: the complete instructions for making an organism, consisting of all the genetic material in its chromosomes.

Evolutionary Psychology

Natural Selection: the principle that, among the range of all inherited traits, those that lead to increased reproduction and survival will most likely be passed on to future generations.

Mutation: a random error in gene replication which is the source of all genetic diversity.

Evolutionary Psychology: the study of the evolution of behavior and the mind using the principles of natural selection.

Behavior Genetics: the study of the relative power and limits of genetic and environmental influences on behavior.

Environment: every non-genetic influence, from prenatal nutrition to the people and things around us.

*Behavior geneticists try to determine the relative impact of nature (genetics) and nurture (environment) by doing twin and adoption studies.

Identical Twins: twins who develop from a single fertilized egg that splits in two, creating two genetically identical individuals.

Fraternal Twins: twins who develop from separate eggs. They are no more similar, genetically, than brothers and sisters, but they share the same fetal environment.

Temperament

Temperament: a person's characteristic emotional reactivity and intensity.

*Thomas & Chess identified three distinct temperament styles in babies as young as 2 months old.

10%--Difficult babies: irregular rhythmicity, withdraw from new situations, slow-to-adapt to new situations, & intense reactions

15%--Slow-to-warm-up babies: low activity level, withdraw from new situations, slow-to-adapt, low intensity of reactions, & negative mood.

40%--Easy babies: Opposite of difficult babies.

Temperament seems quite stable throughout life and the same percentages are found in other cultures. Thus, it is believed that temperament is genetically based.

Heritability: the amount of variation among individuals that we can attribute to the differences in their genes.

*For example: if identical twins are found to be different in some way, the heritability of that trait is 0%. The difference can't be due to their genes, because they have identical genes. Any differences between them must be due to their non-shared environments.

Culture

Culture: the enduring behaviors, ideas, attitudes, and traditions shared by a large group of people and transmitted from one generation to the next.

Norm: the understood rules for accepted and expected behavior.

Personal Space: the buffer zone we like to maintain around our bodies.

Memes: self-replicating ideas, fashions, and innovations passed from person to person.

Gender

X-chromosome: the sex chromosome found in both males and females. Women have two, men have one.

Y-chromosome: the sex chromosome found only in males. When paired with an X-chromosome from the mother, it produces a male child.

Gender (cont.)

Testosterone: the most important of the male sex hormones. Both males and females have it, but males have much more. It stimulates the growth of

Social Learning Theory: (developed by Bandura) the theory that we *learn* social behavior by:

1. Being punished and rewarded for our behaviors.
- AND

the male sex organs during in the fetus and the development of male sex characteristics during puberty.

Role: a set of expectations (norms) about a social position, defining how those in the position should behave.

Gender Role: a set of expected behaviors for males and females.

Gender Identity: One's sense of being either male or female.

Gender-typing: the acquisition of a *traditional* masculine or feminine role.

2. By observing and imitating others.

Gender Schema Theory: the theory that children learn from their cultures a concept of what it means to be male and female and that they adjust their behavior accordingly.