

Advanced Placement Psychology Summer Assignment

Are You a Natural?

Reading: *Are You a Natural?* by Bouchard, Lykken, McGue, Segal & Tellegen (1990)

Written Assignment Due: Monday, September 8th, 2025

In the **Minnesota Twin Study**, researchers identified and studied identical (monozygotic) twins who were separated at birth and raised in different environments, comparing their psychological and physical traits to assess the relative influence of genetics versus environment on various characteristics like personality, intelligence, and interests.

[ARE YOU A "NATURAL"? Bouchard, T., Lykken, D., McGue, M., Segal, N., & Tellegen, A. \(1990\). Sources of human psych](#)

Nature and Nurture

Nature refers to the influence of genetic inheritance and other biological factors present from conception. **Nurture** encompasses the environmental influences that occur after conception, including life experiences, learning, and cultural context. This assignment focuses on how heredity and environment interact to shape human behavior and mental processes.



Part I – Personality Snapshot: Who Are You?

Before reading the article, complete this short personality “test”. For each pair of traits, choose one that most closely describes your personality:

High-strung or laid-back?

Talkative or reserved?

Cautious or risk-taking?

Neat or Messy?

Stubborn or flexible?

Early bird or night owl?

Rule-follower or rule-breaker?

Quick to anger or even-tempered?

Outgoing or shy?

Competitive or cooperative?

Look over your answers. Which of these traits feel like they’ve been *with you forever*—as if you were born with them? Which ones do you think you learned from your family, environment, or culture?

Write 1–2 paragraphs (approx. 150–200 words) reflecting on your responses. Include the following:

- Which traits seem **biologically ingrained** (nature)?
- Which ones seem shaped by **life experience** (nurture)?

Part II – Response to the Article

After reading *Are You a Natural?*, respond to the following questions in well-developed paragraphs. Use direct quotes from the article when appropriate and always link your reflections back to the article’s core question: **To what extent are you a product of your genes?**

1. Foundational Shift in Psychology

Why did this article (1990) represent a “fundamental change in the way psychologists viewed human behavior in the broadest sense”? Which ideas did it challenge? What assumptions did it overturn?

2. Physical vs. Psychological Identity

How do the authors distinguish between who we are physically and who we are

psychologically? In what ways are these separate—and in what ways do they overlap?

3. Discomfort with Genetic Explanations

Even though Lady Gaga sang, “Baby I was born this way...”, “many people feel uncomfortable with the idea that they might be the product of their genes...” Why might the idea that you are “born this way” be threatening or uncomfortable?

4. Hypothesis and Research Question

What was the main question the researchers were trying to answer in the Minnesota Study of Twins Reared Apart? What hypothesis did they have about the role of nature (genes) and nurture (environment) in shaping personality and behavior?

5. Method

How were the participants selected, and what made this a particularly powerful method for exploring the influence of genetics?

6. Results

What specific psychological traits did the study find to be highly heritable? (List at least three, and briefly explain.)

7. Implications of the Study

How did this study change the way we think about personality, intelligence, interests, and human potential?

8. Criticisms and Cautions

What is one limitation or criticism of the study acknowledged by the authors—or by you as a critical reader?

Part III – Nature and Nurture in Your Own Life

Write a short personal reflection exploring how genetics and environment have interacted in shaping the people closest to you:

- Describe two (physical or psychological) traits in yourself that you feel are strongly influenced by heredity.
- Describe two traits that you believe were shaped more by your experiences, upbringing, or environment.
- Choose one close family member (a parent, grandparent, sibling, aunt/uncle). Reflect on how nature and nurture may have interacted to shape their personality, behavior, or life choices.

Optional Enrichment:

For a more in-depth exploration of the Minnesota Twin Study, consider reading this article:

[Key Study: The Minnesota Twin Study of Twins Reared Apart](#)

This resource provides a detailed look at how researchers have investigated the roles of genetics and environment in shaping human behavior.