PSYCHOLOGY. NATURE/NURTURE SHORT-ANSWER ASSIGNMENT.
DUE: 01-06-2020.

Directions:
- Read the article “Nature Versus Nurture: Where We Are in 2017.”
- Answer the questions below using complete sentences.
- For this assignment, answering in complete sentences requires you to include the question in the answer.
- For example: Question – What is the capital of Washington State? Answer in the correct format – The Capital of Washington State is Olympia.
- Each question is worth 2 points.

Question 01: For Galen, personality traits were the result of relative concentrations of what four bodily fluids?

Question 02: For Galton, what were the sources of intelligence and character traits?

Question 03: What were the differences between Galton and Locke when it came to the nature/nurture debate?
Question 04: What did Freud and the behaviorists have in common regarding the nature/nurture debate?

Question 05: What was the repeated finding from twin studies regarding the nature/nurture debate?

Question 06: Why was the term “endogenous depression” deployed?
Nature Versus Nurture: Where We Are in 2017
A short review of one of the most popular debates in behavioral science.

Posted Oct 06, 2017

The question of whether human behavior is driven by innate biological forces or the product of our learning and environment has been a popular discussion at cocktail parties and scientific conferences for many years. To many people, the longevity of this debate suggests that we haven’t actually learned that much. In reality, however, a tremendous number of scientific advances have drastically improved our level of understanding. The hope for this post is to offer a short narrative of how the answer to this question has shifted to its current state of knowledge. While admittedly an oversimplification, one useful way to track progress in the nature-nurture debate is to divide the evolution of our understanding into three main states.

Part 1: Nature Versus Nurture

The origins of nature versus nurture debate date back for thousands of years and across many cultures. The Greek philosopher Galen theorized that personality traits were the result of a person’s relative concentrations of four bodily fluids, or humours, namely blood, phlegm, yellow bile, and black bile. The actual term nature-nurture comes from Sir Francis Galton's 1874 publication of English Men of Science: Their Nature and Nurture, in which he argued that intelligence and character traits came from hereditary factors (this was well before the modern science of genetics). His beliefs were in clear opposition to earlier scholars such as philosopher John Locke, who is well known for the theory that children are born a “blank slate” with their traits developing completely from experience and learning.

Fast forwarding to the 20th century, this debate continued in pretty much the same terms. For most of the 1900s, the two dominant schools of thought when it came to human behavior and psychiatric symptoms were behaviorism, which emphasized the importance of learning principles in shaping behavior, and psychoanalysis, which developed from the ideas of Sigmund Freud and focused on the ways that unconscious sexual and aggressive drives were channeled through various defense mechanisms. Despite the fact that these two perspectives were often in fierce opposition to each other, both shared the view that the environment and a person’s unique experiences, i.e. nurture, were the prevailing forces in development.

Part 2: Nature and Nurture

From about the 1970s to the end of the 20th century, a noticeable shift occurred as direct knowledge of the brain and genetics started to swing the pendulum back to an increased appreciation of nature as a critical influence on a person’s thoughts, feelings, and behavior. The Human Genome Project was launched in 1990 and the entire decade was designated as the “Decade of the Brain.” Neuroscience research exploded and many new psychiatric medications emerged and were used much more commonly than ever before.

Also during this time, the type of research design that had the most direct relevance to nature-nurture questions become popular. This was the twin study, which enabled researchers to calculate directly the degree to which a variable of interest (intelligence, height, anxiety level, etc.) could be attributed to genetic versus environmental factors. In doing this, a repeated finding when it came to behavioral variables was that both genetic and environmental influences were important, often at close to a 50/50 split in terms of magnitude.

These types of studies, combined with others, made it increasingly difficult to argue for the overwhelming supremacy of either nature or nurture as the primary driver of behavioral traits and disorders. Yet while many experts would now have to acknowledge the importance of both nature and nurture, the two worlds were generally treated as being quite independent. For example, terms such as “endogenous depression” were employed to differentiate people who had depressive symptoms from what were presumed to be more autonomously operating biological factors from those whose depression resulted from “psychological” causes, with different treatments being recommended based on that determination. Looking back, what appears now as the fatal flaw in this perspective was the assumption that if something was brain-based or “biological” then it, therefore, implied a
kind of automatic wiring of the brain that was generally driven by genes and beyond the reach of environmental factors.

Part 3: Nature Is Nurture (and vice versa)

Today, most scientists who carefully examine the ever-expanding research base have come to appreciate that the nature and nurture domains are hopelessly interwoven with one another. Genes have an influence on the environments we experience. At the same time, a person’s environment and experience can directly change the level at which certain genes are expressed (a rapidly evolving area of research called epigenetics), which in turn alters both the physical structure and activity of the brain.

Given this modern understanding, the question of nature versus nurture ceases even to make sense in many ways. As an example, consider the developmental pathway a 10-year-old boy might have taken to eventually presenting to a mental health professional for high levels of aggressive behavior. He may have inherited a genetically-based temperamental predisposition to being aggressive. As a young child, that tendency to become irritable and angry would then often evoke more negative responses in other people such as parents, who may themselves struggle with controlling their own anger. These interactions begin to snowball, affecting his schoolwork and friendships and, through epigenetic mechanisms, all of these experiences cause this child’s brain to grow differently.

Yet there is also a hopeful message in this example, as an appreciation of these complicated interacting genetic and environmental factors give us many places in this cycle to intervene to stop this progression and even change the direction of the momentum. Now, we understand that not only are medications biological treatments but also things like psychotherapy, parenting guidance, mindfulness practices, exercise, and good eating habits.

In the end, when the families of children like this ask me whether or not their child’s struggles are behavioral or psychological, the best answer I can give them these days is “yes.”

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