Nature / Nurture Or Both ! Essay, Research Paper

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The controversy over what determines who we are, whether it is Nature

(heredity, our biological make up) or Nurture (our environment) is taking a new

shape. Through the past decades, psychologists have developed different theories

to explain the characteristics of human-beings; how we feel, think and behave.

Usually, these theories were one directional in the nature / nurture question.

Today, a new approach to deal with this question is emerging. This new approach

finds a middle ground between nature and nurture. The conclusion that nature and

nurture are complementary and work hand and hand to shape a behavior (a

purposeful and meaningful activity) is not a compromise; it is a result of a

vigorous study of each of the components of the equation of heredity and

environment and their affects on determining one’s development and behavior. In

fact, the more we understand about development and behavior, the more obvious

it becomes that nature and nurture are similarly influences rather than

determinants, not only singly but also in combination. Here below, I will

endeavour to expose the leading theories dealing with the question of nature vs.

nurture. I will also try to present the third, new-emerging approach meant to

solve the mystery of ? What is it that makes us who we are??

?Our genes made us. We animals exist for their preservation and are

nothing more than their throwaway survival machines.? This is what Richard

Darwin states in his book: The Selfish Gene. In his international best seller

book, he argues that we are merely a product of our genes and our main purpose

in life is to serve the genes, become distribution agents and ensure their

proliferation. Before we take any stand to Darwin’s statement, let us

familiarize ourselves with what is meant when the term nature is used. Nature

represents what we are born with and cannot control. Our biological make up is

determined by the genes we receive from our parents(reside in the 23 pairs of

chromosomes, 23 from each parent.) ?A gene is a segment of DNA or a sequence of

nucleotides in DNA that codes for a functional product,? (Tortora, Microbiology.

p. 575.) These genes not only affect our outlook, but also play a significant

role in determining our behavior and our well-being. ?Through new genetic

studies, clinical observation, and research on identical twins and adopted

children, we are becoming increasingly aware that many of the human

characteristics previously taken for granted as products of childhood rearing

and environment are rooted in the genetic matrix.?, (Neubrauer, Peter. p 38)

Studies of identical twins reared apart have provided researchers with a lot of

clues about the role of heredity in every day life behavior. Twins (monozygotes)

are of extraordinary importance when studying heredity because they share

identical copies of genes. An interesting study on twin brothers who were

separated at birth and raised in different countries by respective adoptive

parents showed that they both kept their lives neat, ‘neat to the point of

pathology.’ Their clothes were preened, appointments met precisely on time.

When asked about the reason they felt to be so clean, the first one replied

? My mother. When I was growing up she always kept the house perfectly

ordered. She insisted on every little thing returned to its proper place,… I

learned from her. What else could I do?? When his twin brother was asked the

same question he answered ?The reason is quite simple. I’m reacting to my mother,

who was an absolute slob.?, (Neubrauer, Peter P 21) In this example, we see a

natural preference based on heredity. Both twins blamed their mothers for their

behaviors, while none of the mothers required such neatness. Another study on

heredity and alcoholism conducted by Goodwin et al (1973) indicated that

adoptees with alcoholic parents were four times more likely to become alcoholics

than those without, although there was no such relationship with alcohol misuse

in adoptive parents, ( Pelle, Stanton. p 2). Even though scientists have only

identified 16,000 out of the total 100,000 genes, many psychological diseases

are on the verge of being unraveled. Take for instance schizophrenia, a diseas e

characterized by (hallucinations, delusions, flat or inappropriate emotional

expression, paranoia and suspiciousness). New findings point out to its

relatedness to genetics. Genetic markers for schizophrenia are founded on

chromosomes 22, 6, 13, 8 and 9, ( De Angelis, Tori. Boston globe.) These

examples reveal the genetic role in our development. They also expose our

predisposition to certain traits and behaviors.

The second camp sitting on the other side of the fence is the advocates

for nurture. Here, nurture represents our surrounding: parents, class-mates,

colleagues, our value system and our society as a whole. People in this camp

argue that man is a product of his environment. Some extremists went as far as

saying: give us any new born infant and we will shape him/her just the way we

want, by placing him/her in the desired environment. ? As one grows from infancy

to adulthood, social experience plays a critical and constant role in the

regulation of growth , behavior and emotions,? (Glick, Marion E.) Here we are

told that social deprivation at different stages of development can lead to

abnormalities in the stress hormone system, which may produce severe and long-

lasting physical, neural and psychological consequences. It is also interesting

to consider the gender differences due to the change in enviroment. Few deacades

ago, women were considered inferior to men in their achievements. Today,

eventhough the misconception of gender roles in society is still present, we

can clearly see the gap between men and women narrowing due to the change in

enviorment.

The new school emerging to help bring the nature nurture argument to

rest professes that there is no war between nature and nurture. Indeed, such war

would be absurd because it is the interaction of nature and nurture that defines

our behavior and well-being. Here, a question as ? WHY DID YOU STEEL THE CAR? ?,

cannot be answered by: THE DEVIL MADE ME DO IT, or better yet, MY GENES MADE ME

DO IT. In understanding a behavior, both nature and nurture are taken to

consideration.

? Moreover, it is perfectly obvious that human social life is related to

human biology…Of course, neither biological nor cultural determinists ever

wish entirely to exclude the significance of the other.? (R.C Lewontin. p.267-

268.) Many psychological illnesses can be explained as a result of combined

genetics and environmental factors. As already stated in this paper,

schizophrenia has genetic basis. It is also a fact that this mental disease is

triggered by environmental factors including family factors and external stress.

Paul Grobstein, in his article?Genes, Environments, and Individual Choice?

explains that ?In human development and behavior, as in the development and

behavior of all other living organisms, the genome and the environment instead

productively interact with one another, both contributing unique and valuable

information to the emergence of distinctive individuals? It is also noteworthy

to mention that no two individuals are the same. Not even monozygotic twins

have the same environment. ?Every person is a unique and nonrecurrent?,

(Dobzhansky, Theodosius. p.8)

In sum, in this paper we can conclude that our development and behavior

are products of the interaction between nature and nuture. Scientists confirm

that we are predisposed to certain traits and behaviors, but this predisposition

is susceptible to modification by genetics as well as environmental factors. We

can no longer dwell on the question “Is it Nature or Nurture That Determines Who

We Are?” We learn that it is thcombination of these two vital factors that shape

and define our development and behavior.

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