Nathan Wilder

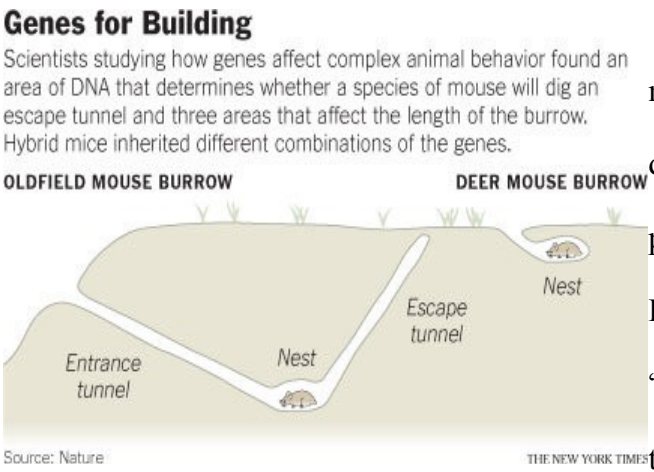
Nikki Mantyla

06 March 2013

English 2010

Nature AND Nurture?

When we meet someone extremely gifted, anyone will accredit “good genes,” and wish that we were also endowed with such a gift. These intellects or athletes amaze us further as we see these “gifts” causing changes in the world in which we live. One of the questions commonly asked by behaviorists is how much of these behaviors can be learned. Recent research, desiring to uncover this mystery suggests that there is a balance between “nature” and “nurture.”



Dr. Hopi E. Hoekstra, an evolutionary and molecular biologist of Harvard, claims that she has discovered 4 regions of DNA variations that possibly control behavior itself. One of Dr. Hoekstra's graduate students, Jesse N. Weber says, “We know exactly how to do it...We've always had the intention of finding these genes.” (Gorman, James. "Study Discovers DNA That Tells Mice How to Construct Their Homes.") In January of this year, 2013, Dr. Hoekstra studied the common deer mouse, which has a particular way of burrowing in the wild. Dr. Hoekstra discovered that even after raising deer mice in captivity, when given the opportunity, a deer mouse will instinctively burrow the same way without needing to learn from other deer mice. So how far does heritability go? Are there certain genes that map out what kind of person that you will be, just as the deer mouse innately

burrows in a specific way?

Clearing away the debris of opinion, we look at a study analyzing attitudes toward exercise published in February of 2013. Dr. Panteleimon Ekkekakis, professor of kinesiology at Iowa State University, Suggests that change itself is in our genes. Each person is born with certain intrinsic ranges and physical abilities. Dr. Ekkikakis says, “Many...people push beyond their intrinsic range when they try to exercise too quickly or intensely, which can make them hate the activity and want to stop.” (Wong, Shirley S. "Hard-Wired to Hate Exercise?") Dr. Ekkikakis explains a large factor is the “ventilatory threshold.” Once the amount of carbon dioxide surpasses the intake of oxygen, the body crosses this threshold and the body experiences discomfort. So what does this have to do with the ability to change one's inherited traits? Some individuals inherit a higher ventilatory threshold than others, but Dr. Ekkikakis points out that simple mental tricks, like listening to music and a positive outlook, can cause the “inherited” threshold to increase. An excellent example is the heightened capabilities of the dedicated athlete, who on average has anywhere between a 30 to 50 percent higher ventilatory capacity.

Changing behaviors and habits are a regular goal at the beginning of each new year. John Norcross, professor of psychology at the University of Scranton, and one of the world's leading experts on how people change addictive behaviors, teaches that many individuals are born with addictive personalities, but says that, “90 percent of people who have curbed their problem [referring to problematic drinking and smoking, not hardcore addiction] have done so on their own.” (Szalavitz, Maia. "Make New Year's Resolutions

Stick.") Dr. Norcross' studies say that mentally preparing oneself and surrounding oneself with positive reinforcement are the first and foremost steps to successfully changing behavior. Likewise, David Brooks, an experienced columnist for *The New York Times*, says, "People don't behave badly because they lack information...They behave badly because they have fallen into patterns of destructive behavior from which they are unable to escape." (Brooks, David. "How People Change.") Dr. Norcross believes that if we are realistic, and don't "mistake fantasy with reality" there are many things that we can change and learn.

Scientists and psychologists alike, are finding that "nature" and "nurture" are closer to playing on the same team, than being rivaling opponents. Scientists anxiously look for ways to identify the specific "gene pathways" that start in the genes and lead directly to behavior. Nevertheless, from these studies we see reoccurring trends that support the theories of "mind over matter," and, "you are what you surround yourself with." Behavior is clearly multifactorial—genes included—and analysts are discovering more and more as research continues. As far as "nature" and "nurture" go, behaviorists see that a very wide perspective must be taken to fully understand how the human organism grows and adapts.

Works cited:

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