Yo Homey Essay, Research Paper

However, the researchers neglected to include into their research the effects of extrafamilial factors (friends, peers, teachers, etc.) on the cognitive skills of these children. If these factors were not overlooked, the research may have proven that the environment does indeed influence cognitive development. Without this research, as it stands now, it is concluded that the greatest influence on cognitive development is solely attributed to genetics. In light of this particular perspective, the article is incomplete. On the other hand, with the limited experimentation of the research, the article is very accurate and effective. The scientists recorded their information onto graphs, and the testing was in a controlled environment. The explanation of the experiment was very thorough.

Imagine an experiment in which a scientist decides to separate identical twins at birth an put them in different environments. What would the result be? Recently, a similar issue has surfaced. In the article, ?Nature Clones,? Jill Neimark focuses in on twins that are separated at birth and reunited in their later years. These twins have since then been under evaluation. One particular pair, Barbara Herbert and Daphne Goodship, have been observed at the University of Minnesota?s Center for Twin and Adoptation Research, founded by Thomas J. Bouchard, Ph.D. According to Neimark:

Both Women grew up in similar towns outside of London, left school at 14, fell down stairs at 15 and weakened their ankles, went to work in local government, met their future husbands at age 16? miscarried in the same month, then gave birth to two boys and a girl. Both tinted their hair auburn when young, were squeamish about blood and heights, and drank their coffee cold. Upon meeting, both wore cream colored dresses and brown velvet jackets. (Neimark 39-40)

After much observation at the center, scientists found that the twins had approximately the same IQ, and similar physical defects. Some scientists feel that these types of twin studies make the genetic perspective of the nature vs. nurture issue stronger.

However, in the article, Neimark speculates that the ?Minnesota twin sample? is just one case, and researchers may have overlooked some good points: not all twins in the world participated in this study and there is only a select number that the researchers concluded their results from (Neimark 43). Moreover, it has been proven that not all identical twins are truly identical, or share the same genetic traits. This type of information should be taken into consideration in the Minnesota twin experiment (Neimark 43). Thus, the information found reguarding this experiment may be considered inaccurate. Also, due to the previously mentioned representative anecdote, there seems to be an exaggerated appeal within this article.

Neimark proceeds to suggest that twin studies clue us in on the actual strength of the genetic impact on twins that are separated and placed in different environments. She also mentioned that the next goal of Dr. Thomas Bouchard is to study the children in the families that have adopted a twin, and test the influences that the environment provokes when no genes are shared (43). This experiment is a lot like that of the article written by Robert Plomin and his colleagues, which informs us of the results that this type of experiment produces.

Phobias, thought by many to be environmental, may well have been a genetic element as proven by the scientist, Thomas Bochard, of the Minnesota Twin Study. By examining phobias shared by identical twins, a strong genetic connection is eminent. Twins often share phobias, and more often than not if one twin harbors an irrational fear, the other does too, if her childhood was not marred by a traumatic experience. Phobias are thought to be caused by traumas, but the Minnesota Study on twins offered contrary data. Twins who had been reared apart and then reunited later in life shared alike phobias, and some phobias were pretty obscure: One pair were fearful of escalators, and would not set foot on one. One twin might be less frightful than the other, but usually both shared the phobia (Bouchard, 1998).

Twins raised separately may essentially be more alike than those raised together because pairs raised together can accentuate the differences between them. Some critics

speculate that twins’ different environments have been inadequately studied and that

adopted twins might not be an accurate sample because the circumstances of adoption

may affect behavior. Bouchard, concludes, “In a sense we’re tampering with the idea

of the importance of the family in child-rearing. Our findings suggest that the subtle

differences between and within families are not as important as people have thought in

determining interests, abilities and personalities.”

Many scientists believe that cognitive-motivational development is due to the nature aspect. However, Yarrow found numerous environmental factors related to this type of cognitive development. The extent of a mother?s response to the child?s needs, availability of play materials, and amount of kinesthetic stimulation (movement) are indirectly correlated with the environment (Yarrow160). Infants? physical skills such as standing and walking mature in a predictable sequence and the timing of these sequences, depend on the individual maturation rate and culture of the individual. For example, Ugandan babies usually walk by ten months due to the upright manner they are carried, and the babies also receive an abundance of physical contact. On the other hand, in the United States, 90% of infants walk by fifteen months (Myers 86).

Due to Plomin?s research, he left open the possibility that the environment can have influence over cognitive development. Another study focused on the parent-child relationship. By concentrating on the discrete behaviors of the parent and properties of the environment, important discoveries concerning cognitive development were made. Certain environmental influences were detected, depending on the way the parent provides stimulation (visual and auditory), and the extent to which the parent is responsive to the child?s needs (Yarrow 156). Some environmental variables were found to be ?highly related to certain infant cognitive skills such as responsiveness and secondary circular reaction?(Yarrow 157).

However, genes do play a major role in motor development. Identical twins, for example, begin sitting up, standing, and walking with close approximation to the same day (Myers 86). Twin studies have been conducted for years in hopes to find the best answer to the nature vs. nurture controversy. In one particular case, a pair of identical twins were separated at birth and raised in separate environments. When they were reunited at age thirty-one, they realized that they both became volunteer firefighters. Research proves that genes are responsible for the similarity in separated identical twins (Myers 109).

Other adoptive studies show that body weight is genetically influenced. Adoptive siblings are uncorrelated with each other, despite the same meals that are shared between them. Also, twins usually have nearly the same weight, even if they are separated at any point. Human weight is a factor that correlates solely with the biological parent (Myers 542).

Twin and adoption studies prove that approximately fifty percent of the influence in development is due to genes, but because ?siblings? extraversion and instability are not appreciably influenced by their shared home environment, researchers assume they are also influenced by non shared experiences?(Myers 111). Adaptation studies show that the home environment has a great amount of impact on the child?s social life, values, and moral beliefs. In addition, because adoptative parents are usually carefully observed, the child has the ability to grow up in a safe, non-stressful environment. In this case, the adopted child often scores higher on intelligence tests than their biological parents (Myers 110-111). In another study, adolescents of age twelve score better on intelligence tests if given positive infant care, than do children who were neglected as infants (Myers 84).

The first journal written by Plomin and his colleagues is more believable than ?Nature?s Clones? and the Minnesota twin studies. This is because Plomin uses an abundance of statistics throughout the article. For example, the results of Plomin?s experiments are clearly plotted on graphs. These graphs are included in the article for clarity. Another point about ?Nature?s Clones? is that it was published in a popular magazine. These magazines tend to exaggerate their stories to get more people to read the articles, which leads me to believe that the miraculous coincidences between the two separated twins mentioned above may in fact be a fluke.

Neimark, however, does produce different facts recently found reguarding the nature vs. nurture issue. For example, it has been proven that genes influence two out of five personality traits, whereas environment had close to no impact on these traits. On the contrary, ?agreeableness? was found to be influenced by the environment (44).

In conclusion, the nature vs. nurture argument has existed for years, and still no one has found a logical reason why one side should prevail over the other. My point is: why is there a need to take a particular side? Due to previously proven factors, the simplest answer to the ongoing controversy is the middle view. With this view, there is no right or wrong side to the argument. Both aspects are correct, and the destiny of human development overlap within. Nature and nurture go hand in hand.

References

Bouchard, Robert. Minnesota Study on twins. 1998 http://www.modcult.brown.edu/students/angell/twinstudy.html

Myers, David G. Psychology: Fifth edition. Holland: Worth Publishers Inc., 1986.

Neimark, Jill Nature?s Clones Psycology Today July August 1997 p. 39

Plomin, Robert, et al. ?Nature, Nurture, and Cognitive Development from One to Sixteen Years: A Parent-Offspring Adoption Study.? Psyscological Science 8 (1997): 442-47

Plomin, Robert and McClearn, Gerald E. Nature Nurture & Psychology Washington: American Psychological Association 1993

Yarrow , Leon J., et al. ?Infant and Environment?. Washington: Hemisphere Publishing Co.,1975.

\*Daulton, Thomas Beyond Heredity and Environment. Boulder: Westview Press 1995