

Nature or nurture: the case of the boy who became a girl answers

[Society](#), [Gender Socialization](#)



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APPLIEDSCIENCEDEPARTMENT OF BIOLOGY, CHEMISTRY AND SCIENCE

TERM PAPER Nature or Nurture: The Case of the Boy Who Became a Girl
Presented

Part 1

1. Assuming that the nurture theory is valid, David as Brenda will have female behavior and believe he is a girl. From a physical point of view he will not develop secondary characteristics. Based on how hormones work by removing his testicles they denied him of his secondary characteristics. After puberty he would not have testicles to produce testosterone which would make him deficit of his secondary characteristics.

2. If Bruce was not subjected to gender reassignment surgery and raised as a boy, he would express the gender identity of a male. This is so because during the growing or maturing process he would recognize that he has more features of a male than of a female, physically. Although his genitals may look abnormal, he still has other features of a male.

Part 2

1. According to the nature view of psychosexual differentiation, prenatal exposure to androgen could influence the development of gender identity. David's experience did not support the nurture theory. None of his characteristics supported the nurture theory. David being neat and tidy was not a feminine characteristic but rather one that was imposed upon by his mother.

2. According to the article David as Brenda resisted the treatment to be raised as gentle lady and eventually became unmanageable. Brenda frequently resisted girl's toys, activities and clothing. He also mimicked her father's behavior rather than her mother. She complained that she felt like a boy and viewed her physical characteristics as more masculine than feminine.

Part 3

1. They agree to a small extent as it relates to the nature theory. As seen with the rodents, once the neonates were exposed to testosterone (the male sex hormone) they would display male behavior; even the castrated male once exposed to this hormone would still show male traits due to its impact genetically. Similarly the controls; untreated males and females) exhibited male and female characteristics respectively as this was somewhat intrinsic based on their genome, that is, what is contained in their genetic makeup and not dependent on the environment they were raised in. This is synonymous with the studies done with 16 males in that the majority of genetically male children behaved as male despite being raised as females. This behavior was already encoded in their DNA. However, with the 43 girls, the effect of testosterone was nil on the behavior of the girls. They therefore did not act like boys even if they developed male genitalia. This does not support the nature theory as seen with the above examples.

2. The advice to parents would be not to reassign the child's gender and by virtue of having the testicles the child's brain would develop masculine characteristics and sexual male characteristics would develop at the onset of

puberty. According to the article (Gorski and Johnson) "brief exposure to the testosterone early in life promotes development of brain in ways that allow male behavior to be as an adult"

3. Based on the nature theory homosexual behavior in men and women can be related to hormonal imbalance. Sexual orientation is determined by the early levels (probably prenatal) of androgen on relevant neural structures. If highly exposed to these androgens, the fetus will become masculinized, or attracted to females. The reverse is true.

4. Based on the nurture theory homosexual behavior in men and women can be based upon environmental influences and that includes peer pressure, low self-esteem and parental influences. Experiment

5. Aim: To observe the effects of neonatal castration upon sexual and aggressive behavior in male and female chimpanzees. Hypothesis: It is speculated that aggression in male and female chimpanzees was an innate behavior rather than learnt behavior.

It is also speculated that this behavior only occurs in male chimpanzees.

Method: 100 female chimpanzees were identified in a population. An ultrasound was done to ensure that the females would produce 50 male offspring and 50 female offspring. Each newborn was then castrated one day after birth. 25 females were treated with testosterone and 25 males were treated with estrogen, the other 25 females were treated with estrogen and the remaining 25 males were treated with testosterone. The behavior of each newborn was observed over a two year period.

Expected results: Based on the nature theory the 25 females that would be treated with the testosterone and the 25 males that would be treated with estrogen the concept of hormonal imbalance would have caused the production of too much or too little androgen. The hormone that was introduced would have interfered with the normal distribution of hormone in both male and female. The 50 offspring that were treated with their original hormones would display normal behavior. Aggressive behavior in females could have been due to too much production of testosterone and the behavior in males could have been due to the production of too much estrogen.

It is common for adult male chimpanzees to act in an aggressive manner as such based on the nurture theory this behavior could have been imposed upon by parents or the environment that the offspring came from. This experiment has not been done due to ethical factors. It is not humane to perform castration on so many chimpanzees. The mere fact that some species are endangered would limit the amount of species that can be used in experiments and lessen the number of species to be preserved in the environment. Many experiments have been done and these have lowered the quality of life of these species.

References

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