

## TO WHAT EXTENT DOES ENVIRONMENTAL MANIPULATION AFFECT BEHAVIOUR (LEARNING)? DRAW ON DIFFERENT LEARNING THEORIES TO SUPPORT YOUR DISCUSSION

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The environment plays a crucial role on our behaviour. Environmental Manipulation is about the circumstances, people, things and events around people that influence their life. The purpose of this paper is to prove the affects environment has on behaviour and whether a person's behaviour is determined by their upbringing (nurture) or by their genetic characteristics (nature). The research is important because if we were to find that the way someone is, is controlled by genetic factors then changing there behaviour will be extremely difficult. On the other hand if their social background determined someone's behaviour then it could be far easier to deal with behavioural problems. The essay will begin with the nature-nurture debate. This will be followed by case studies. Learning theories of Piaget and Vygotsky will also be discussed and finally an overall conclusion will follow.

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Nature vs. nurture has been an oscillating controversy in the field of psychology for many years. Does one inherit genes, or does the environment affect one's genes? The basis of nature is the principle that people have their personalities engraved inside their genes, which are inherited from their parents. The basis of nurture is that the environment plays a big role in the development of a person's personality. Both nature

and nurture, therefore, play a crucial role as the determining factors of one's intelligence, personality, and behaviour.

Early studies have focused mainly upon the environmental influence, e.g. in the home. More recently there have been moves towards researching biological effects on the roots of behaviour and development. One reason is new technology allows psychologists and physiologists to study the brain in greater detail. There are many approaches to the nature/nurture debate. The biological approach believes people act the way they do because of inheritance. Behaviourists argue for nurture, although the potential for learning is innate. The cognitive approach does not completely side with nurture, as it supports the view that the structure of the mental system is innate.

For my first piece of work I am going to use the film 'Wild Child'. In the film we see how a feral child is captured and then taken to Paris to be studied by a doctor. We see that once the boy has been moved to Paris he is clearly not like the other children. He is different in many ways such as, he does not walk straight, does not react to loud noises in the same way as others. While in France Doctor Itar tries to teach the boy how to act like a "normal child" and teach him how to talk, eat etc. The doctor does manage to make him show much more normal actions than originally, though he never talks. This is the most important indication that living in the wild changes how you act and that you can only ever do what you observe or are taught through social interaction.

In the same film we see another child named Genie who was kept in solitary confinement for 13 years tied to a potty chair. She had no books, no radio, and no television. She could move only her hands and feet. She had nothing to do. When she was discovered, she was unable to speak or walk. Although Genie did not speak in a

fully developed, normal way, she acquired some language after she was discovered. Her social behaviour remains highly abnormal.

Noam Chomsky believes that human beings are born with a unique competence for language, built into their brains. But he adds that the innate mechanisms that underlie this competence must be activated by exposure to language at the proper time, which Chomsky speculates must occur before puberty. Genie failed to learn the kind of grammatical principles that, according to Noam Chomsky, distinguish the language of human beings from that of animals. For example, she could not grasp the difference between various pronouns, or between active and passive verbs. In that sense, she appeared to suffer from having passed the critical period.

(<http://kccesl.tripod.com/genie.html>)

Vygotsky took a socio cultural view of development that makes social interaction the centre of his theory. Vygotsky believed that through joint activities with more mature members of society, children come to master activities and think in ways that have meaning in their culture. He believed that children learn best when tasks are in their zone of proximal development, a range of tasks that the child cannot yet handle alone but can accomplish with the help of adults and more skilled peers. This emphasises the role of the adult as a teacher. Vygotsky's theory was an attempt to explain consciousness as the end product of socialisation. For example, in the learning of language, our first utterances with peers or adults is for the purpose of communication but once mastered they become internalised and allow "inner speech". (Sutherland, 1992: p43,45,46)

In 1931 Watson a psychologist conducted an important experiment known as the "Albert experiment" concerning behaviourism. Through this experiment he proved that humans could be taught certain feelings and fears through their environment, with which they were not born. He used an 11-month-old boy and conducted an experiment

to show that a person could be conditioned to be afraid of something with which he was not previously affected. The baby, Albert, was placed into a room alone and there were no other distractions. Watson placed a white rat in the room. Albert seemed to like the rat and even showed liking towards it. After some time when Albert would reach out to touch the rat, Watson would produce a very loud and disturbing noise. As a result, the baby became frightened of every white and furry object in which he came in contact. (Harris,1999: p5,6) I do not entirely agree with the behaviourist theory and therefore will point out some of the limitations. Critics say that behaviourism over simplifies human behaviour and that it sees the human as a robot instead of a creature with free will and purpose. It shows no clear boundaries for what is behaviour and what is merely the body functioning in the way it should and does not explain or even acknowledge the internal processes that cause our reactions to different stimuli. The behaviourist approach also dictates what knowledge the "student" will learn, in what order they will learn it and how they will learn it, and ensures that the "student" concentrates on key points rather than information as a whole. It also deals only with the problem and fails to search out the root cause, which often means the problem, without continuous treatment, can reoccur. Behaviourism has also been seen as a form of "brain washing" and makes no allowances for differences in intelligence.

Jean Piaget (1896 – 1980) was a constructivist theorist. He saw children as constructing their own world, playing an active part in their own development. For him, this represented the means by which human beings adapt to their environment as an individual constructs an understanding of reality through interacting with it. Knowledge has to be actively discovered. His academic background in biology led him to believe that all humans were genetically similar and shared many of the same experiences. Consequently, he chartered children's' development through a series of qualitatively distinct stages through which intellectual maturity evolves. Piaget claimed these stages followed one another in a fixed, inevitable pattern but accepted that there was no fixed time for each stage. Piaget suggests that a child under the age of seven cannot profitably be taught tasks and concepts because he is not mentally ready. According to Piaget, a child's capacity to be taught and make logical sense of what they are shown is limited by their stage of development. For Piaget 'genuine intellectual competence' (Wood,

1998: p24) is only reached when the child can construct his own understanding of events.

One strength of Piaget's theory comes in the detailed supporting evidence, which he himself provided. One of his tasks investigated object permanence. He gave a baby a toy and they played happily with it. But then he covered the toy with some cloth. Even though the baby had seen the toy hidden it failed to look for it and it appeared he didn't even remember it had been there. This suggests that ideas are underpinned by detailed empirical research, which provides a sound foundation for the theory. Another positive aspect is that Piaget's view of children as active constructors of their own cognitive world had considerable educational implications, with its emphasis on discovery learning, sensitivity to children's readiness to learn, and acceptance of individual differences. Piaget's main features suggest 'that the role of the teacher is to allow children to engage with their environment in an active way and have appropriate experiences at appropriate times so as to foster their natural capacity to learn.' (Gupta and Richardson, 1995: p8) They handle and perform what they are learning so that it sticks in their mind. For example to learn how plants grow a class will be split in to thirds; one group taking home some cress placing it on the windowsill and watering it daily. Another group takes home some cress, which they place in a cupboard and water daily and then the final group who place their cress on the windowsill but don't water. From this they will visually see the importance that water and light play in survival of plants. This is important, as they can't think abstractly. This suggests that Piaget theory has had a great impact on primary school teaching methods and he showed children don't just think like little adults. Piaget made some very valuable contributions and presented some useful research, which despite criticism continues to attract much interest. Many researchers have used Piaget's theory and expanded it. Although it is becoming clear that Piaget did underestimate what children understand about the physical world, he made some very significant observations, which people continue to research and improve. If it wasn't for Piaget's original thoughts and assumptions, then it is possible that we may not have advanced as quickly as we have done. Although Piaget appears to have underestimated children's understanding, it would be wrong to say that there is evidence that his theory is wrong, he has provided a starting point for other researchers, and if he was still alive today, it is likely that he would have continued his research and made necessary alterations to his original ideas.

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In conclusion the nature/ nurture debate is one that will continue as people use different features for their arguments. On one-hand theorists, scientists and the public argue that nature and innateness is what helps child's development. Others may argue that it is nurture that plays the role such as imitation of speech of their parents, the home in which they live, whether they are living in poverty or wealth. Nature (heredity and genes) plays a greater determining factor for personality and behaviour than nurture (surroundings) does, while nurture plays a slightly greater role in determining one's developing intellectual ability. The two approaches are linked it is both nature and nurture that influences the child's development. The balance varies depending on the situation of particular children, e.g. poverty. Although the child may have innate basic instincts and drives for things such as learning, language, aggression or morality. It is also the environment that plays a major role. There is interaction between nature and nurture.

Both Piaget's and Vygotsky's theories have had a significant effect on the way that children cognitive processes have been studied and they have also had a profound effect on education. It would be fair to say that Vygotsky did not reject all of the elements of Piaget's theory but took the weak areas and strengthened them by taking into consideration socio – cultural factors and language for example.

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Video : 'Wild Child'

(<http://kccesl.tripod.com/genie.html> 15 April 2005)