The nature-nurture debate essay sample

Environment, Nature



In this assignment we will discuss the nature-nurture debate in relation to the language development of an individual. It will include a variety of different language theorists such as; Noam Chomsky (1951), Steven Pinker (1994) and B. F. Skinner (1957). We will discuss who they were and what their theories were, and also we will discuss a twin study in language development. Determinism/Choice and Interaction:

Determinism is the philosophical theory that every event, including human cognition and behaviour, decision and action, is determined by an unbroken chain of prior occurrences. Determinists generally believe in only one possible future, though deny that humans lack free will. This can be either by what the individual has genetically inherited or by social environment and experience. The alternative to determinism is choice and interaction which is the belief that people can take control of their own lives through the choices they make which can also be called nurture or free-will. Some people think that everything is fixed by the nature or by nurture or that everything is a matter of choice. However, most people understand that the human life course involves an interaction of nature, nurture and the decisions and choices that people make. Moonie. N (2007) pages 165-166 Nature vs.

The definition of learning through 'nature' is that things that we know which are innate. These things are biologically caused and genetically inherited. The definition of 'nurture' is the effect of the lifestyle and environment has on influence on our lives, as we can control it. The nature-nurture debate is all about whether genetics (nature) or our environment (nurture) is responsible for our behaviour and development. This essay will include the

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language development about the nature- nurture debate. Lancaster. K (2009) page 45 The nature vs. nurture debate has been around for many centuries which argue about the role of heredity and environment in human development. We acknowledge that both nature and nurture play a role in language acquisition. Theorists have argued that all humans are born with instincts which we have throughout life. However, other theorists have argued that the way we have been brought up, the culture and environment around us are extremely influential in what defines our personality traits and characteristics. Theories of Language Development:

Both of the theorists Noam Chomsky (1959) and Steven Pinker (1994) had believed that the ability to develop an oral and signed language can be hereditarily automatic to us. Chomsky said that we are with a 'language acquisition device' that allows to be familiar with and develop languages that we experience. Children do develop language really quickly and it is most likely that the ability to use language is hereditarily automatic in the same way as our ability to stand or walk. The ability to use language develops because of maturation, which means it is assumed to be due to a hereditarily programmed order of change. We would need to experience other people using language, but we do not need to be trained in order to speak. Moonie. N (2007) page 161 Evidence for an innate human capacity to acquire language skills comes from the following observations: The stages of language development occur at about the same ages in most children, even though different children experience very different environments. Children's language development follows a similar pattern across cultures. Children generally acquire language skills quickly and effortlessly. Deaf children who

have not been exposed to a language may make up their own language.

These new languages resemble each other in sentence structure, even when they are created in different cultures. Twin studies in language development:

Most of the studies done on the nature vs. nurture debate have been conducted on the studies of twins. Biologically there are two types of twin; identical twins and fraternal twins. Twin studies are a valuable source for observation due to their genotypes and family environments tending to be similar. These studies are used to determine how much of behaviour is influenced by genetic variation (nature) or environmental conditioning (nurture). Studies have documented that twins are more likely to demonstrate delays in speech and language skills, with males typically showing a six-month greater lag than females (Lewis & Thompson, 1992). However, studies have also documented that twins typically catch up in their speech and language development by three to four years of age (Lewis & Thompson, 1992). Language delays are typically characterized by immature verbal skills, shorter utterance lengths, and less overall verbal attempts. There are several possible causes for speech and language delays in twins, including unique perinatal and environmental factors. For example, premature birth and low birth weight are more common among twins than singletons (Bowen, 1999). Additionally, twins may receive less one-to-one interaction time with their caregiver, as both infants are competing for time and care. Although it is more common for twins to be delayed in language development, there is danger in assuming that they will catch up down the road. Twins who have true speech-language disorders may not catch up, and will benefit greatly from direct intervention. [07/12/13] Burrhus Skinner (1957):

Behaviourists view the process of language acquisition as a building process that results from interaction with the environment, meaning his theory is a nurture theory.

A child acquires verbal behaviour when relatively unpattern vocalisations, selectively reinforced; gradually assume forms which produce appropriate consequences in a given verbal community. In formulating this process we do not feed to mention stimuli occurring prior to the behaviour to be reinforced. It is difficult, if not impossible, to discover stimuli which evoke specific vocal responses in the young child. There is no stimulus which makes a child say b or a or e, as one may make him salivate by placing a lemon drop in his mouth or make his pupils contract by shining a light into his eyes. The raw responses from which verbal behaviour is constructed are not "elicited." In order to reinforce a given response we simply wait until it occurs. Skinner views the child as the "passive subject of operant conditioning in whom randomly occurring behaviour is selectively reinforced".

Critics of this idea argue that a behaviourist explanation is inadequate. They maintain several arguments; learning cannot account for the rapid rate at which children acquire language. There can be an infinite number of sentences in a language. All these sentences cannot be learned by imitation. Children make errors, such as over regularizing verbs. For example, a child may say Billy hitted me, incorrectly adding the usual past

tense suffix -ed to hit. Errors like these can't result from imitation, since adults generally use correct verb forms. Children acquire language skills even though adults do not consistently correct their syntax. [07/12/13] Genie Wiley, Feral Child:

Genie, also known as "The Wild Child", spent the better part of her first thirteen years strapped to a potty chair, locked in her room. Her father claimed she was mentally disabled and couldn't be cared for. When she was discovered, she couldn't walk properly and could not speak, only made undecipherable noises. This presented the psychological community with a slightly imperfect, but very valuable, opportunity to investigate if speech is a learned skill or if it's an instinctive skill that all humans are born with. After rehabilitating Genie and introducing her to the outside world a group of psychologists, they started doing intensive speech therapy with her. Eventually she seemed to intellectually plateau and still could not communicate effectively. This unfortunately did not give psychologists a definitive answer as to which type of intelligence speech is nature or nurture. Several of the people working with Genie believed that there is a critical time period in the human's life that is the only time one can absorb and develop language and communication skills, which could also explain why Genie never developed these critical tools.

Not ruling out these rival hypotheses would result in an invalid and unreliable conclusion as to whether speech is a learned skill (nurture), or if we're born hard-wired to talk (nature). [07/12/13] The nature and nurture debate on language development has demonstrated that, according to Skinner (1957),

Genie was taught how to speak but it was too late because she hit puberty therefore she could only say 'phrases' and not speak full sentences.

Chomsky (1951) was quiet right, that you need the genetic ability to speak. Theories emphasise the importance of both nature and nurture in language acquisition. These theorists believe that humans do have an innate capacity for acquiring the rules of language. However, they believe that children develop language skills through interaction with others rather than acquire the knowledge automatically.

References:

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Moonie. N (2007) 'Health and Social Care' Book 1, Heinemann: Oxford

(pages 160-166) 'BF Skinner, Behavioralism, & Language Behaviour' [online]

[07/12/13] 'Wild Child Speechless After Tortured Life' [online] [07/12/13] 'Twins vs. Adoption' [online] [07/12/13]