

Childrens cognitive development

This essay will discuss different stages of development from early Years to preteen years a lot of things come in to play when considering human development like the environment we grow up in or our inherited genetics. Cognitive development is how we learn to do things like thinking, remembering, speaking etc, cognitive development is the basis of our knowledge today i will discuss a few separate theories of this were we begin from birth and all the different stages through to being a logical thinker in adulthood to begin I'm going to discuss Jean Piaget (1936) he was a developmental psychologist, Piaget was born in Switzerland weir he got his PhD in zoology in 1918 he then when on to study children to test their abilities and understanding. while conducting the study he realised that the smaller children were frequently giving the wrong answer, this is how Piaget noticed a pattern of cognitive development in the younger children which got him interesting in finding out how the intelligence grows starting from infancy, Piaget believed that the mind naturally adapts to new environments using schemas. Schemas are building blocks in our mind that build up a picture of the world around us we are all born with basic schemas which we then fill with information Piaget explained a schema as "a cohesive, repeatable action sequence possessing component actions that are tightly interconnected and governed by a core meaning" Piaget (1952, p. 7). Piaget believed that to find a connection between our thoughts and our environment we use two different processes assimilation and accommodation, assimilation is when you use an exciting schema for example if an infant has never seen a dog before but has seen a cat the infant will assume that the dog is a cat because of the exciting schema already built up in the child's brain but once explained to the child that the animal is in fact a dog they will add that to their exciting schema and store it, as the child intelligence grows it needs somewhere to store the new information as the schema grows this is where the term accommodation comes from the schema effectively accommodates the new information for use again, Piaget focused his attention on four main stages of cognitive development in stage one the sensorimotor stage the main objective was to work out object permanence working out that object still exists even when out of an infant's view, they also learn a lot through sensation like putting things in their mouth feeling and touching different object to start to feel familiar with it this stage requires the infant to build a schema of the object, the sensorimotor stage usually between birth and the age of two, children then move on to stage two preoperational stage during this stage children find it difficult to see things from other people's point of view they can only see things if it has a importance to them the correct term for this is egocentric, they also look at things in a symbolic way because they have not yet developed there cognitive ability yet this stage usually happens between the ages of two and seven, stage three concrete operational stage is considered by Piaget as a massive leap in a child's development because it's when children begin to use logical thinking this is when a child can begin to work out problems in their mind rather than having to physically play out the scenario first this is known as operational thought, in this stage children also learn the ability of conservation this is to be able to tell that somethings mass doesn't change even if its location does for example a child during this stage will know that if you were to pour 500ml of water into a long narrow container and then pour 500ml of water into a shorter wider container there is still the same amount of water in both even though they appear differently a child before this stage would find that difficult because they have not learned this ability yet, this stage typically happens between the ages of seven and eleven, then to end there is stage four the formal operational stage which develops at age eleven and onwards through to adulthood during this stage teens begin to gain the ability to manipulate thought in their own mind they no longer need concrete conditioning or to use objects or drawings they can do it just using their mind such as being able to work out a math sum without having to look at it

physically written down they begin to be able to think of the future for example if they were to do something they know to be wrong they start to think about the consequence to the actions there about to take logically were as in the earlier stages they would struggle to do this because they have not yet developed logical thinking these are the stages of cognitive development from Piagets view this theory is mainly built around ages rather than environment piaget new that not all children fit into the exact category but used them as mainly a guide . I am now going to discuss a different theory of cognitive development from a different psychologist Lev Vygotsky his theory on cognitive development is also known as the sociocultural theory, Vygotsky was born In 1896 he was a Russian soviet psychologist his theory is based on the importance of the society and culture that surrounds that pacific child, unfortunately Vygotsky died at a young age so a lot of his research has not been finished, he believed that adults have a major impact on cognitive development for example a child is completing a shape puzzle, her mother explains to her that each pacific shape has its same shape home she shows the young child after explaining then allows the child to try themselves without the interaction from the child's mother the child would be un aware on what to do but with the help from her mother she is able to grasp the concept quicker, Vygotsky found that infants had what he called elementary mental functions and there are four of them attention, perception, memory and sensation as infants grow and interact with their socio-culture environment these mental functions begin to grow into more sophisticated mental processes and that's when they become higher mental functions, Vygotsky believed that most of our learning comes from a teaching adult e.g parents, grandparents, siblings or teachers, children will model there behaviours as well as take in the information or instruction from them. He reported that to reach higher function mental processing the child need to be in the zone of proximal development meaning the learning from a teaching adult otherwise known as a more knowledgeable other by this he meant someone with a higher ability level than themselves, for their elementary functions to grow in to independent ones, Vygotsky believed that language is a the key to learning new cognitive skill because language is the main way the knowledgeable other can teach and interact with the child. He also looked at private speech this when someone speaks to themselves aloud he looked at who were more likely to do this and found that children done this the most this is a way for a child to plan activities they do it a lot during play and this plays a massive part in there development Vygotsky believed it accelerated there progress this is another reason why language is a key part in Vygotsky's theory his theory is mainly based on environment and interactions. I am now going to talk about Jerome Burners he was a American psychologist born in 1915 he made significant contributions to human cognitive psychology and cognitive learning Burners theory of cognitive development was developed in the 1940s he agreed with Piagets earlier work that the underlying structures in the mind (Schemas) do mature over time so he based a lot of his research on this, he also believed that the education of children should be built around their current developmental stage rather than based on memory skills and fact Bruners research made massive contributions to the educational system and this was his main aim. He looked at three modes of learning firstly the enactive mode were infants learn through movement and interaction this mode is similar to Piagets sensorimotor stage. he believed that knowledge is stored as muscle memory for example an infant may continue to suck there dummy even after the dummy is removed from them as they grow these actions become automatic and the infant will recognise when to suck and when not to, then mode two the iconic mode this is when children begin to learn through images and sounds by this mode an infant can recognise its dummy as an visual image so now it's an independent object so this means the infant has learned object permeance a child's thinking at this point is dominated by images, sounds and sensations then the third mode is called the symbolic mode like Piaget Bruner recognised the major changes that happened at around seven years of age when language starts to influence thought by this time there thoughts are not dominated by the way things look, they can look beyond images and begin to

use symbols such as words and numbers by this stage information can be summarised and categorized and be easier to manipulate as children develop skills they become automatic processes he also believed that it's not age that determines the rate in which children develop but environment they are exposed to has more of an influence on development much like Vygotsky's theory. Bruner also believed that different cultures play a role of how quickly or slowly a child develops because they experience different things in their cultures at different time this is the main difference between Bruner's theory and Piaget's theory. To conclude Piaget theory is mainly based on the four stages sensorimotor stage from birth to two where a child is driven by their senses, preoperational stage from two to seven where images and sound start to play a bigger role, concrete operational stage from seven to twelve where they are bringing to learn how to think independently then formal operation from adolescence through adulthood where independent thinking becomes an automatic process and logical thinking is learnt. Vygotsky's research is based not on age but on environment and human interaction he believes that infants and children excel cognitively by having a tutor or guide to help them develop these important new skills and by using language and interaction to excel there their learning and expand their development further. Bruner's theory a lot like the other two because it looks at cognitive development in modes enactive mode firstly which is similar to Piaget's sensorimotor stage then iconic on to symbolic there all of a similar timescale to Piaget's but he also agreed that children develop over a timescale and a lot of where they grow up what environment or culture there in plays a massive part in their cognitive development a lot of important research has been done following Piaget's early developmental theory in many aspects one being education it's made it easier for teachers to understand children at different levels of development which in turn makes it easier to teach them new important skills for them to learn and evolve appropriately.

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