Piaget's Cognitive Development: Assimilation and Accommodation

Jean Piaget—arguably the most prominent cognitive psychologist in history—said that your cognitive abilities start to become concrete around 7-11 years. This is when you begin working things out privately inside your mind.[i] Your fundamental idea is fully formed by this point too. There is clear scientific evidence that brain activity and development is different in adults and young children. Ask any neuroscientist. They'll tell you that when they're awake, a child's brain (up to age seven) when examined using an electroencephalograph (EEG), is abundant in consistent patterns of electrical wavelengths called theta waves.[ii]

Adult brains, when awake, demonstrate more consistent electrical patterns called Beta waves. Theta waves are often seen in adults too, but at specific times: when we're in the early stages of the sleep cycle, deep meditation[iii], or hypnosis. In contrast, with children aged between two and seven—who are wide awake—the theta waves are linked to imagination and sensory reality. This merges what the child perceives and wants to believe is real. Theta waves are also connected to the part of the brain called the hippocampus[iv]. This is part of the Limbic System linked to the consolidation of subconscious memories.

Children have no idea why many of their childhood games and learning experiences are so enjoyable, significant, distressing or formative. But this is why specific role models and influences remain meaningful, for so long in your life. You don't know why. It is the reason why things certain celebrities said and did resonated so much with you. Years later, their input still feels like concrete. And why a particular punishment from your parents is etched onto your mind like permanent marker.

Some ideologies and experiences are synonymous with parts of your fundamental idea, forming parts of your reality forever. Some minor experiences are crystal clear. On the other hand, other situations may have had a much bigger influence *at the time.* They pushed your life in a completely new direction; however, for some reason the impact was short lived. Probably because it was built on top of your fundamental idea and not actually a part of it.

So the experience didn't really dictate you as much as you thought. Ultimately, children don't have the fully conscious opportunity to choose what they're putting into their fundamental idea unless they are guided. Inevitably, they programme themselves. Therefore, it is *so* important for you to learn what you placed deep in your foundation.

Schemas are essential to your decision-making process in both your subconscious and conscious mind. They tell *you* how things are 'supposed' to be, how people are 'supposed' to behave and most importantly, how you should

respond in each circumstance. This is how your governing education system operates. When information fits seamlessly with what makes sense to you (good or bad), nothing feels uncomfortable or out of place to your habitual thinking. To illustrate this point, imagine a man being mugged in an area of town with a reputation for crime. This makes some kind of sense. In comparison, you might not be comfortable with a man being mugged in an affluent gated community. Even though they're both the same negative behaviour, the second one doesn't match your schema. This is new information to process: that you can be mugged *anywhere*. When this occurs, you are presented with the opportunity to either build upon your current schemas or reject this information.

Jean Piaget explained this with the concepts of 'assimilation' and 'accommodation' in his theory of cognitive development.[v] Assimilation is where you encounter a new experience or piece of information, but it is not difficult to fit this new information into your current schema. It doesn't challenge what you already know, so it incorporates simply into your current thinking (whether it is accurate or not).

Sometimes we bias this process and alter the way we perceive the new experience to *make* it fit our existing schema i.e. if you believe all teachers are mean, and a new one gives you a detention for not doing your homework, this can be made 'appropriate' and confirm your current schema. Not all new information makes sense though. And you may struggle to accept it or make it fit. When this happens, it requires your existing schema to be adapted or reconstructed. This is the only other way you can incorporate it into the way you think. You'll have to *change* your schema to accept it. Otherwise, your current education system and worldview will reject it. This is known as accommodation. Think about switching mobile phone brands. You're used to your old one and now the new one has a completely different design and operating system. At first, it is hard, but you quickly adapt. However, on more meaningful personal decisions, we don't like to adapt our most rigid schemas when they're challenged.

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[i] Ginsburg, H. and Opper, S. (1979) *Piaget's Theory of Intellectual Development,* Prentice Hall, p152.

[ii] Marcuse, L. V., Fields, M. C., Yoo, J. (2016) *The normal adult EEG* in Rowan's Primer of EEG (Second Edition) Pg. 39-66, https://doi.org/10.1016/B978-0-323-35387-8.00002-0

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