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My name is Danielle Van Gelder, I am twenty years old, and my life has been good so far. I have learned a lot, and I have developed in many ways physically, cognitively, and socially. Piaget's theory of cognitive development is one psychological theory that I think fits my life well; much of my past is related directly to his ideas about cognitive development. His theory is made up of four stages (sensorimotor, preoperational, concrete operational, and formal operational) which are displayed through several events in my life.¹

Many psychologists have formulated theories of development. These theories are good because they help to organize, focus, explain, and identify the different events that take place during development.² Piaget came up with an exceptionally competent theory about cognitive development. His theory of cognitive development is made up of four distinct stages which I believe (due to my experience) are very accurate. Though it may be flawed because people do not develop in discontinuous stages as he suggested,³ I feel that his theory relates very well to the growth and development of children from infancy to early adulthood. His theory is based on the concept of "little scientists." "Little Scientists" is a term for the idea that children learn best by experimenting and figuring things out for themselves.⁴ Piaget's theory is demonstrated through several events through out my entire life; beginning to the present.

I was born on March 3, 1988; one month before I was due. The delivery was normal, but my lungs were not fully developed. As a result, I had to stay in the hospital for a week so that the doctors could make sure that I was developing correctly. It was during this time that I was in Piaget's first stage of cognitive development.

The first stage in Piaget's Cognitive Development is the sensorimotor stage which lasts from birth until language achievement, which for me took place around two years.⁵ It was during this stage that I was developing the ability to interact with my environment. Piaget called this the ability to create schemes. Schemes (or schemata) are patterns of behavior that an infant uses to interact with their environment. A scheme that I soon developed was the ability to play with a rattle.⁶ I enjoyed playing with rattles as an infant, and my parents used them to entertain me. Schemes are more specifically defined as inner representations of experiences that combine a thought with an action. Shaking a rattle is an example of that because it is the combined thought of the noise with the action that causes the noise—shaking. It is the connection that is made in the infant's brain that unites the noise and the action.⁷

I developed about a month later than an average infant throughout my growth because I was born a month premature. I was maturing a month later than average, but was still developing in the same order as the other infants, and that is an example of the truth of Piaget's stages. My parents realized that was the way I was, and continued to encourage me to grow. This is an example of how from the beginning they had an authoritative parenting style, which they continued throughout my development.

My parents adapted very well to having a child. Their synchrony was very good because they knew how to adjust their behavior to mine. I have seen that now that I have watched them change when my brother was born. They adapt their entire lives, right down to the kind of music they listen to. Because of this synchrony, I became securely attached. I did well at a babysitter's house after being upset for a short while, and I always went to my mother when she returned.

Adaptation and organization are a few more developments that take place during infancy. Adaptations are functions used in keeping schemes categorized in our minds, and they are made up of two smaller functions: assimilation and accommodation. Assimilation is taking in information and organizing it into our existing schemes.⁸ For example, if I held a rattle that only made noise when it was shaken sideways, I would add the fact that I had to shake the rattle sideways to the previous scheme of shaking the rattle to make noise. Accommodation is altering existing schemata to incorporate the new information. For example, if all of the new rattles that I tried to shake had to be shaken sideways, the scheme would change to shaking all rattles sideways to make noise. I developed the abilities to adapt and assimilate during the sensorimotor stage of cognitive development.

The sensorimotor stage is also when I developed the concept of object permanence, which is the understanding that things that are out of sight still exist.⁹ For example, when my mom would walk out of the room before I developed object permanence, I would get very upset because I did not understand that she was still there. I did well with being away from my parents after they were gone, but for the first several minutes I got very distressed.

Piaget believed that infants in this stage were also egocentric. Egocentrism is not being able to view the world from any perspective but their own.¹⁰ At this age, I did not understand that because I could see a specific toy, my mom could see it too; I just expected her to get it for me. My mother remembered that she would have to try several toys before she found the one that I wanted. I could not understand causality (that movement needs a cause) either until I was a little over one year old. When I understood causality, I understood that if I applied force to an object, I could have an impact on it and could make it move. I began to be able to play with more toys because I realized that I could move things; not everything had to be done for me.

The sensorimotor stage consists of six more detailed sub-stages. The first sub-stage takes place when the infant is less than a month and lives according to its native reflexes.¹¹ When I was in this stage, roughly all I did was cry, eat, and sleep. The simple reflexes were all that I understood. My mom said that I was a very easy baby because I did not cry all the time and I slept fairly well.

When I got a little older, I began to interact more with other objects, and I especially liked to suck my fingers. Sucking my fingers was a result of what is called a primary circular reaction. Primary circular reactions are the second sub-stage in Piaget's theory. A primary circular reaction is a situation where an infant repeats a behavior because it pleases them.¹² For example, when I was in the sub-stage of primary circular reactions, I sucked my index and middle fingers and I liked it, so I continued until I was in kindergarten. I also exhibited this sub-stage when I played with one of my favorite toys—rattles. I shook the rattle, liked the noise, and continued to shake it.

When I was about eight months old, I began to understand what it meant when someone else smiled at me. I also began to realize that I could cause these reactions by doing certain things. Sub-stage three is the stage of secondary circular reactions which is when the infant repeats an action because of a positive response from an outside person or object.¹³ For example, I would smile and my parents would smile back at me, so I would continue to smile in order to get the response again.

In the fourth sub-stage, I began to make connections between actions. For example, I knew that if I smiled, my parents would smile back. I realized that laughing is like smiling; I began to make connections between different actions. The fourth sub-stage is defined as the coordination of secondary schemes which is realizing that two actions are similar.

This is also related closely to sub-stage five which is the stage of tertiary circular reactions. Tertiary circular reactions are those in which a baby tries to get the same positive feedback by performing a similar action they connected during sub-stage four.¹⁴ For example, I would expand the smile to a laugh to see if I could get the same reaction from my parents. If I could, I would continue that action.

As I developed, I began to play with toys that did not please me in a sensory way because I developed the ability to imagine. The sixth and last sub-stage is when basic internal representations and the ability to imagine develop.¹⁵ This sub-stage was when I began to play by myself, and I played with toys that involved imagination rather than sensory gratification. For example, I no longer played with rattles, I would rather play with a doll or a car that I could pretend was real.

My cognitive development continued to increase as I continued to grow, even though the development was not as rapid as it had been during the first stage. The second stage of Piaget's cognitive development is the preoperational stage. During this stage, the child develops the ability to think through an action before they do it physically.¹⁶ I began to be able to think ahead and judge whether or not an action would result in punishment or praise. This helped my parents since I could now think before I did something wrong. My parents always handled punishment and reinforcement (whether negative or positive) very well, and I grew to appreciate and understand that there is right and wrong.

As my ability to remember and imitate actions also developed during the preoperational stage, I began to imitate my parents' actions with my sister. She was very young, and I tried to do everything that my parents did when they were taking care of her. This is also when I have my earliest memories since my memory was becoming functional.

The ability to play symbolically and the ability to animate non-living things (which is called animism) also develop during this stage. Animism is the act of pretending that an inanimate object is alive, moving, and thinking.¹⁷ Playing symbolically is one of my favorite past times. I loved to play with baby dolls, and I would pretend that I was my mom and my doll was my little sister. I often played with my cousin Jordan because he was just a year younger than me. I would pretend that he was my dad, and I was my mom, and then we would take care of the baby doll. As my sister grew older, we began to play together with dolls. We loved to dress up in some of my mom's old clothes, and we would pretend that we were older. We also played a lot with Barbie dolls. For Christmas one year during this stage, my dad gave my sister and me a Barbie house, and we loved to play there with each other. We got along quite well since we both loved to imagine, and play that our dolls were alive. Animism and symbolic play was an ability that allowed us to grow closer.

These concepts have had a big impact on my life, and it has been very interesting studying Piaget's theory because I can apply it not only to my memories and to my life, but also to the life of my little brother who is currently four years old. I can see the younger stages in his development since I do not remember many things from when I was that young. For example, I have seen him develop the animism. I have also seen his inability to decenter; when he held something up to show me, he faced the object towards himself because he did not understand my perspective. Although it may not seem like anything noteworthy, it shows that he is still in the preoperational stage of development.

The concrete operational stage is the third stage in Piaget's Cognitive Development Theory. During this stage, kids can start to think about more than one thing at a time. They can

solve more problems, and they can understand conservation.¹⁸ This stage was evident in my schooling. School taught me to solve problems and classify objects.

Kids in the concrete operational stage also begin to think about and understand morals. I began to behave better; I had never really caused too much trouble for my parents or teachers, but during this stage, I began to really understand what it meant to act appropriately. I still had things to learn about knowing right from wrong, however. For example, I cut my sister's and my neighbor friend's hair in the closet one summer. I knew that what I was doing was wrong, but I did not fully understand morals since I had not fully entered the concrete operational stage.

There are two understandings of morality. When the child is under six years of age, they are most likely to understand heteronomous morality. Heteronomous morality is when a child thinks punishment is linked to consequence rather than intent. The other kind of morality which usually develops after the age of seven is autonomous morality, and is when the child begins to understand that punishment should be linked to the intent of a certain action rather than the consequences. This understanding of autonomous morality is proof that the child has learned to decenter; they can look at more than one element of a problem at a time.¹⁹ An example of heteronomous morality in my life is that when I was about six, I thought that if I cut my sister's hair on purpose, but it looked good, I would not get in as much trouble as if it looked bad. If I had entered autonomous morality, I would have understood that it was wrong to cut my sister's hair on purpose (whether it looked good or not). However, it would not be as wrong if I had done it on accident (whether it looked good or not). I did not understand that punishment could be linked to intent since I had a heteronomous understanding of morality.

After I grew into the autonomous morality, I entered Piaget's formal operational stage. The formal operational stage is the last stage in Piaget's theory, and it usually develops around

eleven years and continues through adulthood.²⁰ During this stage, I was taking harder classes in school because it is when I developed the ability to think abstractly; I moved from purely concrete thoughts to abstract thinking.²¹ This time in my life is also when faith became more real to me, I began to understand what Christ did for me. Even though I had heard what Christ did for me countless times, this is when I really began to understand its significance. I made profession of faith when I was a senior in high school, and that was a highest point in my faith. Faith is a big part of thinking abstractly, and it is during this formal operational stage that it becomes more real to many people.

Piaget broke this stage into three kinds of thought. He labeled them as abstract thought, idealistic thought, and logical thought. I see the evidence of all three of these in my life. Abstract thought encompasses abilities to solve problems such as algebraic equations.²² I reached this kind of thinking in late middle school and high school. That is when algebraic equations became really interesting to me, and I began to really enjoy being able to figure out tough equations. The ability made me feel smart, and I liked the feeling I got when I finished a problem. I enjoyed Algebra in high school because it was something that I found new, interesting, and fairly easy once I learned to do it. I enjoyed using this new kind of thinking.

Idealistic thought is the ability to think about ideal characteristics of one's self and the world.²³ My idealistic thought developed at around the same time as abstract thought—in late middle school is when I really began to care what I looked like and what other people thought of me. In eighth grade, I became very depressed because I could picture a perfect me in my mind, but I knew that I was not even close to that ideal. I really wanted to be good at a lot of things but I was not able to live up to my own standards and that made it a horrible year for me because nothing was the way that I wanted it to be. Eventually I got used to the idea that I would never

be able to live up to being perfect (that is why I needed Jesus!), and that is when things started to get better. My attitude also improved when my mom had my little brother because he and my mom almost died in childbirth when I was a freshman in high school. Thankfully, the doctors caught the problem in time and they both lived; they needed some special care and had to stay in the hospital for a while, but that event gave me a new appreciation for life. I realized that it is a blessing to be able to live, even if I am not perfect.

Piaget's final kind of thought is logical thought, which includes making plans to solve problems and then testing the solutions.²⁴ This way of thinking also developed during this same time as the previous two. It happened when I began to take science classes, do experiments, and really understand why we were doing them. I loved the fact that I could figure out what was going to happen when I did different things. I could once again use a new kind of thinking, and this new thought allowed me to work with my hands.

I have seen evidence of the truth in Piaget's theory of cognitive development in many instances from my own life. Through my experiences, I have witnessed the truth in the stages of Piaget's theory. I have grown and developed a lot in the past twenty years, and having Piaget's theory to help organize my cognitive growth is very beneficial. My cognitive development has made me who I am today, and has influenced every area of growth in my life. The different experiences that I have gone through have helped me to grow physically, cognitively, and socially, and have helped me to realize what life can be. Piaget's four stages are evident in my development, and each of the developments in his theory has made me who I am today.

¹ Flavell, (1963)

² De Sousa, (2008)

³ Baillargeon, (1987)

⁴ De Sousa, (2008)

⁵ Piaget, (1967)

⁶ De Sousa, (2008)

⁷ Piaget and Inhelder, (1969)

⁸ De Sousa, (2008)

⁹ Piaget, (1973)

¹⁰ Piaget, (1967)

¹¹ Piaget, (1952)

¹² Piaget and Inhelder, (1969)

¹³ Piaget and Inhelder, (1969)

¹⁴ Piaget and Inhelder, (1969)

¹⁵ De Sousa, (2008)

¹⁶ Piaget and Inhelder, (1969)

¹⁷ Piaget and Inhelder, (1969)

¹⁸ Piaget and Inhelder, (1969)

¹⁹ Piaget, (1932)

²⁰ Piaget and Inhelder, (1969)

²¹ Piaget and Inhelder, (1969)

²² De Sousa, (2008)

²³ De Sousa, (2008)

²⁴ De Sousa, (2008)

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