The Three Ages Project

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I have neither given nor received help on this work, nor am I aware of any infraction of the Honor Code.

Introduction

The three main ages of development, excluding infancy when all stages of growth occur at an almost exponentially fast pace, are younger childhood, middle childhood, and adolescence. To more accurately understand the maturation of a child during these ages, I interviewed three people, one in each of the previously listed age ranges. Alice is 18 years old, Michael is 12 years old, and Jason is three years old. I questioned these participants in this same order, from oldest to youngest. My intention for these interviews was to focus mainly on the progression of cognitive development and its correlation to emotional attachment and social interaction. For example, I wanted to investigate how a child with Autism Spectrum Disorder (ASD) would connect with his family versus a child without ASD. Additionally, I also asked questions that gave me insight into their physical and educational development. This research provided me with ample evidence for such an interpretation and allowed me to compose this essay on the topic.

Prior to interviewing these participants, I carefully chose 10 main questions to ask and most of these also had one to four subquestions to increase my understanding of the child's answers. I conducted each of the interviews between lunch and dinner time, and I informed the participants roughly what our discussion would entail. Additionally, I decided to voice record the sessions to improve record-keeping and ensure precision with my direct quotes. Due to technological conflicts, the recordings were done on different applications each time. For Alice, I recorded our meeting on Photo Booth on my laptop. For Michael, I used FaceTime to call him and recorded our conversation on Photo Booth and QuickTime Player. For Jason, I also FaceTimed him and recorded our discussion with my iPhone camera. In addition to voice

recordings, each of my interviewees also drew a picture for me which I kept documentation of by taking a picture of them.

Developmental Ages

Adolescence is the stage of development between the ages of 13 to 19-years-old. Characteristically, adolescence is associated with a significant growth spurt, primary and secondary sex changes, development of abstract thinking, and establishment of autonomy. During the early stage of this time period, synaptic connections are being pruned away which results in the incompleteness of thoughts and ideas (Levine & Munsch, 2017, p. 184). Synaptic pruning is "the deterioration and disappearance of synapses that are not used" (Levine & Munsch, 2017, p. G-12). Once this process is complete, it affects the prefrontal cortex of the brain, allows for more efficient thinking to occur, and promotes myelination of neurons. This marks the beginning of late adolescence, which is when better control, judgment, and planning takes place. However, this stage may take longer for some individuals to achieve due to both environmental and genetic factors. I chose to interview Alice because she is towards the end of the adolescent age range and a freshman in college.

Middle childhood is the stage of development between the ages of seven and 12-years-old. This time period is identified by the growth of many different brain structures, many fast growth spurts, improvements with fine and gross motor skills, an increase in sociability, and a better understanding of themselves as well as their impact in society. The specific sections of the brain that advance in middle childhood are the frontal lobe, which processes complex thoughts; the parietal lobe, which processes sensory input; and the corpus callosum, which connects the right and left hemispheres of the brain together. It is important that

all of these sections of the brain develop together because, “increasing connectivity and coordination between different areas of the brain contribute to the improvement motor skills, visual-spatial skills, and coordination” (American Psychology Association Division of Educational Psychology, 2014 cited Levine & Munsch, 2017, p. 183). I chose to interview Michael for this age group because he is right on the border of middle childhood and adolescence. He is currently in seventh grade in middle school and was diagnosed with Autism Spectrum Disorder four years ago. Additionally, Michael has struggled with Attention-Deficit/Hyperactivity Disorder since he was in early elementary school. Since both of these significant disorders were identified in his middle childhood, I was very interested in comparing his cognitive and social development with Alice and Jason.

The last stage that is reviewed in this essay is early childhood, which ranges from the ages of three to six-years-old. In this stage, children begin to better develop their fine and gross motor skills for the first time, their language comprehension and vocabulary more than quadruples, strong socioemotional attachments become crucial, and they have their first experiences with structured educational programs. Before conducting my interview with Jason, I was educated on the developmental limits that three-year-olds experience, but I was not truly aware of how those limitations impact the people they interact with. I chose Jason because he was the only child I knew within this age range, but I would have preferred to interview another child who was closer to six-years-old so that all of my participants could have been at the maximum age limit for their developmental periods.

Comparisons and Contrasts of Interviews

As a type of warm-up question, I first asked each child to draw their own version of a boy or girl. I got this idea from reading the blog post *The Draw-A-Person Test* by Jonah Lehrer (2014), which discussed the progression of physical development in children in regard to their fine motor skills. Furthermore, this test is meant to measure the intelligence of the child by examining whether or not they know the basic anatomy of a boy and a girl. In summary, the attractiveness of the drawing does not matter because the score is based on the correct representation and quantity of body parts in the child's drawing. For example, a drawing that includes one head, two arms, two legs, two eyes, one mouth, and appropriate clothes equals a score of 9. This test was originally created by Florence Goodenough, and she argues that the score of the child is directly and positively correlated to their intelligence and physical development.

This test proved to be one of the most clarifying responses that I received from all of my questions because it gave me a direct window into the minds of each of the children to see how they decided to draw their own specific interpretations of these schemas. For Alice's drawing of a girl, this was a simple task for her and she scored 14 points. Michael decided to draw both a boy and a girl and he earned 9 and 10 points, respectively, for each. The only distinctive difference he made between his two drawings was adding a dress to the girl. When I asked Jason to draw a boy or a girl for me, he immediately responded that he could only draw a boy because he was not a girl. Surprisingly, he scored 8 points, despite only drawing one eye, because he also added a sword for his boy to hold so that he could, "fight bad guys." Physically, each of the drawings told me that Alice and Michael had good control of their fine motor skills, but Jason's

drawing was very disorganized and he used his entire hand to move his pen instead of just his fingers.

Another question that I asked which was very insightful for the cognitive development of these three ages was, "Describe your favorite memory." The reason that I asked this question was to understand the personal awareness of each child in reference to Piaget's four stages of cognitive development. For reference, these four stages are sensorimotor, birth to two-years-old; preoperational, two to seven-years-old; concrete operations, seven to 12-years-old; and formal operations, 12-years-old and older (Levine & Munsch, 2017, p. 227). Alice's response to this question showed great maturity in her ability to think of others' impact on her emotions instead of thinking of her life egocentrically. When she was eight years old, she went to the 200th year anniversary of her grandparents' family farm and she and her cousins and sister all sang "*Country Roads Take Me Home*" by John Denver as loudly as they could. Alice also stated that the party gave her the opportunity to meet a lot of her family, especially those who lived as far away as Florida whom she had never met before. "I got to meet a lot of people in my family that live in Florida and farther away. It was the first time that I got to meet them, so it was really cool." She chose a memory that not only she loves, but one that other people also share and remember as a good moment.

In contrast, Michael's response was almost the opposite of Alice's because he chose to tell a story that was very personal to just himself and it did not include other people. "When I was five years old, or when I was, like, a toddler, I remember climbing out of my crib and I walked my toy, green caterpillar. It just brings me joy because I just remember how, like, accomplished I felt when I climbed out of my crib." This memory fits in well with where

Michael would have been developmentally at the time of this memory, which is, according to Piaget, the preoperational stage of cognitive development. His story was very egocentric because he talked about how he personally felt during that moment and his story did not include other people. While Michael was in the middle of his concrete and formal operations stages when he told me about this memory, he actually still shows this egocentrism in his current stage of cognitive development. This makes sense because, according to David Elkind, there is a resurgence of egocentrism in young adolescents (Alberts, Elkind, & Ginsberg, 2007 cited Levine & Munsch, 2017, p. 238). This could explain why Michael chose to share a memory that focused on just him instead of one that incorporated others. Also, due to the fact that he has ASD, it is part of his genetic makeup to somewhat disassociate from others.

When I asked Jason this same question, I received an entirely different response than what I was anticipating. His eyes immediately grew wide and he expressed great excitement about getting to tell me his favorite memory. However, instead of telling me about a specific time in his life, he told me about his most enjoyable thing that he frequently sees, which is construction equipment. "Construction and bulldozers and big trash cans and excavators! And excavators, they go like this, *(James used his arm to act as an excavator)* and put it in the dumpster!" While this is not a specific memory with a date attached to it, it still represents a memory schema to him because every time he sees construction equipment, he gets excited and associates it as a favorite memory because he enjoys them so much. Once again, similar to Michael, Jason is demonstrating egocentrism in the original form that Piaget described because he chose a memory that only relates to himself and it incorporates no one else's perspective. Additionally, the fact that Jason, who is three-years-old and just recently started pre-school,

knows the word ‘excavator’ is extremely impressive and shows great promise for his educational development.

To research the similarities and differences with emotional attachment between these three ages, I asked the participants who their favorite parent was. Following that, I asked them how they would feel if that same favorite parent abandoned them in a stressful moment. Alice answered, “My mom because she’s the most involved. She’s always there for me. I know that she’ll help me with anything that I need.” Throughout our conversation, Alice showed a very secure attachment with her mom by associating many defining moments with her, her voice rose an octave when she talked about her, and she smiled more. When given the second prompt, Alice stated, “I think I would be a little angry at first. And then, maybe, over time, I would start to understand her, like, if she were to let me know what was going on and why she left. Then, maybe, I would go back to her for consolation and such.” Once again, Alice showed maturity in her ability to see life through someone else’s eyes as well as she proved that she had hypothetico-deductive reasoning.

For Michael’s response, he also stated that his mom was his favorite parent. “She’s very gentle and calm with me. She doesn’t push me or anything and she just lets me go at my own pace.” While Michael clearly showed a primary attachment to his mom, he also talked about his dad in a very positive way. “Dad was always there to help me make the right decisions and he would always play with me.” Michael showed a secure attachment with both his mom and his dad. On a weighted scale, he seemed to be more attached to his mom because he associated her with more aspects of his life that represent growth and comfort. But, he was still securely attached to his dad, too, because he identified him as a role model. It should also be noted that

Michael's dad has been out of the country for almost two full years now and they have only been reunited a couple of times. This could provide an explanation for why he chose to also mention his dad as a favorite parent since he more than likely misses him quite a lot. Since Michael first stated that his favorite parent was his mom, I gave him the scenario of a stressful event with his mom being the parent to abandon him. His reply was, "I'd feel really angry, but I'd try to understand." He then gave the example of his mom leaving him while they were in a burning building and stated, "I think Mom should have found another way to help me while also helping herself. But, I would try to understand her reasoning behind it, and if it's a good reason and I'm not hurt, then I'd try to trust her again." This was an extremely mature response from Michael because he said that he would only be upset with his mom if she did not have a good reason for abandoning him. He said that he would do his best to see her perspective and believe in her that what she did was the best decision for both him and her. Not many children can think in this way, especially not people at Michael's age.

Lastly, Jason's favorite parent was his dad because "Daddy is stronger and he didn't get hurt by fire and Daddy fixes big boo-boos." He also explained that his dad drives him to his sisters' volleyball games and plays sports with him. Jason's dad is a professional firefighter and paramedic, and this has clearly had an impact on Jason's perception of who he should look up to. He recognizes that his dad has an important yet dangerous job and is why his dad should be looked up to. When I asked him how he would feel if his dad left him while he was very upset about something, his initial response was, "Me get mad and me get hurt." Then, he proceeded to compare himself to the Hulk in this situation. "Hulk big and smashes door and goes boom! *(Jason proceeds to reenact the Hulk and make grunting/fighting noises)*." With the help of one

of Jason's older sisters, she was able to decode the undeveloped language that Jason spoke in. At first, I did not understand Jason's reference to the Hulk, but his sister informed me that he was trying to say that he would feel like the Hulk if his dad left him when he was sad. This was Jason's way of describing himself when he gets mad and is an example of an emotional schema.

Recommendations

As stated previously, the focus of my interviews was on the cognitive and emotional development of each child. Of the three children who I interviewed, Michael showed the most variation with his emotional development due to the fact that his favorite memory was very egocentric, yet he also showed a high level of maturity and understanding in response to the abandonment scenario. This was interesting since Michael has ASD, which, by definition, "involves a pervasive impairment in social communication and interaction" (American Psychiatric Association, 2013 cited Levine & Munsch, 2017, p. 186). However, Michael showed little signs of this during his interview and acted no differently than I would suspect another person of his age without ASD. This is perhaps the result of early identification and counseling being given to him to prevent further social disfunction. My recommendation for Michael's family is that they continue taking him to spectrum therapy so that he can greater develop appropriate behavioral cues. This will improve his empathy and relatability to others and thus promote his cognitive and emotional development throughout the rest of his middle childhood and into his adolescence.

Conclusion

In conclusion, studying these three developmental ages has helped me to better understand children as they grow up. Specifically, relating my interviewees to their cognitive

stage of development, according to Piaget, was very insightful in regard to connecting the relevance of emotional development and attachment bonds. This research should prove to be very valuable to me in the nursing profession because I can relate my formal education of child development to the experiences that I have had while conducting this project.

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