

INTELLECTUAL COGNITIVE DEVELOPMENT OF RILEY'S CHARACTER IN *INSIDE OUT* (2015): A CHILD PSYCHOLOGY STUDY

Rizki Dyah Koes Novitasari¹ Teguh Kasprabowo²
Universitas Stikubank
rdyah64@gmail.com¹ teguhkas@edu.unisbank.ac.id²

Abstract

The purpose of this paper is to identify Riley's cognitive development and the factors that influence the process. Riley was the main character of Pete Docter's movie: "Inside Out" where the researcher took data from. This is an animated-movie that describes the development process and way of thinking of every human being, so that it will form a character and action. In this qualitative study, the researcher used Psychology of The Child theory by Jean Piaget (1969). The data used in this study is a movie script and the movie. The researcher found that the main character, Riley Andersen, has several stages of cognitive development based on her actions and experiences. Furthermore, there are factors that influence the cognitive development process in Riley. Finally, the researcher found four stages and factors that influence Riley's cognitive development process. The process of cognitive development can be seen from Riley's action when she was born until she grew as a good child.

Keywords: *Child psychology, Jean Piaget Psychology of The Child, Cognitive Development, The Stages of Cognitive Development*

INTRODUCTION

As a material for research, I chose one of the best-animated movie, *Inside Out* from Pixar Animation Studios, which was distributed by Walt Disney Motion Pictures in 2015. *Inside Out* tells the story of Riley Andersen, a child's journey to adolescence with all her emotions and thoughts. This movie contains the concepts of thought or psychological which are portrayed into imaginative objects. There are also concepts of personality, concepts of memory, and concepts of cognitive development that are important for children's knowledge. The concept of cognitive development by applying intellectual knowledge can convey messages that are useful for parents in educating children.

I use one theory to support the observation of the research object. The theory was put forward by Jean Piaget's theory called the stages of cognitive development which related to a young girl who is the main character contained in the film that I examined. Cognitive development involves changes in cognitive processes and abilities. In Piaget's view, early cognitive development involves processes that are based on actions and then develop into changes in mental operations. His theory not only focuses on understanding how children acquire knowledge but also on understanding the nature of intelligence. It also says that cognitive development helps increase our understanding of children's intellectual growth.

Previously, there has been a lot of research on the movie that has been done, but few talk about cognitive development based on intellectual knowledge, especially in animated movie. Besides, research on the knowledge of basic emotions is done more in analyzing this movie than analyzing the intellectual cognitive development. This also becomes interesting for the writer to make it the object of research is seeing how the representation of the child's personality in the process of cognitive development in the movie and what influences it. Based on the description above, this study aims to review several problem statement of intellectual cognitive development in Riley's character as follow: (1) How was Riley's cognitive development depicted in the movie? (2) What factors influenced the process of Riley's cognitive development? The expected objectives of this study are: (1) To identify how was Riley's cognitive development depicted in the movie. (2) To analyze the factors that influenced the process of Riley's cognitive development.

METHODOLOGY

Based on this theory, this study uses a qualitative approach. Krug and Schluter (2013: 4) define that qualitative research usually focuses on one or several pieces of evidence and analyzes it in detail by looking at its various characteristics. Therefore, the use of a qualitative approach in this study is a

context-oriented approach that addresses in child psychology approach using descriptive methods. The child psychology approach of this research is based on one theory related to children. The research data is in the form of movie script and the movie that I found on internet, namely <https://www.scriptslug.com/assets/scripts/inside-out-2015.pdf> and <https://www.hotstar.com/id/movies/inside-out/1260018307/watch>.

There are also research methods. This is related to implementing a series of procedures that will be carried out in research such as collecting various steps, analyzing, and interpreting data. The research data were collected with the following procedure. First, the researcher was finding and determining the primary and secondary sources. Second, the researcher read the movie script and understand the cognitive development theory while watching the movie. Third, identifying the problem. Then, the researcher continues to interpret the data to support the problem. And the last step that the researcher do is analyze the result of the problems clearly. The collected research data were analyzed using the theory of children's cognitive development by Jean Piaget (1969).

RESULT AND DISCUSSION

Depictions of Riley's Cognitive Developments

Sensorimotor Stage

Sensorimotor cognitive development of a child develops from birth to about two years old. To explore and manipulated the world, babies employ action schemes such as sucking, pushing, hitting and grasping. Talking about the sensorimotor stage in the *Inside Out* movie, the depiction of Riley's cognitive development looks quite a bit as seen below:

A newborn baby swaddled in a blanket, held by her parents. Push in... and zoom in to her head. The baby gurgles and wiggles happily. (Int. Hospital – Day)

Riley, now age 3, barrels through the house pulling a wagon. (Int. Minnesota House – Day)

(00:01:05,160 → 00:03:01,441)

Based on the sentence above that in the newborn phase, the baby's brain has not been able to fully develop the ability to think, process information, communicate, remember things, physical coordination, and others. However, they learning about the sense of taste, hearing, sight, and smell. Babies can also focus on looking at moving objects, including the faces of people who are often with them, such as responding to environmental conditions by showing certain facial expression. Just like when Riley was born, she showed reflex actions by opening her eyes and

making sound because she was influenced by external stimuli such as hearing the words of her parents.

Preoperational Stage

This preoperational stage is divided into two parts, those are the development of symbolic (2 to 4 years) and intuitive (4 to 7 years) thinking. A child at the symbolic substage does not distinguish between individual objects and the categories to which they belong. In Riley's own case, she draws her imaginary friend called Bing Bong in the form of unusual animal. There is some evidence that is quite clearly illustrated below:

INT. MINNESOTA HOUSE

Riley draws. Pull back to reveal she's drawing on the wall.

♪ *Who's your friend who likes to play?*

♪ *Bing Bong, Bing Bong!*

(00:06:06,480 → 00:06:10,010)

EXT. LONG-TERM MEMORY

What exactly are you supposed to be? – Sadness

You know, it's unclear. I'm mostly cotton candy. But shape-wise I'm part cat, part elephant, part dolphin. – Bing Bong

Dolphin? – Joy

You got to remember, when Riley was three, animals all the rage. The cow goes moo. The horse goes neigh. That's all people talked about then – Bing Bong

(00:39:09,640 → 00:39:29,971)

According to Piaget in the explanation of Wadsworth (1989), the action is a form of self-expression with oneself as a listener. In this game, children form symbols and inventions that describe something they want. This is also a form in dealing with problems, moods, fears, identification, and others. As little Riley did above, she began to actively develop her exploration skills in drawing something unusual. The object of Bing Bong does look realistic but not proportional. However, it should be understood that realistic here is the thought of a child who wants to realize the basic concept of her imagination.

Next, it goes into the second substage called intuitive thinking which lasts from 4 to 7 years. According to Sujiono (2013), the ability to present objects and knowledge marks the beginning of the preoperational stage. In the intuitive thinking, children between the ages of 4 to 7 begin to explore grouping things through basic exercise, classifying, presenting objects and knowledge, and presenting conservation.

EXT. MINNESOTA LAKE – DAY

Six-year-old Riley skates across the ice backwards.

Hey! Very nice! – Mom

Where'd you learn that? – Dad

(00:06:10,680 → 00:06:12,444)

When a child reaches the formal schooling, a critical developmental period begins (6 to 7 years). This period is known as the conservation period, which indicates that it is a crucial age, namely the transition from preoperational to operational thinking. In this achievement, both of her parents are proud to Riley because she is able to prove the things she likes are getting better. They also support Riley's abilities by bringing her to a famous hockey team in her town. With a lot of support, a child will be increasingly convinced that the decision he chooses is the best for himself. At a young age, she prefers to do outdoor activities and learn to explore the outside world.

Concrete Operational Stage

This stage occurs between the ages of 7 to 11 years. According to Suparno (2001), the child's way of thinking has become operational at this time. When children reach the stage of concrete operations, their thinking processes become more structured into a broader system of mental processes, operations that make it simpler for them to think rationally. In Riley's case, Riley thought that she would live happily ever after in the city because she has got the best for her life ahead. As Joy said below:

INT. HEADQUARTERS

*And that's it. We love our girl. She's got great friends
and a great house. Things couldn't be better. After all, Riley's 11 now.
What could happen? – Joy*

(00:07:11,960 → 00:07:22,521)

The above quotation illustrates that the operational thinking in Riley is still concrete with what she is living now. The concrete operations that occur in Riley's thinking make her not consider the possibilities before trying to predict which ones will happen. She is still tied to her personal experience which is still concrete (full of happiness) and is not certain that it will continue as well as in the future. And it's come true that when her family moved to San Fransisco, she was so shocked by the reality she was facing. She had to learn how to deal with severe problems in her life at an early age.

Formal Operational Stage

The last stage of cognitive development is the formal operational stage. This stage can begin in early adolescence (11/12 years) and continues to develop into adulthood. Children can think more complexly and abstractly, and they are more likely to employ strategies. This is what happened to Riley. This was revealed when she made the following mistakes when she was 11 years old:

INT. SAN FRANSISCO DINING ROOM

I know you don't want me to but... I miss home. I miss Minnesota. You need me to be happy, but... I want my old friends, and my hockey team. I want to go home. Please don't be mad. – Riley
(01:21:44,320 → 01:24:22,530)

Her mind was still fixated on the things she missed about Minnesota because of the many wonderful memories she had while there. And when she moved to another city as a newcomer, she could not expect much about it. So, she tries to find a way out to return to the good old days. Riley had done something terrible to herself. This kind of thinking is characterized as a concrete operational stage. Children's logical thinking is still applied to something concrete. As a result, they often have difficulty solving problems with multiple factors.

Even though her actions were wrong, she was willing to admit her mistakes by speaking the truth. Riley realized that her actions would hurt her even more in the future. Needless to say, Riley was already 12 years old. She has gone through various experiences and changes that have made her better. This is as stated below:

We've been through a lot lately, that's for sure. But we still love our girl. She has great new friends, a great new house. Things couldn't be better. After all, Riley's twelve now. What could happen? – Joy
(01:26:01,080 → 01:26:13,400)

As life goes on, Riley's current condition makes her happier. Like the example above, Joy says for the second time that Riley has been through a lot lately, that's for sure. But her parents, friends, even her five emotions still love the girl. She has a great new friends, a great new team, a great new house, and more to come. Things could not be better than having a great support system built in. There will be many new experiences that will color Riley's life more beautiful than ever.

Influence of Riley's Cognitive Development Processes

Maturation

Biological maturation has an important role in cognitive development. Maturity greatly affects how a person perceives the world around him. This can be clearly illustrated by the factors that influence Riley's physical maturation and intellectual development are shown by comparing two events when she was a toddler and 11 years old:

INT. MINNESOTA HOUSE - DAY
Oh, I love Honesty Island. And that's the truth!
A guilty Riley stands by a broken place. She reveals a HAMMER from behind her back.
(00:05:41,880 → 00:05:45,40)

As a baby, children tend to tell the truth honestly. Like the example above shows that Riley admits her mistakes by telling the truth. In this phase, Riley's physical maturity and intelligence development are quite well formed, although her thoughts have not been challenged and her schemes have not been developed much. It was the role of her both parents who taught Riley to always act on honesty. This is one of the positive actions that Riley has instilled until she was 11 years old. The case below is evidence of Riley's physical maturity and intelligence development which progressed as she entered the formal operations stage:

I know you don't want me to but... I miss home. I miss Minnesota. You need me to be happy, but... I want my old friends, and my hockey team. I want to go home. Please don't be mad. – Riley
(01:21:44,320 → 01:24:22,530)

According to Piaget, a person's physical and structural maturity has greatly influence on their early cognitive development. Riley's physical maturation and intelligence development looks much more fully formed and functional. This happens as a result of Riley's assimilation and accommodation's of the schema of thought about the nature of honesty that has been linked to her.

Practice and Experience

This has a significant impact on children's cognitive development. Likewise, with Riley's experience of playing hockey in Minnesota. From the age of two, she has learned a lot from the experience of the game. It was a remarkable achievement for her period of cognitive development. This is evidenced in the conversation below:

Hey! Would you look at that? Very nice! We got a future center here! Nice job. – Riley's Parents
(00:04:55,080 → 00:05:05,686)

A child at the sensorimotor stage needs a lot of practice in using his sense so that his sensorimotor thinking continues to develop. Her parents trained Riley to provide the best experience for her future. In the conversation above she is already good at playing hockey and ice skating and can even score for the first time when she was two years old. Her parents didn't think she could do it. They were very proud of Riley's development of talent. This became a talent that she developed as a teenager. And she will never forget her experience while in Minnesota. With pleasure, she shared her experience in front of the class as follows:

INT. CLASSROOM

And how about Minnesota? Can you tell us something about it? – Teacher
Yeah, it gets pretty cold. The lake freezes over, and that's when we play hockey. I'm on a great team. We're called the Prairie Dogs. My

friend Meg plays forward. And my dad's the coach. Pretty much everyone in my family skates. It's kind of a family tradition. We go out on the lake almost every weekend. – Riley
(00:23:01,960 → 00:23:29,204)

According to Piaget, a child who has begun to think deductively and abstractly needs to get experience in using his critical thinking skills. And it happened on her. All her precious experiences she remembers in her core memory. She misses the atmosphere of playing hockey with her parents and her great team on the frozen lake. This role of practice and experience shows how valuable it is to Riley.

Social Interaction

The expression of social interaction and transmission are used to represent the influence of culture on children's thinking patterns in the terms of cognitive development. In this process, when Riley was a toddler, she learned a lot about language through activities she did every day like a normal child as shown below:

*She picks up a nearby MEMORY of young happy Riley coloring.
Do you remember how she used to stick her tongue out when she was coloring? – Joy*
*Another memory: Riley talking to a bug.
I could listen to her stories all day – Joy*
(01:08:06,080 → 01:08:24,409)

It is clearly illustrated by what Riley experienced. When she was a toddler, she was very active in terms of storytelling. She also enjoyed drawing at that time. With that, the language she learns is growing. Her knowledge of thought is also getting wider to learn every language she encounters around her. So, in this context, Riley has been able to actively manage, digest, and take the meanings she learns from the language of her parents and society in the form of social interaction and transmission. This also can support the development of knowledge and thinking.

Equilibration

According to Piaget, the fourth factor that has a significant impact on cognitive development is called equilibration. This is also known as a person's basic motivation, since it allows him to always try to improve his thought and knowledge. In this case, the equilibration that occurred in Riley was discussed from the moment Riley moved to San Francisco and everything changed drastically. However, it is a mother's role to help Riley's feeling be calmed. And it was found below:

INT. RILEY'S ROOM
Mom sits next to Riley.
Where's Dad? – Riley

On the phone. This new venture is keeping him pretty busy. Oh, your dad's a little stressed, you know, about getting his new company up and running. I guess all I really want to say is, thank you. You know, through all this confusion you've stayed our happy girl. Your dad's under a lot of pressure, but if you and I can keep smiling, it would be a big help. We can do that for him. Right? – Mom
Yeah, sure. – Riley
(00:17:22,240 → 00:18:03,166)

As stated in the conversation above that Riley was eager to get angry because she was not immediately noticed by his father. But the moment when Riley paid attention to what her mother had said, it made her much calmer. As a parent, a mother can only support words and feelings for her children. This can motivate Riley to be more enthusiastic in developing herself to be better. And it can also be said as an example of self-regulation to achieve an equilibrium in the thought process.

CONCLUSION

The researcher concludes that this study integrates and describes Piaget's theory of cognitive development in children which is used to analyze the data after evaluating the results and discussion in the previous chapter based on the main character of *Inside Out (2015)* movie as data. In the development of her inner character, Riley Andersen understands that her growth from infancy to eleven years is influenced by the process of cognitive development.

The researcher have briefly explored Piaget's theory of cognitive development in this study. Cognitive development in Riley Andersen is analyzed in stages, starting from the sensorimotor stage to the formal stage and has been discussed step by step. In addition, there are several factors that influence the process of cognitive development in Riley Andersen. Four influencing factors include maturation, practices and experience, social interaction and transmission, and equilibration. Each has its own influential role for Riley's cognitive development. Riley grew into a better teenager and tried new things to come. Her parents and friends also played an important role as a great support system for Riley's life.

BIBLIOGRAPHY

- Krug, M., Schlüter, J., & Schluter, J. (Eds.). (2013). *Research methods in language variation and change*. Cambridge University Press.
- Piaget, Jean, and Barbel Inhelder. (2008). *The Psychology of The Child*. Basic books.

Sujiono, Y. N. (2013). *Konsep Dasar Pendidikan Anak Usia Dini*. Jakarta: Indeks

Suparno, Paul. (2001). *Teori Perkembangan Kognitif Jean Piaget*. Kanisius.

Wadsworth, B. J. (1989). *Piaget's Theory of Cognitive and Affective Development* (4th ed.). New York: Longman.

<https://www.hotstar.com/id/movies/inside-out/1260018307/watch>

<https://www.scripslug.com/assets/scripts/inside-out-2015.pdf>