

Online version available in: http://jurnalvivid.fib.unand.ac.id

Vivid: Journal of Language and Literature

| ISSN (Online) 2502-146X |



Linguistics

Emotions vs Colours: A Semiotics Study

Evelyn Theodora Hasiana¹, Mia Fitria Agustina², Ririn Kurnia Trisnawati³

¹English Department, Universitas Negeri Semarang, Semarang

^{2,3} English Department, Universitas Jenderal Soedirman, Purwokerto

SUBMISSION TRACK

Recieved: April 20, 2022 Final Revision: December 15, 2023 Accepted: January 20, 2024 Available Online: May 30, 2024

Keyword

Emotions, Colour, Semiotics, Sign, Inside Out

Correspondence

E-mail: mia.agustina@unsoed.ac.id

ABSTRACT

This study aims to determine the meaning and relationship of colour with five human emotions in the film entitled Inside Out. Inside Out is an American animated film directed by Pete Docter and produced by Jonas Rivera, released in 2015. The qualitative method is used to evaluate this research because it can be used to focus on an interpretive, naturalistic approach to its subject matter. The primary data is taken from the film Inside Out. Secondary data would be gathered from any sources related to semiotics theory on the relationship between colour and human emotions, as well as to eliminate unnecessary data and solidify the research. Riley Andersen, the main character, was born in Minnesota, and the five manifestations of emotion in her mind are Joy (yellow), Sadness (blue), Anger (red), Disgust (green), and Fear (purple). These emotions reside in Riley's mind's Headquarters, where they set Riley's state of action and turn it into a memory. Therefore, each character with a specific color is challenging to be studied further. It begins with an overview of each color and emotion before delving into the specifics of the relationship between these emotions and the colors associated with them. This study employs Roland Barthes' semiotic theory, which has three aspects containing denotation, connotation, and myth, interpreting signs. To learn more, it is necessary to dig into the changing history of society's association of these colors with these five emotions. Finally, this study is hoped to inspire the animators to use specific colors to describe the characters' emotions.

I. INTRODUCTION

A film's color palette can help tell a story. It elicits certain emotions in viewers, such as the use of red blood in horror films or the color green for jealousy. The film's colors also help to draw the user's attention to specific details, such as the red handles on the white doors. Color has the power to set the tone for an entire film (Rothstein, 2020). Colour has the ability to effect audience emotionally, mentally, and even physically, without being aware of it. A well-designed cinematic color palette generates emotion and establishes the tone for the characters in movie. This is demonstrated by Stanley Kubrick's directing style, which heavily relies on color to create highly memorable images and scenes. Kubrick is a filmmaker who understands that color has a direct and powerful impact on the audience when used in mise en scene. Here are the color palette details in total (Mary, 2020). These matters can also be found in the movie Inside Out (2015) which was directed by Pete Docter and co-directed by Ronnie del Carmen. Therefore, understanding and knowing how to use color is fundamental to create art and illustration, especially when designing characters that need to convey feelings, personality traits, behavior, and historical context. This because the way we create characters and choose their colors determines who the audience will be (Criscuolo, 2020). Why color cannot be freely judged is proved by the fact that color becomes an identity. It can even be interpreted to mean that the way different colors can affect emotions largely depends on brightness, hue. A person's hue or tone depends on color and whether it is cool or warm. As an example,

DOI: http://dx.doi.org/10.25077/vj.13.1.23-36.2024

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a group of red colors known as warm colors, including red, orange, and yellow. This color group evokes a variety of emotions, from warmth and comfort to anger and hatred. Humans use it to make it easier to identify symbols of human emotions. Red is passionate, warm and vibrant. Why color cannot be freely judged is proved by the fact that color becomes an identity. It can even be interpreted to mean that the way different colors can affect emotions largely depends on brightness, hue. A person's hue or tone depends on color and whether it is cool or warm. As an example, a group of red colors known as warm colors, including red, orange, and yellow. This color group evokes a variety of emotions, from warmth and comfort to anger and hatred. Humans use it to make it easier to identify symbols of human emotions. Red is passionate, warm and vibrant. Red is also fine. It can raise a person's heart rate. It is considered the color that causes the strongest emotions compared to other colors. Red is considered powerful. Red is a passionate color, but it is also associated with revenge and anger. People often have red faces when they are angry. Therefore, in many cultures red is associated with anger.

Semiotics establishes the meaning of the symbolic, iconic and indexical sign. The semiotics of color determines the meaning attached to the sensation experienced by the observer when looking at the color of such signs (Meulen, 2019). Barth's theory is the development of semiotics. This role is the reader who will bring up various perceptions about the meaning of a color in the characters in the film. This meaning can be seen from three aspects, namely denotation, connotation, and myth analysis of image objects. In this theory, the role of the reader is the most important research content. Meaning of Denotation is the basic meaning that exists in the image without relating it to the socio-cultural values that is in it. This meaning is the meaning that exists at the first level of the system semiotics. While Conotation it describes the interactions that occur when signs meet users' emotions and emotions, and their cultural values (Fiske, 1990) Roland Barthes states that "meaning is a system that itself contains a signifier, signified and as the process which unites the former to the latter (Barthes, 1968). Myth, according to Roland Barthes, is based on human history and cannot occur naturally. Myths always have some sort of communicative intent. Myths are easily changed or destroyed because they are created by people. In addition, myth is dependent on the context in which it exists. The myth's effect can be altered by altering the context. Hence, using semiotics theory on color aims to help determine and placement the right meaning in colors that can greatly affect human emotions and behavior.

The use of colors in *Inside Out* is challenging to study further using Barthes's semiotics theory. Therefore, this study attempts to bridge the relationship of colors and its meaning to five human emotions. From this research, it is hoped that readers can add insight into the process of definition and the relationship between color and emotion through semantic theory. Such as how colors afffect mood & emotions. The impact of these influence give real meanings that make color a representative of every human emotions. Through color, humans try communicate something in a non-verbal way. According to Barthes, signs had both a signifier, being the physical form of the sign as we perceive it through our senses and the signified, or meaning that is interpreted.

II. METHOD

This paper identifies and evaluates qualitative methods that are suitable and relevant with the relationship between color and the five emotions in humans. As stated by (Denzin, 1994), qualitative research is multimethod in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them. This method is typical of the sciences humanity and many of them such as narrative analysis and genre analysis have been developed for the study of literature. The purpose of qualitative research is to understand human social and cultural realities as nearly as possible to those felt or experienced it by the participants. According to Bogdan and Biklen (1982), as cited by (Sugiyono, 2015), qualitative research methods are conducted in natural settings and directly on the data source. The method's data collection Qualitative research collects information in the form of pictures or words rather than numerical data. The qualitative approach is expected to be able to describe and describe an individual's, groups', and communities' complex reality. The goal is to comprehend the meaning of the problem under consideration.

Data analysis in this study consisted of several steps. The first step was watching and re-watching the *Inside Out* movie several times to understand the whole story. The second step was identifying the five colors on the respective characters for analysis. The third was to collect secondary data sources related to semiotics theory on the relationship between color meanings and human emotions, as well as to reduce unnecessary data and solidify the research.

After gathering all of the essential knowledge, the researcher used the characters in the film to interpret and evaluate the five colors. Based on Roland Barthes' semiotic theory, it is aimed at understanding the deep significance of colors and their connection with five human emotions, as well as signifier and signified. Finally, the conclusion brought the research's ideas and analyses to a close.

III. RESULT AND DISCUSSON

In this discussion and research section, there are five character colors of Inside Out that will be analyzed. They are reddish, yellow, green, blue, and purple. The semiotics theory of Roland Barthes is employed to determine the significance of each colors. The application of Barthes theory is related to understanding the meaning of a sign based on the signifier and signified.

Red: The Color Influences Our Anger

Red is a color that is seen or perceptible to the human eye in the lowest frequency of light. The wavelength of red light is between 630 and 760 nanometers. Red is one of the primary additive colors, and it is the complementary color to cyan (blue-green). Red was once thought to be a subtractive primary color, and it is still sometimes depicted as such in unscientific writings; however, cyan, magenta, and yellow are now known to be closer to the subtractive primary colors detectable by the eye, and they are used in modern color printing. Red represents assertiveness, courage, perseverance, energy, strength, enthusiasm, impulsiveness, attractiveness, and aggression. Red is associated with physical energy, lust, passion, and desire. This action's color represents confidence and courage. The color red is associated with the most basic physical and financial needs for survival and self-defense. Red is also a very striking color that can quickly draw attention and cause people to make snap decisions, which is why fire engines are usually painted red. A flashing red light indicates danger or an emergency, whereas stop signs and stop lights use red to alert drivers of potential crossing hazards.

Another thing needed to be explained is anger. Anger is an emotion felt when something or someone does something that you do not want. Anger can be felt by anyone and is a normal person's reaction to an event (Faradiba, 2021). Anger, according to science, can cause several changes in the body right away. Some aspects of the body are improved as a result of the changes that occur. Energy consumption, blood pressure, adrenaline and noradrenaline hormones, body temperature, and muscle tension are all factors to consider. Other people can tell if you are feeling these emotions. Raised voice, clenched fists, locked jaw, shaking, sweating, and rapid movement are some of the symptoms that can be observed. There are two types of anger: implicit anger (anger in) and explicit anger (anger out). Anger in, particularly anger directed at oneself, can lead to depression and the emergence of hatred. Meanwhile anger out is angry behavior that is expressed by psychologically harming the target person. Examples include emotional speech, cursing, insulting, treating people differently, and belittling them. People with antisocial personality disorder are unable to control their anger and constantly accuse those around them of causing problems.

In *Inside* Out, anger is a character associated with red color. The red character in it has a grouchy, explosive, cynical, caring, hot-tempered, impatient, good-hearted, serious, cocky, feisty, conscientious, fearless personality. He was known for his fists and fiery head, which became the attraction of this character. Angry character in this film are described as liking a variety of activities, including reading newspapers, watching scary movies, eating dessert, curse words, things being fair, and anything that does not irritate or upset him. Aside from liking things, he dislikes things like Fear bumping or touching him, being touched, broccoli, Disgust making fun of him, not getting dessert, the Tripledent Gum jingle, Riley being taken advantage of, and anything else that annoys or irritates him.

Therefore, it is interesting to figure out the relationship between the anger character in *Inside Out* and real life. Angry in *Inside Out* is represented by a red character. The angry red character is symbolized as human anger. Red is associated with physical energy, lust, passion, and desire. It represents action, self-assurance, and bravery. The color red is associated with the most basic physical, emotional, and financial needs for survival and self-defense (Bourn, 2011). According to research, the color red can cause physical effects such as increased blood pressure, libido, metabolism, increased higher energy levels, and increased self-confidence. There is a biological basis to the relationship between the color red and anger. When people are angry, their faces turn red due to increased blood flow.

The application of denotation to the red character in *Inside Out*, according to Barthes's theory, demonstrates Riley's anger. Riley's first angry emotion was shown when she was 3 years old when her father wouldn't give her dessert because she refused to eat broccoli. Riley loves sweets and was disappointed when she learned that his father would not provide her with dessert. This elicits a reaction from Riley's angry characters. This is illustrated by: "So *that's how you want to play it, old man? No dessert? Oh, sure, we will eat our dinner, right after you eat this! Grrrrahhhh!!!!"* Anger takes the controls as flames blast out of his head. An anger memory (red) rolls in. When the anger character presses the console to signal an angry reaction to Riley. Riley throws a fit. Dad distracts her. (*Inside Out*, 2015, on 03.58)

Another proof, when Riley and her parents had dinner together that night. They inquired about his first day of school in San Francisco. Joy, the leader in charge of the five emotions at headquarters, vanishes through a tube that carries her to long-term memories. As a result, an angry character takes Joy's place. When her parents ask her about her first impressions at her new school, she recalls an embarrassing incident in class when she introduced herself to her classmates. Riley's Headquarters Anger, flames and yell at full blast, pushes up the levers). Riley's reaction was angry because he remembered the embarrassing ha and didn't want to talk about it. "Just SHUT UP!" Riley shouted at her father which shocked her mother and father and found it rude. Finally her father became angry and told him to come into the room. Riley entered the room annoyed and irritated.

The application of connotation to the red character in *Inside Out*. In this film, the angry red character's connotation is *jealousy*. Riley was on a video call with an old friend in Minnesota at the time. Riley asked Meg's hockey match. Meg was overjoyed to talk about it because their team had won, and she admired the new member of their team who turned out to be good at hockey. Riley was envious because her best friend admired another friend. "*I GOTTA GO!*" Riley slams down the computer, her angry eyes bulging and scowls. Riley's expression are jealous and annoyed with her friend at this point, as her best friend Meg admires her new friend on the hockey team. (*Inside Out*, 2015, on 36.26).

Red is associated with assertiveness, courage, and enthusiasm. The color red is associated with the most emotional, and needs for survival and self-defense. This is proven when Riley's emotions of joy and sadness disappear when the characters of the two characters are sucked from the tube of long term memories due to the struggles they both have in choosing the core memory. Riley Headquarters is devoid of all emotions except anger, fear, and disgust. They were all perplexed as to how to control Riley's emotions because Joy's character as a leader always did. During this critical situation, the angry red character mustered the assertiveness, courage and enthusiasm to stay with the disgusted character, even though he was terrified of making Riley happy at any cost. All of Riley's good memories exist only in Minnesota, and the angry red character wants to make those memories even more. The second discussion is red because it is symbolized by anger, which sometimes leads to a hasty decision, which sometimes leads to the wrong final decision. The red character here wants Riley to go to Minnesota, a place full of Riley's beautiful memories that led Riley to leave the house without telling her parents by ordering bus tickets and secretly taking his mother's credit card to pay for the bus ticket which this also made betray her honesty to the parents. Riley's Mom and Dad's decision, according to the anger character, got Riley into this mess. Riley's Mom and Dad's decision, according to the anger character, got Riley into this mess. Her concerns surfaced in her mind as she pondered her decision, but when an angry character pulls a lever, her face instantly changes and she is full of confidence to leave the house. Riley then quickly packed his belongings. Riley made her way downstairs. Then, in the morning, mom and dad greeted and

cheered Riley, but she left and did not respond to her parents. (Inside out 2015 on 01.00.02)

The application of myth to the red character in *Inside Out*, according to Barthes's theory demonstrates Riley's anger. Red has been used to tell stories and evoke emotions throughout evolution and thousands of years of human civilization. This is what clarifies and understands aspects of the relationship between the color red and anger. The red anger character in the film *Inside Out* contributes to and builds a human perspective that the color red represents anger. Humans can easily determine it using this method. Apart from that, this is the concept of human comprehension that has been proven. Several other films, including Inside Out, use red to represent angry characters. In the *Star Wars* film despite the fact that all weapons are lethal regardless of who wields them, colors have different meanings to the Jedi. Criminals frequently wear red because it represents anger and violent instincts. Blue, which is associated with serenity or fidelity, is another popular color for lightsabers. We quickly develop the ability to distinguish between good and evil based solely on color when we watch movies like these (Hiller, 2021).

Thus we can conclude from the red anger character in the film *Inside Out*. In reality, the color red is visible to the eye because it is a color that can be seen or perceived by the human eye at the lowest frequency of light. Red light has a wavelength of 630 to 760 nanometers. However, red is also related to human anger. because people's faces turn red when they are angry. The role of the angry red character in Inside Out helps us understand how that meaning manifests in real life through the actions of Riley's anger.

Yellow: The Color Influences Our Joy

Yellow and joy are two important concepts that must be explained in relation to this subchapter. Yellow light stimulates the red and green cone cells in the retina of the human eye but not the blue cone cells. The wavelength ranges from 565 to 590 nm. Yellow, along with magenta and cyan, is one of the three subtractive primary colors. Yellow can be found in a variety of foods, including egg yolks, lemons, sunflowers, suns, and bees, as well as colors commonly used on street signs. Initially, yellow was one of the first colors used in the art world in Ancient Egypt. At the time, the locals painted the gods yellow because the color yellow represents gold. Then, joy is something or someone that makes you feel happy or gives you great pleasure. In general, joy can be defined as a sense of fulfillment with one's life (happiness). Yellow is a symbol of imagination, intelligence, and happiness in psychology. Yellow lovers are the type of people who are daring, have keen intuition, and have good opportunities in their business or profession. Not only that, but yellow is a color associated with intelligence. It can also mean both optimistic and impatient and cowardly. Yellow is associated with sunlight, which is a source of warmth and happiness in almost every culture around the world. Yellow is the color most often associated with God in some religions, such as Hinduism and ancient Egypt. It's not just in Indonesia. Yellow is also one of the colors used on traffic signs, which means to be cautious when driving. In Japan, the color yellow is frequently associated with bravery.

Another thing needed to be explained is Joy. Joy is an emotional state characterized by feelings of pleasure, contentment, and satisfaction. While happiness can be defined in a variety of ways, it is frequently described as involving positive emotions and life satisfaction (Cherry, 2022). When most people talk about happiness, they may be referring to how they are feeling right presently or to a more general feeling about how they feel about life overall. Such as laugh every day (It's better than money) We spend time laughing every day or go out of our way to find amusing things to laugh about, nd that's a good thing. When you laugh, you release oxytocin and endorphins, which are happy hormones. These are hormones that make us feel better when we share our experiences with others. Simply making yourself smile will put you in a better mood. Laughter is thought to release these hormones in order to promote social bonding, so try getting together with friends for a good dose of laughter as well as increased social connection. These are the things that bring you happy (Calhoun, 2021).

In *Inside Out,* Joy is the main protagonist of the film. She has yellow-ish skin, blue eyes and pixie cut blue hair. She also has a blue, purple, white and yellow glow around her body. Joy wears a lime green dress, speckled with blue firework-style flowers, that goes to her knees. She walks barefoot. She is the leader of the emotions and always strives to remain joyful, hence her name. She is cheerful, optimistic,

and determined to find fun in every situation. Joy's goal has always been to make Riley happy. Joy sees Riley's challenges as opportunities, and her less happy moments as roadblocks on her way back to something great. Joy is happy as long as Riley is happy. Joy, as the name implies, is the essence of happiness and joy, and as such, she prefers to look on the bright side. She is the most ancient of all emotions. She values Riley's happiness so much that she does not want any of the other emotions to have an impact on Riley. Joy was the first emotion Riley experienced when she was born. She then proceeded to the control panel, which had only one button at the time. Riley began to smile as soon as he pressed it. She doesn't want Riley to be sad, even if even if she has to be. As a result, Joy is the least adaptable and most commanding of the five emotions. She treats Sadness as a problem that needs taking care of, because she does not understand why Sadness is a necessary emotion due to wanting Riley to be happy all the time. When Bing Bong lost his wagon and was grieving, she wanted him to not be sad when he had to be and tried doing childish and silly things to get him to stop without understanding that cheerfulness is not always what a sad person needs. She is not above lying, as she told Fear that earthquakes don't exist, when they really do.

The relationship between the Joy yellow character in the film *Inside Out* and real life. The philosophy of the color yellow is always associated with joy, happiness, and optimism in the world of psychology. Yellow is frequently used in therapy to relieve stress or to control emotions. According to the website colorpsychology.org, yellow can elicit feelings of energy, optimism, self-confidence, and pleasure. This is because it has been discovered that when we are surrounded by yellow, the brain can release the hormone serotonin. Serotonin hormone helps to affect the mood to be better. This is why the yellow color philosophy has always been associated with joy. The yellow color philosophy can be seen in a person's personality by having a great deal of self-confidence and always being cheerful. Furthermore, people who prefer the color yellow are more likely to be perfectionists because they have high expectations of themselves. Being a perfectionist causes them to meticulously plan everything, making them ideal leaders. This is demonstrated by the yellow joy character inside out that Joy, as her name implies, is the very essence of happiness and perkiness, and as such, she prefers to see the bright side of things. Joy's goal has always been to make Riley happy. She is cheerful, optimistic, and determined to find fun in every situation. Joy sees Riley's challenges as opportunities, and her less happy moments as roadblocks on her way back to something great. Joy is happy as long as Riley is happy. She values Riley's happiness so much that she does not want any of the other emotions to have an impact on Riley. Threfore, Joy is the least adaptable and most controlling of the five emotions. . She believes she can handle anything and, as a result, Joy realized during her time in the Memory Dump that Sadness is very important in Riley's life and that she went way overboard in trying to keep her happy. Riley requires all of the emotions to function, so she decides to let them do their jobs and stop being so bossy all of the time after reuniting with them.

The application of denotation to the Joy yellow character in *Inside Out*, according to Barthes's theory demonstrates Riley's joy. Episodic memory is memory about events that have been personally experienced by individual in the past. For example memory about one's childhood experiences. Because everyone has a different perspective and experience of an event, their episodic memory of that event is unique. Joy yellow character creates Relay's core memories with fun and happy things.

Hockey Island

"Each one came from a superimportant time in Riley's life. Like when she first scored a goal? That was so amazing!" Joy Two-and-a-half-year-old Riley shoots a hockey puck across the ice. She trips and accidentally scores a goal. "Heeey! Would you look at that?! We got a future center here!" Mom/Dad (cheering). Riley scored her first hockey goal at this time, despite tripping as a result of the ice slipping. It made her so happy to hear her parents' screams of joy and support. This is saved and becomes a beautiful memory; this, along with her talent, is what makes her love hockey because she has a wonderful impression when she first plays hockey. That lovely impression has always inspired her to play hockey to this day.

Goofball Island

Toddler Riley runs naked from the bathroom, underpants on her head, laughing wildly. Dad chases her with a towel. "Come back here, you little monkey!" Dad (Naked Riley does the goofy dance on the sofa). Riley, a toddler, runs around happily after leaving the bathroom without her clothes, while her father chases her. She appears to be having a good time catching up with her father while dancing in the family room. Riley's packing behavior creates an amusing atmosphere.

Friendship Island

Depicts when Riley and Meg are holding on to each other while learning to walk together. They walked with care and full of laughter. Childhood memories will never be forgotten. The days and times we spent as children will be forever etched in our minds. Riley's desire to begin attempting to walk with his friend was the sweetest moment to remember. Because having close friends as a child can help them develop life skills, wisdom, and self-confidence. Having peers and friends from childhood will assist children in communicating common worries, dreams, and fears as they grow older.

Family Island

The family decorate cookies together. Riley stuffs one into Dad's mouth. When riley and her parents eat together. Moments of happiness appeared when Riley put a donut in her father's mouth. It made her mother laugh when she saw Riley's cute behavior. Mealtime is an important time for both parents and children to bond together. As new members in the family, moms and dads can make little one feel happy by creating a moment to eat together, because bringing little one to eat together at the dinner table is one way to build bonds with him, it also increases the possibility of your little one trying new foods. Apart from creating quality time with family, eating together is also an easy and effective way to stimulate your little one's social and emotional development (Wibowo, Menciptakan Momen Makan Bersama Menyenangkan buat si Kecil, 2021)(Inside Out, 2015, on 05.00).

For another example memory about one's childhood experiences. Joy's character is very influential in making Riley's mood happy. Riley had an imaginary friend named Bing Bong when she was three years old. Riley's mind is occupied by Bing Bong, a sweet imaginary friend she created as a child. Flash cuts of their adventures: *Riley bangs on pots and pans, Bing Bong plays his trunk. "I went to all of your concerts." Joy "Yeah, I blow a mean nose." Bing Bong When little Relay is happy, she bangs on the pot as if playing drums with Bing Bong, who appears to be blowing a trumpet with his trunk. Bing Bong runs on ceiling, Riley chases after him. Watching you play tag was such a treat. Joy Two-time world champ. Bing bong here describes when Riley was very happy playing chase with Bing Bong. Bing Bong running on the ceiling. Riley and Bing Bong sit in her wagon ("rocket"). When Riley and Bingbong sat in her wagon together. Consider the wagon to be a rocket that emits a rainbow. Riley and Bingbong then sing together. (Inside Out, 2015, on 38.48)

The application of myth to the Joy yellow character in Inside Out, according to Barthes's theory demonstrates Riley's joy. The philosophy of the color yellow is always associated with joy, happiness, and optimism in the world of psychology. Yellow is frequently used in therapy to relieve stress or to control emotions. This is because when we are surrounded by yellow, it turns out that the brain can release the hormone serotonin. Serotonin hormone serves to affect the mood to be better. This is the reason why the yellow color philosophy has always been a symbol of happiness. The yellow Joy character in the film Inside Out contributes to and builds a human perspective that the color yellow represents joy. Humans can easily determine it using this method. All emoticons with happy faces are always colored in yellow. In addition to the *Inside Out* film, the yellow color symbolizes as joy is also shown in the SpongeBob SquarePants character. Sponge Bob is a cheerful sea sponge with an enjoyable, hyperactive, clueless, and childish personality. Moreover, this is especially true in society, where all happy-faced emoticons are yellow, whether on stickers or via messaging apps.

Hence, yellow light stimulates the red and green cone cells in the retina of the human eye but does not stimulate the blue cone cells. The wavelength ranges from 565 to 590 nm. In addition, the yellow color is symbolized as human happiness. Lighter colors are regularly associated with happiness, novelty, newness, and intelligence. As a result, people believe that the brightest yellow produces the happiest and most exhilarating feelings. Brightness is associated with the sun, life, and happiness. Yellow is also a

member of the warm colors. Warm colors often evoke feelings of happiness, optimism, and energy.

Blue: The Color Influences Our Sadness

There are two important things needed to be explained dealing with this subchapter which are blue and sadness. Blue, along with red and green, is one of the three additive primary colors. Blue is a color that exists between cyan and indigo. Blue light has a high energy, high frequency, and a short wavelength ranging from 450 to 495 nm. Blue is the color of the sky and is frequently used to describe the color of water, such as the sea. Because blue light is mostly scattered by molecules in the atmosphere, blue is the color of the sky. According to color psychology, the color blue represents calm. Blue represents patience and understanding, which is why people often feel at ease when they are surrounded by it. When our patience is depleted by excessive emotions, we are encouraged to decompress in blue. It is also frequently associated with the ocean, which adds to its calming effect. Sadness is usually brought on by certain events, such as loss, loss of a partner, or betrayal. People who are depressed are usually able to identify what makes them happy.

Sadness is the deuteragonist of the film Inside Out. Sadness (also known as depression) was the first born emotion when Riley was a baby; she meets Joy, the first born emotion, there. Joy pushes her aside and corrects the situation after she causes Riley to cry. Sadness is the literal definition and existence of sadness and doom. Other emotions would not let Sadness take the helm at all, no matter how deplorable the situation was. But secretly, Sadness is eager to earn his place among other emotions, even though others don't believe that Sadness has a purpose in mind and almost always prevents her from trying. Sadness also complains a lot, as evidenced by her repeated declarations that she is too sad to walk or do anything. Despite her perpetual pessimism and negativity, she is very considerate and compassionate towards others; when Bing Bong was upset because he had lost his wagon, she sympathized with him and allowed him to express his true feelings, which made him feel much better. Unbeknownst to Riley, this was due to Sadness' true purpose - her role was to alert others when Riley needed attention. When Sadness is asked to take control after Riley's sadness becomes apparent, she can allow Riley to express her true feelings while ultimately assisting Riley in finding happiness.

The relationship between the Blue Sadness character in the film Inside Out and real life. Blue is thought to evoke feelings of sadness or loneliness. It can appear lonely, sad, and forlorn in paintings that heavily emphasize blue, such as those produced by Picasso during his "blue period" (Cherry, The Color Psychology of Blue, 2020, 2020). The blue character of sadness in the Inside Out causes Relay to cry due to emotional conditions, such as when she was a toddler, and this is a form of expressing things she dislikes. Flash cuts of Riley crying: broken toy, spilled ice cream, tantrum in the supermarket, wanting out of her car seat. Moreover, Riley was asked to introduce herself and tell her teacher a little about Minnesota, and she did so excitedly and happily because Joy's character had brought her into a beautiful memory, but things changed when the blue character of sadness came and touched the core memory ball. This is demonstrated by the blue sadness character, who touches turns memories into sadness by touching the core memory ball. Riley's voice slowed instantly as she remembered her family's situation, which had begun to change since they moved. The tears then flow.

The application of denotation to the Blue Sadness character in Inside Out, according to Barthes's theory demonstrates Riley's sadness. Riley was asked to introduce herself and tell her teacher a little about Minnesota, and she did so excitedly and happily because Joy's character had brought her into a beautiful memory, but things changed when the blue character of sadness came and touched the core memory ball. This is demonstrated by the blue sadness character, who touches turns memories into sadness by touching the core memory ball. Joy smiles. Then, mysteriously, the image turns blue "But everything's different now. Since we moved..." Tears stream down Riley's face. When the enjoyable things we used to do appear to have vanished from our life, our emotions react with grief and tears. This is also what causes sentimental feelings to arise when we miss having fun with the people we love about. (Inside Out, 2015, on 23.03).

The application of connotation to the Blue Sadness character in Inside Out, according to Barthes's theory demonstrates Riley's sadness. The color blue is associated with wisdom, intelligence, and truth,

Blue is thought to be good for both the mind and the body. This color reduces human metabolism and has a calming effect. Blue is associated with intelligence and awareness. This is proven in the film, sadness character is also smarter and has more common sense than the others, which proves to be wise as it makes its way through Riley's mind. As they are on their way back to headquarters, she keeps trying to warn Joy of the dangers of taking Bing Bong's "shortcuts," which is truly a dangerous place to walk. She also suggests scaring Riley in order to wake him up, but Joy believes that giving him a pleasant dream will do the trick, which it does not. Joy does not believe Sadness' words and instead persuades Sadness that the shortcut suggested by Bing Bong is a safe and quick way to get to headquarters. They finally entered the shortcut door. Strange shapes float into space as they enter around them. Bing Bong's head turns into a Picasso-like form. Joy and Sadness scream as they become Cubist versions of themselves. Turns out they were abstracting. There are four stages, the first is non-objective fragmentation, here it describes Joy's head falls off. Sadness' leg goes. She toples. The second deconstructing, Bing Bong falls into pieces. He can't feel his legs because his disassembled arm finds them. The third is two-dimensional, they change into flat color versions of themselves. Sadness and Bing Bong follow and try to squeeze through, but because of the broken perspective, they are now all huge compared to the door and the last one is nonfigurative, they abstract into abstract colored. They follow Sadness and inch safely out the window. The three transform back to normal. (Inside Out 2015 on 40.56)

The application of myth to the Blue Sadness character in Inside Out, according to Barthes's theory demonstrates Riley's sadness. Blue is associated with rain in Greek mythology. When Zeus was angry, he would create a storm, but when he was sad or crying, he would make it rain. As a result, there is a link between the color and the feeling. Let's go back to the 14th century. Geoffrey Chaucer used the word 'blewe' in his poem "The Complaint of Mars" in 1385. He writes: "Wyth teres blewe, and with a wounded herte. Which translates roughly as "With tears blue and with a wounded heart" The explanation here is simple. Blue is associated to tears and hence, sadness. Following that, it grew until A Classical Dictionary of the Vulgar Tongue (1785) defined Blue as "looks blue; becomes confused, scared, or disappointed." (Mehrotra, 2017). This understanding is growing in society, and it associates the color blue with feelings of sadness. Finally, a word that combines the two meanings of "feeling blue" was created. Through its blue feature, this sadness character makes it easier for the audience to remember and symbolize the sadness character. In addition, plus the appearance of Eyesore is the donkey character in the Winniethe-Pooh fable written by AA Milne. This character is described as pessimistic, gloomy, and unhappy, as well as being a close friend of Winnie-the-Pooh. Eeyore is also blue-colored. Eeyore, who resided in the Hundred Acre forest area known as "Eeyore's Gloomy Place: Somewhat Boggy and Sad," is known for his perpetually gloomy mood. Despite her depressed mood, she exhibits some of the other primary symptoms of depression.

Hence, blue, along with red and green, is one of the three additive primary colors. Blue is a color that exists between cyan and indigo. Blue light has a high energy, high frequency, and a short wavelength ranging from 450 to 495 nm. Blue can also be associated with human sadness. This is demonstrated by the blue character of sadness in the film Inside Out, who responds to the term "feeling blue," which the community believes is a depiction of sadness.

Green: The Color Influences Our Disgust

There are two importants things needed to be explained dealing with this subchapter which are green and disgust. Green, is one of the secondary colors produced by the combination of yellow and blue, and it is a complementary color to magenta. The term "green" here primarily refers to trees and leaves. Therefore, the color green is often also synonymous with the universe, the environment and natural situations. Disgust is something that is disliked (nausea, for example) because it is filthy, vile, or similar. According to Dr. Valerie Curtis of the London School of Hygiene and Tropical Medicine's research, the following are some common things that can cause feelings of disgust. Things that the body expels, such as vomit, sweat, spit, blood, or mucus. On the body, there are open sores or rashes, water that is dirty or polluted, food that has gone bad, especially rotten meat and fish, rubbish, and flies, maggots, fleas, worms, or mice are examples of living things. Why is it that we can be disgusted by something? This

is a very complex and complicated emotion, and the brain plays a role in generating these feelings. The insula anterior is the part of the brain that processes these feelings. This area of the brain also deals with empathy and how the body protects itself from things that make you feel uneasy. Because fear is in those same parts of the brain, you can now keep your self-disgust in check, especially if it's for a good cause that doesn't pose a threat. The trick is to empathize with whatever is causing the emotion.

Disgust is one of the four tritagonists of the film Inside Out. Riley is saved from being poisoned both physically and socially by Disgust, who has strong opinions and is completely honest. She keeps a close eye on the people, places, and things Riley comes into contact with, whether it's broccoli or last year's fashion trend. Disgust always has the best of intentions and refuses to lower her standards. Disgust appearance the latest fashion trends, celebrities, fashion, getting her way, expensive items, Fashion Island, teasing her friends at the expense. There are some things that disgust dislikes like stuffing something in his teeth, broccoli, and being unattractive. Eating objects on the ground, becoming ill, dog food, vomiting, inanimate objects, nail clippers, dung beetles, and fire.

The relationship between the Green Disgust character in the film Inside Out and real life. As we all know, the color green is associated with nature because it refers to trees and leaves. It turns out that, in addition to having a meaning associated with nature, the color green also has meanings associated with our lives. This meaning exists to serve as the inspiration for the green-colored disgust character. The director/producer uses the color green as a symbol of disgust because, according to his best guess, green is the color that our skin exhibits when we consume poison or food poisoning. Furthermore, high contrast is required for colors to help viewers quickly discern the emotions they are presenting. The implementation of the disgust character in real life is critical because there are still some people who eat food without paying attention to what they eat. One thing that goes unnoticed is the food's condition; is it still edible or has mold grown on it? Moldy food is actually no longer safe to eat because it is harmful to the body. The role of disgust is to pay close attention to the food consumed before eating it; this is critical. The disgusting reaction that humans have when they see green mushrooms on green indicates that the food is unfit for human consumption. If disgust does not play a role in emotion, humans cannot comprehend the dangers of consuming moldy food to their health, which can cause symptoms of food poisoning. Bacteria that can grow alongside it can make the body sick. Humans may experience symptoms such as vomiting, diarrhea, and nausea in this case. The weight will vary according to the type of bacteria and the amount of food consumed. Humans react with disgust to get rid of and immediately throw away food that has green mold growing on it. So that the dangers of consuming moldy food do not endanger human health.

The application of denotation to the Green Disgust character in Inside Out, according to Barthes's theory demonstrates Riley's sadness. Green Disgust first appeared in Inside Out, when young Riley was fed a spoonful of broccoli by his father. Disgust sees and smells green food that is identical to poison, and disgust gives off a refusing reaction, causing Riley to throw the broccoli. This was done by Disgust to keep Riley's body from being physically poisoned. Dad lifts a spoonful of broccoli to Riley's mouth. "Okay, caution! There is a dangerous smell, people. Hold on, what is that?" It's broccoli!" Disgust enters and gags and pulls a lever button to give Riley a refusing reaction so that Riley didn't eat the broccoli. Disgust basically keeps Riley from being "Yucky!" Riley swats the broccoli. It flies into Dad's face. (Inside Out, 2015, on 03.24).

The application of connotation to the Green Disgust character in Inside Out, according to Barthes's theory demonstrates Riley's sadness. Green, according to researchers, has more positive emotional connotations. When it comes to remembering information, the color green may elicit an optimism bias (Cherry, Green in Color Psychology, 2022). It is proven when joy and sadness are sucked into a long-term memory tube. Riley's emotions were dominated by fear, anger, and disgust. Red anger pondered what he should do at that point, afraid to think about quitting his job but unable to do so. The green disgust then appears as a motivator. When they are perplexed because there is no joy to always control them, this disgust plays a role in always thinking positively about Riley's happiness. "Well why don't we quit standing around and do something?" Anger . Like quitting! That's what I'm doing. Sure, it's the coward's way out. But this coward is going to survive!" Fear. "Emotions can't quit, genius." "I thought we were supposed to be keeping Riley happy." Disgust. Even though they were all confused because at that

time because Joy was not there, but here disgust returned to what their goal was to make Riley happy. Even though Riley's emotional state isn't balanced, it's disgust that others try to do their best with their character's emotions to bring joy to Riley. (Inside Out, 2015, on 50.12).

Hence, Green is a complementary color to magenta and one of the secondary colors produced by combining yellow and blue. The term "green" here primarily refers to trees and leaves. Furthermore, the color green has other connotations. The disgusted green character in the Inside Out film makes it easier for the audience to identify the character's symbol, which is that the green color is frequently associated with poisonous food, causing Riley's disgust when he sees green food. This viewpoint arose as a result of the previous appearance of a green dye containing toxins.

Purple: The Color Influence Our Fear.

Purple is a color type between violet and magenta. Purple in English purple and comes from the Latin purpura. Purple is frequently associated with royalty, nobility, luxury, and power. The process of making this color dye is the most expensive due to the availability of purple color, which is quite rare in the wild. If we go back to prehistoric times, our ancestors most likely never saw many different types of purple fruit, flowers, birds, fish, or other living things because purple color is extremely rare in nature. Dyes are becoming more diverse in line with the growing civilization of clothing. Purple dyes have been used since around 1900 BC. To extract 1.5 grams of pure dye, approximately 12,000 shells were required. It's barely enough to span a gap the width of a Roman toga. It's no surprise that this color is reserved for the clothing of emperors and other special individuals. According to Hello Sehat website, fear is one of the most fundamental and powerful human emotions. These emotions can be crippling, but they are also necessary for human survival. Fear, in fact, is required to protect everyone. This sensation alerts you to potentially dangerous situations and prepares you for them. Fear is a normal and natural body response in this situation (Fadila, 2021)

Fear is one of the four tritagonists of the film Inside Out. Fear's primary responsibility is to protect Riley and keep her safe. He is constantly on the lookout for potential disasters and spends time assessing the potential hazards, pitfalls, and risks associated with Riley's daily activities. Fear considers very few activities and events to be both harmless and potentially fatal. His personalities are fearful, truthful, insecure, passive, silly, friendly, sweet-tempered, conscientious, skillful, aware, docile, caring, thoughtful, free-spirited, understanding, good-natured, responsible, loyal, hard-working, leisurely, just, anxious, cautious, dependable, self-deprecating, competent, quirky, humorous, victorious, comical, and protective. There are some things that fear characters don't like, such as spiders, scary movies, bears, getting punched by Anger, broccoli, Jangles the Clown, and Boy Band Island.

The relationship between the Green Disgust character in the film Inside Out and real life. The color purple was chosen for Fear's character because yellow is the traditional color for cowardice. Docter and crew use a richer and more vibrant version of the color for Joy, leaving purple for Fear (Bill Hader). "To be honest, fear is a leftover color". We attempted to design it in a nice ensemble group so that they would look good together". Docter said (Calia, 2015). In reality, there is another factor that links the color purple to human fear. The fear of the color purple (from the Greek porphyros, "purple") is known as porphyrophobia. It is a type of chromophobia, or fear of color. The original cause of porphyrophobia, like all other phobias, including all color phobias, can be traced back to a traumatic experience involving the color purple in the past. Although purple is a symbolic color of royalty, people can develop a phobia of purple due to a traumatic encounter with a color that is not commonly seen. Phobias cause havoc in a person's life and must be taken seriously. Phobias, in severe cases, can cause depression, panic, and limit one's activities. Because of this, some people have tried to associate the fearful character in Inside Out with purple.

The application of denotation to the Purple fear character in Inside Out. The main role of purple fear keeps Riley safe and she always consider lengthy and tough about looking for ways to prevent bad things from happening to Riley. This was demonstrated when Riley, a three-year-old girl, was playing with her toy cart and trying to get around a power line that was in her way. Fear's job was to react in such a way that Riley stepped over the cable slowly so she didn't trip. (Inside Out, 2015, on 03.08)

Another example that illustrates the role of the fearful character in Riley's life. On the first day of school in San Francisco, the character purple fear prepares a list of bad things that usually happen on the first day of school in order to prepare Riley and prevent something bad from happening. Fear's role in the film increasingly exemplifies the real things that we go through. For example, Riley was asked to introduce herself in class. The terrified character was startled and gave Riley a slightly uneasy signal. This is illustrated in this conversation: "Okay, everybody. We have a new student in class today." Teacher

"Are you kidding me?! Out of the gate? This is not happening!" Fear. "Riley would you like to tell us something about yourself?" Teacher. "Noooooo! Pretend we can't speak English!" Fear. This fear character's role explains how, in real life, when we are shy and nervous when asked, our brain looks for a safe reason to avoid the feeling of tension that makes us feel uncomfortable. This happens frequently in our lives: when we first come to class and our teacher asks us to introduce ourselves, we are often terrified. It's natural to feel nervous or anxious when performing or speaking in front of a large group of people. This is a natural mechanism of the body that cannot be avoided. This response is, in some ways, the body's way of preparing to defend itself against a perceived threat. When the brain perceives that it is under attack, it releases adrenaline and steroids. As a result, blood sugar levels, or energy levels, rise. Additionally, blood pressure and heart rate will rise, sending more blood to the muscles.

The application of myth to the Purple Fear character in Inside Out, according to Barthes's theory demonstrates Riley's fear. Porphyrophobia is the fear of the color purple (from the Greek porphyros, "purple"). This is a type of chromophobia, or color phobia. Porphyrophobia, like all other phobias, including color phobias, can be traced back to a traumatic experience with the color purple in the past. This has become such a social concept that cartoon characters are sometimes afraid of being colored purple. Inside Out's fearful purple character makes it easier for viewers to understand the role of color in human emotions. In addition, John R. Dilworth created the animated series Courage the Cowardly Dog (1999) in the United States. In the United States. Courage the Cowardly Dog is a pink dog who is terrified of many things. However, what makes the dog appealing is that the public frequently debates the dog's unique color, with some claiming pink and others claiming purple. Each start of this series brings up things about Courage's past He is found abandoned as a puppy by Muriel, who lives in the middle of nowhere (Kansas) with her husband Eustace Bagge. But terrifying things happen in Nowhere, and the house is frequently attacked by monsters, aliens, curses, natural disasters, and other terrible things that he must face. Courage has completed this task in order to save his new home. Colors are used by animators to express emotions. This is how symbols, colors, and emotions are passed down from generation to generation.

Hence, purple is a color type between violet and magenta. Purple in English purple and comes from the Latin purpura. Purple is frequently associated with royalty, nobility, luxury, and power. Furthermore, purple is associated with fear. This idea is inspired by real life. The fear of the color purple is known as porphyrophobia (from the Greek porphyros, "purple"). This is a type of chromophobia, or fear of color. The animators use specific colors to help the audience understand human emotions. For example, the fear character in the film Inside Out is purple.

IV. CONCLUSION

Inside Out is a film that interprets the five human emotions through the use of color. Joy (yellow), sadness (blue), anger (red), disgust (green), and fear (purple) are the colors that characterize the five human emotions. These five emotions are at work at Riley headquarters. Each emotion functions based on its role in dealing with the feelings expressed when confronted with each event. As a result, the film Inside Out is worth analyzing in order to investigate the relationship of color with five human emotions using Semiotics theory. Whereas the theory is concerned with the interpretation of a sign, which includes both the signifier and the signified. In the discussion, the five emotional characters with the colors they have turns out to have a general and specific meaning. What is meant in general in this study is a sign of about the meaning of these emotions and colors analyzed in general. In the meantime, the specific meaning is a sign of the relationship of these colors with each human emotion. The application of Roland Barthes theory allows us to see additional perspectives from the film Inside Out. Denotation, connotation,

and myth are three aspects of Roland Barthes' theory. In denotation, we show each character's action Introduction provides adequate background or context (problem and its significance) of the study. Along with the meaning it has in general. In connotation, we show the actions of characters who have other emotions related to the meaning of their emotional colors, such as angry red characters in denotation, but in connotation, we show other personality sides such as red is associated with courage, as evidenced by the scene footage. When a character demonstrates bravery Colors are linked to human emotions for reasons other than meaning. To delve deeper, we analyze the history that evolved in the society that associated these colors with these five emotions. This is also what inspired the animators to use specific colors to describe the emotions of the character. This is summarized in the final section, namely myth. The colors and depictions of this one-of-a-kind character implicitly represent what life should be like: colorful. We can learn that humans have colorful emotions and let us enjoy those colors. The desire to always be happy may actually present treatments that make human emotions not fully developed. Allow yourself to grow not only through joy but also through failure, loss, and anger. Failure teaches us through life experiences and allows us to fully develop our emotions.

REFERENCES

- Ashari, A. (2019, July 10). Warna Hijau Sering Dipakai untuk Menggambarkan Racun di Kartun, Kenapa, ya? Diambil kembali dari Bobo.id: https://bobo.grid.id/read/081775076/warna-hijau-sering-dipakai-untuk-menggambarkan-racun-di-kartun-kenapa-ya?page=all
- Barthes, R. (1968). Elements of Semiologyy. 1sted. New York: Hill and Wang.
- Bourn, J. (2011, February 25). *Color Meaning: Meaning of The Color Red.* Diambil kembali dari BournCreative: https://www.bourncreative.com/meaning-of-the-color-red/
- Calhoun, C. (2021, April 19). 14 Things That Make You Happy and Enjoy Life More. Diambil kembali dari Lifehack: https://www.lifehack.org/articles/communication/14-things-proven-make-you-happy. html
- Calia, M. (2015, June 18). *An Inside Look at 'Inside Out'*. Diambil kembali dari The Wall Street Journal: https://www.wsj.com/articles/BL-SEB-89482#:~:text=While%20yellow%20is%20the%20traditional,good%20together%2C"%20Docter%20said.
- Cherry, K. (2020, February 21). *The Color Psychology of Blue, 2020*. Diambil kembali dari verywell mind: https://www.verywellmind.com/the-color-psychology-of-blue-2795815
- Cherry, K. (2022, February 18). *Green in Color Psychology*. Diambil kembali dari verywell mind: https://www.verywellmind.com/color-psychology-green-2795817
- Cherry, K. (2022, Februari 9). *What Is Happiness?* Diambil kembali dari Verywell Mind: https://www.verywellmind.com/what-is-happiness-4869755
- Criscuolo, I. (2020, September 7). What Colors Mean, With the Characters From the Film Inside Out. Diambil kembali dari Domsetika: https://www.domestika.org/en/blog/4814-what-colors-mean-with-the-characters-from-the-film-inside-out
- Denzin, N. K. (1994). *Handbook of Qualitative Research*. Norman K. Denzin University of Illinois, Urbana Champaign, USA; Yvonna S. Lincoln Texas A&M University, USA: SAGE Publication.
- Docter, P., & Carmen, R. D. (Sutradara). (2015, June 19). *Inside Out* [Video]. https://107.152.39.187/inside-out/
- Fadila, I. (2021, February 8). Mengenal Rasa Takut dan Prosesnya di Tubuh Anda, Plus Cara Mengatasinya. Diambil kembali dari Hello Sehat: https://hellosehat.com/mental/takut/
- Faradiba, N. (2021, Juny 23). *Penjelasan Marah Secara Ilmiah dan Cara M*. Diambil kembali dari Kompas.com: https://www.kompas.com/sains/read/2021/06/23/203100123/penjelasan-marah-secara-ilmiah-dan-cara-mengatasinya?page=all
- Fiske, J. (1990). Introduction To Communication Studies. 2nded. New York: Routledge.

- Hiller, M. (2021, February 1). *Color symbolism in films*. Diambil kembali dari The Tacoma Ledger: https://thetacomaledger.com/2021/02/01/color-symbolism-in-films/
- Mary, R. (2020, July 27). How to Use Color in Film: 50+ Examples of Movie Color Palettes. Diambil kembali dari StudioBinder: https://www.studiobinder.com/blog/how-to-use-color-in-film-50-examples-of-movie-color-palettes/
- Mehrotra, A. (2017, January 20). Have You Ever Wondered Why The Colour Blue Is Associated With Sadness? Diambil kembali dari scoopwhoop.com: https://www.scoopwhoop.com/Why-Blue-Is-Associated-With-Sadness/
- Meulen, M. V. (2019, April 26). *Meulen*. Diambil kembali dari Foolproof: https://www.foolproof.co.uk/journal/the-semiotics-of-colour/
- Rothstein, A. (2020, August 20). Color Theory in Film: A Video Producer's Guide. Diambil kembali dari IPR: https://www.ipr.edu/blogs/digital-video-and-media-production/color-theory-in-film-a-video-producers-guide/
- Sugiyono. (2015). Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: CV Alfabeta.
- Wibowo, S. (2021, February 4). *Menciptakan Momen Makan Bersama Menyenangkan buat si Kecil*. Diambil kembali dari Mother&Beyond.id: https://motherandbeyond.id/read/20387/mencipta-kan-momen-makan-bersama-menyenangkan-buat-si-kecil