## **CHAPTER II**

# **REVIEW OF RELATED LITERATURE**

#### **2.1 Theoretical Framework**

## 2.1.1 Definition of Novella

The writer will describe a novella based on the description of what is a novel and what is a short story. Later, the writer will take the between/middle path of a novel and a short story to conclude what is a novella. It is very important to determine a novella based on the number of pages or words, and also the general meaning of it. We have to know what the boundaries between a novel and a short story are, so that the writer, later, will not make a novel or short story instead.

Meer (2016) states that if we see it by the number of pages or words, a novel generally contains more than 200 pages or above 40.000 words and a short story generally contains 3.500 to 7.500 words. Based on that, picking between them, a novella is around 7.500 words to 40.000 words – or according to Meer (2016), a novella is around 17.000-40.000 words. With this, the writer knows the boundary of how long it generally should be, so that the writer will not exceed the limit.

We cannot define a novella only by the number of pages, but we also have to know by its definition of it. A Novel is a long prose/fiction or made-up story that tells a story about fictional characters and events. Pratt (1981, p.178) argued that "the novelist may take his time; has abundant room to turn about." So, the plot or the characterization of a novel can become very complicated and flexible, because a novel has a lot of space to do it. "The writer of short stories [on the other hand,] must be concise, and compression, a vigorous compression" (Pratt 1981, p.178). Based on that, a short story is totally different from a novel based on the meaning. The plot and characterization of a short story must be less complicated and patent/cannot be changed. Thus, we can say that a novella is in between those two. From the website MasterClass, *Learn the Differences Between Novelettes, Novellas, and Novels* (2020), the characteristics of a novella are: (1) A single central conflict. It has only one main plot, and the development of the character is emphasized on the main character only; (2) A fast-paced story and less backstory; (3) A unity of time and space which is described by a limited time setting and ideally in one location only.

To conclude, a novella is the shorter version of a novel based on the page number but more like a short story rather than a novel if seen from the general meaning. Based on the number of words, it generally consists of 7.500 or 17.000 up to 40.000 words. Based on the general meaning, a novella has a characteristic of a single conflict, fast-paced, and a single time, and place.

## **2.1.2 Intrinsic Elements**

In creating fiction, intrinsic elements are needed. The elements make the story whole, and more interesting so that it can become one full composition. The intrinsic elements according to Nugriyantoro (2010) are: (1) Theme, which is the base or the main purpose of the story. Thus, it can be connected to the writer's objective in making a story; (2) Setting, which is the place, time, and environment in a story. Three of them are the ones who build the background of the story and also the atmosphere/mood; (3) Plot, which is the sequence/structure in a story. It is how the

story is being structured so that it can be understood so that the theme of the story can be delivered; (4) Point of view, which is the perspective of seeing a story; There is additional information by Limbong (2018) is (5) character and characterization. Character is someone/something that has a part in the story, and characterization is the behavior/trait/quality of the characters.

### 2.1.3 Genre: Science Fiction

According to McKitterick (2016), Science Fiction is a literary genre about humans encountering changes through sciences, whether it belongs to natural sciences, technological sciences, or social sciences. It is not enough to define it only by its meaning because we also have to know what makes Science Fiction not an ordinary fiction, or what people called fantasy.

According to Suvin (2005), the important things required in Science Fiction that differentiate it from fantasy are the presence of cognitive estrangement and novum. Cognitive estrangement is the process of making sense of strangeness or something unusual, but still logically acceptable. Therefore, the fiction part of Science Fiction can still become acceptable through science, while fiction or fantasy, is not requiring that. The fiction part can still be acceptable through novum. Novum is the new science or knowledge that will make that unusual thing/fiction reasonable and acceptable.

In the writer's story, the Cognitive Estrangement is how *Excvi* (*Excerebro* virus) has been mutated to its optimal stage, where it cannot be detected, and makes human infected cannot feel any emotions. The only way to defeat the virus is by the younger generation, which even if the virus infects them, the virus is still not working

on them. The novum is the mutation of a virus that finds a way to attack parts of the brain that control humans' emotion: *Amygsdala, Hippocampus, Hypothalamus, Cerebral Cortex*, making humans cannot feel any emotion anymore. The way to defeat the virus is to make younger generations' brain immune to the virus attacking the brain, by stimulating intense emotion right before it attacks the brain.

#### **2.2 Emotion and Virus**

### **2.2.1 Definition of Emotion**

Because the writer wants to make a story that is related to human emotions, here the writer will discuss what emotion is. Prinz (2004) states that emotion can be defined from two main perspectives: evolutionary psychologists, and social constructionism. According to evolutionary psychologists, emotions are the product of natural selection. Basically, emotions are already inside us, implanted in us since we are born. It just needs to be triggered by natural events, so the emotion inside can evolve. On the other hand, social constructionism believes that emotions are socially constructed/learned and come from outside of humans. They are made because of nurture from their surroundings.

These two perspectives are making some people confused and difficult to define what actual emotions are. Some believe in one perspective, and some believe in the other. Arnold (1960) denies the evolutionary psychologist by saying "[Animal, including human] must evaluate its environment in some way. The evaluation process represents the cognitive aspect of emotion" but then stating that those cognitive approaches are only the result of evaluation or adaptation. Thus, we cannot say that

emotions are already inside us. However, Prinz (2004) denies the social constructionism perspectives by stating "... [emotions] are innate. More ambitious evolutionary psychologists argue that many more emotions are biologically based."

Thus, to define emotion, Prinz (2004) states that "In sum, everybody is wrong, everybody is right." We still do not know much about emotions in humans, whether it comes naturally from inside us, or socially constructed from the outside. In light of that, Prinz (2004) mentions that both perspectives are right. Emotions are the product of both nature and nurture, and they are evolved from inside of us, and constructed socially.

#### 2.2.2 Emotions in Human

Izard (2013, p.7) states that humans have eight categories of emotion that cannot be considered to be bad or good. Those emotions are interest – excitement, enjoyment – joy, surprise – startle, distress – anguish, disgust – contempt, anger – rage, shame – humiliation, and fear – terror. Scientists believe that emotions cannot be separated to be positive emotions that are useful to humans, and negative emotions that hurt humans. Even emotions like anger, fear, shame, and disgust are necessary for humans and can be positive emotions in defense mechanisms for surviving some conditions. Thus, all of the emotions in humans are necessary for living and surviving. Later, all of these emotions will be presented directly or indirectly in the novella.

According to Seladi-Schulman (2018), our emotions are controlled by our brains. Even though scientists still do not know the exact role of the brain in controlling emotions, they have already found what parts of the brain that controls common emotions like fear, anger, happiness, and love. Part of the brain that is responsible for emotional and behavioral responses is the limbic system, which are: Amygdala, Hippocampus, Hypothalamus, Cerebral Cortex

#### 2.2.3 Virus Mutation

Even though viruses are not technically alive, they can evolve to adapt to the environment as they replicate (Wei-Haas, 2021). Viruses can evolve or mutate by changing their genetic code and also by recombination of two genetic codes to form a new variant (CDC, 2022). With the change of the genetic code or the protein, the new variant of the virus may have new abilities such as new symptoms, new ways of transmission (a way to multiply), and also resistance or immunity to something that kills them, like vaccines and immune system (a way to survive). According to the study, an extended transmission chain of a virus can lead to the potential of that virus becoming a more successful human pathogen (NPR, 2022). This can mean that the virus can eventually have its optimal mutation and become fatal to humans.

The mutation pace of each virus can be different and difficult to measure (Wei-Haas, 2021). "Mutations may happen randomly, but the rate at which they occur depends on the virus," she says. One of the factors is what type of virus is it. DNA viruses have been proved to have fewer mutations in each generation than RNA viruses. This happens because DNA viruses can proofread and fix errors, while RNA viruses are 'the evolutionary gamblers' of the microscopic world, Wei-Haas says. Let us take an example from SARS-CoV-2, which is an RNA virus. These are the list of SARS-CoV-2 variants and where/when that variant was first documented being Variants of Concern according to The World Health Organization (WHO):

1. Beta Variant, Brazil/May 2020

- 2. Alpha Variant, United Kingdom/September 2020
- 3. Delta Variant, India/October 2020
- 4. Gamma Variant, Brazil/November 2020
- Omicron Variant (BA 1 BA 5, and all descendent lineages), Multiple Countries/November 2021

It is quite a fast mutation for SARS-CoV-2 from the first variant to the latest variant, which only takes a year. However, as stated earlier, we cannot really rate the mutation pace accurately, for each virus is different.

#### 2.3 Studies of Earlier Works

## 2.3.1 I am Mother (2019)

*I am Mother* is a Netflix original movie directed by Sputore (2019). The setting of this movie is in a sanctuary made by Artificial Intelligence and happens when all humans are already extinct. However, mankind and Artificial Intelligence, robots, have prepared a project to restore mankind from extinction. There is a bank of embryos that are ready to be born with just one step. However, the plan is not to recover humanity that will be raised by robots, but by a human instead – a mother. That is why the project in this movie is to make a single mother for the next human generations.

At one point in the movie, the main character will have some confusion because of the fact that one woman comes to the sanctuary, begging for her help. The woman tells the main character that the robot is the bad guy, and there are actually humans in this world. Then, the movie will deceive us that the main character, and the woman, are the one who is going to win against the robot by making plans for them to escape and join the other humans. However, we will later see at the end of the movie, that all of the problems, the climax, and everything, are all according to the robots' plan. So, we will see that the project is already designed like that. The main character is prepared by the robots so that she can fight and protect her future babies later on.

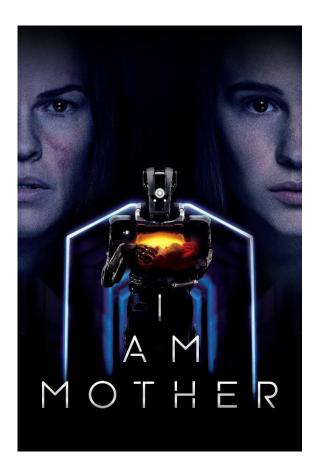


Figure 2.1 I am Mother

The writer chose this movie as the main example for my story. The story will also use the same concept of making the project. The project is to save humanity and all the results of the project, including the bad things that happened, are according to the plan of the one who makes the project. The difference is that the project R.O.S.E. is not observed or done by Artificial Intelligence, but by emotionless humans. The other difference is that in project R.O.S.E. story, mankind is considered extinct not because there are no humans left, but because humans cannot feel emotions – losing 'humanity' – instead.

What makes *I am Mother* an inspiration for the writer to make this project is how humanity, which is also the one who makes artificial intelligence to help do the project, will do anything to avoid humanity's extinction. The decision to make a facility, project, and such procedure to prepare a good mother for all the future fetuses that are going to be born is maybe a result of a worldwide decision. Even though both this film and the writer's novella is not going to focus on economic and political factors, the writer believes that at one point in making a wild decision like this, there must be some disagreement and opposition by some clusters. The insight that the writer got from this film, is that humans, government (although somehow identic as being selfish), and scientists will one day agree that it is better to give up on their current generation and believe in the future generation, and they are able to fight against all the opposition from a certain cluster.

### 2.3.2 The Death Cure (2011)

The Death Cure is a novel by Dashner (2011), and it is the third book of The Maze Runner series. It is about how the virus, 'flare', is affecting humans and it is making them turns into zombie or in the novel they are called 'Crank'. In this universe/story, it is believed that new generations/people who are born sometimes

after the flare attacks have some immunity. The trials are necessary for this new generation, including some of the main characters, before making the cure.

In short, this novel talks about how the main characters are deceived that they are free from the trials, while in fact, they are still in the trials for a project to make a cure against the 'flare'. In the end, we will be told that there is no cure, and the director of the project, WKCD, tells the main characters that they have a backup plan, which is making a new sanctuary (or can be said 'world') for them in the maze where the first trial began. She states that the hope for mankind, so that mankind does not extinct, is the ones who are immune themselves. She also mentions that the 'flare' is actually released by the government as a form of population control.

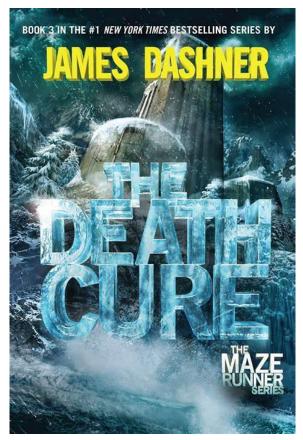


Figure 2.2 The Death Cure

The Maze Runner series is what inspires the writer the most in making the concept and the background of this novella. Another lesson that the writer got from the series, especially *The Death Cure*, is that James Dashner is not afraid to kill his characters. The killing character has some purpose or some meaning, that the writer got an insight of what so-called: sacrificing a small group for the safety of many others. With that, the writer is assured that it is okay to kill characters, especially in science fiction about humanity's extinction and scientists' experiments or projects that require one.

The writer is also inspired by *The Maze Runner* series' cognitive estrangement, which is also the destruction of humanity and the world. The novum behind it is because the unpredictable flare from the sun is impacting the earth with its heat, which leads to deaths of some people, and sickness of those who survive. It is different from the writer's novella. The destruction came from a virus which happened to be mutated to its optimal form, reacting to vaccines that humans made.

The other cognitive estrangement that inspired the writer is how James Dashner uses a unique laboratory and unique experiment or project. To test his subjects, Dashner uses a maze, with a dystopian life inside it. Aside from testing, the writer gets an insight that it is to become a learning place or a place to learn and grow before proceeding to the next trial. The writer was then inspired to use a unique place as a laboratory for the subjects which will be explained later.

The writer is also inspired to use the younger generations to become the key to defeating the virus. In *The Maze Runner*, the subjects will be studied, and the main character's brain will be examined, and learned, to make a cure to the *flare* in that

universe. Although later, the scientists realized that it is not 'human' to do so. Which leads to making a new place for those who are immune to live. The writer took this idea of the worthy subjects, not to become a cure to the disease/virus, but to be a solution to the destruction of humanity.

Although the cognitive estrangement is similar, there are some major differences between *The Death Cure* and the writer's novella. The first difference is that in *The Death Cure* the result of the project is not according to plan, and they have to use the backup plan. In the writer's story, everything is according to plan. Even the errors and the mistakes are actually by the design of the project. The second difference is the virus in *The Death Cure*, 'flare', makes humans turn into a zombie, or emotionless and brainless human. In the writer's story, it will be only emotionless. Humans infected can still think and have their logic but lack will. The last difference is the purpose of the experiment or the project. *The Death Cure* experiment is to find the cure from the subjects' brain. In the writer's story, the project is not to find the cure to defeat the virus, but to prepare a leader for all humans that got infected with the *Excvi*.