# Mark Watney's Needs to Survive in *The Martian* Novel by Andy Weir

# **THESIS**

Submitted as partial fulfillment of The Requirements for The Bachelor

Degree of English Department Faculty of Arts and Humanities

UIN Sunan Ampel Surabaya



By:

Masri Haryo Utomo Reg. Number: A73214088

ENGLISH DEPARTMENT
FACULTY OF ARTS AND HUMANITIES
SUNAN AMPEL STATE ISLAMIC UNIVERSITY
2018

# DECLARATION

The undersigned,

Name

: Masri Haryo Utomo

Reg. Number: A73214088

Department

: English Department

Faculty

: Arts and Humanities

declares that the thesis under the title Mark Watney's Needs to Survive in the Martian by Andy Weir is my original scientific work which has been conducted as a partial fulfillment of the requirements for the bachelor degree and submitted to English Department of Arts and Humanities Faculty of Sunan Ampel State Islamic University. Additionally, it does not incorporate any other text from the previous experts except the quotations and theories itself. If the thesis later is found as a plagiarism work, the writer is truthfully responsible with any kind of suitable rules and consequences.

Surabaya, May 4th 2018

Writer,

Masri Haryo Utomo

NIM: A7321088

# Mark Watney's Needs to Survive in *The Martian*Novel by Andy Weir

By: Masri Haryo Utomo A73214088

Approved to be examined Surabaya, July 31th 2018

Thesis Advisor

Abu Fanani M.Pd.

NIP: 196906152007011051

Aknowledged by:

The Head of English Department

Dr. Mohammad Kurjum, M.Ag NIP: 196909251994031002

ENGLISH DEPARTMENT
FACULTY OF ARTS AND HUMANITIES
STATE ISLAMIC UNIVERSITY OF SUNAN AMPEL SURABAYA
2018

# This thesis has been approved and accepted by the Board of Examiners of English Department Faculty of Arts and Humanities State Islamic University of Sunan Ampel Surabaya

Surabaya, on 31th of July, 2018

The Dean of Faculty of Arts and Humanities



The Board of Examiner Are:

Head of the Examiner

Abu Fanani, M.Pd.

NIP. 196906152007011051

Examiner 3

Sufi Ikrima Sa'adah, M.Hum.

NUP. 201603318

Examiner 2

Dr. Wahju Kusumajanti, M.Hum.

NIP. 197002051999032002

Examiner 4

Abdulloh Ubet, M.Ag.

NIP. 196605071997031003



# KEMENTERIAN AGAMA UNIVERSITAS ISLAM NEGERI SUNAN AMPEL SURABAYA PERPUSTAKAAN

Jl. Jend. A. Yani 117 Surabaya 60237 Telp. 031-8431972 Fax.031-8413300 E-Mail: perpus@uinsby.ac.id

# LEMBAR PERNYATAAN PERSETUJUAN PUBLIKASI KARYA ILMIAH UNTUK KEPENTINGAN AKADEMIS

Sebagai sivitas aka	demika UIN Sunan Ampel Surabaya, yang bertanda tangan di bawah ini, saya:
Nama	: Masri Haryo Utomo
NIM	: A15219088
Fakultas/Jurusan	: Adab & Humaniora / Sastra Inggris
E-mail address	: mastiharyo@gmail.com
UIN Sunan Ampe  ✓ Skripsi   yang berjudul:	gan ilmu pengetahuan, menyetujui untuk memberikan kepada Perpustakaan I Surabaya, Hak Bebas Royalti Non-Eksklusif atas karya ilmiah:  Tesis Desertasi Lain-lain ()  rey's Needs to Survive in The Martian Novel by Andy
Perpustakaan UIN mengelolanya da menampilkan/men akademis tanpa p	yang diperlukan (bila ada). Dengan Hak Bebas Royalti Non-Ekslusif ini N Sunan Ampel Surabaya berhak menyimpan, mengalih-media/format-kan, alam bentuk pangkalan data (database), mendistribusikannya, dan mpublikasikannya di Internet atau media lain secara <i>fulltext</i> untuk kepentingan erlu meminta ijin dari saya selama tetap mencantumkan nama saya sebagai dan atau penerbit yang bersangkutan.
	uk menanggung secara pribadi, tanpa melibatkan pihak Perpustakaan UIN abaya, segala bentuk tuntutan hukum yang timbul atas pelanggaran Hak Cipta saya ini.
Demikian pernyata	aan ini yang saya buat dengan sebenarnya.

Surabaya, 1 Agustus 2018

Penulis

( Masri Haryo U.

#### **ABSTRACT**

Utomo, M.H. 2018. *Mark Watney's Needs to Survive in "The Martian" by Andy Weir* English Department, Faculty of Arts and Humanities. The State Islamic University of Sunan Ampel Surabaya.

The advisor: Abu Fanani M.Pd.

Key words: *Hierarchy of needs, survival.* 

This research is analyzed Andy Weir novel entitled *The Martian* and focuses on the main character named Mark Watney. Mark Watney tries to survive because he is stranded on Mars and abandoned by the other crew, thought that Mark is dead. Then dealing with the issue above, this research analyzes with Abraham H. Maslow's theory, Hierarchy of needs. With this theory, the researcher deals with how the main character fulfilling his needs during his survival act on Mars. Maslow's theory classified into 5 levels and sequentially from lowest needs to highest needs the needs are physiological needs, safety needs, belonging needs, esteem needs and self-actualization needs. This research applies the descriptive qualitative method in conducting the research. The data are analyzed by reading, understanding, and identifying.

From lowest to highest needs, the main character gets different obstacle especially at the belonging and esteem needs. But the big desire guides him through all of those needs. Then, at his self-actualization, the main character survived and returned to Earth. In a nutshell, the main character must fulfil his lowest needs first then the highest needs to survive.

#### **INTISARI**

Utomo, M.H. 2018. *Mark Watney's Needs to Survive in "The Martian" by Andy Weir* English Department, Faculty of Arts and Humanities. The State Islamic University of Sunan Ampel Surabaya.

Pembimbing: Abu Fanani M.Pd.

Kata Kunci: Hierarchy of needs, bertahan hidup.

Penelitian ini meneliti novel Andy Weir yang berjudul *The martian* dan focus terhadap karakter utama yang bernama Mark Watney. Mark Watney berusaha bertahan hidup karena dia terdampar di Mars dan ditinggalkan oleh kelompoknya, yang mengira Mark telah meninggal. Lalu mengenai isu diatas, penelitian ini menganalisa dengan teori Abraham H. Maslow, Hierarchy of needs. dengan teori ini, peneliti menekankan bagaimana karakter utama memenuhi kebutuhannya selama bertahan hidup di Mars. Teori Maslow digolongkan menjadi 5 level dan secara berurutan dari terendah ke tertinggi. Kebutuhannya diantara lain physiological needs, safety needs, belonging needs, esteem needs and selfactualization needs. Penelitian ini mengaplikasian metode deskripsi kualitatif dalam melakukan penelitian. Data di analdisa dengan dibaca, dimengerti, dan diidetifikasi.

Dari kebutuhan terendah ke tertinggi, karakter utama mendapat rintangan yang berbeda-beda terutama pada kebutuhan belonging dan esteem. Tapi keinginan yang kuat menuntunnya memenuhi semua kebutuhan tersebut. Lalu, pada selfactualization, karakter utama selamat dan kembali kebumi. Singkat kata, karakter utama harus memenuhi kebutuhan terendahnya dahulu lalu ke tertinggi untuk bertahan hidup.

# **TABLE OF CONTENTS**

Inside cover page	
Inside title page	i
Declaration	ii
Motto	
Dedication	
Approval Sheet	v
Examiner Sheet	vi
Acknowledgement	vii
Table of Contents	i
Abstract	xi
Intisari	xii
CHAPTER I INTRODUCTION	
1.1 Background of Study	
1.2 Statement of the Problem	
1.3 Objective of Study	
1.4 Significance of Study	
1.5 Scope and Limitation	

1.6 Method of the Study	5
1.7 Definition of Key Terms	7
CHAPTER II LITERARY REVIEW	
2.1 Theoretical Framework	9
2.1.1 Personality Theory	9
2.1.2 Hierarchy of Needs	10
A. Physiological Needs	13
B. Safety Needs	14
C. Belonging Needs	15
D. Esteem Needs	15
E. Self-actualization Needs	16
2.1.3 Review of Previous Study	18
CHAPTER III ANALYSIS	
3.1 A Brief sketch of <i>The Martian</i>	21
3.2 The Way Mark Watney fulfilling The Needs	25
3.2.1 Growing Potatoes on Mars	26
A. Organizing Food Supply	26
R Planting Potatoes	27

1. For Mark's Physiological Needs	28
2. For Mark's Estem Needs	31
3.2.2 Maintaining Mark's Shelter	32
1. For Mark's Safety Needs	32
2. For Mark's Physiological Needs	35
3.2.3 Finding and Fixing pathfinder	36
1. For Belonging Needs	38
2. For Mark's Self-actualization	40
CHAPTER IV CONCLUSION	
Conclusion	43
WORK CITED	46
APPENDIX	48

#### **CHAPTER I**

#### INTRODUCTION

# 1.1 Background of study

Humans try to survive because they consumme the fear of death and a common encouragement of human for immortality (Beres 04). It means the humans are automatically trying to survive if they feel that they are dying. If they think cannot go through the starvation or the disease, they will not be able to achieve their life goals.

Survival includes how the human fulfill their basic need. That is why human born with the kinds of basic needs before they fulfil developmental need (Crandell 48). However human can survive with their own way if they fulfill their basic needs. For example, human must plant crops, raise livestock to fulfil their needs in order to live.

# Meanwhile, Paul Scholten said

"humankind that want to accomplish their needs have to obey the rules where they live, because humans have made society that contain law, human rights and many other rules. Those rules prevent a person who wants to fulfil his or her needs by harming others, even human sometimes break the rules to satisfy their needs. But that is how human live, with` creativity to create a society." (Quoted in Kuncorowati 61)

For that reason, human as the social being must respect each other even they pushed by desire to fulfil their needs. When human's basic needs already fulfil, they will develop their capability to achieve their self-actualization. One of human's self-actualization is a civilization. Human with their uniqueness can

create the civilization like now (Gulen 04). In civilization there are many societies, and societies raise many aspects, such as culture, arts, faith and et cetera. Society also creates a literature which is formed by human expression and emotion (Wellek 01).

Literature as an art is surrounding every society as an object creativity by human beings. Literature itself is a reflection from society (Albrecht 425). In other words, every human being has creativity thought in their minds. Creativity appear because human imagine first, in other words human being has imaginative thought in their minds. For imaginative form, literature is known as a body of written and oral works, like novel, poetry (Childs and Roger 129). It can be concluded that literature is a part of society that cannot be separated from society because every human needs to express and needs to accept the others perception and expression.

There are also literary works that raise survival issues. The researcher finds a science-fiction novel that refers to survival act or the struggle of human to get their achievement that the researcher wants to study. The novel is *The Martian* by Andy Weir. It was his own debut under his own name because at 2009 he just uploads his story chapter by chapter in his own website, but many readers wanted him to upload it to *amazon kindle*, and *The Martian* was one of Amazon's top five science fiction bestsellers and downloaded as much as 10.0000. The book debuted on the *New York Times Best Seller* list on March 2, 2014 (Weir 386).

Andy Weir basically is a software engineer. Many of his dreams are unreachable such as astronaut, and the writer. So in his first novel, he tries to

express his dream became one. He is a lifelong space nerd and a devoted hobbyist of subjects such as relativistic physics, orbital mechanics, and the history of manned spaceflight (Weir 384). For that reason, *The Martian* novel has a science-fiction genre and the main character as an astronaut.

The Martian is the novel that has a science-fiction genre and the story can bring the reader feels what the main character's feels. The researcher chooses this novel to this study because some reasons. The first reason is because this novel has a science-fiction genre and interesting story that tells the astronaut who lives alone on Mars almost two years which is impossible. But this novel tries to convince the readers with science that Andy Weir got from learning it from NASA and make the story seems real which is the human can live on Mars in certain condition and have to struggle. Second is the researcher takes the survival point which related with the theory that will be used by the researcher.

The Martian has the issue that the researcher would take. The researcher focuses at the main character named Mark Watney. The issue focuses on Mark Watney's survival act on Mars for almost two years until NASA go back to save him. How Mark Watney fulfil his basic needs and must calculate all of the possible things that can be wrong to be fix while he stranded alone on Mars and then he tries to find a tools to communicate with his crew and NASA to tells that he still alive and asks for help in order to go back to Earth.

One of the theories from literature that contains of human motivation or can be called Maslow's theory first widely published in *Motivation and Personality* 

(1954). Maslow's theory is driven by the desire to satisfy basic needs of human or Hierarchy of needs. Hierarchy of needs, following Maslow's reasoning that the human nature is the continuous fulfilment of inner needs, beginning with basic physiological needs and progressing to meta needs (Mandfred 20).

For those reason, this study uses Maslow's theory as the main theory, which called by hierarchy of needs. The researcher uses this theory in order to reveals the needs that the main character must fulfil. Those needs analysed by Maslow's theory to shows how the main character survives.

# 1.2 Statement of the problem

Based on the researcher's background of study, there is a problem that the researcher concerns to the study. This study is to answer the problem formulated in the following question;

(1) How does Mark Watney fullfil his needs in *The Martian* novel by Andy Weir?

# 1.3 Objectives of the study

According in the problem of the study above, the objective of researcher in this study is formulated as follows:

To explain Mark Watney in fulfilling his needs using Abraham
 Maslow Theory in *The Martian* novel by Andy Weir

#### 1.4 Significance of study

Basically, this study is to analyse Mark Watney's needs for his survival on Mars alone in the *The Martian* novel which is written by Andy Weir. For those

reason, this research benefit for the literary students is to increase knowledge, information, and understanding the meaning of hierarchy of needs from Abraham H. Maslow's theory in literary work. Besides that, this study could be their reference or can be a comparison subject for their study in the field of humanistic approach in personality theory by Abraham Maslow. Besides, this study focuses on the theory and takes almost the entire problem from main character in order to be a good reference for the next researchers.

For a common people or common readers who want to read this study, hopefully this research can increase the knowledge about how the main character solves his problems. The researcher hopes that they can look over the issue that Mark Watney still alive because he gives the best that he can do.

#### 1.5 Scope and limitation

This study discusses the survival act of Mark Watney in *The Martian* novel by Andy Weir. This study focuses on Maslow's humanistic theory that discussing about Mark Watney's Survival act. The concepts are limited to the terms of Hierarchy of needs.

#### 1.6 Method of the Study

In this part, the researcher discusses about how the data is collected and analysed. It divides into four sub-chapters. First is Research design, the second is data sources, and then data collection. After collecting the data, the researcher continues to the next or the last step, that is data analysis. The method of the study which use in this analysis are as follows;

#### 1.6.1 Research Design

In this study, according to the statement of the problem, the researcher applied descriptive qualitative method to analyse the study. It means the data arranged in paragraphs which is taken from the library source such as books, journal, e-book, and so on.

#### 1.6.2 Data Sources

This study has a main data source which is taken from one of Andy Weir novel entitled *The Martian*. The data is in form of any quotes that focusses on the main character needs, how the main character fulfils his needs. Besides that, the researcher uses the secondary data to analyse this study. Those are library research and online sources.

#### 1.6.3 Data Collection

In this study, the data is the core of this study, for that reason the researcher is collected the data with carefully and use step by step in order to avoid a mistake. The steps of data collection are as follows;

- 1.6.3.1 Reading the novel more than one until the researcher understands the whole novel
- 1.6.3.2 Finding the data which is used in this study based on the statement of the problem. The data are how Mark Watney fulfil his needs to survive with underlining the sentence or paragraph in the novel

# 1.6.4 Data Analysis

After the researcher collected the data, all of the data that author get is analysed using hierarchy of needs theory by Abraham Maslow. There are three steps to analyse, the steps are;

- 1.6.4.1 Explaining the way Mark Watney fulfils his needs to survives on Mars
- 1.6.4.2 Classifying what need of Mark Watney based on Maslow's theory
- 1.6.4.3 The last is giving the conclusion based on the analysis

# 1.7 Definition of Key Terms

In order to avoid misunderstanding and misinterpretation about the basic concepts used in this research, the researcher would like to give some definition of the key terms as follows:

HAB : A place with oxygenator and a large piece of equipment that could break CO2 apart and give the oxygen back. It means a place astronauts live on Mars. (Weir 6)

Pathfinder : American robotic spacecraft that landed a base station with a roving probe on Mars. to prove that the development of possibility spacecraft. (Weir 92)

Hermes : The crew transport spacecraft of the Ares programs, built

to transport astronauts from Earth to Mars orbit and back.

(Weir 04)

Ares 3 : The crew launch vehicle that was being developed by

NASA as part of constellation program. (Weir 01)

NASA : National Aeronautics and Space Administration is an

independent agency of the executive branch of the United

States federal government responsible for the civilian space

program as well as aeronautics and aerospace research.

(NASA)

Botanist : Who masters the scientific study of plants. (Weir 12)

MAV : Mars Ascent Vehicle, the vehicle that used by astrounout

to go home (Weir 05)

#### **CHAPTER II**

#### LITERARY REVIEW

#### 2.1 Theoretical Framework

# **2.1.1 Personality Theory**

According to Sigmund Freud, psychoanalysis was strongly approach to personality. The first formal theory of personality is the psychoanalysis that Sigmund Freud proposed that the psychoanalysis is aiming the human behavior that used psychology of personality as a tools. The term "personality" comes from Latin, *persona* or the outward appearance of someone, but psychologist called the personality more than outward appearance. Personality is traits of relatively permanent's pattern and unique characteristics that give both regularity and individuality to a person's behavior (Feist 10).

One of theorists of personality theory is Abraham H. Maslow. Maslow has variously been called humanistic theory, transpersonal theory, the third force in psychology, the fourth force in personality, needs theory, and self-actualization theory. Maslow adopts that the entire of a person are unconscious being motivated by one need or another and that person has the hidden talent to develop toward psychological health, that is self-actualization (Feist 281).

Maslow's personality theory breaks on some basic assumptions toward to motivation according to Feist on his book entitled *Theories of Personality*. First, Maslow adopted a holistic approach to motivation. That is, the whole person, not any single part or function, is motivated.

Then, motivation is usually complex. For example, the desire for sexual union may be motivated not only by a genital need but also by needs for dominance, companionship, and love, etc. Moreover, the motivation for a behavior may be unconscious or unknown to the person. For example, the motivation for a college student to make a high grade may mask the need for dominance or power.

The next assumption is that people are continually motivated by one need or another, Like the person who is starving, he needs are frustrated, they will struggle to get some food, but when they do have enough to eat, they move on to other needs such as shelter, love, and self-worth, etc.

Fourth assumption is that all people everywhere are motivated by the same basic needs. For example, people in different cultures obtain food, build shelters, express friendship, and so forth may vary widely, but the fundamental needs for food, safety, and friendship are common to the entire species (Feist 285-286).

One of motivation's theory is from Abraham H. Maslow that is called Hierarchy of needs. Hierarchy of needs is basically revealed the human basic needs and this theory that related to human's life is connect with the survival that the researcher discusses.

# 2.1.2 Hierarchy of Needs

Hierarchy of needs is declared by Abraham Maslow. Maslow is a Jewish Intellectual whose interest in psychology, and Maslow basicly is an American psychologist (Ryckman 423). He developes a theory of personality that has influenced a many aspect, including education. Further to Maslow's belief is that

in order to understand Man's full potential, exceptionally healthy, mature (or self-actualized) people need to be studied. Any theory of motivation that is worthy of attention must deal with the highest capacities of the healthy and strong person as well as with the defensive maneuvers of the crippled spirits (Maslow 14).

When scientists finally observe the core of cases of human development, Maslow was convinced that they would discover that people are basically trustworthy, self-protecting, and self-governing. People innate tendency is toward growth or develops, people are even capable of love. Maslow's theory is bullish on the human race (Griffin 125). These early studies inform Maslow's theories of human motivation first widely published in *Motivation and Personality* (1954). In a thesis by Paul Brown entitled *The Legend of Zelda and Abraham Maslow's Theory of Needs: A Social-Psychological Study of the Computer Game and its Players*, He quote from Maslow that even if the fulfillment of all basic needs is important, some needs are greater than others, and arrange themselves (31).

According to Maslow's theory, before a person can act unselfishly there are four types of needs that must be satisfied. The needs are arranged in a hierarchical order. The upward climb is made by satisfying one set of needs at a time. The most basic drives are physiological. After that come the need for safety, then the desire for love, and then the quest for esteem. Note the softening of terminology used to describe the move up the ladder. People are driven to satisfy the lower needs, but they are drawn to meet the higher ones.

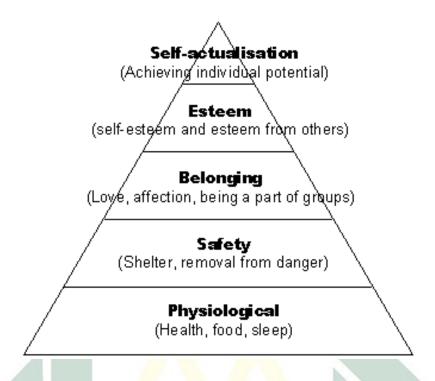


Table above is to know the lower the needs in hierarchy, greater priority to fulfil. And the higher needs are the weaker need. Failure for getting the lower needs is causes a crisis situation. Failure for getting the higher needs does not produce a crisis. Because the lower needs basically are for actual survival.

For example, musician who driven by the higher needs which is create a song then he or she does not fulfil the lower needs such as eat and sleep, he or she cannot live longer, and then will die before creating a song. That is why Maslow called a lower needs with deficiency needs (Schultz 312). It means failure to fulfil those needs produces a deficiency in a body.

However, the higher needs more less necessary for actual survival, those are contributing to survival and growth. When the higher needs already fulfil, it makes health and longevity improve.

For example, musician who already fulfil the higher needs which is create a song. Does not rule out the possibility his or her life better in financial terms, it makes he or she more easy to fulfil the lower needs every day. For those reason, Maslow called a higher needs with growth needs. It means the higher needs involve the realization and fulfilment of human potential.

# A. Physiological Needs

Physiological needs are basic. The body needs food, liquid, sleep, oxygen, sex, freedom of movement, and a moderate temperature. When any of these are in short supply, the body feel the difficult tension of hunger, thirst, tiredness, shortness of breath, sexual frustration, confinement, or the discomfort of being too hot or cold. These irritants force us to seek the missing commodity so that our body can adapt to environment.

On the physiological level, Maslow sees people as no different. But once these physical needs are met regularly, they no longer exert pressure. A need fulfilled no longer motivates. Weight Watchers advises that the time to go to the grocery store is after a complete meal. When people have had enough to eat, food becomes relatively unimportant. As hunger and the other physiological needs are met, the need for security kicks in (Griffin 127).

Maslow notes that these needs related to both the concept of homeostasis and research on appetite, homeostasis being the body's need to 'maintain a constant, normal state of the blood stream (15). Studies on appetite show that foods people choose to eat are usually a sound indicator of that which the body

lacked, and if the body lacks some chemical, the individual will tend to develop a specific appetite or partial hunger for that missing food element. According to Maslow, physiological needs are the most proponents of all needs. A person who is lacking food, safety, love, and esteem would most probably hunger for food more strongly than anything else (Brown 31).

# **B.** Safety Needs

When the first point that is the physiological needs have been fulfilled, then will be continued to the second point. Safety and security needs come to the next in hierarchy of needs. This need has categorized such as having a place to live, security, stability, dependency, protection, freedom from fear, from anxiety, and so on (Maslow 39).

Maslow notes that while these needs are as essentially potent as others, for most well people in a stable society, these needs are easily satisfied and the lack of their satisfaction could usually be found in only a small sample of the populace. If people wish to see these needs directly and clearly, they must turn the economic and social underdogs, or else to social chaos, revolution, or breakdown in authority (18). In addition to these primary safety needs, Maslow also extends his definition to include less physical threats to the individual. This, perhaps secondary, safety need involves both a simple desire for the familiar and a more complex desire for order the very common preference for the known, rather than the unknown. The tendency to have some religion or world philosophy that organizes the universe and the people in it into some sort of satisfactorily coherent, meaningful whole (19).

# C. Belonging Needs

For Maslow, giving love is seeking to fill a void by understanding and accepting selected others (Griffin 128). Giving love doesn't mean feeling of giving others everything like "i'm yours" or "I'll do anything for you". Giving love for maslow just simple as explained before. And Receiving love is a way of staving off the pangs of loneliness and rejection (Griffin 128).

People with their love and belongingness needs satisfied enough from the beginning are more ordinary when denied love. These people have confidence that they are accepted by those who are important to them, so when other people reject them, they do not feel devastated (Feist 282).

Ryckman argued in his book entitled *Theories of Personality*, the basic, or deficiency need for love is a selfish concern with seeking love from others. Once this need is relatively gratified, however, we become capable of loving others. Modern personality psychologists maintain that the needs to belong and feel loved are very powerful and are highly adaptive from an evolutionary perspective. That is, both survival and reproduction benefit immensely by a person's being part of a group as opposed to being alone in the world (428).

#### D. Esteem Needs

From diagram above, esteem is divided into 2 types, self-esteem and esteem from other. Self esteem refers to desires for strength, achievement, adequacy, mastery and competence, confidence, and independence also freedom. The esteem

from other deals with desires for esteem from the others such as, for reputation, status, fame, dominance, recognition, attention, importance and appreciation.

For example, a genius young man who writes wonderful poems may never share them with others, because his or her family members' opinion who derogate his or her poems and efforts. Sooner or later, he might even give up poetry completely.

The gratification of the esteem need leads to feelings of self-confidence, worth, strength, capability, and being useful. However, if a person fails to satisfy the esteem need, he will feel inferior and weak (Maslow 45). Maslow notes that social and environmental conditions need to allow for these basic needs to be satisfied. Without them, the basic satisfactions are quite impossible, or at least severely endangered. These conditions are freedom to speak, freedom to do what one wishes as long as no harm is done to others freedom to defend oneself, justice, fairness, orderliness (Brown 33).

For example, a young woman who has been continually praised by her high school teachers and her parents for academic prowess that she does not really possess, and who consequently believes that she will excel at college, may find her first year at the university traumatic.

# **E.** Self-actualisation Needs

Even though all of the four previous needs are well satisfied, many people still expect for being discontent in life once they are doing what they fit for. For example, a musician must make music, an artist must paint, and a poet must write

in order to be at peace with him. In other words, a person must become what he can be.

The term of self-actualization was introduced by Kurt Goldstein and is being used by Maslow in his book refers to man's desire for self-fulfilment specifically to the tendency of him being actualized in what he is potentially. Therefore, the specific form of the self-actualization needs is various from one person to another since every person has its own ideal form of desire in life. The need will distinctly come out if the four previous needs, namely the need of physiological, safety, belongingness and love, also esteem, are already well gratified (Maslow 46).

But some people after they fulfil his esteem needs, they do not always move to the level of self-actualization. Maslow argued that people who do not embrace these values are frustrated in their self-actualization needs even though they have satisfied each of their other basic needs. While, Self-actualizing people maintain their feelings of self-esteem even when scorned, rejected, and dismissed by other people (Feist 290).

Actualizing people show a greater acceptance of themselves, others, and nature than do nonactualizers. They are more problem-centered than are nonactualizers, more concerned with undertaking tasks that will benefit others, less introspective, and more task-oriented (Ryckman 434). Nonactualizers tend to be very concerned with themselves and are characterized by feelings of inferiority. Actualizers tend to resist enculturation, to be "ruled by the laws of their own character rather than by the rules of society". But, Actualizers do have

their weaknesses (Maslow 175). They can be boring, stubborn, irritating when getting his self-actualization.

#### 2.1.3 Review of Previous Studies

The researcher uses previous studies as the basis of this research to know what is the lack from previous studies, and to distinguish what is being discussed in this thesis. Those previous studies are from the same object, the novel by Andy Weir entitled *The Martian* and the same theory, the hierarchy of needs from Abraham H. Maslow.

First previous study the researcher took Hikmah Wulandari's thesis from Muhammadiyah University of Surakarta entitled The Spirit of Survival of Mark Watney Reflected in Andy Weir's The Martian Novel (2015): An Individual Psychology study. In her thesis, the author focuses on spirit of survival from Mark Watney as a main character in Andy Weir's novel The Martian. And by the main character's spirit of survival, the author focuses on individual psychology study. Individual psychology study that explains the character from Mark Watney: inferiority feeling, striving for superiority, fictional finalism, social interest, style of life, and creative power. The spirit of Mark Watney is shown when he treats his wound after a storm on Mars. There are survival stages from Mark Watney: first ability, desire, stay alone, under adverse conditions, all alone, until rescued.

Then, wulandari's thesis different from this thesis, these novel has similarities of novel's selection but has a differences in theory selection. And these thesis focus on the same main character but in wulandari's thesis used Adler 's psychoanalysis theory that focus on spirit of survival on main character, while

this thesis focuses on the needs of the main character to survive uses Maslow's hierearchy of needs theory.

Second, Cut Muthmainnah from State Islamic University Syarief

Hidayatullah Jakarta entitled *A Main Character Analysis of The Zahir Using Hierarchy of Needs of Abraham Maslow's Theory (2009)*. Muthmainnah's thesis

focuses on the fulfillments of the main character's needs in *The Zahir* when he

searches for his wife based on hierarchy of human needs of Abraham H.

Maslow's theory. The writer identifies the problem of main character's needs

which are showed in his search for his wife and how the main character fulfilling

his needs but he gets the challenge in fulfilling the needs because his wife left

him. The condition gives him the spirit to fulfill the needs that spirit make him can

pass through the process of life.

Muthmainnah's thesis has a similarities theory but with the different object. In this thesis has similarity in a part of discussions in hierarchy of needs but in Muthmainnah's thesis, the author also analyses motivation, behavior, deeds, thought and feeling, speech, and ideology that the main character has, while this thesis only focuses on the hierarchy of needs of the main character to survive, that is physiological, safety, belonging, esteem, and self-actualisation.

And the last previous study, the researcher takes thesis from State Islamic University Sunan Ampel Surabaya entitled *The Struggle of Elijah as The Prophet Shown in Paulo Coelho's The Fifth Mountain* that written by Roksidatul Amillia. In Amillia's thesis, she examines the main character's struggle to achieve self-actualization and illustrates the impact of the struggle of main character through

the story in the novel. The writer uses Abraham Maslow's theory, hierarchy if needs. This theory to analyse the struggle of the main character to achieve the goals.

Amillia's thesis has different focus in her discussion because Amilia focusses on the struggle of the character to face the problems on the way the main character achieves the goals. Although the writer uses hierarchy of needs that the researcher uses but the focuses are different because the researcher's thesis only focuses on the hierarchy of needs of the main character to survive.

#### **CHAPTER III**

#### **ANALYSIS**

The researcher takes analysis in this chapter from the statement of the problem as the base of the analysis. The outline of this analysis explains about the needs of the main character from *The Martian* novel which name is Mark Watney and how Mark Watney fulfils his needs based on the theory that is declared by Abraham H. Maslow, which is called the hierarchy of needs.

This chapter analyse how the main character who strands on Mars fulfils his needs. The researcher analyses what efforts are done by the main character. After analyse the effort, the researcher gets the result of main character's effort. Both of the analyses are based on the hierarchy of needs, start from the lowest needs to the higher one.

#### 3.1 A Brief sketch of *The Martian*

In *The Martian* novel by Andy Weir, the main character's name is Mark Watney. He is the astronaut from NASA that is sent to the mars with the other crew to do the research. Somehow, he is assumed to have died by the other crew and eventually abandoned by the other crew on Mars. However, in fact Mark is still alive.

"For the record... I didn't die on Sol 6. Certainly the rest of the crew thought I did, and I can't blame them. Maybe there'll be a day of national mourning for me, and my Wikipedia page will say "Mark Watney is the only human being to have died on Mars." And it'll be right, probably. Cause I'll surely die here. Just not on Sol 6 when everyone thinks I did." (Weir 01)

It begins when NASA starts The Ares program. Mankind reaching out to Mars and send people to another planet for the very first time and expand the horizons of human's knowledge. The Ares 1 crew did their thing and came back heroes. They got the parades and fame and love of the world.

Then, the time comes for Ares 3, which is Mark Watney's mission. Ares 3 is under Commander Lewis. Commander Lewis lead 5 astronauts including Mark Watney. "Ares 3. Well. That was my mission. Well, not *mine* per se. Commander Lewis was in charge. I was just one of her crew." (Weir 01)

When they arrive on Mars, they begin exploration on Mars's surface.

Suddenly, Lewis tells the crew that the storm is coming to their place. "Mission updates from Houston," Lewis said. "Satellites show a storm coming". (Weir 119) Actually NASA has anticipated the weather on Mars including the storm that often occurs on Mars. But this time, the storm is many times more powerful that MAV (Mars Ascent Vehicle) can handle.

"The mission is designed to handle sandstorm gusts up to 150 km/hr. So Houston got understandably nervous when we got whacked with 175 km/hr winds. We all got in our suits and huddled in the middle of the Hab, just in case it lost pressure. But the Hab wasn't the problem." (Weir 03)

Commander Lewis gives order to go back in Hab because the storm is dangerous. They shook in the roaring wind as the astronauts huddled in the center of the Hab. The Hab canvas rippled under the brutal assault as the internal supports bent and shivered with each gust. The cacophony grew louder by the minute. Because the storm gets worst, Commander Lewis and the other crew decide to go back to MAV (Mars Ascent Vehicle). "All right," Lewis said. "Prep

for abort. We'll go to the MAV and hope for the best. If the wind gets too high, we'll launch.". (Weir 121) They prep to abort the mission and go back to Earth.

On the way to MAV, suddenly Mark Watney slammed by the antennae and the storm thrown Mark away. Commander Lewis tries to find Mark, but she cannot see Mark because the storm reduces their visibility. "It can barely see the Hab," he replied. "The sandstorm's fucking things up. Even if it wasn't, there's not enough metal in- Shit!". (Weir 125) Lewis cannot abandoned her friends here, but if they do not immediately launch to Earth they will be knocked down by the storm.

Commander Lewis and the other crew decide leave Mars without Mark.

Mark is missing because the storm hits him. Commander Lewis and the other thought that mark is dead then they went home without Mark.

```
"Yeah, I see that," Martinez replied. "It'll be enough."
"Commander," Beck radioed. "You need to get to the ship now."
"Agreed," Martinez radioed. "He's gone, Ma'am. Watney's gone."
The four crewmates awaited their commander's response.
"Copy," she finally replied. "On my way." (Weir 126)
```

Unexpectedly, after a day Mark is covered by sand caused by the storm,

Mark is still alive. After he is slammed by the antennae and knocked down, Mark
loses consciousness. Mark loses a lot of oxygen in his suit and bleeding. Then
mark must go to the Hab to recover his condition. That is the way how Mark
survives.

"I stumbled up the hill back toward the Hab. As I crested the rise, I saw something that made me very happy and something that made me very sad: The Hab was in-tact (yay!) and the MAV was gone (boo!). Entering the Hab, I doffed the suit and got my first good look at the injury. It would need

stitches. Fortunately, all of us had been trained in basic medical procedures, and the Hab had excellent medical supplies. A quick shot of local anesthetic, irrigate the wound, 9 stitches and I was done. I'd be taking antibiotics for a couple of weeks, but other than that I'd be fine." (Weir 08)

and after he knows that he is alone on Mars, he must survive until the next program NASA come to save him. Mark must convince himself that he will do anything in order to live. Although he knew that need a long time for help comes to him. Mark must keep his healthy with fulfill his basic needs such as food, drink, vitamin, enough sleep and many more. Besides that, Mark also has to maintain the place he lives.

Based on the issue above, the researcher uses hierarchy of needs from Abraham H. Maslow to analyze the way the main character survives, the researcher analyzes the needs that the main character needs to survive, and how the main character fulfills his needs. Theory from Maslow originally is the part of the humanistic movement in psychology. A system of thought in which human interests and values are the main concern is called humanism. For those reason, humanistic psychologists aim to psychoanalysis and behaviorism, how Freud's point of view to the psychoanalytic habit for learning only the expressively disturbed side of human nature (Schultz 305).

Perception of the humanistic psychologist is limited and more focus to the objective observation of overt behavior until they ignore the conscious and unconscious forces. But a psychology who guided on conditioned responses to stimuli shows the human beings as little more than mechanized robots, reacting to events in predetermined ways. The humanistic psychologists concerned to this understanding, and consider that people are not big white rats or slow computers.

Human behavior is more complex to be explained by the behaviorists' methods (Schultz 306).

According to Maslow, when psychologists study only abnormal, emotionally disturbed examples of humanity, they ignore positive human qualities such as happiness, contentment, and peace of mind. Maslow proposed a hierarchy of five innate needs that activate and direct human behavior. They are the physiological, safety, belongingness and love, esteem, and self-actualization needs (Schultz 311).

# 3.2 The Way Mark Watney Fulfilling The Needs

Based on the issue and the theory, the researcher will know what needs that Mark needs based on Maslow theory which is called as Hierarchy of needs.

Mark's efforts to accomplish his needs are basic step to get the result of this analysis.

Maslow argued that human's behavior may appear from some various motives. For example, the desire for sexual union may be motivated not only by a genital need but also by needs for dominance, companionship, love, and self-esteem. Moreover, the motivation for a behavior may be unconscious or unknown to the person. For example, the motivation for a college student to make a high grade may mask the need for dominance or power. For those reason, Mark in *The Martian* also has a various motive to get his needs.

The researcher will analyze how Mark gets those needs based on second research question in the chapter 1. Because the previous analysis are aimed to

know what Mark needs, then there must be a question, how Mark fulfills those needs. In this subchapter it aims to know the way Mark fulfills the needs based on hierarchy of needs start with the lowest needs to the higher needs.

# 3.2.1 Growing Potatoes on Mars

This subchapter explains Mark's effort to fulfil some of his needs with potatoes which Mark plant. Basically, Mars is planet that no living thing can survive on there. But, in *The Martian* Mark managed grow and harvest potatoes. Mark's success harvests potatoes make he can fulfil some of his needs.

The first need is physiological need, Mark have to fulfil these need every day such as food, and health. Because these needs are very basic needs, then Mark must find the way to fulfil those needs because Mark is stranded alone on Mars. the second is Mark's esteem needs which is Mark get esteem for himself and get esteem from other. If Mark want to survive, whether want it or not Mark must be successfully planted potatoes. And on the bellow are how Mark plant the potatoes:

#### A. Organizing Food Supply

The food supply Mark found is in the Hab that NASA provides to fulfil 6 crew. It is easy to find the supply because inside the Hab is generally is the place for Astronaut to live.

"Today I took stock of supplies, and did a quick EVA to check up on the external equipment. Here's my situation:

The surface mission was supposed to be 31 days. For redundancy, the supply probes had enough food to last the whole crew 56 days. That way if one or two probes had problems, we'd still have enough food to complete the mission." (Weir 06)

But as the previous subchapter explains, the supply food is just for 300 days while Mark know that NASA would take more than a year to save him. For that reason, mark must find the way to not starve to death. And Mark found several potatoes.

# B. Planting Potatoes

After Mark found the potatoes in his food supply, Mark remembered that he is a botanists' degree. And Mark thinks that with those potatoes Mark can try to plant it inside the Hab.

"The total floor-space of the Hab is about 92 square meters. I plan to dedicate all of it to this endeavor. I don't mind walking on dirt. It'll be a lot of work, but I'm going to need to cover the entire floor to a depth of 10 cm. That means I'll have to transport 9.2 cubic meters of Martian soil in to the Hab. I can get maybe 1/10th of a cubic meter in through the airlock at a time, and it'll be backbreaking work to collect it. But in the end, if everything goes to plan, I'll have 92 square meters of croppable soil." (Weir 13)

But to plant the potatoes is not easy on Mars, after he prepared the soil, mark need some bacteria that make soil can be planted by potatoes. "Anyway, it's nice to see progress. Time to start getting the bacteria to work on these minerals." (Weir 14)

After the soil is ready to plant, Mark must have enough water to grow potatoes over and over and it will decrease his water supply. Then Mark try to make a water with an oxygenator and burn the oxygen into a water so the garden he made is enough water.

"My crewmates took the MAV away weeks ago. But the bottom half of it stayed behind. NASA is not in the habit of putting unnecessary shit in to orbit. It left the landing gear, ingress ramp, and fuel plant behind.

Remember how the MAV made its own fuel with help from the Martian atmosphere? Step one of that is to collect CO2 and store it in a high pressure vessel. Once I get that hooked up to the Hab's power, it'll give me half a liter of liquid CO2 per hour, indefinitely. After 5 days it'll have made 125L of CO2, which will make 125L of O2 after I feed it through the Oxygenator. That's enough to make 250L of water. So I have a plan for oxygen. The hydrogen will be a little trickier." (Weir 23).

After Mark plant the potatoes and give a water every day, Mark waiting for 40 days to harvest them and it is narrated bellow;

"I came back to the Hab, had some lunch, and worked on my crops for the rest of the sol. It's been 39 sols since I planted the potatoes (which is about 40 Earth days), and it was time to reap and re-sow. They grew even better than I had expected. Mars has no insects, parasites, or blights to deal with, and the Hab maintains perfect growing temperature and moisture at all times." (Weir 63)

The successful of growing potatoes on Mars make Mark easier to accomplish his needs. There are 3 needs that Mark gets for harvesting the potatoes. The first is food, then health which is in form of physiological needs. The third need is for Mark esteem.

# 1. For Mark's physiological Needs

Maslow's theory has a hereditary component and argues that the lower needs must be satisfied before the higher needs become influential. Thus, we are not driven by all the needs at the same time. In general, only one need will dominate our personality in which it will be depends on which of the others have been satisfied. This first need or the lowest need is called as physiological need.

On the physiological level, Maslow sees people as no different. But once these physical needs are met regularly, they no longer exert pressure. A need fulfilled no longer motivates. For example, a starving person craves only food. But once that need is satisfied, the person is no longer driven by it. The need ceases to direct or control behavior.

The physiological needs of hierarchy of needs are the basic needs such as health, food, sleep. In *The Martian*, Mark Watney as the botanist in the astronaut crew from NASA that does research on Mars has to survive alone because of the accident.

In his struggle to planting potatoes on Mars. Mark automatically fulfill physiological needs, which is food, and Mark Healthy. What makes Mark Watney survive is to fulfill his needs in which the first level of the needs that has to be accomplished is physiological needs. Those needs can be seen in the novel when Mark finds the NASA's supply for the crew of ARES 3.

### A. Food

Food is one of the human basic needs for living. Food includes in the physiological needs of human, that is why food is important and must be fulfilled to survive.

In this novel, it is explained that Mark must survive on Mars after he is abandoned by his crew. For that reason, Mark must struggle to live alone without getting any help from anyone. In this condition, Mark needs physiological needs in the form of food as the basic need to stay alive and survive.

A starving person only cares about food, but once the person is satisfied his/her food, the person no longer driven by it. But, in this condition Mark still get the food supply that is left by other crew in Hab (Mars Lander Habitat) which can

last for 300 days. "We were six days in when all hell broke loose, so that leaves enough food to feed six people for 50 days. I'm just one guy, so it'll last me 300 days. And that's if I don't ration it. So I've got a fair bit of time." (Weir 08)

Beside food supply, Mark must add more food because it will run out before NASA save him. Already explained that the supply is just for 300 days, while Mark predict that took 2 years until the next mission of NASA. Then there are potatoes which is used for seed that can be plant inside the Hab by mark. The harvest can be additional food for 2 years. "At first, they were working on a desperate plan to get a probe here before Sol 400. But I bought another 500 sols of life with my potato farm so they have more time to work on it." (Weir 130)

### B. Health

After got enough food and sleep. Mark need another most important thing that keep Mark survive, it is healthy. Mark also must keep his healthy if he wants to survive, because waiting someone save him on Mars it will take several years. With this condition Mark found the vitamin supply in the Hab so he can keep his healthy for a several time until the vitamin runs out.

"So yeah. Food, water, shelter all taken care of. I'm going to start rationing food right now. Meals are pretty minimal already, but I think I can eat a ¾ portion per meal and still be all right. That should turn my 300 days of food in to 400. Foraging around the medical area, I found the main bottle of vitamins. There's enough multivitamins there to last years. So I won't have any nutritional problems (though I'll still starve to death when I'm out of food, no matter how many vitamins I take)." (Weir 09)

The explanation above is the physiological needs that Mark needs to survive until NASA came to save him. Even physiological needs are the lowest need but it is the basic need that Mark has to fulfil everyday such as food, sleep,

and health. And Mark Watney's physiological needs are fulfilled for a while until NASA save him.

### 2. For Mark's Esteem Needs

Maslow argues that people require esteem and respect from ourselves, in the form of feelings of self-worth, and from other people, in the form of status, recognition, or social success. Satisfaction of the need for self-esteem allows us to feel confident of our strength, worth, and adequacy, which will help us to become more competent and productive in all aspects of our life.

Maslow divides esteem needs into two levels, reputation and self-esteem.

Reputation is the perception of the prestige, recognition, or fame a person has achieved in the eyes of others, whereas self-esteem is a person's own feelings of worth and confidence.

Mark Watney in *The martian* also needs self-esteem as motivation for him to survive. It is in line with what Maslow stated that when the person lack self-esteem, we feel inferior, helpless, and discouraged with little confidence in our ability to cope. It can be dangerous to Mark mental. Then, Mark found his esteem for his botanist degree. He thought that he colonized Mars by plant potato and NASA is counting on Mark because NASA also need a time to save him. It is showed in quotation bellow:

"The meddling botanists have grudgingly admitted I did a good job. They agree I'll have enough food to last till Sol 900. Bearing that in mind, NASA has fleshed out the mission details of the supply probe. At first, they were working on a desperate plan to get a probe here before Sol 400. But I bought another 500 sols of life with my potato farm so they have more time to work on it." (Weir 130)

Esteem needs' analysis above is the esteem that Mark Watney gets from what he did and from whom he gets reputation. Because Mark is alone on Mars, it does not mean that he does not need esteem from himself or the other. That is the reason why the fourth level of hierarchy of needs is also important.

# 3.2.2 Maintaining Mark's Shelter

The maintenance of the Hab or the rover that used by Mark for his safety needs is important because the Hab can explode anytime. But because Mark is doing pathfinder project and often in and out of the Hab that makes Hab's coating ripped and make the Hab's airlock explode and thrown away. Then Mark must fix the Hab for his living place and for communicate with NASA again.

"The hole where Airlock 1 used to be is huge, but surmountable. I have seal-strips and spare canvas. It'll be a lot of work, but I can get the Hab together again. Once I do, I'll re-establish power and get Pathfinder back online. From there, NASA can tell me how to fix anything I can't figure out on my own." (Weir 152)

# 1. For Mark's Safety Needs

The safety needs of Mark on Mars has been provided by NASA actually. But need to know that Mars has a bad storm. It can damage his Hab if he cannot maintain it. NASA also supply the tools for maintenance and all of the crew has been taught how to maintain the Hab. Then in this analysis can be conclude that Mark must maintain his safety needs so that he can survive.

Safety need is the second level of the hierarchy of needs after physiological needs. Maslow said that the needs for safety and security typically are important

drives for infants and neurotic adults. Emotionally healthy adults have usually satisfied their safety needs, a condition that requires stability, security, and freedom from fear and anxiety. He also notes that while these needs are as essentially potent as others, for most well people in a stable society, these needs are easily satisfied and the lack of their satisfaction could usually be found in only a small sample of the populace.

Even though it is different in Mars, it is not easy to find a safety needs but in *The Martian* tells about the astronaut who doing a research more than a week.

That is why NASA also prepare and build a place for the astronaut live and can go out from a danger, this place is called Hab.

"The mission is designed to handle sandstorm gusts up to 150 km/hr. So Houston got understandably nervous when we got whacked with 175 km/hr winds. We all got in our suits and huddled in the middle of the Hab, just in case it lost pressure. But the Hab wasn't the problem." (Weir 03)

Actually, the first need that Mark needs is the shelter. It is because after he is stabbed by the antennae and threw away, his astronaut suit is ripped and caused the oxygen wasted. After Mark conscious about his situation that he wounded and run out of oxygen. The first needs that mark has to fulfill is safety needs. The Hab is the place for Mark to refill his oxygen and in Hab also has a medical tool kit to injury his wound.

#### A. Shelter

In the safety needs, shelter is the important need that Mark needs to survive and Hab is shelter for Mark. In the beginning, it is explained that Mark is in

danger since he is abandoned by the other crew who think that Mark has already dead because of the deadly storm. In that accident Mark is wounded, he is stabbed by the antennae that flew toward him by storm. Mark tries to search Hab to recover his injury because Hab is the only place where Mark can get the oxygen, the new astronaut suit, and the medical tools to treat his wound. It is narrated bellow:

"Entering the Hab, I doffed the suit and got my first good look at the injury. It would need stitches. Fortunately, all of us had been trained in basic medical procedures, and the Hab had excellent medical supplies. A quick shot of local anesthetic, irrigate the wound, 9 stitches and I was done. I'd be taking antibiotics for a couple of weeks, but other than that I'd be fine." (Weir 06)

### B. Security

After Mark gets the primary living place to live on Mars, like the previous explanation. Beside the Hab as a shelter, Mark needs the other security during his journey to get the pathfinder on ARES 2 (previous mission) residual. Pathfinder actually is the first vehicle that NASA launches to Mars and is controlled in the Earth. However, NASA loses contact with pathfinder since 1997 like the narration bellow;

""Pathfinder!" Mindy said. "He's going to Pathfinder!"

"Venkat quickly pulled out his cell phone. "We lost contact with it in 1997. If he can get it online again, we can communicate. It might just need the solar cells cleaned. Even if it's got a bigger problem, he's an engineer!" Dialing, he added "Fixing shit is his job!" (Weir 83)

<sup>&</sup>quot;Yup!" Venkat said. "Now we're getting somewhere. It's like 800km from him. He can get there and back with supplies on-hand."

<sup>&</sup>quot;And bring Pathfinder and Sojourner Rover back with him," Mindy added." (Weir 83)

ARES 2 location is 800km far away from Mark Hab. To go there, Mark uses rover as a vehicle. The rover is the vehicle that use to transfer all of the staff outside the Hab.

"I have two Martian rovers. They have pressure seals, allowing the occupants to drive in ease, without spacesuits, as they spent long periods traversing the surface. They're too cramped to plant crops in, and I want to be able to drive them around anyway. But both rovers have an emergency pop-tent." (Weir 18)

To go to ARES 2 location, Mark need rover as a vehicle. But like the other vehicle that need a security for their driver, moreover on Mars, the rover must strong enough to secure the astronaut from Mars's whether. From the Hab to ARES 2 will take a few days, so the rover is also used by Mark as a security along the way.

"After securing the cells, I come back in, turn on some shitty '70's music, and start driving. I putter along at 25kph, the rover's top speed. It's comfortable inside. I wear hastily made cut-offs and a thin shirt while the RTG bakes the interior. When it gets too hot I detach the insulation duct-taped to the hull. When it gets too cold, I tape it back up." (Weir 84)

The analysis above shows that Mark Watney as the main character in *The Martian must also* fulfill the second need to survive that Mark needs shelter or in this novel, the place of Mark for living is called Hab. And to secure his journey outside the Hab he also need rover as a vehicle and also as a temporary shelter.

# 2. For Mark's phyhsiological needs

For maintaining Mark's shelter, Mark also fulfill his one of the physiological needs. that need is sleep. Sleep is also one of the human basic needs

for living which must be done every day. Mark must rest his body everyday by sleep. By sleep Mark helps to restore his immune.

# C. Sleep

In this novel, It is explained that mars is not originally a place for human to sleep. However, It is the exception for astronaut that cooperates with NASA to make a living place on Mars. It is called Hab, a place for the astronaut to sleep, eat, rest, do the research and many else. Mark has to fulfil the other physiological needs after food, that is sleeping. "Ok, I've had a good night's sleep, and things don't seem as hopeless as they did yesterday. " (Weir 08) Mark must sleep to through the whole to rest of his body until the day NASA saves him. "Man I'm tired. Been up all night and it's time to sleep. But I'll drift off to dreamland in the best mood I've been in since Sol 6." (Weir 32)

### 3.2.3 Finding and Fixing Pathfinder

Mark uses the pathfinder to communicate with his crew and NASA. The point is Mark is not alone even he stranded on Mars over a year using pathfinder. However, to get this needs fulfilled is not easy. Mark must find the way out to communicate with Earth, how NASA can recognize him that he still alive. First Mark must pathfinder that left on ARES 2 location and it is showed in quotation bellow:

"By my reckoning, I'm about 100km from Pathfinder. Technically it's "Carl Sagan Memorial Station." But with all due respect to Carl, I can call it whatever the hell I want. I'm the King of Mars. As I mentioned, it's been a long, boring drive. And I'm still on the outward leg. But hey, I'm an astronaut. Long-ass trips are my business." (Weir 85)

After the long journey, Mark arrived at the pathfinder location. He starts digging the pathfinder which is covered by sand, need to know that that thing was buried for a dozen years. Mark must dig pathfinder part by part quick and carefully. It is narrated bellow:

"The Lander was half buried. With some quick and careful digging, I exposed the bulk of it, though the large tetrahedron and the deflated balloons still lurked below the surface.

After a quick search, I found Sojourner. The little fella was only two meters from the Lander. I vaguely remember it was further away when they last saw it. It probably entered a contingency mode and started circling the Lander, trying to communicate." (Weir 89)

After Mark get the pathfinder, Mark must bring it back into the Hab. But along the way to Hab, Mark is lost his signal radio because is broken and Mark lost his radar to Hab. Mark must approach Hab until 100km to get the signal and Mark get the radar back. It is showed in quotation bellow:

"I'll start heading home tomorrow, with my new 100kg broken radio." (Weir 92)

"I got 2 seconds of signal from the Hab beacon today, then lost it. But it's a good sign. I've been traveling vaguely north-northwest for two days. I must be a good 100km from the Hab; it's a miracle I got any signal at all. Must have been a moment of perfect weather conditions." (Weir 94)

Then Mark finally get the Pathfinder to the Hab and direct the antennae to the Earth. NASA get the signal from Mark and start communicate with the camera, and it is difficult for Mark, then NASA give an instruction to Mark so that pathfinder can be link to the rover computer and make Mark can chat easily with NASA and the other crew. It is showed in quotation bellow:

""It is!" Jack said excitedly. "First, we update Pathfinder with our replacement OS. Then, we tell Watney exactly how to hack the rover

software to add those 20 instructions. Then we broadcast the rover's patch to Pathfinder, which re-broadcasts it to the rover. The rover logs the bytes to a file. Finally, Watney launches the file as an executable and it patches the rover software!" (Weir 108)

Mark's struggle to find and fix the pathfinder is for fulfil some of his needs.

There are 2 needs from hierarchy of needs will accomplish when Mark through those struggle. First is for belonging and second for self-actualization.

# 1. For belonging needs

After Mark success with his pathfinder and can communicate with NASA and other crew, Mark's belonging needs is fulfil. It is already shown at previous subchapter. Mark get his belonging by his crew for being a part of group and affection.

Belonging needs can be expressed through a close relationship with a friend, lover, or mate, or through social relationships formed within a group. Giving love to someone or being loved by someone is not just between a couple, whatever its relation, if there is understanding and accepting each other, it can be called belongingness.

Maslow argued that the love of belongingness is different with love with sex that include in the physiological needs. Love in belongingness needs is important because human as a social beings need friends in their life. If this needs are not satisfied human will feel lonely.

Mark Watney in *The Martian* also a normal human that needs friend, lover, or mate, or through social relationships formed within a group. Mark maybe will

be crazy if he totally alone in years before NASA save him. For that reason, this third level of hierarchy is important. Mark tries to find a way to communicate with Earth and the other crew and find pathfinder as the tools to communicate with them.

# A. Being a Part of Group

Actually, in the journey to Mars, Mark becomes a part of group of astronaut that NASA sends, 6 crew total including Mark. Some accidents make them separated. But, with Mark's struggle to communicate with other. Then with pathfinder Mark connects it to the earth and the other crew again.

Those condition make Mark is not alone again even he just communicates with his crew via pathfinder in the earth, but for Mark it also can satisfy the third level of his needs, the belonging needs. It is narrated bellow:

"[19:27]MAV: Roger. So uh... thanks for coming back to get me.

[19:27]JOHANSSEN: It's the least we could do. How is the MAV retrofit going?

[19:28]MAV: So far, so good. NASA put a lot of thought into the procedures. They work. That's not to say they're easy. I spent the last 3 days removing Hull Panel 19 and the front window. Even in Mars-G they're heavy motherfuckers.

[19:29]JOHANSSEN: When we pick you up, I will make wild, passionate love to you. Prepare your body.

[19:29]JOHANSSEN: I didn't type that! That was Martinez! I stepped away from the console for like 10 seconds!

[19:29]MAV: I've really missed you guys." (Weir 303)

### B. Affection

The next needs in belonging needs is affection. In this need, Mark needs is fulfilled when he first gets communication with the other crew. Pathfinder

succeed move to the rover computer, so Mark and the other crew can chat normally without long delay and it easier for Mark to communicate.

In their chat between Mark and the crew, the affection need is fulfilled. Mark feel being loved from the crew because they feel regret and guilt for abandoned Mark, they did not know if Mark still alive. And the first chat that makes Mark feel the affection is when the crew says sorry and regret for abandoned Mark, and it is like the narrated bellow;

"Dear Watney: Sorry we left you behind, but we don't like you. You are sort of a smart-ass. And it's a lot roomier on Hermes without you. We have to take turns doing your tasks, but it's only botany (not real science) so it's easy. How's Mars?

-Martinez." (Weir 130)

The safety needs are already fulfilled by the explanation above. Even Mark is alone on Mars, but he can communicate with the other crew and it makes Mark not lonely. Mark feel being a part of group and he also gets the affection to motivate him to survive until NASA save him.

### 2. For Mark's Self-actualization

Self-actualization needs is the higher needs in hierarchy of needs because like Maslow said, if self-actualization is not fulfilled by a person, he or she will be frustrated, and discontent. Maslow said a musician has to create a music, an artist must paint, a poet must write to be ultimately at peace (Schultz 315).

Self-actualization becomes potent when the esteem need is fulfilled. Self-actualization needs in a person contains self-fulfillment of a person itself, the desire to become imaginative in the full sense of the word (Feist 284). Means that

a person has to show up his or her potent to achieve his goals or called selfactualization.

In *The Martian*, Mark as the main character is clearly what his goals and refers to what his self-actualization. When he stranded alone on Mars, the higher need of Mark is to survive. Then when the other crew back to save him, he fulfills his self-actualization directly. It is narrated bellow:

"That "687" caught me off guard for a minute. On Hermes, we track time by mission days. It may be Sol 549 down on Mars, but it's Mission Day 687 up here. And you know what? It doesn't matter what time it is on Mars cause I'M NOT FUCKING THERE!" (Weir 329).

The analysis about Mark's self-actualization above is clearly fulfilled.

However, Mark must fulfill this needs because in this issue if Mark can't fulfill or fail to fulfill it, Mark automatically die on Mars.

Mark must face many problems until NASA sends the crew back to save him. To reach his self-actualization Mark need help from NASA also the other crew. After Mark succeed communicate with NASA, NASA made a rescue mission that is executed by other crew because they have not arrived on Earth yet. They decide to came back and save Mark. It is showed in quotation bellow:

""All right," Lewis said. "Looks like we can do it. But I don't want peer pressure forcing anyone into it. We'll wait for 24 hours. During that time, anyone can change their mind. Just talk to me in private or send me an email. I'll call it off and never tell anyone who it was." Lewis stayed behind as the rest filed out. Watching them leave, she saw they were smiling. All four of them. For the first time since leaving Mars, they were back to their old selves. She knew right then no one would change their mind. They were going back to Mars." (Weir 188)

After that, the rescue mission for Mark toward Mars is on its way. Captain Lewis and the other crew try to save Mark with a Hermes (spaceship). After every plan is done, Mark was rescued and save in Hermes.

"They floated in to the airlock, and Vogel grabbed them. Beck and Watney both reached for handholds on the wall as Vogel worked his way around them and closed the outer door.

Lewis's voice echoed across the world: "Houston, this is Hermes Actual. Six crew safely aboard." " (Weir 328)

Mark must wait almost two years and it is not easy to survive alone on the planet which is actually not for human to live. Mark starts to manage his food and find the way to produce the food, at least enough for 2 years. It has been analyzed in physiological need. Then Mark must maintain his Hab and also the rover which is used for his safety need. After safety need, there is Belonging need in which Mark also needs the other people to motivate him to survive and to give the information that Mark is still alive and need help. The next is esteem need which is needed for himself so that he can grow crops on Mars and other esteem from NASA for count on Mark to do the best until NASA save him. With all of those needs, finally Mark can achieve the last need, it is self-actualization.

<sup>&</sup>quot;Aboard!" Beck said.

<sup>&</sup>quot;Airlock 2 outer door closed," Vogel said.

<sup>&</sup>quot;Yes!" Martinez yelled.

<sup>&</sup>quot;Copy," Lewis said.

### **CHAPTER IV**

### CONCLUSION

Basically, Mark Watney as the main character in *The Martian* novel is the character who represents the author itself. Mark Watney is the astronaut who shuttles Ares III on Mars to gather samples with other 6 crew. The crew notices that a storm is approaching. Heavy winds and sand gust surround them. Then a satellite dish breaks off and strikes Watney. He had been abandoned by the other crew of Ares III because they thought that Mark Watney was dead in a middle of storm, but actually Mark is still alive. Mark Watney must fulfil his needs to survive and find the way to contact with NASA so that NASA can save him on Mars. For these issue, the researcher uses Abraham H. Maslow's theory which is called as hierarchy of needs theory to find out what needs that Mark must fulfil and how Mark fulfill those needs.

In the chapter III, it has already explained that in Mark's survival act he must fulfil the needs based on hierarchy of needs by Abraham Maslow. There are 5 levels of needs in hierarchy of needs, start from the lower needs to the higher needs. The first or the lower need is called physiological needs. In this needs, Mark must fulfil food, sleep, and health. In Mars, Mark fulfils his food and health with the NASA's food supply and Mark sleeps inside the Hab that NASA provides, but food supply is not enough until NASA save Mark, then Mark plants the potatoes to add more supply. The second is safety need. Mark fulfils this need by staying inside the Hab that NASA provides. Then, for his secure outside the

Hab is the rover which is a vehicle for astronaut to explore Mars. The third is belonging need. Marks's belonging needs is Mark get the affection from the other crew. Actually Mark is alone on Mars, but somehow he can communicate with NASA and his crew with pathfinder. The fourth is esteem need. In this need, Mark needs to fulfil his self-esteem first in which Mark is success with planting crops on Mars, then with his self-esteem, appear esteem for other that explain before is NASA also proud with Mark's job for planting potatoes so that NASA can save him in time. The last is self-actualization, clearly what Mark need when he stranded alone on Mars, that is Mark's self-actualization is to go home or go back to Earth.

In the chapter III, it has already explained that the most basic need is physiological. Mark fulfils this need by growing potatoes, start from preparing soil inside the Hab, adding some bacteria that make soil can be planted. Then Mark must make water with an oxygenator until Mark can harvest potatoes. To harvest potatoes, Mark fulfils his food in form of physiological need, and also fulfils esteem need because Mark is proud of himself that can plant crops on Mars. Mark also gets esteem from NASA because he can add more food supply until NASA save him in time. The next is the way Mark maintaining the Hab as a shelter because Mars has a bad storm. It can damage his Hab if he cannot maintain it. Mark seals the airlock and with spare canvas and cover it with seal-strips. The next is the way Mark finding and fixing the pathfinder (robot that NASA left on Mars at the previous mission that use to explore Mars and controlled it on Earth) to communicate with NASA so that Mark can fulfill his belonging needs. Mark

must explore to the previous mission that is located 800km far from the Hab using rover. After he gets the pathfinder, Mark must fix pathfinder until can send a signal to Earth. Then, after fulfilling his belonging needs, the pathfinder also be tools for Mark to ask for help on Earth so that Mark can be rescue After NASA knows that Mark is still alive, they give another mission to the crew ARES III to rescue Mark. And Mark also prepare the MAV (Massive Ascendant Vehicle) to launch him into Hermes (Spaceship) ship so that the crew can catch him and bring Mark inside Hermes to bring Mark go home.

In a nutshell, Mark as the main character strands on Mars and must survive. His survival demands Mark to fulfil his need, even though he must through a lot of obstacles until he can achieve his self-actualization or his goal that is coming back to the Earth. Finally, Mark's survival act can be achieved with fulfilling his needs so he can return to Earth.

### **WORK CITED**

- Albrecht, Milton. *The Relationship of Literature and Society*. American Journal of Sociology: Vol. 59 No. 5, March, 1954. 425-436.
- Amillia, Roksidatul. *The Strugle of Elijah as the Prophet Shown in Paulo Coelho's The Fifth Mountain*. Undergraduate thesis, UIN Sunan Ampel Surabaya. 2016.
- Bennett, Andrew. and Royle, Nicholas. *Literature Criticism and Theory Third Edition*. Pearson Longman. 2004.
- Beres, Louis Rene. *Death, The Herd and Human Survival*. International Journal on World Peace: Vol. 16 No.3, September, 1999. 3-21.
- Blackwell, T. Eagleton. *Literary Theory: An introduction Second Edition*. Blackwell. 1996.
- Blackwell, T. Eagleton. *The English Novel: An Introduction*. Blackwell. 2004.
- Brown, Paul. The Legend of Zelda and Abraham Maslow's Theory of Needs: A Social-Psychological Study of the Computer Game and its Players. Undergraduate thesis, University of Manchester. 2012.
- Childs, Peter and Fowler, Roger. *The Routledge Dictionary of Literary Terms*. Routledge: USA and Canada. 2006.
- Crandel. *The Quality of America Life, Perceptions, Evaluations, and Satisfactions*. Russell Sage Foundation: New York. 1987.
- Feist, Jess and Feist, Gregory J. *Theories of Personality Seventh Edition*. McGraw-Hill: United States of America. 2008.
- Forster, E. M. Aspects of the Novel. Harcourt, Inc.: San Diego. 1927.
- Griffin, E. M. A Frist Look at Communication Theory. McGraw-Hill Companies Inc.: New York. 2006.
- Klarer, Mario. An Introduction to Literary Studies. Routledge: London. 1999.
- Kuncorowati, Puji. *Menurunnya Tingkat Kesadaran Hukum Masyarakat di Indonesia*. Journal Civics Vol.6 No.1, June, 2009. 61-75.
- Maslow, Abraham H. *Motivation and Personality*. Harper & Row, Publishers, Inc.: New York. 1954.

- Max, N., Manfred, A. Human Scale Development: Conception, Application and Further Reflection. The Apex Press. 1991.
- Muthmainnah, Cut. A Main Character Analysis of the Zahir Using Hierarchy of Needs of Abraham Maslow's Theory. University Syarief Hidayatullah Jakarta. 2009.
- Rosyidin. *English Phonological Rules Applied in The Martian*. Undergraduate thesis, UIN Maulana Malik Ibrahim Malang. 2016.
- Ryckman, R.M. Theories of Personality. Van Nostrand Reinhold Company. 1978
- Schultz, Duane. P and Schultz, S. E. *Theories of Personality Eight Edition*. Wadsworth. 2005.
- Venugopalan. Maslow's theory of motivation its relevance and application among non-managerial employees of selected public and private sector undertakings in Kerala. Undergraduate thesis, Department of Commerce & Management Studies: University of Calicut. 2007.
- Weir, Andy. The Martian novel. Amazon: United State. 2014.
- Wellek, Rene. and Warren, Austin. *Theory of Literature Third Edition*. Harcourt Brace Jovanovich, Publishers: New York. 1962.
- Wulandari, Hikmah. The Spirit of Survival of Mark Watney Reflected in Andy Weir's The Martian Novel: An Individual Psychology study. Muhammadiyah University of Surakarta. 2015.

# INTERNET SOURCES;

https://fgulen.com/id/karya-karya/1885-membangun-peradaban-kita/49340-membangun-peradaban-kita

www.andyweirauthor.com/bios/andy-weir

https://www.nasa.gov/about/index.html