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Astronautic Registers: Translation Strategies and Acceptability

Azhar L Hakim[1], Asrofin N Kholifah[2*], Dyah R Purwaningsih[3]

[1,2,3]*Universitas Jenderal Soedirman, Indonesia*

[1] zhar0077@gmail.com, [2*]asrofin.kholifah@unsoed.ac.id, dyah.purwaningsih@unsoed.ac.id

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ABSTRACT

This study aims to investigate the translation strategies to translate the astronautic registers as well as the acceptability of the translation. The data comprise 74 astronautic registers in the source text and their Indonesian translations in *The Martian* novel. The results showed that 6 translation strategies are identified to be applied, namely translation by a more general word (12%), translation by a more neutral or less expressive word (22%), translation by loan word and loan word plus explanation (17%), translation by paraphrase using related words (31%), translation by paraphrase using unrelated words (15%), translation by omission (3%). This implies that most of the registers actually have similar equivalents in the target language, but the forms have to be modified in the target language to capture the central message. Furthermore, in terms of acceptability, 58% data are acceptable, 35% data are less acceptable, and 7% data are unacceptable.

1. INTRODUCTION

Society is made up of people with many kinds of different backgrounds. Therefore, it is not surprising if the ways people use their language to communicate with each other are affected by diverse backgrounds. Even certain social groups such as communities of occupation might create their own set of linguistic items used in their community and may mean differently in other communities. Linguistically, those linguistic items are called registers.

The term 'register' is described by Holmes (2001:246) as the language of groups of people with common interests or jobs, or the language used in situational associated with such groups. He also adds, "others use the term 'register' more narrowly to describe the specific vocabulary associated with different occupational groups". Drawing from the previous statements, a register can be defined as the vocabularies used in a certain social group that either the vocabularies do not exist in other social groups or the meaning is different in other social groups. One of the social groups that commonly uses register is a community of a profession. Those registers usually refer to activities or concepts related to their job.

Fictional works such as novels can also present registers of certain professions depending on the story. One of the examples is the novel titled *The Martian*. The story of *The Martian* revolves around space exploration and astronaut occupation. Therefore, the novel encompasses a high number of registers related to space and astronautic field that may sound unfamiliar to common readers. The case of unfamiliar registers also applies to non-English-speaking readers who read the translated version of the novel. They have to rely on how the translator transfers the concept and idea within the astronautic registers from the source language to the target language. in other words, translation plays a vital role for foreign readers to understand and enjoy the translated novel. Therefore, a translator needs to find a ways or strategies for conveying message in order to make the resulting translation understandable and acceptable for the readers.

Baker (2018: 24-45) formulates eight translation strategies, which have been used by professional translators, to cope with non-equivalence issues when translating at word level terms including register. In order to find out whether or not a translator uses appropriate strategies to tackle problems in translating register and provides a good and natural translation to the readers, assessing the quality of the translation of astronautic register is needed. According to Nababan (2012:44), a high-quality translation should meet three aspects; accuracy, readability, and acceptability. For that reason, in the model proposed by Nababan, et. al., the three are employed as parameter to assess and evaluate the quality of a translation.

In register translation, the paramount dimension used as parameter is acceptability. This condition fits the phenomenon of how most of registers in one language have no direct equivalent terms or expressions in different languages, so it will sound unnatural if the registers are translated literally in the target language. Analysis with Nababan's (2012) model by focusing on acceptability becomes a central element in this research. Focusing on acceptability in the assessment allows the researcher to identify whether the translator is able to reproduce natural expressions in the target language regardless the different culture or field. The nature of the analysis can evaluate whether certain strategies are used properly by the translator or not.

Analysis of technical term translation has been conducted in the past. However, there are few featuring fictional works as the object of research. One of them is Ariawan & Asmarani's (2018) research analyzing the technical term translation in the novel of *The Martian* from English into Indonesian. They used Nababan et. al.'s (2012) Translation Quality Assessment to evaluate the quality of the translation of technical terms within the novel under various fields such as Botany, Astronomy, Chemistry, And Pharmacy. In analyzing the translation quality, they also used the raters' assessment to determine the translation quality in terms of accuracy, acceptability, and readability.

Compared to the previous research, this research also uses the same novel as the object. However, the difference can be seen in the linguistic unit used as the data in the analysis. While the previous research includes all technical terms from various fields, this research only focuses on analyzing the translation of register in the field of Astronautics. The research highlights how the translation of register in fiction may be affected by the genre of the story. While the genre of the novel itself is sci-fi that revolves around astronautic field, it will not be surprising if there are some made-up astronautic registers within the story. Therefore, focusing only on the field of Astronautics should result more focused findings in discovering how a translator uses their knowledge regarding the field of Astronautics to translate the registers properly. Moreover, research that focus solely on astronautic register translation has never been done in the past. Therefore, this research aims to analyze the translation strategies of the astronautic register in The Martian and to explain the acceptability of the translation of astronautic register within the novel.

2. METHOD

There are two types of data in this research The first type of data in this research is all the phrases and words in *The Martian* and *The Martian – Si Penghuni Mars* novel which belong to astronomic registers. The other category consists of the results of the questionnaire distributed to and completed by three raters who assessed the acceptability of the translation of the data. The results of the questionnaire consist of scores, comment and views which indicate the level of acceptability.

To collect the data, the researcher used non-interactive method. The researcher collected the primary data by identifying and analyzing the content. To confirm whether certain terms are under the field of Astronautics or not, the researcher used *Oxford's A Dictionary of Space Exploration* (2018) as the main reference. The researcher then prepared the questionnaire that would be used to collect data from the raters. Using Nababan et. al.'s (2012) model of translation quality assessment, the questionnaire contains scores to assess the acceptability of the translation of the register. Afterwards, the researcher distributed the questionnaire to the raters and collected the data from the completed questionnaire. In this research, the researcher involved three freelance translators as raters. The raters assessed the acceptability of the register translation by giving score from 1 to 3 with their underlying reasons.

To analyze the data, first, the data were reduced. The reduction was done to avoid redundancy resulting from the different occurrence of the same items. Second, the data were displayed in more composed and organized manner. The data that consist of words within the domain of astronautic registers were displayed along with their translations and the strategies used to translate them. Meanwhile, the second type of data were analysed to reveal level of acceptability. Furthermore, a code was given to each datum for the purpose of ease of the analysis.

Lastly, the researcher drew the conclusion from the data display. From the analysis of the data taking form of phrases and words, the researcher deduced the circumstance underlying the use of certain strategies. The definition of each register by *Oxford's Dictionary of Space Exploration* (2018) was used to support the analysis. To draw the conclusion about the level of acceptability, the result of the questionnaire distribution was analysed to reveal why certain translations are considered acceptable, less acceptable, or unacceptable. Raters' comments were used to support the analysis. Finally, data verification was done by revisiting the data as many times as necessary to crosscheck or verify the emergent conclusion.

3. RESULT AND DISCUSSION

3.1. Result

Out of the eight translation strategies proposed by Baker, the researcher identified six strategies used by the translator to translate all the 74 astronautic registers in The Martian novel from English into Indonesian. Those strategies consist of translation by a more general word, translation by a more neutral or less expressive word, translation using a loan word or loan word plus explanation, translation by paraphrase using related words, translation by paraphrase using unrelated words, and translation by omission. The detailed distribution of the data is as follows:

Table 1. Translation Strategies Used for Translating Austronautic Registers

No.	Translation Strategies	Number	Percentages
1	translation by a more general word	9	12%
2	translation by a more neutral or less expressive word	16	22%
3	translation using a loan word or loan word plus explanation	13	17%
4	translation by paraphrase using related words	23	31%
5	translation by paraphrase using unrelated words	11	15%
6	translation by omission	2	3%
	Total	74	100%

As displayed in Table 1, the most frequently used strategy is translation by paraphrase using related words. Out of 74 data of astronautic registers, 31% or 23 data are translated using paraphrase using related words. This indicates that most of the astronautics registers in the novel of The Martian actually have equivalent terms in TL, but in different forms. This phenomenon can also be seen in how the translator uses the second most frequently used strategy, translation by a more neutral or less expressive word. There are 22% or 16 data translated into the target language using translation by a more neutral or less expressive word. This strategy means that the closest equivalents of some of the astronautic registers are found in the target language which have lesser expressive meaning or in different forms.

In contrast to the first two strategies, the third most frequently used strategy is using loan word and loan word plus explanation strategy. Out of 74 data, 17% or 13 data are translated by using loan word and loan word plus explanation. This means that there are still some astronautics registers which the translator decides that using the original items is better. As it is explained by Baker (2018:34) loan word and loan word plus explanation is particularly common in dealing with culture-specific items, modern concepts, and buzzwords. In other words, some astronautic registers in The Martian can be referred to modern concepts and there still no natural one-to-one equivalents in the target language. Meanwile, the fourth most used strategy in translating astronautic registers in The Martian is translation by paraphrase using unrelated words. There are 15% or 11 data that are identified to be translated using paraphrase using unrelated words. The use of this strategy implies that the translator actually understands the idea or concept behind the astronautics registers. However, since there is no direct equivalent in the target language, translator has to use paraphrase, resulting in other forms that may be unrelated to the original terms. Having a close percentage with the translation using paraphrase, translation by a more general word becomes the fifth in terms of the frequency of the use of the strategy. There are 12% or 9 data which are identified as translated by the strategy of translation by a more general word. The use of this strategy implies that the translator finds a lack of specificity in the closest equivalent of the terms in the target language.

Lastly, the strategy with the lowest frequency of use in translating astronautic registers in The Martian is omission. There are only 3% or 2 data that are classified into items translated by using translation by omission. This is because omission is considered a drastic strategy that can only be used effectively in some contexts. It is confirmed by Baker (2016:43) that "If the meaning conveyed by a particular item or expression is not vital enough to the development of the text to justify distracting the reader with lengthy explanations, translators can and often do simply omit translating the word or expression in question".

3.2. Discussion

3.2.1. Translation strategies

Based on the findings, the following are the discussion of each translation strategy employed by the translator to transfer the austronautic registers from English into Indonesian.

Firstly, translation by a more general words is used to cover the core meaning or messages of the terms in the source language. Baker (2018:27) stated that this strategy is used to overcome a relative lack of specificity in the target language compared to the source language and give clearer understanding for the target readers. There are 9 data where the astronautic registers are translated from English into Indonesian using translation by a more general word. The following is the example.

Datum 49/I/A

SL: US destroyer Stockton reports **debris** falling from the sky.

TL: *Kapal perang Stockton melihat **puing-puing** yang melayang jatuh dari langit.*

In the example, the translator uses translation by a more general word to translate the astronautic register 'debris' into '*puing-puing*' in the target language. According to Dictionary of Space Exploration (2018), the definition of 'debris' refers to a defunct spacecraft (or pieces of spacecraft) that remain in orbit after the end of mission. From the definition, the term 'debris' in the astronautic field is used specifically to refer the wreckages of spacecraft parts that tend to float in orbit. However, since there is no equivalent term in the target language that bears the same meaning and specificity as it is in the source language, the translator decides to use a more general word. The term '*puing-puing*' according to Kamus Besar Bahasa Indonesia V (2016) refers to the remnants of ruined buildings or airplanes. The use of this term results in a more general definition compared to the term in the source language, but still holds a similar concept and idea. In the exemplified case, Baker's translation by a more general word manages to tackle the lack of specificity and give the audience in the TL a similar idea and messages of the terms in the source language.

Secondly, translation by a more neutral or less expressive word is applied in some cases, the expressive word of the source language can be unsuitable when transferred into the target language literally. However, it is possible to retain the expressive meaning in the target language by adding a modifier in the use of the less expressive word. There are 16 instances where the astronautic registers are translated from English into Indonesian using translation by a more neutral or less expressive word. The following is the example:

Datum 22/II/A

SL: The only moving parts on the lander are the high-gain antenna (which would have to stay pointed at Earth) and the camera **boom**.

TL: *Satu-satunya bagian yang bisa bergerak di landasan itu hanya antena tinggi (yang harus tetap terarah ke Bumi) serta **tiang** kamera*.

In the given example, the translator uses translation by a more neutral or less expressive word to translate the astronautic register 'boom' into '*tiang*' in the target language. The term 'boom' in general use (outside the field of Astronautics) refers to some kind of explosion has an equivalent in the target language which is '*ledakan'*. However, the term has completely different intended meaning and idea in the field of Astronautics. According to Dictionary of Space Exploration (2018), the term 'boom' refers to a long metal beam extending from a spacecraft and serving as a structure subsystem. From the definition, more neutral or a less expressive word is used that can capture the concept and idea of the register, which is '*tiang'*. Kamus Besar Bahasa Indonesia V (2016) defines '*tiang'* as long pole (made of bamboo, metal, wood, etc.) that is placed to serve a certain purpose. From the definition, it can be seen that the concept or idea behind those terms are similar and the translation is commonly used in technical field. It means that using translation with a more neutral and less expressive word in such environment manages to provide the audience with the message bearing a similar intended meaning as it is in the source language.

Thirdly, translation using a loan word or loan word plus explanation is usually applied in dealing with culture-specific items, modern concepts, and buzzwords that do not have any equivalent in the target language. Using the loan word with an explanation is very useful when a word is repeated several times in the text. At the first time, the word is mentioned along with the explanation and in the next mentions, the word can be used on its own without repeated explanation. There are 13 data where the astronautic registers are translated from English into Indonesian using translation using a loan word or loan word plus explanation. The following is the example.

Datum 06/III/A

SL: Checking out my suit, I saw the antenna had plowed through my **bio-monitor** computer.

TL: *Saat memeriksa pakaian antariksaku, aku melihat antena itu ternyata merusak komputer **bio-monitor**ku.*

In this example, the translator uses translation using a loan word to translate the astronautic register 'bio-monitor' from the source language into 'bio-monitor'. According to Dictionary of Space Exploration (2018), bio-monitor refers to an aeromedical sensor used on spacesuit. There are four sensors taped to the astronaut's chest for electrocardiograph readings, a thermistor in the helmet to check respiration rate and depth, an arm cuff to monitor

blood pressure, and rectal probe for body temperature. The term 'bio-monitor' stands for 'biomedical monitoring sensor' and has no equivalent term in the target language. The translator may translate the term into '*monitor sensor biomedis*'. However, the decision will result in an unnatural translation that not only sounds unfamiliar but also loses its expressive meaning as technical term derived from modern concept. Additionally, the original term 'bio-monitor' consisting of 'bio' and 'monitor' is more applicable to be used in the target language since both words exist in Indonesian. Kamus Besar Bahasa Indonesia V (2016) defines 'bio' as life or living organisms, and 'monitor' as a tool to watch over or observe. The definitions of the two terms in Kamus Besar Bahasa Indonesia V are similar to the meaning carried by the original term. Ultimately, the use of loan word is able to capture the sense of technical terms and results in more familiar term to the readers.

Next, translation by paraphrase using a related word is used when the terms in the source language have equivalents in the target language but in different forms, and when the frequency with which a certain form is used in the source text is obviously higher and it sounds unnatural in the target language. There are 23 instances where the astronautic registers are translated translation by paraphrase using a related word. The following is the example.

Datum 71/IV/A
SL: Sugar in **zero g** will float and the grains will separate, maximizing surface area.
TL: *Gula dalam **gravitasi nol** akan mengambang dan butiran-butirannya akan memisah, memaksimalkan area permukaan.*

In the example, the translator uses translation by paraphrase using a related word to translate the astronautic register 'zero g' from the SL into '*gravitasi nol*'. According to Dictionary of Space Exploration (2018), zero g is an absence of gravity or its apparent force. In other words, the letter 'g' stands for the term 'gravity'. However, since the letter 'g' is not generally used to refer 'gravity' in the target language, a more naturally used form is used. Kamus Besar Bahasa Indonesia V (2016) defines '*gravitasi'* as the force that attracts things toward the center of the earth and '*nol*' as a number symbolized with 0. This made the translation of the term 'zero' into '*nol*' possible. Therefore, by using the strategy of paraphrasing with related word, the resulting translation is '*gravitasi nol*', and it is able to capture the similar intended idea and meaning as those of the original registers.

In addition, translation by paraphrase using unrelated words is frequently applied when the meaning of the terms in the source language is too complex in the target language. Paraphrase can be used and instead of using related words, paraphrase may be based on modifying the terms or simply making clear the meaning of the source labguage terms. There are 11 instances where the astronautic registers are translated from English into Indonesian using translation by paraphrase using an unrelated word. The following is the example.

Datum 13/V/A
SL: The **rover** has external handles near the front and back.
*TL: **Kendaraan penjelajah** memiliki beberapa pegangan luar di bagian depan dan belakang*

In the given example, the translator uses translation by paraphrase using unrelated words strategy to translate the original astronautic register 'rover' into '*kendaraan penjelajah'*. This strategy is justified mainly because there is no term equivalent to the register in the target language. In order to producing a translation that can convey a similar intended meaning, the translator has to unpack the idea or concept behind the register and use paraphrase to convey the idea in accordance to the nature of the target language. The translator comes up with the term '*kendaraan penjelajah*'. The definition of 'rover' according to Dictionary of Space Exploration (2018) is a spacecraft that moves across the surface of a planet or moon. Its tasks can include investigating and collecting soil samples, and transmitting pictures of the landscape. Meanwhile, Kamus Besar Bahasa Indonesia V (2016) defines the '*kendaraan'* as something to drive or to ride, while '*penjelajah'* as someone or something that travels to explore or cruise. The terms then can be back translated into English roughly as some kind of vehicle used to explore or investigate a certain area. This means the both the original and the translation indeed hold a similar idea or concept based on the definitions. Furthermore, the term '*penjelajah'* is also commonly used as part of terms that refer a certain type of ship, cruiser (as '*kapal penjelajah*' in Indonesian). In other words, the term '*kendaraan penjelajah*' can be considered familiar in the target language.

Finally, translation by omission is employed if the meaning conveyed by a particular term or expression is not necessary to mention in the understanding of the translation in the target language. Translators mainly use this strategy to avoid unnecessary explanations when the translation is limited to space. Furthermore, there is inevitably some loss of meaning when words and expressions are omitted in a translation. Therefore, Baker (2018 p. 45) stated that it is advisable to use this strategy only as a last resort, when the advantages of producing a smooth, readable translation clearly outweigh the value of rendering a particular meaning accurately in a given context. There are 2 data which are translated from English into Indonesian using translation by omission. The following is the example.

Datum 61/VI/A
SL: Then I detach it from the outer **hatch** and close the outer door.
TL: Lalu aku melepas kamar tidur itu dan menutup pintu luar.

In this example, the translator uses translation by omission to translate the astronautic register 'hatch'. According to Dictionary of Space Exploration (2018), hatch refers to a door in spacecraft. Referring to the definition, there is no direct equivalent specifically for the register in the target language. The register is omitted and the translated sentence can be back-translated into English as "Then I detach the bedroom and close the outer door." However, in this datum, this strategy also succeeds to eliminate redundancy that may come if other strategies are used. This is because the closest equivalent of the register 'hatch' in the target language is a more general word '*pintu'* ('door' in English). Meanwhile, both the term 'hatch' and 'door' appear in the same sentence, so translating them using the same word will create redundancy and the translation may sound unnatural to the TL readers. Therefore, in the example translation, the use of translation by omission strategy not only manages to tackle the non-equivalence problem but also makes the translation conform to the nature of the target language.

3.2.2. Acceptability of the Translation of Astronautic Registers

This section discusses how translation strategies influence the translation acceptability. Table 2 is provided to give a better illustration.

Table 2. The Impact of Translation Strategies on Acceptability.

Translation Strategies	*Level of Acceptability*			
	Acceptable	*Less Acceptable*	*Unacceptable*	*Total*
I	*6 (67%)*	*2 (22%)*	*1 (11%)*	*9 (100%)*
II	*8 (50%)*	*8 (50%)*	*0*	*16 (100%)*
III	*11 (85%)*	*2 (15%)*	*0*	*13 (100%)*
IV	*15 (65%)*	*8 (35%)*	*0*	*23 (100%)*
V	*2 (18%)*	*5 (45%)*	*4 (36%)*	*11 (100%)*
VI	*1 (50%)*	*1 (50%)*	*0*	*2 (100%)*

From Table 2, it is noticeable that the strategy that produces the highest number of acceptable translation is translation using loan word or loan word plus explanation. It is evident that out of 13 data, 11 (85%) of them are considered acceptable, while 2 (15%) of them are less acceptable. Baker (2018:34) affirmed that this strategy is particularly common in dealing with culture-specific items, modern concepts and buzzwords. Therefore, it is not surprising if this strategy also works in dealing with the translation of technical terms that refer to modern concept such as astronautic registers. This strategy also produces the lowest number of less acceptable translation with only 2 data (15%). Despite the quality of the translation resulting from the use of this strategy, it is only used by the translator 13 times in the translation of 72 astronautic registers.

The second strategy producing high number of acceptable translation is translation by a more general word strategy. Out of 9 data, 6 (67%) are considered acceptable, 2 (22%) are less acceptable, and 1 (11%) is unacceptable. Baker (2018:25) mentioned that this strategy is mostly used to overcome problems dealing with non-equivalence, specifically a relative lack of specificity in the target language. This strategy works since some registers in astronautic field referring to specific concepts or activities in astronautic context are actually derived from other fields where the meaning can be more general. By raising up the semantic level of those terms to words that are more commonly used, translator may present an acceptable translation to the readers, as long as the translation still holds a similar idea and intended meaning as those of the original term.

The third highest percentage of acceptable translation results from the use of translation by paraphrase using related word. Out of 23 data,15 (65%) are considered acceptable and 8 (35%) are less acceptable. This strategy highlights the difference between SL and TL. As it is mentioned by Baker (2018 p. 22), certain suffixes and prefixes which convey propositional and other types of meaning in English often have no direct equivalents in other languages. In other words, some registers may have equivalent in the target language, but the form can be

different from those in the source language. In English, it is common to invent new words by combining two words such as aero-braking and soft-land, but this do not happen as common in the target language. This creation of new words in astronautic register is usually also derived from other fields that are more general. Therefore, as long as the translator can breakdown the meaning of each word and find its core meaning in the field of Astronautics, this strategy can work to produce acceptable translation of astronautic register. Consequently, in the case that the translator fails to understand the core meaning of the register in astronautic context and only sees the term as combinations of words with its literal meaning, unnatural translation is likely to produce. This is the reason why this strategy also has the third highest percentage of the production of less acceptable translation. It is not rare for a translator to confuse the meaning of registers in the field of Astronautics with its literal meaning. Finally, understanding the meaning of the terms especially in the field of Astronautics is the key to utilize these strategies effectively. This problem is particularly apparent in strategy which results in the lowest percentage of acceptable translation, which is translation by paraphrase using unrelated word strategy.

Translation by paraphrase using unrelated word is used in total in the translation of 11 data. Out of the 11 translations, 2 (18%) are considered acceptable, 5 (45%) data less acceptable, and 4 (36%) data unacceptable. In short, it has the lowest success ratio among all strategies. The reason is actually similar to how the previously discussed strategy has a high percentage of less acceptable translation. Since this strategy has something to do with how translator can just directly unpack the meaning of the source item, in the case that a translator does not have enough expertise regarding astronautic register, a translator tends to predict the meaning based on the context of the sentence or the literal meaning. Once again, subject matter knowledge becomes an important aspect for a translator in order to utilize this strategy properly.

Meanwhile, the fourth highest percentage of acceptable translation results from the use of two strategies. First, translation by a more neutral or less expressive word strategy. From 16 instances where this strategy is implemented, 8 (50%) translations are considered acceptable and 8 (50%) are considered less acceptable. This phenomenon shows that some astronautic registers tend to have a broader expressive meaning in the source language than their equivalences in the target language. Therefore, instead of translating the registers literally and possibly producing unnatural translation in the target language, it is better to use a less expressive or a more neutral terms that contain a similar intended meaning. This strategy works since the less expressive items tend to be more familiar and naturally used, consequently resulting in acceptable translations in the target language.

Lastly, the strategy with the least percentage of acceptable translation is translation by omission. Out of 2 data, 1 (50%) is considered acceptable and 1 (50%) is considered less acceptable. Baker (2018 p. 45) affirmed that it is advisable to use this strategy only as a last resort. It is because the change made by this strategy is considered drastic. This strategy is also rarely used in the translation of literary works since the translation of this type of work is not limited by space as opposed to subtitling. However, this strategy can also result in an acceptable translation if it tackles more important translation problem, such as word redundancy in the target language. Below are some examples of the translation which are categorized as acceptable, less acceptable and unacceptable respectively.

Datum 21/III/A
SL: It's actually two separate components. The **lander** itself, and the Sojourner rover.
TL: Sebenarnya ada dua komponen: ***lander (roket pendarat)*** *dan Rover Sojourner*

This example is the one showing the use of the strategy with the highest percentage of acceptable translation, translation by using loan word or loan word plus explanation. The translator borrows the original term 'lander' and add a simple explanation "*roket pendarat*" in a parenthesis in the target language. According to Dictionary of Space Exploration (2018), the astronautic register 'lander' is defined as a space probe that lands on a planet or moon. It is designed to withstand harsh conditions long enough to allow them to transmit significant data back to Earth stations.

All three raters consider this translation to be acceptable. In other words, the translation feels natural, with the technical terms being used are familiar to most common readers. Rater 1 comments that the term 'land' from the register 'lander' is a commonly used English word, so leaving it untranslated should not hinder the readers' level of familiarity with the sentence. It is also revealed that by adding an additional explanation "*roket pendarat*", the translator manages to keep the nuance of the translation as a technical term, while also helps the readers understand the intended meaning even more. This is because the term '*roket'* is already commonly used to refer space probe in the target language, and the term '*pendarat'* is a natural equivalent of 'lander'. Therefore, by combining those two terms, the translator is able to explain the register 'lander' as "space probes used for landing". Ultimately, it results in an acceptable translation for the readers.

Datum 36/II/LA
SL: The JPL Spacecraft Assembly Facility, known as the "**clean room**," was the little-known birthplace of the most famous spacecraft in Mars exploration history.

*TL: Tidak banyak yang tahu Ruang Perakitan Pesawat Ruang Angkasa JPL, yang biasa dijuluk **"ruang bersih"**, telah melahirkan pesawat-pesawat ruang angkasa paling terkenal sepanjang sejarah explorasi Mars.*

The second example is taken from the case of the use of strategy that also results in the highest percentage of less acceptable translation, namely translation by a more neutral or a less expressive word. According to Dictionary of Space Exploration (2018), the definition of 'clean room' is a sanitized interior area used by NASA to prepare a spacecraft for launch. This is where the engineering components and instruments of the spacecraft are put together and tested by computer programs. From this definition, it can be understood that the way the translator directly translates the term to the target language into '*ruang bersih*' results in a less expressive term.

All three raters found this translation to be less acceptable. They believed that '*ruang bersih*' is a not completely natural and is rarely used as a technical term in the target language. It is revealed that the problem lies on how the translator chooses to use the word '*bersih'*. According to Kamus Besar Bahasa Indonesia V (2016), the word '*bersih'* means free from dirt, marks, or stains. This word does indeed contain similar meaning as the original term 'clean', but it is rarely used in astronautic or other technological contexts. Rater 2 suggested to replace the word '*bersih'* with '*steril'* ('sterile' in English), so the translation of the register is '*ruang steril*'. This translation not only manages to capture a similar intended meaning as the register 'clean room', but also sounds natural as a technical term in the target language.

This datum shows how the translator actually understands the intended meaning behind the astronautic register. However, the analysis showed that while the intention is correct, the way the translator chooses the word '*bersih'* can ruin the nuance of the term. In other words, it is better for the translator to choose other words that sound natural as technical terms in the target language. In the end, knowledge to the concept behind the astronautic register is not enough to produce acceptable translations.

Datum 24/V/U
SL: We'd be skimming the upper atmosphere, so our orbit would rapidly decay.
TL: Kami akan terputar-putar di atmosfer atas sehingga orbit kami lenyap dengan cepat.

This example is taken from the case involving the use of the strategy with the highest percentage of unacceptable translation, namely translation by paraphrase using unrelated word. Firstly, the astronautic word 'decay' is defined by Dictionary of Space Exploration (2018) as an unwanted descent of satellite's orbit. In this datum, the translator chooses to directly unpack the understood meaning and use an unrelated word as the equivalent in the target language. The translator then comes up with the term '*lenyap'* as the translation.

Rater 3 found this translation to be less acceptable, while rater 1 and 2 found this translation to be unacceptable. They considered this translation to be unnatural, especially the way the term '*lenyap'* is used together with the word '*orbit'*. Kamus Besar Bahasa Indonesia V (2016) defines '*orbit'* as the path travelled by a celestial object around another celestial object with a greater gravitational force. Those celestial objects include star, planet, and spacecraft. Rater 2 commented that the sentence "*orbit kami lenyap*" ("Our orbit is vanished" in English) sounds way too unnatural and still feels like a translation. He then suggested the word '*turun'* (descent in English) as the translation.

Furthermore, 'decay' in as an astronautic register refers to a movement, precisely, a descent. It holds a different kind of phenomenon to the word 'decay' (in general use) which has a close meaning to vanish. It is why the translation becomes unnatural if it is used along with the word 'orbit'. In the end, this datum shows how a translator should not use paraphrase using unrelated word to translate astronautic registers, unless the translator understands the concept behind the registers.

4. CONCLUSION AND RECOMMENDATION

Out of eight translation strategies proposed by Baker (2018), six of them are implemented in the translation of the austronautical registers in *The Martian* novel. The result indicates that the three most frequently used strategies are those that mostly deal with modifying or altering the form in the target language. This implies that most of the registers in *The Martian* actually have similar equivalents in the target language, but the forms have to be modified in order to capture the main concept or idea. In other words, most of the astronautic registers in this novel are not exactly new terms that do not bear any similarity to other existing concepts or ideas. Meanwhile, translation by omission strategy is the one least frequently used. This is because literary translation, particularly novel, has no limitation in terms of the number of words, as opposed to subtitling or poetry translation. Therefore, omitting terms in the translation is not a priority and is still considered too drastic. The only time this strategy works to translate astronautic register is when it can overcome a more important translation problem, such as word redundancy. This shows that there are still translations that fail to capture the intended meaning of the registers, bear no nuance as technical terms, and sound unnatural in the TL. These problems are mostly caused by the fact that there has been not enough knowledge regarding astronautic registers. Since an astronautic register can have its own meaning in

general areas under discussion, translator sometimes misinterprets the meaning of registers. As a result, a high number of translations of astronautic register fail to capture the intended meaning or concept, bear no nuance as technical terms, and sounds unnatural in the target language.

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