Material Processes in the Singaporean Online News on Forest Fires Issue

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ABSTRACT
A material process may show something that has been done physically between two entities, in the clauses or texts. It shows who (or what) is the actor that does the action, to the goal (or, range), as the participant in the news. This research explained the words as material processes in clauses and the function of their appearance in the online news based on its features of transitivity as part of Systemic Functional Linguistics through the contexts. A descriptive qualitative method was used to explain the processes. The material processes in the text were analyzed based on types of processes of transitivity in Systemic Functional Linguistics study. There are fifty-one material processes found in the text, consists of thirty-seven processes of doing (composed by the creative and the dispositive processes), and fourteen processes of happening. Material processes that were used in the news text show the material actions done by entities (animate or inanimate objects), written from the point of view of the news writer(s). By this research, it can be seen that material processes are very useful for text writing, such as giving more colors, drawing more interest from the readers, giving different word meaning in different contexts, and giving more meaning to the context itself.

I. INTRODUCTION
Material process is as a part of transitivity that shows the process of doing and happening. It shows something that has been done physically between two entities (animate or inanimate), in the clauses or texts. It also shows who (or what) is the actor that does the action, to the goal (or, range), as the participant, or, it can be said, it shows the material process happening in the texts or in the discourse. News and online news present the information and the issues for the society to read. What is presented should be interesting to attract the readers, yet, does not leave the essence of the issues which is informed. In writing the news, sometimes the writer(s) uses word choices that show the activity of the entities which are used as the actors in the news. Sometimes, when the entities are not animates the news becomes alive and makes the news presented becomes more interesting.

In Systemic Functional Linguistics study, language is a resource for making meaning based on the texts and their contexts. The context of the sentence structure is seen to see how it constructs the meaning. Therefore, in this research, material process is analyzed to see the use of the verbs chosen as the processes and how they make meaning in the
online news. According to Gerot and Wignell (1994, p. 55), material process as a part of transitivity processes is a process of material doing. Material process was also mentioned by Halliday and Matthiessen (2004, p. 179), who argued that material processes are the process of happening and doing. Meanwhile, Lock (1996, p. 67) stated some words that can be used as material process, namely: doing, happening, seeing, thinking, liking, being, having, etc.

The material process was divided into two subtypes of processes. Stated by Gerot and Wignell (1994, p. 56), there are two alternative processes according to their relation with the goal: creative processes and dispositive processes. There are two participants in the material process, namely: actor and goal. Another participant separated from the main participants is another element which has another name, the Range, which has the same function as goal. This division of the material process was also mentioned by Sujatna (2013, p. 35). However, Sujatna added that in material process, there are four participants, namely: actor, goal, beneficiary, and scope. Based on those theories, material processes are doing processes (making or affect the goal) and happening processes (do not making or affect the goal). The types of Material processes are shown in Figure 1, below. There are two kinds of processes in relation with the goal: (1) creative processes, and (2) dispositive processes. In the creative process, the actor is making the goal through the process (the verb), such as: create, make, build, develop, etc. While in the dispositive process, the actor is affecting the goal through the process (the verb), such as: send, throw, pour, dissolve, etc. These processes are usually done through transitive verb forms. On the other hand, in the happening processes there are not goals involved in the process. Happening processes occur by chance, or, without being planned. The processes are usually done through intransitive verb forms, such as: rise, fall, come, go, melt, soften, move, harden, etc.

In Systemic Functional Linguistics Study, material process is a part of transitivity. The discussion of transitivity might appear in different discussions and researches to explain processes in clauses or texts. In line with the discussion in this research, Wachyudi and Miftakh (2018) discussed the use of systemic Functional Linguistic in the dominance of material process in texts. However, they used texts written by students as their source of analysis; Isti’anah (2014) discussed the transitivity process in the process of Governor election in Jakarta, through her analysis upon four selected opinions by people who were interested in political issues; Gwilliams and Fountaine (2015) focused the discussion on the types of clause classification based on the processes in transitivity and the distinction between processes. Based on theories, the distinctions are clear, but in practice, they found out that somehow they can be unclear; Gustafito and Kamayana (2016) explored the interpersonal meaning or mood, based on the processes of transitivity in a novel; Sujatna (2012) discussed transitivity in Mental Process upon the Sundanese language. In the discussion, Sujatna focused on the Sundanese verbs to show the mental process subtypes in clauses; and Khristianto (2015) explored the Mental process of transitivity in the translation of local story from Indonesian to English. The focus of the study was the correct realization of the translation upon the mental process predicates in the story.

Similar researches upon processes in transitivity had been carried out before, as it was done by Ngongo (2012) under the title of Analisis Transitivitas pada Teks Kette Katonga Weri Kawendo (TKKKW); and by Anggraini (2018) entitled Transitivity Process and Ideological Construction of Donald Trump’s Speeches. Those researches studied transitivity processes which finally resulted on material processes as the focus of the researches. In the research by Ngongo, the transitivity analysis was done upon marital proposal texts in the traditional society of Wewewa. The texts were taken from spoken events which were transcribed into manuscripts, and analyzed to find out the processes contained in the texts. As the results of the analysis, material process became the most used in the texts and therefore became the focus of the study. Meanwhile, in the research by Anggraini, the transitivity analysis was done upon the Donald Trump’s speeches in his presidential campaign. Although the analysis of this research was combined with the Critical Discourse Analysis, the focus of the transitivity analysis gave material process as the most used process of transitivity in the speeches.

Text analysis based on transitivity
processes was commonly conducted. However, material process of transitivity was not commonly used as the tool of analysis. Therefore, an analysis upon text, especially upon online news text is worth doing to see the writing style in news publication. The choosing of the Singapore online news text of The Straits Times was based on the assumption that the text contained material processes in different types, to show the actors and the processes that involved in the text from the point of view of the news’ writer(s). The news writing style which uses the process of transitivity especially the material processes was assumed to make the news more interesting to be presented to the readers, especially the parts where the inanimate entities were brought to life.

II. METHODS
This research was using descriptive qualitative method by Creswell (2014, p. 152) through literary analysis upon the online news text. The object of this research was the words which were detected as material processes of transitivity in online news text that relate between the actors and the goals or ranges. The source of the data analysis was taken from one of the Singapore online news, The Straits Times, under the title of “A Tale of Two Burning Rainforests: How Fires in The Amazon and Indonesia Can Affect Singapore” which was taken from internet. This source of the data analysis was taken only to show the material processes in online news and that both animate and inanimate entities can be used as the actors of the processes.

In this research, the researchers chose the online news text of The Straits Times as the data source, and then collected the verbs used in the material processes in the text along with their participants (actors, and goals or range). The material processes collected in the text were divided based on the types of the process (creative and dispositive). The processes found were analyzed of their effect to the writing form in the text. The types of the material processes which were detected in the script, were analyzed based on the types of processes of transitivity by Gerot and Wignell (1994) as the core theory in this research.

III. RESULT AND DISCUSSION
The analysis in this research was done to the entire text of the online news to find the types of material processes and their participants (the actors) of transitivity processes in the text. As it was mentioned before, material processes are doing processes (the process that make or affect the goal) and happening processes (the process that do not make or affect the goal). There are two kinds of processes in relation with the goal or the processes of doing, namely: (1) creative processes, and (2) dispositive processes. These processes are usually done through transitive verb forms. On the other hand, in the happening processes there are not goals involved in the process. They occur usually by chance, or, without being planned. The processes are usually done through intransitive verb forms. In the analysis of this research, there were fifty-one material processes detected in the text, consist of thirty-seven processes of doing, and fourteen processes of happening. The processes of doing in the text were composed by six creative processes and thirty-one dispositive
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processes. The supporting definitions were taken from Merriam-Webster Dictionary (1828) to explain the verbs used in the processes taken as the data, and how they create meaning in the news. The samples of each process and the actors are explained as follows:

1. The Process of Doing
The processes of doing are mostly happened in transitive forms. In texts, the processes can be shown by active sentence or passive sentence. When it happens in active sentence the goal is placed on the right side of the process (the verb), and when it happens in passive sentence the goal is placed on the left side of the process, done by other entity which is sometimes not mentioned in the sentence.

a. Creative processes
The creative process is the process of doing that happens when the goal exists as something that is created by the process. In the process, there is always the presence of goal. The process always creates the goal, or, in other words there is always created goal involved in the process. The samples of the creative processes are shown below:

Data 15
“Phytoplankton, tiny marine organisms, produce the life-giving gas.”

<table>
<thead>
<tr>
<th>Phytoplankton, tiny marine organisms</th>
<th>produce</th>
<th>the life-giving gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actor</td>
<td>creative process</td>
<td>goal</td>
</tr>
</tbody>
</table>

In the data 15 above, the creative process was detected in the clause “Phytoplankton, tiny marine organisms, produce the life-giving gas”. The verb “produce” is the material process of the clause in the form of creative process, while “Phytoplankton, tiny marine organisms” act as the actor, and “the life-giving gas” act as the goal of the structure. In this structure, the process is in transitive form. The actor in this clause, phytoplankton, are natural animate entities. The word “produce” was used to explain the material process done by phytoplankton. According to Merriam-Webster Dictionary, the word “produce” as the material process in the clause usually used to explain a process to make or create something by machine, or a process to create something which is done by natural process. As phytoplanktons are natural entities, the process was a natural material process. However, the effect of using the word “produce” as the process done by phytoplankton in the clause, made the entities livelier and the clause became more colorful and interesting.

Data 48
“Forests, trees and green areas provide many ecosystem services.”

<table>
<thead>
<tr>
<th>Forests, trees and green areas</th>
<th>provide</th>
<th>many ecosystem services</th>
</tr>
</thead>
<tbody>
<tr>
<td>actor</td>
<td>creative process</td>
<td>goal</td>
</tr>
</tbody>
</table>

In the data 48 above, the creative process was detected in the clause. The verb “provide” is the material process of the clause in the form of creative process, while “forests, trees and green areas” act as the actor, and “many ecosystem services” act as the goal of the structure. In this structure, the process is also in transitive form. In this clause, “forests, trees and green areas”, which are natural inanimate entities acted as the actors, with the word “provide” used to explain the material process done by them. In the Merriam-Webster Dictionary, the word “provide” as the material process in the data is usually used to explain a process to make something available when it is wanted, or a process to supply something whenever it is needed. “Forests, trees and green areas” are natural inanimate entities, therefore, the process was a natural material process, and the effect of using the word “provide” as the process done by “forests, trees and green areas”, made the entities became “alive” as human being. This way of writing also make the news become interesting.

b. Dispositive processes
The dispositive process is the process of doing that happens when the goal exists as something that is affected by the process. In this process, there is always the presence of goal, as in the creative processes. The process always affects the goal, or, in other words there is always affected goal involved in the process. The samples of the dispositive processes are shown below:
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Data 5
“The stored carbon is released into the atmosphere”

<table>
<thead>
<tr>
<th>The stored carbon</th>
<th>is released</th>
<th>into the atmosphere</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
<td>Dispositive process</td>
<td>Circ. of place</td>
</tr>
</tbody>
</table>

In the data 5, the creative process was detected in the clause. However, the actor of the process were not shown in the clause. It can be seen that the verb phrase “is released” is the material process of the clause in the form of dispositive process, while “the stored carbon” act as the goal. This was happened because this structure is in passive voice. The “into the atmosphere” shows the circumstance of place, which has the function as complement. As it is shown in this clause, “The stored carbon” acted as the goal of a material process done by something. The material process “is released” in passive form is derived from the verb “to release”. As it was explained in the Merriam-Webster Dictionary, the word “release” is usually used to explain a process “to allow a substance to enter the air, water, soil, etc.” “The stored carbon” is a natural inanimate entity in the form of a substance, and it became an affected goal because of the material process. Meanwhile, the actor in this clause was not mentioned due to the passive form of the clause. The substance “stored carbon” is released by something to the atmosphere in this material process.

Data 30
“The excess heat throws the climate system out of whack.”

<table>
<thead>
<tr>
<th>The excess heat</th>
<th>throws</th>
<th>the climate system</th>
<th>out of whack</th>
</tr>
</thead>
<tbody>
<tr>
<td>actor</td>
<td>dispositive process</td>
<td>goal</td>
<td>Circ. of manner</td>
</tr>
</tbody>
</table>

In the data 30, the material process was detected in the verb “throws” in the form of dispositive process of the clause, while “the excess heat” act as the actor of the process. “The climate system” act as the goal of the process, and there is “out of whack” act as the complement in the form of circumstantial of manner. In this structure, the process is in intransitive form. This clause shows that the actor in this clause, “the excess heat”, is inanimate entity. As “the excess heat”, is natural inanimate entity, the process was a natural material process. The word “throws” was used to explain the material process done by it. However, the word “throw” is usually used by human or something with “hands”. Based on the definition in Merriam-Webster Dictionary, the word “throw” as the material process in the clause is usually used to explain a process to force something to move away in a sudden from certain place, or, to cause something to move from our hand through the air by moving the hand quickly forward. The word “throw” which is used to define the process by “the excess heat” in the clause, made the inanimate entities livelier.

Data 32
“While melting ice sheets contribute to sea level rise”

<table>
<thead>
<tr>
<th>While</th>
<th>melting ice sheets</th>
<th>contribute</th>
<th>to sea level rise</th>
</tr>
</thead>
<tbody>
<tr>
<td>actor</td>
<td>process</td>
<td>goal</td>
<td></td>
</tr>
</tbody>
</table>

In the data 32, the dispositive process was detected in the verb “contribute” as the material process of the clause, while “melting ice sheets” act as the actor of the process, and “to sea level rise” act as the goal in the form of circumstantial of purpose. In this structure, the process is also in intransitive form. The actor in this clause, “melting ice sheets”, is inanimate entities. As “the excess heat” in the previous data, “melting ice sheets” are natural inanimate entities in natural material process. In the clause, the word “contribute” was used to explain the material process done by the actor. According to Merriam-Webster Dictionary, the word “contribute” as the material process in the clause usually used to explain a process to help to cause something to happen. The word “contribute” which is used to define the process by the “melting ice sheets” sounds alive in the clause, made the inanimate entities and the news writing livelier.

2. The Process of Happening
The processes of happening are mostly happened in intransitive forms; occur usually by chance, or, without being planned. The samples of this kind of material process can be
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seen as follows:

**Data 1**

"Hopes of limiting greenhouse gases are going up in smoke."

<table>
<thead>
<tr>
<th>Hopes of limiting greenhouse gases</th>
<th>are going up</th>
<th>in smoke</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actor</td>
<td>process</td>
<td>Circ. of manner</td>
</tr>
</tbody>
</table>

In the data 1, the process of happening was detected in the verb “are going up” as the material process of the clause, while “hopes of limiting greenhouse gases” act as the actor, and “in smoke” act as the complement in the form of circumstantial of manner. In this structure, the process is in intransitive form. The clause shows that “hopes of limiting greenhouse gases”, with the main noun “hopes” is inanimate. It acted as the actor, with “are going up” is used to explain the material process. In the Merriam-Webster Dictionary, the word “go up” as the material process in the data is usually used to explain a process of something that moves to higher level. However, this does not mean that “the hopes” moves up to the higher level through smoke. In the data, “are going up” is attached to “in smoke” which is explained in Merriam-Webster Dictionary as “to be destroyed by, or, as if by burning”. Therefore, the clause in the data means: the hopes to limit the greenhouse gases are destroyed (because of something). This way of writing the clauses gave more colors to the news to avoid boredom.

**Data 14**

“Most of the world’s oxygen supply comes from the oceans.”

<table>
<thead>
<tr>
<th>Most of the world’s oxygen supply</th>
<th>comes</th>
<th>from the oceans</th>
</tr>
</thead>
<tbody>
<tr>
<td>actor</td>
<td>process</td>
<td>Circ. of place</td>
</tr>
</tbody>
</table>

In the data 14, the process of happening was detected in the verb “comes” as the material process of the clause, while “most of the world’s oxygen supply” act as the actor, and “from the ocean” act as the complement in the form of circumstantial of place. In this structure, the process is in intransitive form. In this clause, the actor is “most of the world’s oxygen supply” or “oxygen supply” as the main subject, which is a natural inanimate entity, with the word “comes” used to explain the material process done by it. Based on Merriam-Webster Dictionary, the word “comes” as the material process in the data is used to explain a process of an entity that moves toward something, or, to show the origin of it. In the data, the word “comes” in the data is attached to “from the oceans”, which shows the place where the oxygen is created, and not the movement of it. However, the use of the word “comes” in the online news makes the issue sounds more interesting.

**Data 29**

“That global carbon dioxide concentrations stood at 408.82 ppm (parts per million)."

<table>
<thead>
<tr>
<th>That global carbon dioxide concentrations</th>
<th>stood</th>
<th>at 408.82 ppm (parts per million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>actor</td>
<td>process</td>
<td>Circ. of manner</td>
</tr>
</tbody>
</table>

In the data 29, the process of happening was also detected in the clause, in the verb “stood” as the material process of the clause, while “that global carbon dioxide concentrations” act as the actor, and “at 408.82 ppm (parts per million)” act as the complement in the form of circumstantial of manner. In this structure, the process is also in intransitive form. The actor used in this clause “that global carbon dioxide concentrations” are inanimate. The verb used as the material process in the data, “stood”, is usually used by human or something with “feet”. However, according to the context of the sentence of the data there is another definition of the word “stood” for something that stays in certain position. As it is defined in the Merriam-Webster Dictionary, the word “stood” derived from the word “stand” and used as the material process in the clause, is usually used to explain an action to take up or maintain a specified position or posture. The word choice which was used instead of “stay” made the actor of the clause became livelier and the topic became more interesting.

**IV. CONCLUSION**

Based on the data analysis and the summary, it can be concluded that the use of certain verbs as the material processes in online news may give different effects to the whole context of the news, compared to those which do not use
word choices in material processes, such as:

(1) It gives more colors to the news writing, and in this case, the online news presentation.

(2) The structures of the sentences which contain such word choices draw more interest from readers, because they make the actors, particularly the inanimate ones, become livelier in the news presented.

(3) Same verbs in different contexts give different meaning of processes, especially when they are used between animate and inanimate actors.

(4) The material processes give more meaning to the context itself contained by the sentence structures.

These elements are essential to know in writing news and in online news presentation, since news and online news do not only focus on delivering news to the readers and larger society, but the news writers also have to consider how the news should be presented even for different level of readers, socially and educationally. Although there are special elements from the journalism ethic code in writing news and online news, however, these elements in Systemic Functional Grammar Study about material processes are worth to know.

REFERENCES


