BROCA'S APHASIA WORD PRODUCTION OF SODDERLAND IN *MY BEAUTIFUL BROKEN BRAIN* MOVIE

Warda Humairoh Syarifah
MI Nurul Islam Pasirian, Lumajang
w.humairoh18@gmail.com

Abstract

As a disorder that can hamper people's ability to use a language, aphasia is related to the damage that happened in the human brain. Some diseases that cause it are stroke, trauma, and brain hemorrhage. Complaints of aphasia sufferers can differ from each other, and it is caused by the location of the disruption of language function in the brain. Therefore, this study aims to analyze and observe difficulties experienced by Sodderland as the main character in My Beautiful Broken Brain movie. Based on the analysis of mistakes made by Sodderland, the finding revealed that she had difficulties in producing words, and it disturbs her interaction with the people around her. The errors produced are; lexical selection error, malapropism, substitution, shift, and omission. It also indicates some difficulties experienced by her; effortful speech, distortion of articulation, and stutter. Thus, the location of brain damage experienced by Sodderland was in the area of Broca so that she experienced a disruption that was dominant in language production. The article ends with some suggestions to help the people understand the difficulties people have with this kind of disorder.

Keywords: Broca aphasia, Language production, Language disorder, Psycholinguistics

INTRODUCTION

Aphasia is one of the types of language disorder caused by damage to the brain's function as a language processor. A language disorder is a disorder that affects a person's ability to produce speech that is not normal (Saputri, 2018). It happens when the human brain tissue that functions as language processing is disrupted. Therefore it can be predicted that they will lose some of their vocabulary and memory (Blumstein, 2016). This kind of disorder is mostly caused by damage effects such as stroke, trauma, and brain hemorrhage (Schwartsz, 2014). People who experience aphasia will have difficulty in remembering a few words and even remembering most letters. They know what they want to say, but they difficult to find and express it in a word. When they tried to convey what they mean, the words they often use cannot be recognized (Khanum, 2014).

Another problem that can be recognized as a symptom of aphasia is the difficulties experienced by stroke patients interacting with people around them. Most people thought that stroke and similar diseases are only experienced by the elderly. But in fact, certain genetic conditions can be a reason that can make someone have a stroke. The story of My Beautiful Broken Brain movie tells of a 34-year-old woman who had a stroke and suffering from aphasia. A stroke occurs when someone's brain is attacked or experiencing bleeding, which affects the disruption in supplying blood to several parts, reducing his ability to produce and use a language (Cahana & Jenkins, 2018).

According to Gall's theory (2010), the brain consists of several specific parts, and each is responsible for its ability as a language processor. The brain's fundamental part that represents language knowledge is the surface of the brain called the cortex. Another source that shows that the brain consists of several specific parts is Yule (2016). Yule (2016) said that the brain has four parts, and each part has a different role. One of those parts is the Broca area, located in the frontal part of the brain's left hemisphere. In 1860, a surgeon from France named Paul Broca treated patients who lost the ability to produce and speak words. Then he concluded that Broca's area was very influential on people's difficulty in producing words. In other words, Broca's area is a part that is closely related to the ability to produce words (Yule, 2016).

The damage of one hemisphere of the human brain can make a person suffer from aphasia. If the brain's cortical lesion is disrupted, the people will experience Broca aphasia or "cortical motor aphasia." This situation generally occurs when a person experiences brain hemorrhage, stroke, or other brain disorders. The problem faced by people with Broca aphasia is difficulty in expressing language. In other words, they will also have difficulty labeling an object or noun and job or verb in a word (Yule, 2016). People with Broca aphasia are generally challenging to form words or sentences; they will speak spontaneously, stammer, and speak monotonously. Although their listening generally is good, they difficult to understand sentences with complex structures. Most of them are bad at repeating the word and remembering what they have repeated (Indah, 2017b). Often, people with Broca aphasia feel frustrated because of their difficulty in producing words. Some of them can say a few words, which they use to communicate in the type of speech characteristics known as telegraphic utterances (Samiadi, 2019).

Several previous studies on aphasia carried out by Khanum (2014) and Schwartz (2014) discuss the analysis of language skills in patients who experience aphasia. So it was found that people with aphasia have several different problems. One of them is difficult to convey something in a word, while the other is difficult to say the name of an object and memorize the terms of those around them. It is caused by differences in the types of brain damage in each individual; when their left hemisphere is inhibited, they will have problems remembering, naming things, and uttering sentences in the correct structure (Khanum, 2014).

Another study about aphasia by Puvanedran et al. (2015), Grossman et al. (2018), and Nielsen et al. (2019) discuss the research such as Primary Progressive Aphasia (PPA), Non-

DOI: http://dx.doi.org/10.18860/prdg.v3i2.10544

Brain Damage (NBD), and Recall Recognition (RR). All research targets are centered on understanding grammar in people with aphasia. Through the test's application, it was found that the problems experienced by people with aphasia were not only in word production but also in the preparation of sentences, naming objects, and even remembering events.

To find and confirm the condition of the object of this study, the author makes a summary of the problem and how people with aphasia deal with their problem. Besides, this research is expected to provide new insights, especially about aphasia caused by a brain hemorrhage. This research will discuss the difficulties experienced by people with aphasia in producing words and interacting with people around them.

In this study, the author focuses on analyzing word production by people with Broca's aphasia. The object to be investigated is the main character in My Beautiful Broken Brain movie, produced by Netflix and released in 2014. This movie tells about the journey of Sodderland, as a woman who experienced Broca's aphasia that destroyed her language skills and made her lose her sense of perception. This movie represents a true story so that some cases that occur are not made for a person or group. In other words, the symptoms and problems are purely based on the experiences owned by Sodderland.

The author uses this movie for doing this research: First, Broca's aphasia has characteristics that can be recognized by the typical problems that arise in patients. Second, this movie's analysis can reflect Broca's aphasia patients' problems in detail based on a true story. To analyze the data, the author used a theory proposed by Gall (2010) about the location and language capacity in the brain and the relationship between the two as well as the most detailed models of speech production and speech errors caused by brain disorders by Reason (2000).

METHOD

The study focuses on analyzing word production by people with Broca's aphasia. The object used to be analyzed is the main character in My Beautiful Broken Brain movie, produced by Netflix and released in 2014. The movie tells about the journey of Sodderland, as a woman who experienced Broca's aphasia that destroyed her language skills and made her lose her sense of perception. To get the data that used to be analyzed, the author learned and compared transcripts with the movie scene. So, the author took the data in the form of utterances produced by Sodderland. The utterances produced by her contain some errors that show her difficulties in producing words, and it also shows how she could interact with people around her.

In order to get depth analysis, this study used a descriptive qualitative approach. Moreover, to conduct this study, the data obtained were analyzed using the Psycholinguistics theory by Reason (2000) about the most detailed speech production models and speech errors caused by brain disorder and the theory by Gall (2010) about the location and capacity of language in the brain. The author also used an additional theory by Yule (2016) about people's difficulties with Broca's aphasia in using a language.

DISCUSSION

The author found some of Sodderland's problems in producing words on how she did a monologue and interacted with people around her. Based on Yule (2016), Broca's aphasia is characterized by a reduced number of words spoken, often experience pauses when speaking, slower in speaking, and experience the loss of some words, both nouns, and verbs. People with Broca's aphasia are known as patients who difficult to speak fluently even though they are good at their comprehension. In this research, every single data is found from Sodderland's utterances and has three characteristics that show people's error with Broca's aphasia according to several aspects. Those are; the word choice, the pronunciation, and the way Sodderland conveying the message. The author classified the fourteen errors found in Sodderland's utterances into several types based on Reason (2000).

In this case, the errors produced by Sodderland as people with a speech disorder, especially Broca's aphasia, are represented the difficulties she had in producing words. Several aspects will classify those errors; lexical error, morphological error, and phonological error. The first one is a lexical error, which occurs when people with language disorders are difficult in selecting the right words, so they will often produce words that are not related to the topic talk about and produce some words with a slip of the tongue. Those problems are the main reason why people with language disorder often make a mistake in producing words. According to Reason (2000), a lexical error has nine types of problems: lexical selection error, blends, malapropism, morpheme stranding, spoonerism, substitution, exchange, addition, and word exchange error. From the analysis above, not all the phenomena of a lexical error can be found in Sodderlands utterances. The types found in Sodderland's utterances are lexical selection error, malapropism, and substitution. The expositions of the errors found are below:

Lexical selection error

In psycholinguistics, lexical selection error means that the speaker with a language disorder has a problem finding or selecting the correct words (Reason, 2000). As happened to Sodderland, she often made errors in producing the appropriate words that caused her condition. This type of error appears in datum 3, datum 9, and datum 10. In datum 3, Sodderland produces the word "speak," whereas she wants to say the word "write." The next type is found in datum 9; it occurred when Sodderland guessed an object's name as "baseball bat," but instead, she named it "stewn".

The last type is found in datum 10; in this case, Sodderland wants to say the word "thirty" to inform her actual age, but instead, she says, "twenty." Those errors produced by Sodderland indicate the difficulties she had, such as finding and producing the right words. The lexical selection error happened when Sodderland tried to utter a message and name something. As a person with Broca's aphasia, she has difficulty in her language production. This kind of error mostly appears in the middle of Sodderland's utterances. Moreover, it also happened when she produced a verb and a noun. For instance, when she

DOI: http://dx.doi.org/10.18860/prdg.v3i2.10544

wanted to say the word write become speak, baseball bat becomes stew, and the word thirty becomes twenty.

Sodderland produced this kind of error while she was communicating with people around. For example, when she had a conversation with Sophie that talked about her condition after a stroke. When she wanted to say the word "write," she was challenging to say that word and produce the wrong word as "speak." Then, Sodderland made a gesture like "pen writing" as her effort to make Sophie understand what she wanted to say. However, as mentioned in the previous chapter, those people with aphasia will continue to have intelligence as before (Indah, 2017). So, usually, Sodderland would realize and repeat that word correctly, and sometimes she just realized her error without improving it.

Malapropism

In psycholinguistics, malapropism means that the speaker produces the intended words semantically inadequate (Reason, 2000). As happened to Sodderland, most of the words she produced are not related to the topic and have similar sounds to the word she is supposed to say. This type of error appears in datum 1, datum 7, datum 13, and datum 14. In datum 1, Sodderland produces the word "plate," whereas she wants to say the word "place." The second type is found in datum 7; it occurred when Sodderland wanted to say the word "niece," but instead, she said the word "neef."

The third type is found in datum 13; Sodderland says the word "impre," whereas she wants to say the word "improved." The last type of malapropism is found in datum 14, and it occurred when Sodderland wanted to say the word "property," but instead, she said the word "properly." Those errors indicate Sodderland's difficulties, such as hard in producing the words correctly. The malapropism error happened when Sodderland produced the wrong word or different words from what she was supposed to say.

This kind of error mostly appears in the middle of her utterances. Moreover, it also happened when she produced a noun, verb, and adverb. For instance, when she wanted to say the word place become plate, niece becomes neef, improved becomes impre, and the word property becomes properly. Sodderland produced this kind of error when she was communicating with people around. For example, when she had a conversation with Jan as her brother, producing errors in producing the word property became proper. Sodderland still has the ability to realize what she wanted to say, but cannot always adequately express the word (Indah, 2017).

Substitution

In psycholinguistics, substitution means that another segment replaces one segment as an interruption, and the interruption of that one segment is not related to the topic talk about (Reason, 2000). According to (Halliday & Hasan, 1994:88), it is different from the substitution in discourse analysis. In discourse analysis, substitution means another type of cohesive relation as the process of replacing one item within a text or discourse with

another, and the reference has a relation on the semantic level also not categorized as an interruption.

As happened to Sodderland, she often produces the wrong words as an interruption while trying to say the actual word, and it sounds similar, although it has no relation to the word she should say. According to the analysis of this research, the author found 2 of Sodderland's utterances categorized as substitution, and those are data 5 and data 8. The first type is showed by datum 5; it occurred when Sodderland wanted to say the word "normality," but instead, she said the word "nov" and "noval." The next error is found in datum 8; Sodderland produces the word "tale" while reading the word "the."

These errors produced by Sodderland indicate the difficulties she had, such as finding and producing the words. The substitution error happened when Sodderland produced the wrong word, which sounds similar to the word she was supposed to say. This kind of error mostly appears in the middle of her utterances. Moreover, it also happened when she produced a noun and preposition in the middle of her utterances. For instance, when she wanted to say the word, normality becomes nov/noval, and the word becomes tale. However, as mentioned in the previous chapter, those people with aphasia will continue to have intelligence as before (Indah, 2017). So, usually, Sodderland would realize and repeat that word correctly, and sometimes she just realized her error without being able to improve it.

The second one is a morphological error, which means the error formed by the ruined of the morphological aspects in grammar. As we know, morphology is about the structure of the words. In other words, the relation of words and how the words are formed is the main focus of morphology. So, if the speakers made an error in arranging the words and conveying their messages, it is called a morphological error. According to Reason (2000), a morphological error has four types of error, and those are; morpheme exchange error, deletion, omission, and shift.

From the analysis above, not all the phenomena of a morphological error can be found on Sodderland's utterances, such as morphemeexchange error and deletion. While, the types of a morphological error that produced by Sodderland are omission and shift. The expositions of the errors found are below:

Omission

In psycholinguistics, omission means some linguistics has been left out. In other words, the omission is the act of someone excluding something that should be included (Reason, 2000). As happened to Sodderland that she deleted a linguistics material out while producing the word. According to the finding of this research, the author found 1 of Sodderland's utterances categorized as an omission. This type of error appears in data 2; it shows that Sodderland should produce the word "can't," Instead, she said the word "can."

The omission error happened when Sodderland produced the word that left one aspect of her utterances, indicating the difficulties she had. It happens when Sodderland, as a speaker, produced the wrong modal or auxiliary in the middle of her utterances. For

DOI: http://dx.doi.org/10.18860/prdg.v3i2.10544

instance, when she wanted to say the word can't become can. However, as mentioned in the previous chapter, people with aphasia will continue to have intelligence (Indah, 2017). So, usually, Sodderland would realize and repeat that word correctly, and sometimes she just realized her error without being able to improve it.

Shift

In psycholinguistics, the shift means that one speech segment disappears from its appropriate location and appears elsewhere (Reason, 2000). She often produced strange words. The author found this kind of error on Sodderland's utterances; it appears in data 4, data 6, data 11, and data 12. The first datum, which is categorized as a shift, is the utterance in datum 4. It occurred when Sodderland wanted to say the word "extraordinary," but instead said the word "extror." The second is datum 6, which occurred when Sodderland produced the word "clev," whereas she wants to say the phrase "kind of clever person." It means the word "clev" interrupts the phrase she wanted to say.

In datum 11, Sodderland wanted to say the phrase "I am obsessed to record" as her response to Sophie's question. She makes an error and says, "I am rec" as an interruption of her actual phrase as a reply. The last was data 12; it occurred when Sodderland tried to say the phrase that can be used to represent her feeling in facing stroke, which is "like a new dimension," but instead, she said, "like a dimen." These errors indicate Sodderland's difficulties, such as hard to produce the words correctly.

The shift error happened when Sodderland produced utterances with some interruptions. Moreover, Sodderland, as a speaker, produced an error adjective, verb, and noun in the middle of her utterances. For instance, when she wanted to say the word extraordinary become extror, and the phrase kind of clever person but interrupted by the word clev, I am obsessed to record but interrupted by the phrase I am rec, and the last is the phrase like a new dimension becomes like a dimen. However, as mentioned in the previous chapter, people with aphasia will continue to have intelligence (Indah, 2017). So, usually, Sodderland would realize and repeat that word correctly, and sometimes she just realized her error without being able to improve it.

The third one is phonological error, which is an example of sound mistakes that people with language disorders normally use in rearranging a message or utterance as how they are figuring out how to talk and convey it. Therefore, the phonological error is a speech disorder that can affect the lexemes. People with language disorders cause it not to organize the lips, tongue, teeth, and sense of taste. Their ability to arrange words is also disturbed, so they are hard to produce and convey clear utterance (Reason, 2000).

Concerning My Beautiful Broken Brain movie, Sodderland, as the main character who has a language disorder, often incorrectly produces the word. According to Reason (2000), a phonological error has five types of problems: perseveration, feature substitution, anticipation, metathesis, and sound exchange error. There is no problem found on Sodderland's utterances based on this phonological error from the analysis above.

However, there are six errors of Sodderland's utterances which are not included on the types of problems in people with language disorder proposed by Reason (2000). So the author will discuss those six errors using the theory proposed by Yule (2016).

According to Yule (2016), people with Broca's aphasia are known to lose their ability in producing language. The problem had by them is not only about the deleting of functional morphemes and inflection, but they also lose several words and memories on their mind. As the previous discussion proposed by Reason (2000), those kinds of problem is appropriate. Another problem had by people with Broca's aphasia is produce speech with a lot of hesitations and a long pause, difficulty in finding and articulating words, and bad at their word production (Yule, 2016, p. 162).

Besides, the problems had by people with Broca's aphasia can be classified into three aspects. Those are effortful speech, distortion of articulation, and stutter (Yule, 2016, p. 162). Those problems are appeared by the data found through Sodderland's utterances. The explanation of the problems found are below:

Effortful Speech

According to Yule (2016), people with Broca's aphasia have much better comprehension than their language production. This kind of problem influences their ability to find and produce the right word. As people with Broca's aphasia, they are known as patients who often had errors in their speech. This kind of problem is found on Sodderland's utterances, and it appears in datum 15, datum 17, datum 18, datum 19, and datum 20. Datum 15 shows that Sodderland is hard to produce words that begin with the letter "S". When she realized that her language ability becomes worse, she looks frustrated because of it.

Datum 17 shows that Sodderland tries to inform Sophie that she cannot say the word "record" by pointing toward the camera. According to the problem, we can see that Sodderland had a problem finding and producing the right word. Next is datum 18; in this case, Sodderland cannot repeat the word "record" which uttered by Sophie, although she has produced that word before. Her difficulties also influence this problem in producing words.

The next is datum 19; it shows the same case of Sodderland's problem, which shows that she was difficult to find and produce some words. In this case, Sodderland makes a gesture like "pen writing" to represent the actual word she wants to say. It makes Sophie understand, so she informs Sodderland that the word is "write". The last is datum 20, which showed Sodderland's response to Sophie's question. When she tried to produce the word "nephew," she has many hesitations and pauses. It is because of her inability to find the right word.

Stutter

According to Yule (2016), stutter means that people with Broca's aphasia would have some obstacles which make them hard to speak fluently. Their speech is known as full of

DOI: http://dx.doi.org/10.18860/prdg.v3i2.10544

hesitations and long pauses. Those two problems are not the only reason people with Broca's aphasia are making it hard to articulate and deliver messages. It is just one of the problems that make them feeling hard to communicate with others.

The author found this kind of problem in datum 16 and datum 20. In datum 16, Sodderland, as people with Broca's aphasia, produces the phrase that full of hesitations and long pauses, so she delivers her message just like a stutterer. The second is found in datum 20. In this case, Sodderland tries to produce the word "nephew," but in order to get to produce that word, Sodderland has a lot of long pauses. It is because of her difficulty in producing and articulating the right word.

Distortion of Articulation

Another kind of problem had by people with Broca's aphasia is distortion articulation. Distortion articulation in people with language disorders means that they will have a problem in uttering words. According to Yule (2016), this problem means that people with language disorders will produce a sound in an unfamiliar way. This kind of problem can be seen as lisp sounds in a child or people with a tongue problem. In Sodeerland's utterances, the author does not found any sounds or words produced by Sodderland in an unfamiliar way.

The last discussion is about the way Sodderland has an interaction with the people around her. In order to answer this research question, the author uses a theory proposed by Gall (2010) about the relation between brain and language.

According to Gall (2010), people with brain injury, especially in the left hemisphere, would have language processing problems. It is caused by the brain's role as the processing of human communication, which is the center of language control and language processing. It shows that the relation between the brain and language can also be marked by the appearance of brain damage that will affect one's ability to produce language (Indah & Abdurahman, 2017). Thus, if people have an injury that makes the work of her brain hampered, it would disrupt the process of language production in her brain.

As discussed in the analysis before, Sodderland made many errors while interacting with people. Such as, in datum 3 shows that Sodderland made an error which classified as lexical selection error. It happened caused by that she had difficulties in finding or selecting the correct words. Sodderland made errors when she was communicated with Sophie and talked about some topics about Sodderland's condition in facing aphasia. For example, when she wanted to say that she could not write, she was hard to say the word "write" itself. She made a gesture like "pen writing" to make Sophie understand that the word she wanted to say is "write". As we can see, in this context, Sodderland's interaction with Sophie is also disturbed by her difficulties in using a language.

Another example that shows that the difficulties had by Sodderland affect her interaction with others is showed by datum 14. In datum 14 shows that Sodderland made an error, which is classified as a malapropism. It happened when Sodderland produced

the intended words, which are semantically inadequate. When she discussed her word reading speed test results with her brother Jan and wanted to say that she would have a better ability to use her language than others, she said "people's properly," whereas what she should say is "people's property." This situation shows that Sodderland, as people with Broca's aphasia, still have intelligence as before, so she could realize that she made an error and repeated that word correctly (Indah, 2017). However, those errors produced by Sodderland affected to her interaction with others. That causes it her errors would make her interlocutors are confused about what she was talking about.

In addition, some people could understand her message, although there are many errors produced by her. It is showed by the analysis of datum two that is classified as an omission. It happened caused by Sodderland excluding something that should be included in her utterance. When she said that she could say the word "record" to Sophie, even though it is contrary to what happened to her, she could not say that word. Nevertheless, some people who communicate with Sodderland could not understand why Sodderland often used gestures to represent what she wanted to say. Another analysis of data indicates the problems she had while interacting with people around, such as in data 5 as substitution, data 6 as shift, data 7 as a malapropism, data 11 as shift, and the last is data 13 as malapropism.

Besides, Sodderland also produced errors while doing a monologue. As shown in datum 1, classified as malapropism shows that Sodderland produced the wrong word while conveying her message. When she wanted to say the word "place," it becomes "plate." Even those two words have similar sounds, but the word "plate" is not related to the context she was as talking about. But, as people with Broca's aphasia, Sodderland still has intelligence as before, so she could realize her error and repeat it properly (Indah, 2017). Another error produced by Sodderland while having a monologue is showed by data 4 as shift, data 8 as substitution, data 9 as lexical selection error, data 10 as lexical selection error, and the last is in datum 12 as a shift. However, these errors cannot answer the second research question cause it does not happen in Sodderland's interaction with people around her.

If we look at the errors produced by Sodderland, there are noticeable disorders that showed her as people with Broca's aphasia. Those problems are; severe in finding and producing the right word and speech full of hesitations and long pauses. Generally, people with Broca aphasia are difficult to form words or sentences. They will speak spontaneously, stammer, and speak monotonously. Although their listening generally is good, they difficult to understand sentences with complex structures. Most of them are bad in repeating the word and remembering what they have repeated (Indah, 2017b). Often, people with Broca aphasia feel frustrated because of their difficulties in producing words. Some of them can say a few words, which they use to communicate in the type of speech characteristics known as telegraphic utterances (Samiadi, 2019).

Besides, we can see that Sodderland, as people with Broca's aphasia, or people with brain injury, would have problems with her language production. So, her ability to

DOI: http://dx.doi.org/10.18860/prdg.v3i2.10544

communicate and produce words is hampered. People who experience aphasia will continue to have to produce some disorders as before. They know what they want to say, but cannot always express them adequately (Indah, 2017b). They are also likely to use subtitles called "Paraphasias". It happened when they were wrong to say something, such as when they said "dog" to "cat", or words that sound similar to "house" and "horse" (Jutt, 2016).

Based on the problem had by people with language disorders, especially Broca's aphasia, their difficulties are dominantly in producing words. For instance, hard to find and produce some actual words, hard to speak fluently while creating many hesitations and long pauses. According to this research finding, the difficulties had by Sodderland as people with Broca's aphasia became the main reason there were many errors produced by her in producing words. Besides, those difficulties are also affecting her interaction with people around her. So, this research shows that the prominent problem had by people with Broca's aphasia is their language production.

Language ability in people who have aphasia is disrupted because humans' brains are damaged when they have a stroke. However, in some cases, people's ability to use a language will return as usual or just near-normal. Their recovery takes time, such as several weeks or months, to make their brains recover well from their condition before. However, each people has a different type of recovery from language disorder caused by brain injury. Mostly, children are likely to recover faster than adults. In this case, speech therapy can be beneficial to those with language problems. The therapists can train patients to relearn and use language skills more effectively. They can teach both patients and families about the alternative way of communicating. Thus, through this research, the author concludes that Sodderland, as the main character in My Beautiful Broken Brain movie, has dealt with the problem had as Broca's aphasic.

The readers need to know that this study's findings might find different results if using other theories, which is one of the limitations of this research. Another limitation is that the author only observed the problems had by Sodderland as a Broca's aphasia sufferer from the movie without confirming the original form of difficulties experienced by Broca's aphasia sufferers in the real world. These two limitations are things that are expected to be followed up by subsequent researchers who have the same concentration and interest in the study.

CONCLUSION

Based on the analysis of this research, the author concluded that Sodderland had some difficulties producing words, and the errors produced by her show it. Those difficulties are; hard in finding and producing the right words, bad at word repeating, and it happened even she was good at her comprehension. In other words, Sodderland, as people with Broca's aphasia, face the challenge to produce words, remember the name of things, and finding the right word. With those difficulties, Sodderland often made errors while producing words. The error words she often produces are nouns, verbs,

prepositions, and arranging the words into a sentence. As people with language disorders, primarily Broca's aphasia, Sodderland is also known as a patient with effortful speech. She also produces many hesitations and long pauses and speaks like a stutterer. The condition of Sodderland causes those problems as a people with Broca's aphasia as the main character in My Beautiful Broken Brain movie

Through the utterances produced by Sodderland, the author found fourteen errors related to the several types of error in language disorder based on Reason (2000). The author concluded that the most dominant type found is malapropism and shift. The next type, which often produced by Sodderland, is lexical selection error and substitution. Then the other types produced by Sodderland is an omission. Another Sodderland's utterances are not categorized as any error proposed by Reason (2000). Those are six utterances produced by Sodderland, which are discussed using Yule's theory (2016). According to Yule (2016), people with Broca's aphasia have some problems classified through their ability to use a language. Those problems are; effortful speech, distortion of articulation, and stutter.

Next is about Sodderland's interaction with people around her. According to Gall (2010), people with brain injury will experience some difficulties in using a language. Therefore, Sodderland, as people with Broca's aphasia, made many errors while interacting with people. However, it is not only occurred in her conversation but also in her monologue. Some people could understand what she is talking about, although she had several errors.

Nevertheless, some of them could not understand why Sodderland often made a gesture to represent what she wanted to say. Each of the several specific parts of the human brain had the responsibility to do something. One of those specific aspects is for processing the use of a language. Thus, by the problems that occur on Sodderland, she had difficulties using a language, which disturbed her interaction with others.

REFERENCES

Blumstein, S. E. (2016). *Psycholinguistic approaches to the study of syndromes and symptoms of aphasia.* Author links open overlay panel in Sheila E.Blumstein (Ed.), Neurobiology of Language (pp. 923-933). Retrieved from https://doi.org/10.1016/B978-0-12-407794-2.00074-2

Cahana-Amitay, D., & Jenkins, T. (2018). Working memory and discourse production in people with aphasia. Journal of Neurolinguistics, 48, 90-103. doi: org/10.1016/j.jneuroling.2018.04.007

Finger, S. (2009). The birth of localization theory. In Handbook of clinical neurology (Vol. 95, pp. 117-128). Elsevier. Doi: https://doi.org/10.1016/S0072-9752(08)02110-6

Indah, R.N. and Abdurrahman. (2008). What psycholinguistics is. Indah, R. N. (Ed.), Psikolinguistik: Konsep & Isu Umum, Malang: UIN Press.

DOI: *http://dx.doi.org/10.18860/prdg.v3i2.10544*

Indah, R. N. (2017a). Gangguan berbahasa: Kajian pengantar. Repository UIN Malang. Retrieved from http://repository.uin-malang.ac.id/1296/6/1296.pdf

Indah, R. N. (2017b). Language and brain. Repository UIN Malang. Retrieved from http://repository.uin-malang.ac.id/1141/2/language%26brain.pdf

Jutt, S. W. (2016) Aphasia: The disorder that makes you lose your words. Retrieved from https://youtu.be/-GsVhbmecJA

Khanum, F. (2014). Influence of Broca's aphasia and Wernick's aphasia on Language. Global Journal of HUMAN-SOCIAL SCIENCE: A Arts & Humanities - Psychology, Volume 14 (9), 53-56. Retrieved from https://globaljournals.org/GJHSS_Volume14/6-Influence-of-Brocas- aphasia.pdf

Nielsen, S.R., Boye, K. Bastiaanse, R. & Violaine. (2019). The production of grammatical and lexical determiners in Broca's aphasia. Language, *Cognition and Neuroscience*, 2327-3801.

Puvanedran, K. Dowker, A. & Demeyere, N. (2015). Compensating Arithmetic Ability with Derived Fact Strategies in Broca's Aphasia: *A Case Report. Neurocase*, 1355-4794.

Reason, J. (2000). The Freudian slip revisited. PSYCHOLOGIST-LEICESTER-, 13(12), 610-611.

Samiadi, L. A. (2019). Jenis Afasia Bisa Terjadi Pasca Stroke. Retrieved from https://hellosehat.com/pusat-kesehatan/stroke/jenis-afasia-bisa-terjadi-pasca-stroke/

Saputri, A. R. (2018). Stuttering Language Disorder Of Stand-Up Comedian Off-Stage Speech. *Paradigm*, *1*(2), 143-152.

Schwartz, M. F. (2014). Theoretical analysis of word production deficits in adult aphasia. Philosophical Transactions of the Royal Society B: Biological Sciences, Volume 369(1634), 20120390. doi: 10.1098/rstb.2012.0390

Yule, G. (2016). The study of language. Cambridge: Cambridge University Press.

DOI: *http://dx.doi.org/10.18860/prdg.v3i2.10544*