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A praat-based stuttering analysis of the main character in the king's speech movie: a neuro-psycholinguistic study

Yonnie Kharismadewi[1], Ike Revita[2], Rina Marnita AS[3]

Universitas Andalas, Indonesia[1,2,3]
[1]email: yonniekharismadewi04@gmail.com

Abstract – Stuttering is a kind of speech disorder featured by involuntary words or syllables repetitions or prolongations or by involuntary interruptions in the flow of speech called blocks. Stuttering can happen due to genetic and due to environmental factors or psychogenic. This research aims to identify the types of stuttering that occur and to explain the factors that contribute to stuttering and the effect on the main character's speech fluency in the movie "The King's Speech." The data for this research comes from the The King's Speech movie. The descriptive qualitative approach was used in this study in which the method and technique used in collecting the data were the observation method and the technique consists of observing, recording using Praat as a speech analyzer, and noting. The data were analyzed using the referential and distributional methods. Based on the result of data analysis, the numbers of data for the type of stuttering is 286 data, each of them consists of 158 data for repetition, 124 data for blocking and 4 data for prolongation. In analyzing Bertie's utterance, Bertie, as the main character, found a problem in producing consonants that cause stuttering, the consonants consist of /m/, /k/, /b/, /p/, /y/, /ch/, /th/, / c/, /g/, /w/ , /h/, /f/, /n/, /d/, and /s/ with repetition of sounds in words starting with phonemes /m/, /p/, /k/ and /b/ predominates when stuttering occurs. Meanwhile, the repetitions of vowel sound that often occur are /a/, /i/, /o/, /e/ and the vowel sounds /a/ and /i/ dominate each repetition sound. Beside the problem in producing consonant and vowel in utterance, psychological factors are also the main factors in the occurrence of stuttering, such as feelings of depression, anger, and anxiety that trigger the main character to produce speech blocking. Therefore, the type of stuttering experienced by the main character is psychogenic stuttering.

Keywords: stuttering; psychogenic; praat; king's speech movie

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1. Introduction

Human beings are unique in their communication abilities, as each individual has their style and means of communication. The ability can be powerful or insignificant. It is influenced by various factors, including illness, articulation disorders, and, most importantly, the environment, which significantly impacts the development of speaking capacity. The most common causes of speech dysfluency are brain injury, articulation problems, and psychogenic factors such as anxiety, pressure, and environmental stress. The term "speech disorder" refers to individuals who have difficulty speaking fluently. Feldman (2005) defined speech disorders as persistent deficits and errors in acquiring speech abilities and voice quality. Speech disorders include difficulties with expression, interruptions in the flow or rhythm of speech, problems with the pitch, tone, or quality of the voice, and impaired intelligibility. Feldman (2005) defines speech disorder as a delay in generating expression and developing speech and a decline in voice quality; including tone, volume, and a change in sound flow, making hearing difficult. Feldman (2005) classifies speech into three categories: tone, which encompasses articulation, control of breath and gestures, motor preparation and execution; voice and resonance; and fluency. People's communication has evolved into an allegory for their relationship with society. Suffering from a communication capacity deficit will cause the sufferer to feel isolated. Individuals with speech disorders are also marginalized in society. For instance, children with speech disorders are frequently bullied at school.

Palmer et al (2016) stated that having a speech disorder can result in social isolation. Speech disorder can affect the social life, work life and mental health, and also can worsen the communication. Lanier (2010) differentiates five types of speech disorders: apraxia, aphasia, stuttering, cluttering, and dysarthria. Apraxia, aphasia, and dysarthria are caused mainly by brain damage, such as sensory-motor or neurological, whereas cluttering and stuttering can be psychogenic or neurogenic. As per the American Speech-Language-Hearing Association (ASHA), children's speech disorders are mostly ignored until adults begin stuttering. Eldridge (1968) stated that adult stuttering is typically caused by the neurological effects of poor speech quality and a rise in tension. However, stuttering as a common communication disorder with biological or psychological factors could be at fault either.

According to Bloodstein (2008), stuttering is a speech disorder characterized by unintentional repetition and prolongation of terms and syllables, as well as unintentional disruptions of speech flow. Stuttering can be exacerbated in any case by inherited factors, physical deformities, or mental malfunctions. It may also be triggered by the sufferer's personal and family history of pressure. Sastra (2011) noted that stuttering caused by a neurological factor is typically experienced by children subjected to authoritative and strict parental admonishment. When children are punished by their environment, their psychological stammering may worsen. As previously stated, stuttering is one of the motivations elicited by the psychological impact. Besides, psychopathology, such as mental illness, and speech disorders, stuttering as one of them, are inextricably linked to each other. Stuttering is a psychogenic disease that does not occur naturally; instead, it is carried about by psychology. Bloodstein (1995) also stated that males are more likely than females to experience stuttering. Guitar (2006) distinguishes three types of stuttering: repetitions, prolongations, and blockings.

Additionally, there are a number of explanations for why the researcher chose The King's Speech as the source of data. First, a speech disorder occurs when those who suffer from it are unable to express or produce language properly; an inability to produce the utterance suffer by the main character called Bertie is one of the reasons the writer conducted the research. Second, several researchers conduct research on speech disorders. The writer is then motivated to conduct research as well, particularly on stuttering. Another possibility is that the film depicting a male main character with a speech disability is based on a true story, the life story of King George VI who suffers from stuttering. The King's Speech is a biographical film about King George VI, who suffered from stuttering and was deteriorating when he was crowned as the next king succeed his father, King George V, who died. The film depicts King George VI's struggle to overcome his stuttering through various treatments. The disorder began when King George VI's nickname Bertie was 3-4 years old. Bertie, born left-handed, was forced to become right-handed as a child. This was one of the factors that contributed to the onset of the stuttering. At the

time, in the United Kingdom, a dominant hegemonic discourse believed a left-handed person had approximately 40% brain damage, and it became a source of fear and shame.

The research on speech disorders, especially stuttering, has been the concern of many language researchers. It can be seen from the many studies conducted by language researchers both stuttering caused by genetic factors and stuttering caused by external factors such as psychological or drug-induced factors. Based on a review of several articles, several research references related to the case of speech disorder and stuttering specifically to be studied were obtained. The recent research about stuttering at workplace was conducted by Iimura and Miyamoto (2020). This study exposes previously documented negative attitudes toward stuttering among people in their employment. This behaviour will differ depending on whether someone knows a person who stutters or has had encounters with a person who stutters. This research aims to understand better people's attitudes toward people who stutter at work. A web-based questionnaire survey of 730 adults from Japan's general population was used as a guide. The respondent's age, a history of contact with people who stutter, knowledge of stuttering, and attitudes and perspectives on stuttering in the workplace were all gathered using a Likert-type scale. Respondents' demographic information and contact experience were entered into a multivariable model using ordinal logistic regression analysis to examine the variables associated with their stuttering actions and workplace experiences. The researcher analyzed data from 671 respondents, 77.2 % of whom were company employees; 41.3 % know someone who stutters at work, in their colleagues, or their family; and 34.7 % have worked in a recruiting capacity. Furthermore, the respondents were very optimistic about recruiting a stutterer. Regression analyses revealed that only facets of job touch history were significantly positively associated with respondents' attitudes toward stuttering and understanding that stuttering at work is associated with a more constructive outlook as well. The results of this research can be used to complete the literature especially in terms of attitudes at work. Iimura and Miyamoto (2020) concluded that encounters with people who stutter at work are a crucial factor correlated with a person's positive attitude.

Another research is done by Khodeir (2019) who investigates the stuttering severity magnitude in Egyptian Arabic-speaking children who stutter (CWS) by comparing stuttering severity grades measured by the Bloodstein classification of stuttering severity (BLS) and the stuttering severity instrument for children and adults-Arabic version (ASSI). The procedure employed was conducted by gathering 58 Egyptian Arabic-speaking CWS (children who stutter) aged 5-9 years and 9 months based on the inclusion and exclusion criterion of the patients studied at El-Demerdash Hospital's Phonatic clinic (Ain Shams University). In a cross-sectional retrospective study, the children were subjected to the Ain Shams university fluency assessment protocol, which involved a clinician's assessment of the severity of stuttering using BLS and ASSI classifications. The Spearman correlation coefficient and regression analysis were used to investigate the relationship between the magnitude of stuttering and the BLS and ASSI classifications. According to the study results, the extent of stuttering calculated by the BLS and ASSI scores has a clear positive association. According to the BLS classification, ASSI scores for children with mild, moderate, or severe stuttering decrease with age. The ASSI ratings of CWS participants were significantly inversely linked to their age but not to their BLS classification scores. Stuttering frequency was not linked to the age of onset, whether measured using the BLS or ASSI classification. The researchers concluded a significant positive relationship between the severity of stuttering measured by the BLS and ASSI classifications. Regarding the degree of stuttering described by the BLS classification, the sum of speech dysfluency measured by ASSI reduces as the child grows older. The specialist must use more than one procedure to determine the level of stuttering. Alqhazo and Al-Dennawi (2018) focused their research on the stuttering to the linguistic aspects and aimed to determine the linguistic causes of the child's stuttering speech. The method used in this research was to recruit 41 stuttering children (31 boys, 10 girls) from 14 schools ranging in age from 6 to 13 years. Random speech assignments were used to evaluate phonological and morphological variables, while sentence completion tasks were used to assess syntactic variables. The results showed that (a) words that shifted (M = 50, SD = 30) were marginally more likely to stutter than words that did not move (M = 32, SD = 18). [P 0] .000] Formal paraphrasing, (b) Stuttering was more frequent at the beginning of the word than at the middle or end [P = 0.000], (c) increased word length is correlated

with higher rates of stuttering [P = 0.000], (d) long sentences are more likely to stutter than short sentences [P = 0.000], and (e) stutter loci are higher in stressed syllables (M = 34, SD = 30) than without stress. These results confirm a connection between linguistic triggers and stuttering frequency, which may be used to develop a therapy routine for children who stutter.

Another research on stuttering and social consequences was performed by Hunsaker (2011) entitled "The Social Impact of Stuttering in Adolescents and Young Adults." According to Hunsaker (2011), teenagers and young adults who stutter face negative social effects and obstacles to opportunities in employment and relationships. Stuttering behavior is classified into levels based on the existence of different central and secondary behaviours. The majority of stuttering teenagers and young adults face social repercussions. Hunsaker (2011) demonstrated that people who stutter (PWS) face social stigma in this study. As a consequence, PWS often has a poor self-image, as well as negative perceptions and emotions towards their communication skills. This research aimed to discover and discover how culture can affect stutterers, teenagers, and young adults who stutter, and this study also explains stuttering therapy.

From some researches that have been described above, there are several differences with the research to be conducted. The differences lie in the aspects of the research subject, the scope, the method, and the analysis of the stutterer's verbal ability. The subject is the main character of The King's Speech movie in this research. Further, there has not been any research focusing on speech disorders suffered by the character using a speech analyzer. By this, the writer can declare that the research is different from other relevant research, and no other writers have conducted research about this before.

2. Method

The research applies the in which the descriptive research aims to observe and describe the language issues analyzed, which in this case is to describe the types of suttering produced by the main character in the King's Speech movie. The qualitative approach aims to explain the object of the research's context to help present the research (Fouche & Delport, 2002). Therefore, in performing the research, the researcher used descriptive qualitative research to identify and explain the stuttering suffered by the main character, King George VI, in the film The King's Speech. The data in this research comes from the transcriptions of the dialogue produced by the main character of The King's Speech movie who suffers from stuttering.

The observation method is data collection techniques done by listening to or tapping the speech of the research object's language user. The data collection stage is the most important in research. Here, the observation method is used in which the researcher will listen to the utterances in each of the main characters' dialogues. This method is applicable for observing utterances, conversations, and others uttered directly and for observing written data such as texts, newspapers, story scripts, etc.

3. Results and Discussion

As speech disorder, stuttering is reflected by the character in The King's Speech movie. In the movie, the writer found that stuttering occurs when the character, King George VI or Bertie, feels anxious, depressed, pressured and trauma. The conditions are seen when Bertie has conversations and gives a speech. His stuttering worsens when Bertie feels anxious, depressed, and pressured and remembers his trauma in childhood. The writer found the repetition of sounds, syllables, phrases, prolongations and blockings in the main character's utterances.

There are 286 data found in 152 dialogues in the movie, where every dialogue can have more than one type of stuttering. In this section, the data found are classified based on the research purposes, which are to explain the types of stuttering and the factors and effects of stuttering on the main character's speech fluency in the movie. The table below shows the stuttering frequency produced by the main character, Bertie.

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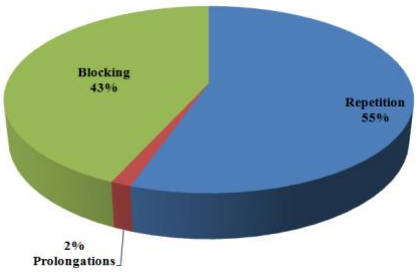


Figure 1 Diagram of types of Stuttering's frequency
produced by the character in The King's Speech Movie

As seen in Figure 1, repetitions are the most produced by the character in The King's Speech movie. Bloodstein and Ratner (2008) stated that stuttering is a speech disorder marked by the unintentional repetition and prolongation of terms and syllables and unintentional disruptions in the flow of speech. Furthermore, Yarus and Reardon-Reeves have classified the repetitions into several forms: monosyllabic whole word, individual sounds or syllables, multisyllabic whole word, and phrase repetition. The second type of stuttering most produced by the main character is blocking. Guitar (2006) stated that blocking is a core behaviour that occurs when the stutterer improperly stops or pauses between words. Blockings usually occur when the stutterer tries to talk; however, there is a disruption in the airflow.

From Figure 1. it can be seen that blockings are found in almost every scene as well as repetitions. In several scenes, blockings are used by the character to reduce the stuttering, and in other scenes, blockings occur when the character gets pressured by his listener. On the other hand, multisyllabic whole words as the form of repetitions become the rare forms produced by the character in stuttering. In types of stuttering there are three types of stuttering produced by the character in The King's Speech movie. Those are blockings, prolongations, and repetitions.

3.1. Blockings

Blockings are the types of stuttering produced mainly by the character in the movie. Blockings are a stop or pause in airflow improperly. In this core stuttering behaviour, the character tries to reach the words to say what Bertie intends. However, blocking is an obstacle for the character in delivering the speech. In the movie, blockings become the second most produced by the character, as shown in Figure 1.

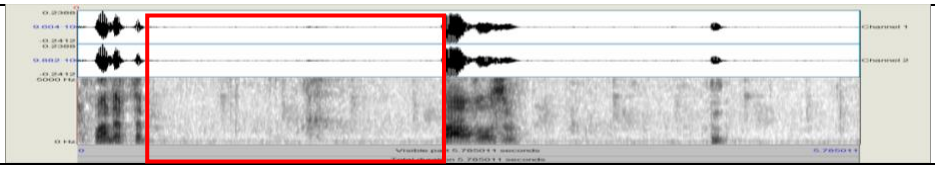
No. Data	Dialogue 49 Data B25
Dialogue	**Bertie: "…**One of the *(blocking)*(B25) m – marvels of m – m –…" **George**: "Modern". Just take your time. Form your words carefully.
Spectrogram	

Figure 2 Spectrogram of Dialogue 49 Data B25

The data above shows that Bertie tries to reach his words. Instead, he pauses his utterances to overcome his stuttering. It can be seen in dialogue 49; Bertie has to face his father, who forces him to practice the broadcast speech. The length of Blocking produced by Bertie in dialogue 49 is 2.1 seconds. Even though

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he only reads the speech, Bertie still produces stuttering. A number of blockings produced show it. The stuttering becomes serious when his father pressures him to do an awesome speech like him. This makes Bertie pressured and tries to do what his father does. Instead, the stuttering becomes worse by producing more blockings.

3.2. Prolongations

The second type of stuttering is prolongation. According to Guitar (2006), prolongations occur when the movement of the articulator area, lips, has already stopped, but the sound of airflow continues. It means the character that produces this type prolongs the sound in which the words try to say can come out. The prolongations can occur in the words' beginning, middle and end. As follow:

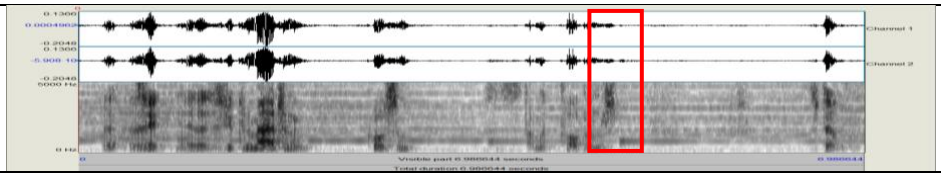
No. Data	Dialogue 83 Data P1
Dialogue	Lionel: Sing it Bertie: ♪Then She wouldn't feed me… far, far away♪. Took my parents (blocking) t – three years to notice. A – as you – assss you can imagine. Caused some ssssstomach (P1) problems
Spectrogram	

Figure 3 Spectrogram of Data 83 Data P1

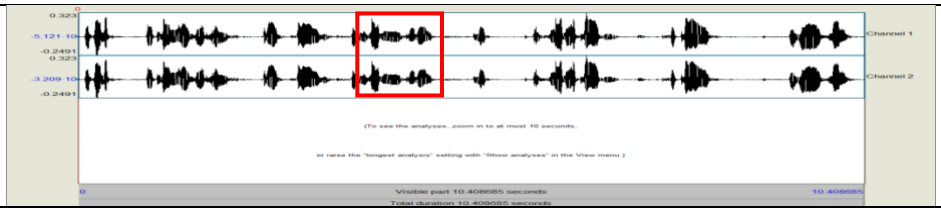
No. Data	Dialogue 144 Data P4
Dialogue	Lionel: Long pauses are good. They add solemnity to great occasions. Bertie: … I- if I'm a- a king where's my power? Can I- can I fffform (P4) a government? Can I- can I (blocking) levy a tax?
Spectrogram	

Figure 4 Spectrogram of Dialogue 144 Data P4

Prolongations only occur when the speaker or the stutterer unintentionally prolongs or lengthens the word's sound. For instance, the examples of dialogues above show how Bertie produces the prolongations. The phonemes which obtain prolong are [m], [s], and [f]. According to IPA Help (2008), the phonetic of [m] is pronounced in bilabial, [f] is in labiodentals, and [s] is in alveolar.

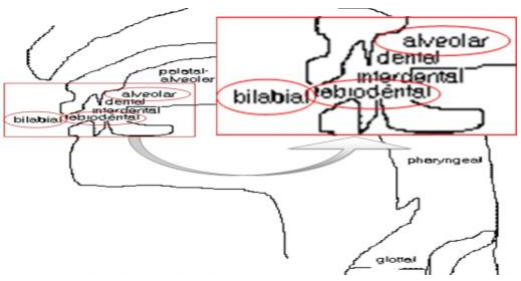


Figure 5. Place of Articulation (Source: IPA Help, A Phonetic Tool (2008)

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The words prolonged usually occur in consonants. As found in the data, the words prolonged overall occur in consonants such as '*fffform*', '*mmmmmanufacturing*', and '*assss (…) ssssstomach*'. In dialogues 83 and 144, Bertie produces prolongations in sound /s/ and /f/. Both of the examples are caused by different factors. In dialogue 83, Bertie produces prolongations in sound /s/, which occurs in alveolar, while in dialogue 144, Bertie produces prolongations in sound /f/, which occurs in labiodentals. In producing prolongations, both data have different factors. In dialogue 83, the factor of prolongations is trauma. Bertie tells Lionel, his speech therapist, about the trauma that causes him to suffer from stuttering. In telling him about his trauma, Bertie acquires obstacles in producing /s/ as in the dialogue.

For another dialogue, as seen in dialogue 144, the prolongation of 'f' produced is a factor of depression. Bertie is practising delivering a broadcast speech before it is broadcasted directly. The war speech is the first speech delivered after being enthroned as King George VI. His stuttering makes him frightened; therefore, Bertie asks Lionel to accompany him while he delivers a war speech. As long as he practices his speech, Bertie gets obstacles in saying some words. The words make him depressed and think that he should not be king. Therefore, in dialogues, Bertie acquires obstacles in producing 'f'.

3.3. Repetitions

The last type of stuttering produced by the character in the movie is repetition. Repetitions are the most type of stuttering produced by the character instead of other types. In the midst of 286 data, repetitions are produced as much as 158 data. These findings should not be surprising considering repetitions are the dominance type mostly produced as a type of stuttering.

Yaruss and Reardon-Reeves (2010) explained repetitions as the type of speech disorder with several forms: monosyllabic whole word, Individual sounds or syllables, multisyllabic whole word, and phrases repetition. As stated above, repetitions have several forms which often occur to the stutterer.

A monosyllabic whole word is a repetition that occurs in a single syllable or sound. Even though this form of repetition also occurs in normal people, it is a different condition for the stutterer. Stutterer who produces the monosyllabic whole word repetition generally is caused by a problem in their mind. For instance, the following dialogues show the example of monosyllabic whole word repetition produced by the character.

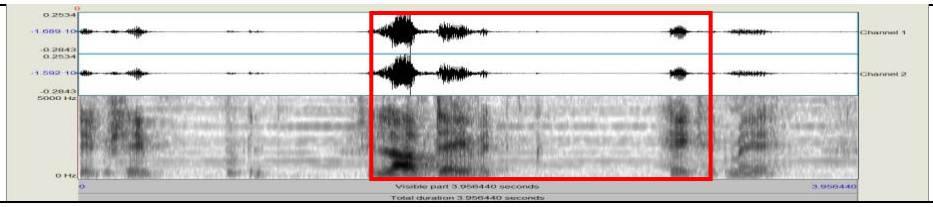
No. Data	Dialogue 77 Data R96
Dialogue	Lionel: who were you closest to in your family? Bertie: Nannies. Not my first nanny. She – she – (blocking) she (R96) loved David. H – Hated me…
Spectrogram	

Figure 6 Spectrogram of Dialogue 77 Data R96

Bertie, in dialogue 77, repeats the words 'she' in his dialogues. It occurs when he tells Lionel about his trauma at five years. The repetition of the monosyllabic whole word occurs because he tries to remember his childhood suffered because of child abuse. The word 'she' refers to his nanny who does the child abuse. Due to the trauma, Bertie produces stuttering in the word 'she' which becomes the factor of his stuttering. On the other hand, negative emotion is also shown by Bertie when he tells about his trauma which has caused him to suffer from stuttering since he was around four or five years old. It shows how Bertie feels depressed and annoyed.

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The Individual sounds or syllables repetition is one of the forms of repetition mostly produced in Bertie's dialogues. As found in the movie, the repetitions of this form are as much as 120 data. Individual sounds or syllables repetition occurs in the part of the word. Generally, this form occurs in the initial part of words. For instance, the examples of individual sounds or syllables are presented as follows.

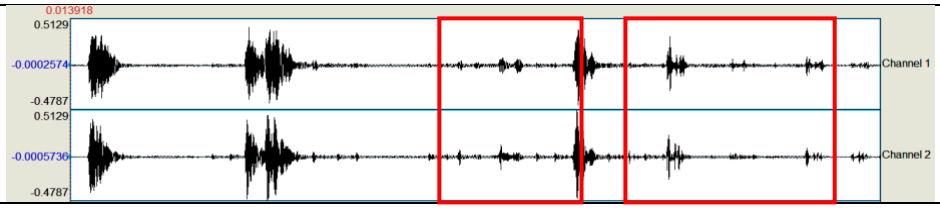
No. Data	Dialogue 01 Data R3 and R4
Dialogue	Bertie: I have received… (Blocking) from his (blocking) M - Majesty the – the – the – the – the – the – the K – king (R3)… a – a – a – a – a (R4)…
Spectrogram	

Figure 7 Spectrogram of Dialogue 01 Data R3 and R4

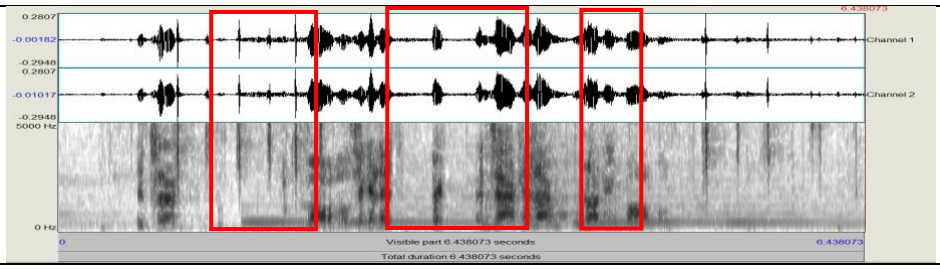
No. Data	Dialogue 02 Data R5, R6 and R7
Dialogue	Bertie: Insert (Blocking) m – marbles (R5)… He can in – in – insert (R6) His own (blocking) b - bloody (R7) marbles Elizabeth: Tick, took. Tick, took. You know you can't doing this, Bertie.
Spectrogram	

Figure 8 Spectrogram of Dialogue 02 Data R5, R6, and R7

As seen above in dialogues 1 and 2, the dialogues consist of repetition produced by the character. At a glance, the dialogues are similar. However, they have a difference in the factors. Looking at both of them, the frequency of the first and second examples has similarities. The stuttering occurs in the initial part of words' M-Majesty' and 'K-King' as in dialogue 1 and 'm-marbles' and 'b-bloody' as in dialogue 2. The frequency difference is only found in the word 'in-in-insert' repeated twice. The stuttering in the individual sounds or syllables repetition is mostly caused by factors affecting the character. As seen in dialogue 1, Bertie, who delivers a speech at the Empire Exhibition in Wembley, London, feels anxious, and in his first sentence of speech, Bertie produces stuttering, and it is sufficiently severe if compared to other dialogues. It states that the anxiety as the negative emotion causes him to fail to produce the proper word in delivering the speech even though he only reads it. On the other hand, in dialogue 2, the repetitions produced by the character are caused by getting pressured. It can be seen through the dialogues emphasized by the word 'b-bloody'. In this dialogue, Bertie feels pressured by his former speech therapist's therapy technique, which uses a classic approach of inserting marbles into Bertie's mouth.

For this reason, the negative emotions in this dialogue cause the character to produce the multisyllabic whole word when conversing with Winston. Nevertheless, it does not make the character produce stuttering when he delivers the speech. Bertie's success in delivering the speech is caused by his emotions being controlled appropriately and helped by the instrumental music and fresh air to calm

himself. After analyzing the types of stuttering and its factors against the main character in The King's Speech movie, it is surely necessary to interpret the analysis results. For the type of stuttering, the analysis results show that the most common form of stuttering is repetition. This type can be seen from the repetition of individual sounds or syllables, monosyllabic sounds, phrases and multi-syllabic sounds produced by Bertie in his dialogues. In repetition individual sound or phoneme, the repetition of consonant sounds found are /m/, /k/, /b/, /p/, /y/, /ch/, /th/, /c/, /g/, /w/ , /h/, /f/, /n/, /d/, and /s/. Repetition of sounds with phoneme prefixes /m/, /p/, /k/ and /b/ dominates when stuttering occurs. This shows Bertie has the most difficulty pronouncing the nasal-bilabial, plosive-bilabial, and plosive-velar sounds. Whereas, for the repetition of vowel sounds, the sounds got repetition are /a/, /i/, /o/, /e/. The vowel sounds /a/ and /i/ dominate in the individual repetition sound.

In identifying the type of stuttering produced by the main character, the second behaviour also affects the character. As mentioned, Guitar (2006) states that stuttering people when produce blockings. For instance, they show tightened neck muscles and jaws in trying to utter. It is called second behaviour, which occurs to the main character, Bertie, while he tries to speak. Prolongations and repetitions as the types of stuttering also occur when a character utters. Second behaviour such as eyes blinking and body movement are mostly shown by the character when producing stuttering. Besides, the negative feelings or emotions such as anxiety, trauma, fright, pressure and depression also affect the character in producing stuttering while uttering.

Judging from the results of Praat's speech analyzer analysis, it can be seen that there is a relatively long time span in Bertie's dialogue that contains blocking. The duration of blocking in Bertie's speech is not the same. The length and the short blocking duration are influenced by the psychological factors Bertie faces. The psychological factors faced by Bertie also influence the frequency of blocking appearances. Judging from the analysis results, the most common factors for the emergence of stuttering are anxiety, anger and depression. Meanwhile, for the repetition, the psychological factors that make this type of stuttering appear are feelings of depression, fear, and Bertie's recollection or trauma which is also the trigger for this main character to suffer from stuttering.

In addition, from the analysis of the stuttering factor and the impact of stuttering on the main character, it can be seen that Bertie stutters not due to neurogenic factors but because of psychogenic factors. Psychogenic stuttering is caused by psychiatric trauma and generally occurs in the age range of 3 - 5 years, but it is also possible for adults to experience it. In this case of stuttering, the fluency of the patient's speech depends on the patient's mental health condition. Therefore, people with psychogenic stuttering often feel depressed, anxious, afraid, angry, depressed, etc. In the case of Bertie's stuttering, in the movie, it is said that Bertie is left-handed but is forced to be right-handed because this is considered shameful. In the 1930s, famous University of Iowa scholars such as psychiatrist S. T. Orton, psychologist L. E. Travis, and their students gave validity to these statements. The Iowa researchers produced articles and books linking the origin of stuttering to forcing natural left-handers to write and do some other jobs with their right hand from the late 1920s through the 1950s.

4. Conclusion

In this chapter, the research results of the case study of the main character's stuttering speech will be presented in The King's Speech movie. The focus of this study is to identify the types of stuttering produced by the main character and explain the factors that cause stuttering and its impact on the main character in The King's Speech movie. Stuttering analysis was carried out with the help of a Praat speech analyser to see the intensity, sound spectrum and duration produced when the main character of the stutterer spoke. Stuttering can be categorized into linguistic and non-linguistic aspects if analysed from its type. For the linguistic aspect, the types of stuttering consist of prolongation and repetition of individual sounds, monosyllabic whole words, and multisyllabic whole words and phrases.

The analysis results from Bertie's stuttering speech show several types of stuttering. The most common type of stuttering is repetition. From the analysis results, It was identified as many as 158 repetitions. The tendency to repeat individual sounds has a high sound intensity at the beginning of repetition in every utterance, and then the intensity decreases. In addition to the linguistic aspect, stuttering is also

found in the non-linguistic aspect. On the other hand, for the non-linguistic aspect, the types of stuttering consist of blocking, interjection, and prosody. In the case of Bertie's stuttering in The King's Speech movie, the non-linguistic aspect found is blocking, with a total of 124 data. The appearance of blocking types in the main character's speech tends to be caused by childhood recollection, trauma, environmental conditions, pressure, anxiety, depression, anger, and fear. So, psychological factors influence Bertie in speaking.

The focus of this research is to identify the types of stuttering and to explain the cause of stuttering factor and the effects by using the theory of Guitar (2006) about the core behaviours which explain the type of speech disorder and the second behaviour which come up when the character produces stuttering. It helps the writer find the dialogue that contains stuttering, such as blocking, when transcribing the movie. The Guitar's theory about second behaviour compares the blockings that occur due to the stuttering and blocking, which is only a normal pause. On the other hand, the theory of Yaruss - Reardon-Reeves (2010) is used to analyze the types of stuttering.

Furthermore, another factor observed in this study is the secondary behaviour produced by the main character when he stutters. From the results of this second behaviour analysis, several behaviours were found, such as blinking eyes, tight jaws, frowning, shaking head up and down, trembling lips, clenching teeth, straightening the neck, holding fingers, and holding hands. The main character's factors that cause stuttering are psychogenic factors, where psychogenic stuttering is not caused by genetics but due to trauma in childhood and coercion to change himself from left-handed to right-handed by his father. Psychogenic stuttering is caused by the environment and how the parents treat their children. This type of stuttering can be overcome with appropriate therapy and belief in the sufferer to recover.

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