

SPEECH ABNORMALITY OF THE SCHIZOPHRENIC CHARACTER IN A *BEAUTIFUL MIND* MOVIE

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Abstract: This study looked at the speech abnormalities of John Nash, the main character of schizophrenia in the film *A Beautiful Mind*. He suffered from hallucinations and delusions that made him difficult to concentrate, remember, and speak or act regularly. This study had two objectives namely identifying Nash's speech disorder and describing the occurrence of his speech abnormality shown in the movie. The research design was descriptive qualitative by employing the theory of Liddle et al (2002) on categories of speech abnormality. The findings showed the perseveration of ideas, peculiar logic, looseness, and poverty of speech. Furthermore, the speech abnormality was caused by two main symptoms of schizophrenia, positive and negative symptoms, which altered John Nash's thoughts, language, and emotions. The schizophrenic character produced the most prolific perseveration and peculiar logic. He often said illogical things without supporting evidence, and often repeated his words. Through the findings, it was expected that readers and further researchers could gain better understanding on various types of schizophrenic speech disorders.

Keywords: *Schizophrenia, speech abnormality, A Beautiful Mind*

INTRODUCTION

Schizophrenia is a mental disorder that results in language disorders. According to Nugroho (2017), one can speak without stopping. The language style of people with schizophrenia can be defined in several stages according to specific characteristics. Schizophrenia is a brain disorder that produces strange and surprising thoughts, perceptions, feelings, and actions. It is not just any disease, but rather a process that includes several types and symptoms, such as cancer (Videbeck, 2012). It is also a chronic mental condition with a complex

genetic and neurobiological nature that affects early brain development and causes hallucinations, delusions, and disorganization, as well as cognitive failure (Rasool et al., 2018).

Schizophrenia is a serious mental illness in which sufferers have difficulty distinguishing between reality and illusion. Positive symptoms of this condition include disorganized speech, delusion, hallucination, cognitive abnormalities, and perceptual problems. It also covers avolition (lack of interest and motivation), poor desire to chat and talk, flat affect, and strained personal relationships. Symptoms of schizophrenia seem to hinder a person's ability to understand and solve problems, impact their lives, and interfere with personal relationships. These factors contribute to impaired functioning or the inability of people with schizophrenia to live their common lives (Setiadi, 2006).

Several abnormalities in semantics or meaning in language are present in schizophrenia, including problems with the word or lexical selection and retrieval, impaired priming, and reduced proactive resistance. Language difficulties in schizophrenia are thought to be caused by abnormal semantics and phonology. The disorder is one of the many causes of schizophrenia, leading to abnormal speech (de Boer et al., 2020). Language problems are also a part of schizophrenia. It can be explained in two ways: anomalies in semantic memory and function in the construction and use of contexts (Kuperberg, 2010).

A Beautiful Mind is one example of the films that shows the symptoms of schizophrenia to its audience, especially the mental and communicative difficulties faced by schizophrenic characters (people with schizophrenia). This film shows the audience that schizophrenia is a real disease that attacks humans. However, schizophrenia in this film is presented in an exciting way that not only entertain, but also inspire audiences. Many aspects of life, such as psychology, also becomes the story's main theme in this film.

A number of researchers have conducted studies on language difficulties, especially in schizophrenic patients. First, Astuti (2014) found the types of hallucinations, delusions, and formal thinking disorders depicted in the schizophrenic conversations of the main characters in the film *The Uninvited*. Second, Agustina (2014) examined the linguistic phenomenon of schizophrenia faced by Mary, the protagonist in the film *Canvas*. Next, Apriyanti (2014) examined how the traits and types of schizophrenia were suffered by the main character in *The Uninvited* film. Then, Nugroho (2013) studied language

understanding of schizophrenic sufferers in the film *A Beautiful Mind*. In addition, Supianoveri (2015) identified the types of schizophrenia symptoms expressed by a schizophrenic patient, Cole Sear, in the film *The Sixth Sense*.

The next research, Arfani (2018) concerned with the characteristics of schizophrenia in *The Beautiful Mind* movie. Furthermore, Hasanah (2020) aimed to see the speech disorder of the main character in the *Middle School* film who suffered from schizophrenia. Santiah (2021) investigated the types of schizophrenia found in the main character Teddy Daniels in the film *Shutter Island* and what medication was used to treat schizophrenia. Next, Irfandiana (2021), who looked into the main character's speech disorder in the film *Fractured*, who suffered from schizophrenia. Finally, Sofyanti (2021) analyzed the positive and negative symptoms of schizophrenia in Neal Shusterman's novel entitled *Challenger Deep*.

This study is similar to several previous studies on speech difficulties. However, it concerns only on the chosen movie, *A Beautiful Mind*, a biographical film about an American mathematician, by focusing on the speech disorder of the schizophrenic character. The 2001 film, told the stories about John Nash who was a Carnegie Scholar when he arrived at Princeton University, after receiving prestigious mathematics prize. He met his fellow graduate student Charles Herman, a literature major who was also his roommate. They were friends until John Nash accepted a position as a lecturer at MIT (Massachusetts Institute of Technology). While giving a guest lecture at Harvard University, John tries to flee from persons he believes were Soviet operatives. He escaped with psychiatrist Dr. Rosen, who was forcibly sedated. Dr. Rosen discovered that John had schizophrenia after the incident. For a variety of factors, the researcher chose this film to analyze. This study used the main character's expressions and dialogues with other individuals, as well as when meeting with a psychiatrist for help, as subjects and data.

This study tried to focus on speech while integrating other objects from past tests that produced different results from the previous studies. The study looked at the information needed to diagnose speech issues in people with schizophrenia, as well as how they manifested in the protagonist of the film *A Beautiful Mind*. The researcher also looked into the primary characters' dominance and speech oddities. Therefore, the notion of speech anomalies in schizophrenia patients proposed by Liddle et al. (2002) could be tested. In particular, this study aimed to identify the types of speech abnormalities appear in the utterances of the main character of *A Beautiful Mind* movie and to

portray the description of the occurrence of schizophrenia speech abnormalities.

METHOD

Research Design

To better understand the speech abnormality of schizophrenia, this study used a qualitative descriptive method. A qualitative research approach is a way of interpreting or examining a phenomenon or symptom, both the perpetrator and the consequences of his actions, in order to understand it fully (Raharjo, 2020). The analysis in this study looked into speech abnormalities or inconsistencies in the main character of the film *A Beautiful Mind* and how his schizophrenia symptom affected his expression. The data analysis used a psycholinguistic approach using the hypothesis of Liddle et al (2002).

Data collection and analysis

To obtain data for this study, the researchers took various steps. The researchers started by watching the movie *A Beautiful Mind*. The next step was reading the script to select a dialogue and recording the required discourse. Finally, the collected data were organized in chronological order to be examined in the data analysis stage.

Data analysis is a method for analyzing data. Data analysis methods are an important part of research because that is when conclusions are drawn (Raharjo, 2020). This study applied Liddle et al.'s (2002) hypotheses about speech problems in schizophrenic patients. To check the data, several methods were needed. First, the researchers categorized and classified the dialogue transcription as primary data. Then, the analysis focused on answering the research questions about speech disorders, such as how the main character's speech disorder in *A Beautiful Mind* manifested himself and communicated with other characters. The last stage was to draw conclusion.

FINDINGS & DISCUSSION

Speech Abnormalities appear in John Nash' utterances in the Film *A Beautiful Mind*

Among the eight categories of language disorders proposed by Liddle et al (2002), Nash' utterances only showed four types: persistence of ideas, peculiar logic, looseness, and poverty of speech. John's stories that often appeared were strange logic and perseveration of ideas. All the distortions of John's speech, on the other hand, could be seen as evidence that he was schizophrenic. This phenomenon would manifest itself in the event and the explanation is presented as follows:

Perseveration of Idea

Perseveration of the concept, according to Lieberman et al. (2007, p. 203), is a kind of alogia in which the patient's spontaneous speech is limited. Thus, patients give quick and straightforward answers to queries and may not answer questions or make monosyllabic comments in some circumstances.

The perseveration of thought occurs when a schizophrenia repeats the same words, phrases, and sentences during a speech. The hallucinations are driven to affect this condition, causing those who suffer from it to lose self-control. When John became delusional, he repeated the words many times in an attempt to persuade others. Moreover, this phenomenon occurs not only in schizophrenic but also in non-schizophrenic. Persistence of ideas occurs in normal people when the communication of the speaker and listener fails to fulfill the purpose of the message. The speaker can ask and tell the listener, but the listener does not respond in any suitable way. As a result, the speaker will repeat the word to get the listener's attention, and the listener will respond appropriately.

Delusions or false beliefs cause the repetition of words, phrases, or sentences in people with schizophrenia. As a result, they will feel worried, uncomfortable, and even tense due to wrong beliefs. In *A Beautiful Mind*, John, who suffers from schizophrenia, experienced a similar incident when his speech became out of control. The schizophrenic, however, is not aware of this disorder because it is a part of his world. The data reveal that John Nash uses the persistence concept, the following shows examples of disturbances at datums 2, 8, 9.10, and 12.

As revealed in Datum 2, John used the same words over and over again throughout his conversation. "*I have respect for beer, I have respect for beer*". His hallucinations prompted John to act this way. In this case, he felt that he would be at ease if he attended the party.

From the explanation above, hallucinations are conditions that cause speech problems. It is a belief in which a person persists even when faced with

true and accurate knowledge. Perseveration of ideas appears in as many as five utterances from several datums, and hallucinations often happen. Hallucinations are mental illnesses where a person sees or experiences things that are not real and only exist in his head.

Peculiar Logic

Peculiar logic is a type of speech disorder characterized by irrational thinking in a person who has schizophrenia. A person with schizophrenia often speaks or receives messages for illogical reasons (Liddle et al, 2002). As a result, people with schizophrenia often express strange ideas that don't make sense.

Peculiar logic occurs from several events. It ranks second to the phenomenon after the persistence of ideas with the same percentage based on Liddle et al's theory (2002). This occurs when a person with schizophrenia experiences hallucinations and delusions, causing him to make irrational claims that are not based on reality. People with illogicality are more likely to make incorrect assumptions. Meanwhile, normal people can think clearly and rationally based on facts. John could not follow the scenario logically in this case because he was experiencing hallucinations and delusions.

Peculiar logic is a type of non-logical reasoning and a unique feature of schizophrenia. A person with schizophrenia understands what is in his mind, but others do not understand what he says. In other words, when there is an illusion, there will also be illogical reasoning. As a result of hallucinations and delusions, sufferers will have irrational speech patterns. In the film *A Beautiful Mind*, several examples of non-logical reasoning experienced by John are in datum 1, 5, 6, 11, and 13.

In datum 5, when Alicia turned on the light, Nash said,
Turn it off! Turn off the light! Why would you do that? Why would you turn the light on? you have to go to your sisters. I left the car out the back. You take commonwealth. No side streets, you stay where it's crowded. when you get to your sister's you wait for me to call you. Just get your things.

John was having hallucinations and was out of control and he told his wife Alicia about several things that did not make sense. In his hallucination, he experienced being chased by the Russians. He told Alicia to go to her sister's house, but Alicia refused. It made his thoughts illogical and his words unreasonable, thus making Alicia confused. John thought when the light was

turned on the Russians knew about his whereabouts. The fact was that there was not a single war there.

The above data about peculiar logic appeared five times. Schizophrenia manifests itself in various ways, including positive and negative symptoms. Hallucinations and cognitive patterns and problems specific to the individual define the delusions. Individual, which is another common symptom of people with schizophrenia. Therefore, John hallucinated that the Russians were following him.

Looseness

Looseness occurs when a person with schizophrenia speaks with unclear or non-existent ideas. Extraneous ideas also creep into his mind, causing him to speak spontaneously or on the basis of irrelevant information or responses. Looseness can arise when schizophrenics do not associate questions with them, resulting in irrelevant answers that confuse others. John also played looseness in the film *A Beautiful Mind* as the main character of a schizophrenic patient. Looseness is a speech abnormality caused by conditions that mimic the cognitive and language impairments seen in psychotic illnesses, including schizophrenia (Liddle et al, 2002). The type of looseness experienced by John is found in datum 3 and 4.

For people with schizophrenia, the connections between thoughts are shaky or non-existent. Because hallucinations and delusions play a role in this phenomenon, it happens. The way concepts are connected is also different from what ordinary people say. People with schizophrenia often combine elements of reality with hallucinations or delusions. As a result, they are not aware of their peculiarities because they accept the phenomenon as a matter of course.

In datum 3 when a woman asked John to buy him a drink, John replied:
I don't exactly know what I'm required to say for you to have intercourse with me, but could we assume that I said all that? Essentially, we're talking about fluid exchange, right? So, could we just go straight to the sex?

John answered a woman's question with dialogue that had nothing to do with the previous sentence of the conversation between the woman and John. This kind of speech problem arises when a concept becomes weak, as seen from the looseness symptoms. John is classified as a derailer in the context of waivers because his answer is irrelevant. A weakness of ideas produces these symptoms, resulting in an answer with an unrelated topic. John's intelligence had organized all his thoughts, but he had trouble communicating them. The researcher concluded from John's response that his slackness hindered his ability to convey information.

Poverty of speech

As Pridmore (2013) said, when someone with schizophrenia is asked to participate in an interview, the interviewer must encourage, ask for clarification, and even offer new topics to keep the dialogue going. As a result, speech is considered a key aspect of schizophrenia. The amount of talking experienced by someone with schizophrenia indicates a lack of speech (Liddle et al., 2002). When talking to or responding to other people, people with schizophrenia tend to speak less and respond more quickly, or don't respond at all. Decreased brain function causes this reaction, which impacts their social interactions.

When people with schizophrenia connect with people or characters in their fictional world, they become more active. These symptoms are produced by brain imbalances that cause hallucinations, delusions, and skepticism (Indah, 2017). The symptom of speech poverty is found on datum 7 when Alicia asks *John? Hi. Where were you?* In this case, John answered Alicia's question very briefly he answered "*S-sol*". Then Alicia asked again *yeah, I talked to S-sol. He said you left the office hours ago. Why did you call me?* John was silent and did not answer Alicia's question. John ignored Alicia and went to close the bedroom door.

Meanwhile, because John was in the chronic stage of the condition, speech poverty is considered a common occurrence in people with schizophrenia. They would only make brief statements, never going into detail. In the film *A Beautiful Mind*, there was only one case of poverty of speech, as stated in John's story. When John was frustrated with his condition, he responded quickly and concisely. He strived to express himself to others.

Figure 1 shows an overview of the results based on the above research which explains the type of speech abnormalities in the speech of John Nash who suffers from schizophrenia, so that he often speaks abnormally. Liddle et al's theory (2002) was used to classify these categories.

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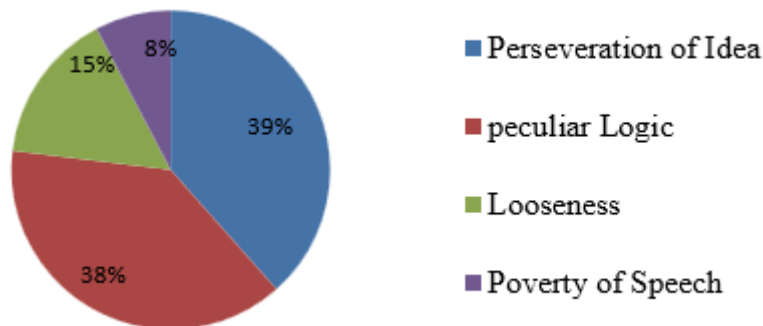


Figure 1. Types of Speech Abnormality

The Occurrence of Schizophrenia Speech Abnormalities in *A Beautiful Mind* Movie

Language processing is essential for receiving and transmitting the information. This process occurs entirely in the human brain. Furthermore, the information obtained by the brain is very important in the language process because the nature of a person's language is two-way and alternates between the readers and listeners. This is because a speaker also acts as a listener (Indah, 2017). In addition, the brain has a purpose to convey information by determining how a word can be easily understood (Carter, 2009).

In this research, it can be seen that the main character shows psychotic symptoms. John experienced the symptoms of schizophrenia characterized by positive and negative symptoms. Positive and negative symptoms are not defined in terms of good and bad. Positive symptoms indicate that the individual has unusual perceptions, ideas, and behaviors. The negative symptom of schizophrenia, on the other hand, is the absence of normal emotional reactions and behaviors. Delusions, hallucinations, confused thoughts and speech, and disorganized or catatonic behavior are good indications of schizophrenia. Whereas, affective flattening, alogia, and avolition are unfavorable signs (Nolen-Hoeksema, 1959).

Positive Symptoms

John Nash as a character in this film is more likely to have positive symptoms. which indicates a loss of function due to damage to certain higher cortical areas that previously inhibited that function (Andreasen N.C., 1982). Perception (hallucinations), language, organization of behavior (very disorganized or catatonic), and mental difficulties are all positive indications (delusional ideas). The psychotic dimension, which includes delusions and

hallucinations, and the disorganized dimension, which affects behavior and language, are two dimensions that may be linked to underlying brain mechanisms and clinical associations.

Hallucination

John Nash as a character in this film is someone who experiences hallucinations and delusions. Hallucinations happened when John heard voices that weren't there. In some scenes, he would even do strange things in the film because of what the voices told him to do.

The researchers found that John expressed himself by making the world and the people in it the way he wanted it to be. In the movie, John told his wife that he would be the target of Russia because he thought that he was doing secret work for the government. It was concrete evidence that John used his imagination. The researchers believed that he had the desire to become a person in his imagination but was unable to. This data is contained in datum 6. It includes the type of paranoid schizophrenia according to Thompson's (2007) and Liddle et al's theory (2002).

In the scene where John Nash was seen in the library and was approached by his imaginary friend, it was a proof that John could not socialize. Accordingly, he expressed his mind by presenting an imaginary friend in his imagination (datum 2). John also expressed his anger towards Alicia because Alicia turned on the light. In his imagination, he saw that Parcher was getting out of the car in the window. That was why he told Alicia to turn off the lights because by turning on the lights, Russia knew about his whereabouts (datum 5). It includes the type of paranoid schizophrenia and is adapted from the theory of Liddle et al (2002).

Datum 13 showed that John expressed himself by making strange things when he bathed his son. Alicia saved their nearly drowned child just in time. Then Alicia ran to the phone to dial the mental emergency number. Marcel, Parcher, and Charles appeared. Parcher and Charles persuade John to kill his wife. John tried to ignore the situation. He separated Parcher from his wife after he tried to shoot Alicia. Then he realized that Marcee, Charles, and Parcher were just hallucinations. This datum includes the type of paranoid schizophrenia.

John expressed himself in various ways, especially when John was hallucinating and expressing himself by making confusing utterances. For example, he told his friend that a mathematical formula could explain how bad his tie was (datum 1). While John was visiting his friend, Parcher appeared in

his hallucination, John started expressing himself and shouting "you're not real, you're not real." In this case, John tried to ignore his hallucinatory friend Parcher (Datum 8). John was also forcibly arrested by Dr. Rosen, he screamed for help from those around him because he thought Dr. Rosen was Russian (datum 9). When Dr. Rosen arrested John, he also expressed himself and said "Charles, they are Russian! Charles, they're Russian! Call someone! Call someone, Charles! They are Russian!" John was very panicked at that time because he thought the Russians would kill him. It includes the type of paranoid schizophrenia and is adapted from the theory of Liddle et al (2002).

The explanation above shows that John experiences a lot of hallucinations because John thinks that his work is real in his life. On the other hand, John tries to socialize with people while trying to ignore his hallucinatory friends. He was confused that Parcher, Marcee, and Charles couldn't coexist with Alicia. It was just John's hallucination. It could be said that John had a habit of ignoring Charles and Parcher's advice. John had the support of his wife, Alicia. He made every effort to ensure John Nash's recovery until John had a better experience and was awarded the Nobel Prize in Economics for his work on game theory. John produced utterances that had word abnormalities when speaking. Because John's thinking was mixed up, it seems that positive symptoms such as hallucinations affected his decision to speak.

Delusion

John Nash as a character in this film is delusional. Delusions are false beliefs based on a misunderstanding of reality. When John, a schizophrenic, was accidentally injured in a crowd, for example when Dr. Rosen forcibly arrested John to help heal his illness, John thought that Dr. Rosen wanted to torture him. Furthermore, delusions produced strong emotions such as increased anger and distrust. Disorganized, on the other hand, cognitive processing deals with stuttering and disordered speech behavior. In conversation and in making consonance between sentences and phrases in words, the sufferer will become incomprehensible.

It can be seen in datum 3 and 4. The incident occurred when John expressed himself in answering questions from a woman and Alicia. He gave an incomprehensible answer. He was still swayed by his earlier claim that he could get whatever he wanted. When he answered Alicia's question, John expressed exactly what he thought. He struggled to understand what he was saying. Since

his mind was affected by his delusions, his words matched what he was thinking in his head. According to Thompson (2007), this is a type of disorganized schizophrenia. Disorganized schizophrenia causes sufferers to give incoherent answers. and adapted from the theory of Liddle et al (2002).

John was making statements that lacked facts and he could not go into detail based on the above debate. He seemed to have positive symptoms such as delusions, which left him confused in his thoughts and unable to explain what was going on. From the description of the previous positive symptoms, it can be concluded that John Nash' speech irregularity was caused by his positive speech and was impaired by symptoms such as hallucinations and delusions.

2. Negative Symptoms

The negative symptoms experienced by John Nash were attributed to an injury to the brain area (Andreasen N.C., 1982). Extreme apathy, little talk, and boring or inappropriate emotional responses are some of the negative symptoms of schizophrenia. It frequently results in social isolation and reduced social performance (Herdarsyah, 2016).

It can also be seen in datum 7 when Alicia asked John, but John did not answer Alicia's question. John expressed fear and anxiety because the Russians had finished him off with a pistol bullet in his hallucination. According to Thompson (2007), this is also a type of disorganized schizophrenia because sufferers find it difficult to convey their feelings and moods and are adapted from the theory of Liddle et al. (2002).

John Nash produced utterances that struggled to express knowledge of the situation. For example, John said very little when Alicia asked and didn't even answer Alicia's question. It arises due to negative symptoms such as impaired thinking and language fluency and productivity as a result of impaired inferential reasoning, language, and communication.

CONCLUSIONS

Based on the findings and discussions in this study, the schizophrenic character experience delusions, hallucinations, uncertainty in thinking, isolation from others, and changes in behavior. Even all John's speech disorder symptoms made it difficult to put into words. These factors affected John, who expressed himself strangely, such as panicking, screaming, and being scared. The tendencies experienced by people with schizophrenia are withdrawal from others, impatience and aggression, sleep pattern disorders, lack of desire and

focus, and difficulty doing activities. People with this disorder also tend to get emotional easily, making things out of control that confuse those around them.

John Nash suffered from various speech disorders. Of the eight categories, the researchers found four categories of speech disorders experienced by John, namely perseveration, peculiar logic, lionesses, and poverty of speech. The most common types were perseveration and peculiar logic. This film contained five examples of perseveration and strange logic. The dominant characteristics of both were looseness and limitation of speech. This type of slack happened twice in this film, and speech impediment happened only once.

People with schizophrenia also experience serious difficulties. These difficulties are positive and negative symptoms, difficulty in conveying information and receiving information perfectly. Based on the findings and discussion of this study, John demonstrated all forms of speech disorders as a schizophrenic patient. John had a habit of using illogical and difficult-to-understand terms when his hallucinations were present, and it impacted his communication. As a result, John often heard some of his imaginary friends. Other people were confused by this situation, and they must repeated what they meant to avoid misunderstanding. It indicates that a speech disorder is blocking communication.

Several limitations should be understood in this investigation. First, this research can only see various kinds of speech irregularities experienced by schizophrenic patients through the films they play, without directly changing the symptoms experienced by schizophrenic sufferers in real life. Furthermore, if other theories are used, the findings of this study may be different.

SUGGESTIONS

Based on the findings, it is suggested that families or relatives talk to schizophrenic people interactively. Not only that they are advised to understand the condition, messages conveyed by people with schizophrenia can be transferred comprehensively. For example, in the film, John, who suffers from schizophrenia, has a different style of speech, in which the most common found was preservation speech disorder.

This study found that people with schizophrenia have difficulty distinguishing between the real world and the hallucinatory world, which impacts on how they communicate with other people. They often think that their imagination is real. Furthermore, speech disorders make it difficult for

them to communicate messages. Therefore, the researcher suggests future research expand the variety of research objects/subjects related to the representation of speech disorders. Thus, the implications of similar research can be developed as a reference for handling cases of people with schizophrenia, especially in terms of speech disorders, starting from the everyday scope. The addition of other supporting variables can also be done so that the analysis results can be more in-depth and comprehensive.

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