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(IJEPC)**www.ijepr.com**LEXICAL AND SYNTACTIC AMBIGUITY IN THE VACCINE
NEWS HEADLINES OF THE STAR**Chang Chui Shan^{1*}, Bharathi Mutty²¹ Department of Language and Linguistics, Universiti Tunku Abdul Rahman, Malaysia
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This work is licensed under [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)**Abstract:**

Since the Covid-19 vaccination rollout, the news media has played an essential role in reporting the vaccine-related news to reduce the risk of getting and spreading the Covid-19 disease. However, people nowadays are preoccupied with busy schedules that they just glance at the news headlines and determine what they imply. If a word, phrase, or sentence in the headlines has more than one interpretation, they may misinterpret them and receive the wrong information. Therefore, this study aimed to investigate the lexical and syntactic ambiguity in the vaccines headlines of The Star news and to determine how these ambiguities affected the readers' interpretation of the headlines. After collecting the headlines from The Star news, the definitions of the words and phrases were deduced using Oxford Learner's Dictionary, while the sentence structures were identified using parsing. A questionnaire was also disseminated to the respondents to obtain different interpretations of the words or sentences. Next, a semi-structured interview was conducted with nine participants from three different educational backgrounds. The interviews were then transcribed and analysed thematically. The findings revealed that the lexical and syntactic ambiguity existed in the vaccine-related news headlines in The Star, with five lexical ambiguities and three syntactic ambiguities. Nonetheless, the participants were not affected by ambiguities because of the context and knowledge of the topic. The research study also posed a few limitations and gaps, where the other considerations and a larger sample of participants could be considered.

Keywords:

Lexical Ambiguity, Syntactic Ambiguity, Vaccine News Headlines, The STAR

Introduction

Online news and print newspaper contribute tremendously to developing a language (Irawan, 2009) and providing information about daily-life events. The readers are provided with a wide range of information on politics, entertainment, sports, health, business, etc. In each topic, there is a bold-big font as a headline. The news headline is not only the title of a news story that summarises the entire story (Chiluwa, 2007) but also tries to help the readers grasp the meaning of the text (Bonyadi & Samuel, 2013). Based on Hameed (2008), the headlines are written in a unique language with their grammar and vocabulary. In addition, it has distinctive syntactic properties, making it a grammatical oddity (Fairclough, 1995, as cited in Fruttaldo, 2017). The headline not only has functions that specify its shape, content, and structure but also limits the writers' freedom as they are only allowed to attract the readers to the story with the least number of words (Reah, 2002). Reah (2002) also mentioned that various linguistic choices could lead to ambiguity due to the functions of the headline and the limited space available to the writer.

Ambiguity refers to having two or more possible meanings. In other words, when a sentence has multiple interpretations, it is ambiguous (Simatupang, 2007). There are two basic types of ambiguity: lexical ambiguity and syntactic ambiguity. It is vital to know the meaning of a lexicon to analyse the lexical ambiguities (Anggur, 2019), while syntactic ambiguity can be determined from the relationship between the words and clauses of a sentence and the sentence structure underlying the word (Fera, 2019). Ambiguity can be a barrier to effective communication because of the semantic ambiguity resulting from an ambiguous expression's susceptibility to double or multiple semantic interpretations (Oluga, 2010). Despite that, ambiguity is inevitable and ubiquitous because 80% of commonly used words have more than one dictionary entry, and some have multiple definitions (Rodd, 2018).

Consequently, the ambiguity can also feature in the headline of one of the hottest topics in 2021, the Covid-19 vaccination. There is a deluge of vaccination news in the media as people are trying to combat the Covid-19. Dong and Zheng (2020) stated that the media is a powerful source of information that people rely on in health crises. Hence, it is critical to eliminate ambiguity to prevent confusing the readers (Khalifa, 2018; Dong & Zheng, 2020). However, the issue of ambiguity does exist in the news headline that is related to vaccination. For example, lexical ambiguity appeared on the CNN news with the headline "Here's where we stand on getting a coronavirus vaccine" (Yan, 2020). In this sentence, the verb "stand" can be interpreted in two ways. It can be referred to efforts by health professionals in search of the coronavirus vaccine, or it could refer to a particular opinion about getting a coronavirus vaccine (Makpul & Akinremi, 2020). Makpul and Akinremi (2020) also highlighted that it is a recognised fact that the potential of ambiguity to create confusion in the mind of the receiver or reader and its dire consequences in real-life communication situations are related to their psychology society, politics, economy, and physical. With various interpretations of a word, the readers become perplexed and unable to obtain the correct information.

Statement of The Problem

Due to syntactic ambiguity or lexical ambiguity, interesting headlines will be semantically underdetermined to the extent that no information is conveyed. In order to generate memorable headlines in a small amount of space, the writers frequently violate the qualities of "be clear, easy to comprehend, and unambiguous" (Ifantidou, 2009). This turns out to be a problem as it can cause readers to become confused and frustrated. Ambiguity can pique the readers' interest

and curiosity, but it can also mislead them because it creates a sense of bewilderment and hinders readers' understanding of the headline, causing them to stop reading (Khalifa, 2018). However, the news provides critical information about vaccination to reduce the risk of spreading the Covid-19 pandemic. When they stop reading, they miss out on critical information about the vaccination. In addition, relying just on headlines is insufficient, mainly if it contains an ambiguity that misleads the readers. The readers will perceive the wrong meaning and lead to receiving the wrong information. Those misleading and ambiguous headlines can have severe consequences, such as people becoming anti-vaxxers and potentially leading to more deaths (Livingston, 2021). While extensive studies had been conducted on lexical and syntactic ambiguity in the news, most did not investigate how the types of ambiguity they found can affect the readers (Fitri, 2019; Tirangga, 2014). Moreover, the studies of lexical and syntactic ambiguity in the Malaysian context were also considered inadequate. Thus, this research attempts to fill this gap to see how the Malaysian readers would interpret the vaccine headlines containing lexical or syntactic ambiguity.

Objectives of The Study

There are two objectives of this research:

RO1: To determine the lexical ambiguity and syntactic ambiguity used in The Star news headlines related to vaccination and the dominant types of ambiguity.

RO2: To evaluate how these types of ambiguity affect the readers in interpreting the meaning.

Literature Review

Past Related Studies

Various studies on ambiguities in news headlines have yielded disparate results. Based on research done by Tirangga (2014) on exploring the lexical ambiguity and grammatical ambiguity of the news headlines from The Jakarta Post and New York Times, the findings showed that the Jakarta Post generated more grammatically ambiguous headlines than the New York Times. The researcher also highlighted that it might be because the writer or editor is a non-native speaker or because they create more ambiguous headlines to entice readers to read the whole article. According to Rohmaniah (2017), the study demonstrated that second language learners are more likely to make syntactic ambiguity than native speakers. Nonetheless, the result contradicted Khamahani and Tahirov's (2013) argument that the headlines written by native journalists are more ambiguous than those written by non-native journalists.

A study was done by Fitri (2019) to identify the lexical ambiguity and syntactic ambiguity found in CNN headlines. The researcher classified lexical ambiguities as homonymy, polysemy, synonym, and antonym, while syntactic ambiguity was classified as surface structure ambiguity and deep structural ambiguity. Fitri (2019) discovered that only 21 of the 24 headlines had ambiguous words or sentences. The results were similar to several studies (Ossunuga, 2013; Makpul & Akinremi, 2020). Osunnuga (2013) found that 66% of 100 headlines had lexical ambiguity, while 34 % had structural ambiguity by exploring the ambiguity in headlines of Yoruba newspapers. Osunnuga (2013) stated that the frequency of lexical ambiguity appears to be higher, which the writers have purposefully planned to create effective communication and aesthetics. As opposed to findings reported by these studies, Charina (2017) found that the dominant types of ambiguity that appear in the humour with the sources of newspaper headlines, advertisement slogans, and jokes from the electronic devices

were syntactically ambiguous. However, these studies predominantly focused on textual analysis and lacked investigation into the impact of these ambiguities on the readers.

Methodology

Research Design

A qualitative approach was adopted to answer the research questions because it allowed the researcher to explore and better comprehend the complexities of a phenomenon (Williams, 2007). The researcher first identified vaccine news headlines that contained lexical and syntactic ambiguity from The Star, followed by a semi-structured interview to analyse the types of ambiguity that impact the readers' interpretations. Last but not least, the researcher analysed their transcription based on the recording.

Instruments

Two research questions were designed to examine the lexical and syntactic ambiguity in news headlines and how they affect readers' interpretation. Hence, two main research tools were employed for this study: The Star e-newspaper and semi-structured interviews. There were three additional resources to assist the data collection: Oxford Learner's Dictionary, parsing and a questionnaire to gather the definitions of the word, phrase, and sentence.

Population and Sample

Nine respondents were chosen for this study and were evenly divided into three groups, with three respondents representing each category. In this research, purposive sampling was employed. Before selecting the respondents to participate in the interview, two criteria were considered: the respondents should be readers of The Star and fulfil the educational level requirements. They were chosen from three different educational levels because people with varying education and background will interpret meaning differently based on their understanding (Tauran, 2021). The levels of education are shown as follows: (1) have no prior certification of higher education, (2) enrolling in or graduating from English Language or English Education, (3) enrolling in or graduating from other courses other than English Language or English Education.

Data Collection and Data Analysis

The researcher identified lexical ambiguity using Oxford Learner's Dictionary and syntactic ambiguity using a tree diagram (parsing) in vaccine-related news from The Star. Besides this, 24 participants were also invited to assist the researcher in interpreting the meanings of the headlines. Following the text's data collection, the participants were required to analyse headlines containing ambiguity through a semi-structured interview. The headlines were chosen because respondents to the questionnaire fully agreed that their meaning was ambiguous. Their interview transcripts were analysed thematically in which the researcher was able to detect the codes across multiple interviews by comparing the participants' responses. It also allowed the researcher to examine the relationship between education background and the interpretation of lexical ambiguity and syntactic ambiguity. Each of the themes was named and defined accordingly. At first, the researcher classified the participants' opinions towards the news headlines into "easy" and "difficult" categories. The "easy" category refers to the participants who found it easier to interpret the headlines without looking at the content, whereas those in the "difficult" category believe it is challenging to comprehend news headlines without looking at the content. After the participants were given five headlines

containing lexical ambiguity and syntactic ambiguity to interpret, their interpretations were divided into “correct interpretations,” where they interpreted the headlines correctly, and “wrong interpretations,” implying that they misapprehended the headlines.

Findings

RQ1: What Are The Lexical And Syntactic Ambiguities Used In The Star News Headlines Related To Vaccination And The Dominant Types Of Ambiguity?

Table 1: Lexical Ambiguities and Syntactic Ambiguities in The Star Vaccine News Headlines

Date	October	Types of Ambiguity
19/10/21	Debunk anti-vaccine myths with scientific facts, says expert	Syntactic Ambiguity
19/10/21	Expert <u>back</u> not jabbing kids under 12	Lexical Ambiguity
23/10/21	Civil servants refusing vaccine to face action	Syntactic Ambiguity
Date	November	Types of Ambiguity
3/11/21	In hindsight, registration for Covid-19 vaccination could have been <u>staggered</u>	Lexical Ambiguity
18/11/21	Viral post urging government to cancel Covid-19 booster shot programme uses misleading information	Syntactic Ambiguity
Date	December	Types of Ambiguity
1/12/21	Take steps to <u>secure</u> Covid-19 vaccines for children under 12	Lexical Ambiguity
10/12/21	The success of the vaccination <u>drive</u> has revived country's economy	Lexical Ambiguity
18/12/21	PPV <u>set</u> for booster rollout	Lexical Ambiguity

In this study, the researcher found eight vaccine-related headlines that contained ambiguity from The Star news, with five lexical ambiguities and three syntactic ambiguities. Table 1 above shows that the vaccine news headlines and types of ambiguity appeared from October 2021 to December 2021. In October 2021, there was one headline with lexical ambiguity and two headlines with syntactic ambiguities. Whereas in November 2021, there was only one headline with lexical ambiguity and one with syntactic ambiguity. In December 2021, the most

common type of ambiguity found in the headline was lexical ambiguity, which accounted for three headlines. There was no syntactic ambiguity found in the headlines in December 2021. According to these data, the most dominant type of ambiguity that appeared in the vaccine-related news headlines of The Star was lexical ambiguity.

Lexical Ambiguity (Definitions)

1. Expert **back** not jabbing kids under 12 (“Expert back not jabbing,” 2021).

In this headline, the word *back* is identified as a verb rather than a noun. It has multiple meanings, including (a) *to encourage somebody and assist them*, (b) *to support and concur with somebody or something*, (c) *to bet money*, (d) *to move backwards*, (e) *to cover the back of something to protect it*, (f) *to be located at the back of something*, (g) *to assist in proving the truth of something* (Back, n.d.), as well as (h) *opposite direction*, which a respondent provided in the questionnaire. It might also be interpreted as the phrasal verb “back up,” which means to support or “back away,” which means to retract. In this sense, the readers might understand the headline as follows:

- i. Expert support not to jab kids under 12
- ii. Expert retracting their support for not jabbing kids under 12

Since the definitions in both interpretations are diametrically opposed, guessing the meaning is not feasible in this headline because they might make an incorrect interpretation. Thus, the readers might need to read the entire text or merely scan and skim for the keywords to get the proper interpretation. After reading the news, it implies that the exact interpretation of this headline is (i) as the content highlighted that the experts had thrown their support behind the government’s decision to wait for the results and sufficient data on the effectiveness and safety of the Covid-19 vaccine for children under 12 before inoculating the group. It implies that the experts support not jabbing kids under 12 until more evidence is available to prove that the vaccine is effective and safe for kids under 12.

2. In hindsight, registration for Covid-19 vaccination could have been **staggered** (Anis, 2021).

In this headline, the term *staggered* is considered an ambiguous word because it can be interpreted as either (a) *taken aback and astonished by what you told or something that happens* or (b) *arranged in such a way that it does not occurs at the exact moment* (Staggered, n.d.). One of the respondents also provided an additional definition, which is (c) *walked or moved unsteadily*. As a result, the readers might interpret the whole sentence as follows:

- i. In hindsight, the registration for Covid-19 vaccination could have shocked or surprised someone because something happened.
- ii. In hindsight, registration for Covid-19 vaccination could have been better organised so that it occurred at different times.
- iii. In hindsight, registration for Covid-19 vaccination could have been moved unsteadily.

If the readers just rely on the headlines, they might misinterpret them because three of the meanings seem logical. In order to get the right message, the readers should read the whole article, not only the news headline. As the content indicated that “registration could have been carried out in phases or groups,” it is possible to interpret the exact meaning as (ii).

3. Take steps to **secure** Covid-19 vaccines for children under 12 (Carvalho, 2021).

In this headline, the word *secure* is considered an ambiguous word because it could have multiple meanings, including (a) *acquiring or attaining something with a great deal of effort*, (b) *attaching or fastening something*, and (c) *protecting something from danger* (Secure, n.d.). Having more than one interpretation could make it difficult for the readers to determine the actual interpretation. They might interpret it as:

- i. Take steps to protect Covid-19 vaccines for children under 12
- ii. Take steps to acquire or attain the Covid-19 vaccines for children under 12

The readers will likely understand the headline as the definition (i), which is to protect Covid-19 vaccines for children under 12. However, the exact meaning would be *to acquire Covid-19 vaccines for children under 12*, as noted in the content, “take proactive action to finalise the purchase of Covid-19 vaccines for children.”

4. The success of the vaccination **drive** has revived country’s economy (“The success of vaccination drive,” 2021).

In this headline, the word *drive* is regarded as an ambiguous word because it can be interpreted in a variety of ways, including (a) *a car journey*, (b) *a person’s strong desire or need*, (c) *a long brutal hit or kick*, (d) *computer storage that stores large amounts of information* (Drive, n.d.), as well as (e) *an organised effort by a group of people to accomplish something*, which was provided by one of the respondents. Hence, the readers might interpret the headline as follows:

- i. The success of the vaccination campaign resulted from an organised effort by a group of people to achieve a goal, thus reviving the country’s economy.
- ii. Forcing individuals to be vaccinated has been successful and revived country’s economy.

When it comes to *drive*, the readers might first perceive it as a verb and understand it as “driving a car,” leading them to interpret the headline as “drive-through to get the vaccination.” On the other hand, the term *drive* is a noun rather than a verb in this context. Therefore, the actual meaning of this headline is (i), as the context indicates that “the success of the National Covid-19 Immunization Programme has allowed the full reopening of the economy.”

5. PPV **set** for booster rollout (Zainal, 2021).

In this headline, the word *set* has multiple meanings, including (a) *to prepare or organise something*, (b) *to fix something that others strive for*, (c) *to decide on something*, (d) *to start something occurring*, (e) *to become rigid* (Set, n.d.). Two of the respondents proposed two meanings, which include (f) *a group of things or commencing something*, and (g) *a group of objects of the same sort that belong together and are used as such*. Since there are multiple meanings for this word, the readers might interpret the headline as follows:

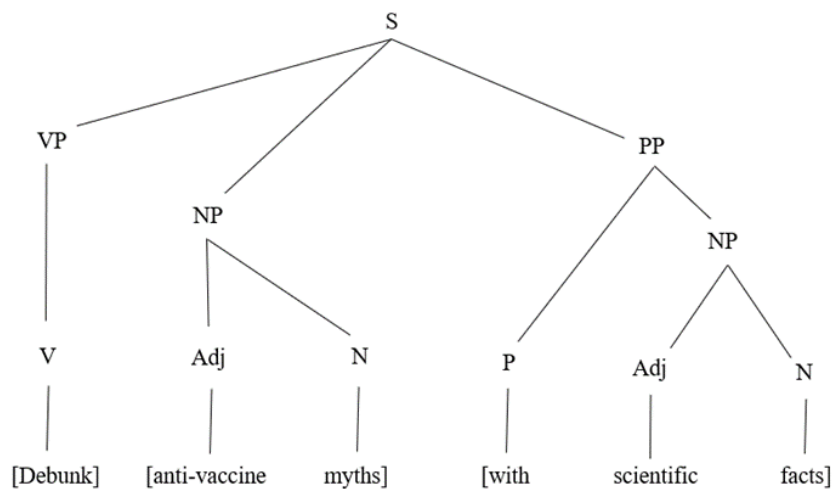
- i. PPV prepare or organise for booster rollout
- ii. PPV decide on booster rollout
- iii. PPV is located somewhere for booster rollout

If the readers are unaware that PPV stands for vaccination centres, they might even interpret the headline as PPV as an object, attached with "set", implying that it is a group of identical objects that belong together for the booster rollout. The meaning of the word set in this headline is "prepare or arrange for something" because the content wrote "ready to reopen to support booster vaccination drive."

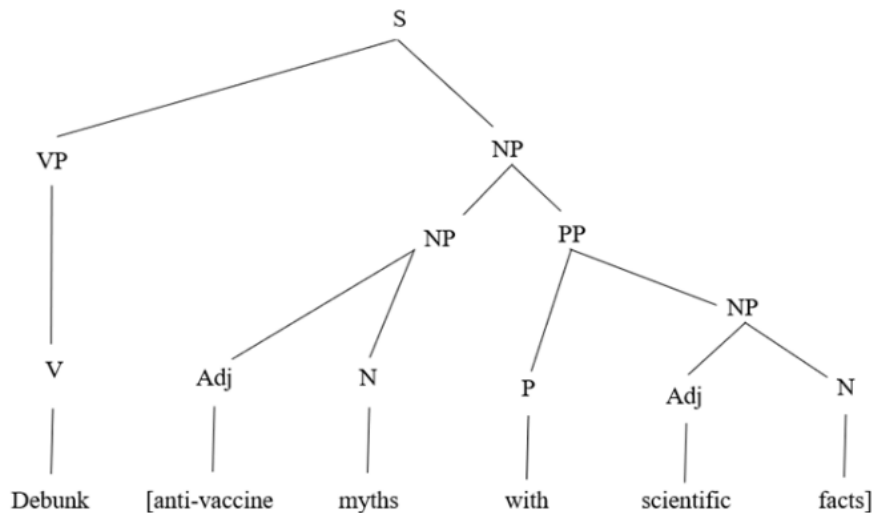
Syntactic Ambiguity

Debunk Anti-Vaccine Myths With Scientific Facts (Benjamin & Devi, 2021).

(a)



(b)

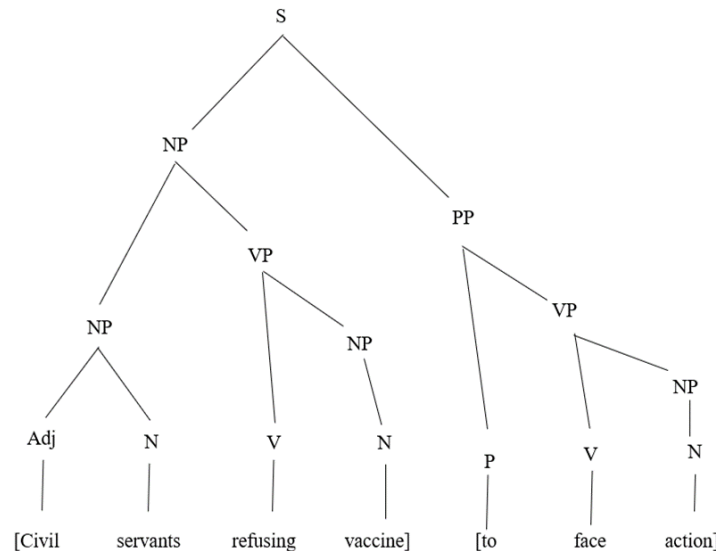


The structure above indicates two different interpretations of the sentence "debunk anti-vaccine myths with scientific facts." From the first structure (a), the interpretation of the sentence is "using the scientific facts to debunk anti-vaccine myths." While the second structure (b), the interpretation in the sentence is "debunk anti-vaccine myths that contained scientific facts." However, the author's intended meaning of the headline is the interpretation from the structure

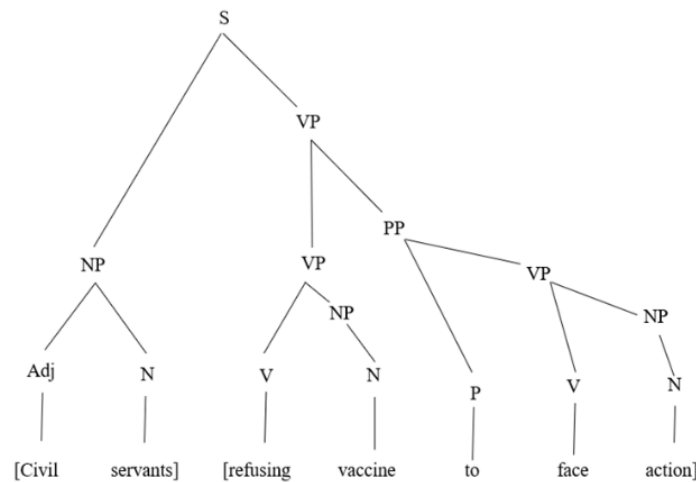
(a) because the content indicated “social media content from experts debunking these myths and sharing their experiences.”

Civil Servants Refusing Vaccine To Face Action (“Civil Servants Refusing Vaccine,” 2021).

(a)



(b)

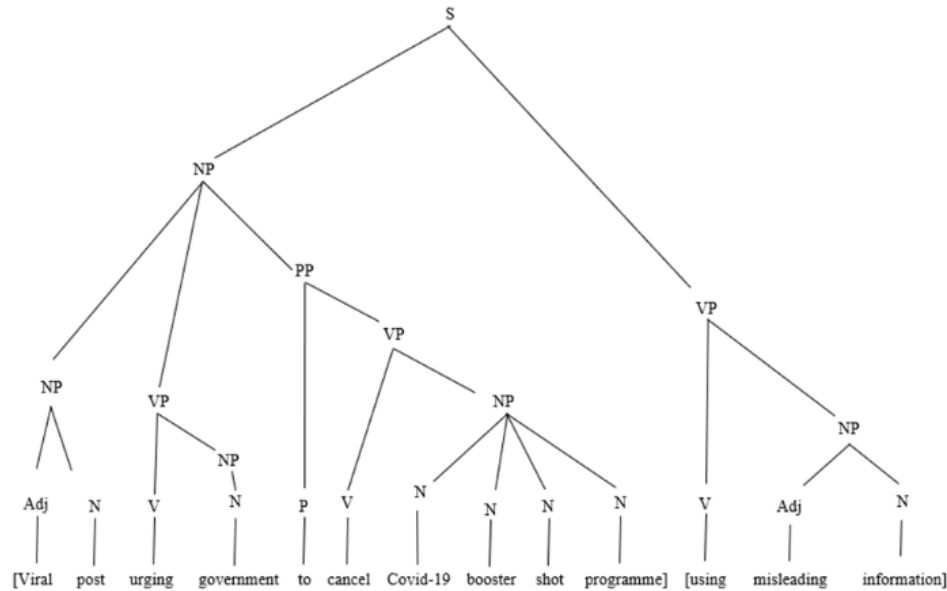


The structure above indicates two different interpretations of the sentence “civil servants refusing vaccine to face action.” From the first structure (a), the interpretation of the sentence is “the civil servants who refused to take the vaccine had to face something unpleasant, difficulty or legal proceedings.” Another interpretation might be related to the action done by the anti-vaxxers. Anti-vaxxers are those who are opposed to vaccination and believe the vaccine is ineffective; thus, they propagate that the vaccine is harmful to the people and blame the side effect of the vaccine. Consequently, interpretation (b) is “the civil servants refuse the vaccine in the face of any action done by the people.” However, the author’s intended meaning of the headline is the interpretation from the structure (a) because the content indicates that

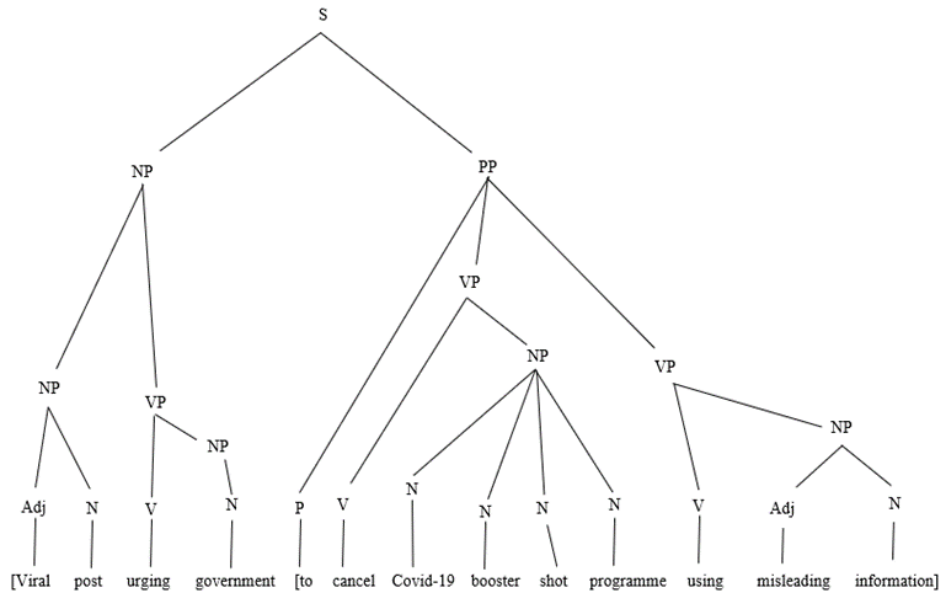
“civil servants who continue to refuse Covid-19 vaccination without a valid reason will face disciplinary action.”

Viral Post Urging Government To Cancel Covid-19 Booster Shot Programme Uses Misleading Information (Albakri, 2021).

(a)



(b)



The structure above indicates two different interpretations of the sentence “viral post urging the government to cancel Covid-19 booster shot programme using misleading information.” From the first structure (a), the interpretation of the sentence is “*the viral post urging the government to use the misleading information to cancel the Covid-19 booster shot programme.*” While the second structure (b), the interpretation in the sentence is “*the viral post using misleading information to urge the government to cancel Covid-19 booster shot programme.*” However, the author’s intended meaning of the headline is the interpretation from the structure

(b) because the content indicated the viral post asked the Malaysian government to stop its Covid-19 third dose vaccination programme, and the news clarified that the website spread the propagating misinformation to the public.

From the findings above, RQ1 can be answered. To summarise, these were the lexical ambiguity and syntactic ambiguity that appeared in the vaccine news headlines in The Star from October to December 2021. The most dominant type of ambiguity that emerged in the news headlines was lexical ambiguity and followed by syntactic ambiguity.

RQ2: How Do These Types Of Ambiguity Affect The Readers In Interpreting The Meaning?

Participants' Opinions On The News Headlines

Based on the semi-structured interview, six designated questions and five headlines were given to the respondents. The responses were sorted into two parts: "easy" and "difficult". In the theme of "easy," they rarely encountered challenges in reading and comprehending the headlines. In contrast, in the theme of "difficult," they faced challenges when reading and comprehending the headlines.

Table 2: Easy Category

Participants	Easy category
C	- "I can understand easily." - "I did not face any challenge."
F	- "I can straightaway to the conclusion after reading the news headlines." - "Not really face any challenge." - "If the headline is too short, I don't think that will be a problem for me."
G	- "Quite informative, straight to the point."
H	- "So far no facing any challenges"
I	- "Not facing any challenge." - "I can understand clearly."

The "easy" category involved respondent C, respondent F, respondent G, respondent H, and respondent I. It signifies that five respondents did not encounter any challenges or obstacles in reading the news headlines. According to respondent C, the headlines serve as the summary of the information, so sometimes the respondent just reads the headline and assumes what it is trying to say, but then reads the content to validate the assumption. Respondent F reported that the headline is understandable despite being too short, but the respondent feels confused if the authors use a problematic term that is not popular in Malaysia. However, it is uncommon because The Star News is based in the Malaysian context, unless it is international news.

Furthermore, respondent G highlighted that the headlines could immediately grab the attention of those interested in specific topics. For instance, if the readers want to know more about the current situation in a particular area, they will look at the headlines themselves. The respondent feels that the headlines are straightforward, straight to the point, and bring the readers to know more about what is trying to convey. Moreover, the news headlines are of the right length, which does not too long to be ignored and not too short to be understood. Respondent H stated that only the most appealing headlines would be chosen and looked into the details. Most of

the time, the readers prefer fascinating headlines that capture their attention. As an English Education major, it is easy for the respondent to interpret the headlines. Finally, respondent I also agreed that the headlines are easy to interpret because they reflect what the content of the headlines is related to.

Table 3: Difficult Category

Participants	Difficult category
A	- "I don't understand the meaning of some words, but after I read the content, I can relate the headlines to the content easily."
B	- "Quite direct, I can understand when I read the papers, but sometimes if you just let me see the headlines without the content, it is difficult, especially when the meaning of the word is ambiguous." - "Especially the news headline used to attract people to click into it but the news is not what stated at the headline"
D	- "Do not understand the meaning of the words, especially in the beginning stage."
E	- "It depends on the situation, sometimes I find it difficult to understand what are the meaning of the news headlines."

The above table is the "difficult" category, including respondent A, respondent B, respondent D, and respondent E. In this category, the respondents feel that some of the news headlines are complex to interpret and require effort to understand because of the unfamiliar words. Respondents A and E will look for the dictionary, while respondents B will read the news and check if the assumption is correct. Furthermore, participant D read the news to expand their vocabulary and learn more about the current issue. The participant started reading the news during secondary school to prepare for SPM after acknowledging having low English Language proficiency and limited vocabulary knowledge.

Table 4: Participants' Interpretation on The News Headlines

Headlines	Participants	Correct interpretations
(a) In hindsight, registration for Covid-19 vaccination could have been staggered	A	Registration for Covid-19 vaccination might meet some problems
	C	The registration for Covid-19 vaccination has some mistake
	G	There is some problem of the registration for Covid-19 vaccination
	H	The registration for the vaccination have met some problems
(b) PPV set for booster rollout	A	Booster PPV is set up
	B	The center that given out the booster is ready
	C	The vaccination center is ready to give out booster shot

	F	Vaccination centre has now starting to provide booster vaccination dose
	G	They set up the booth to get preparation for booster vaccination
(c) Take steps to secure Covid-19 vaccines for children under 12, PAC tells govt	C	The government should take steps to get the Covid-19 vaccinations for children
(d) Viral post urging government to cancel Covid-19 booster shot programme uses misleading information	A	Viral posts tend to use some clickbait information to make government cancel booster dose vaccination activity
	C	There is a post with misleading information that can make people do not want to get their booster shot to urge the government to cancel the booster shot programme
	F	A post online which has got the public's attention is using misleading information to ask government stop providing booster vaccination
	G	The viral post is shown to say that uses misleading information in order to make the government to cancel the Covid-19 booster shot
	H	Fake news or posts on social media that going on viral makes the public that the booster is not good
	I	The viral post uses wrong information to urge the government to cancel the Covid-19 booster shot programme (it is using the wrong information to tell the government to do something)
(e) Civil servants refusing vaccine to face action	A	Civil servant that refuse to be vaccinated will be facing some punishment
	B	The civil servants who didn't want to get vaccination face punishment
	C	Civil servants do not want to get vaccination will face punishment or consequences
	D	Civil servants refuse vaccine, so they will get punishment
	E	Civil servants refusing vaccine have to face the punishment
	F	Government workers who are refusing to get vaccination will have consequences

G	Civil servants refuse to get vaccine will face action
I	The civil servants who refuse to be vaccinated will be punished

In headline (a), the respondents did not provide the meaning of “staggered.” Instead, they interpreted the meaning as “the registration might meet some problems or make some mistakes.” They did not provide the meaning of this term because they did not understand the context and what was going on. Since the exact meaning of this headline is that the vaccine should be carried out in phrases or groups, it is also considered a problem. After the readers read the whole content, they can understand the problem as respondent G mentioned that this headline is to pull the readers’ attention to the meaning of “staggered” and suggest they read further down.

Moving on to the headline (b), the participants used the phrase “set up” because this is the first interpretation when they first see the word “set.” While “set up” has the meaning of making something ready to use, the answer is considered correct. There was only participant C interpreted the headline (c) accurately. Next, only six participants interpreted the headline (d) in the correct way. Again, participant D highlighted that it is impossible to ask the government to cancel the Covid-19 booster shot programme by using misleading information, so the only way to explain this sentence is to use misleading information to ask the government to cancel the Covid-19 booster shot programme. Finally, all the participants interpreted the headline (e) correctly, except participant H. They get the headline correctly because the vaccine is an object and cannot face punishment.

Table 5: Wrong Interpretation of The News Headlines

Headlines	Participants	Correct interpretations
(a) In hindsight, registration for Covid-19 vaccination could have been staggered	B	The registration should done in a clever way
	D	The registration for Covid-19 vaccination is full
	E	The registration for Covid-19 vaccination could have been a mess
	F	The registration for covid 19 vaccination can be much more faster
	I	The registration will not be that excellent
(b) Take steps to secure Covid-19 vaccines for children under 12, PAC tells govt	A	Help to protect children under 12 by registering vaccine for them
	B	Few steps to do to let children under 12 to get vaccine
	D	Take steps to protect Covid-19 for children under 12
	E	Covid-19 vaccines are ready for children under 12
	F	Public is encouraged to get children who are under 12 to get vaccination as soon as possible

	G	Tell governments what should they do to ensure that the children to get vaccine
	H	Take steps to protect children under 12 when they are taking the vaccinations we need to like be care a bit
	I	Some steps that the parents need to take to help their children make an appointment for the Covid-19 vaccine
(c) PPV set for booster rollout	D	PPV set ready for booster rollout
	E	PPV set for booster is launched
	H	The vaccine place for booster is settled outside
	I	The PPV set are ready for booster rollout
(d) Viral post urging government to cancel Covid-19 booster shot programme uses misleading information	B	A post on internet give opinion on government
	D	Viral post urging government use misleading information to cancel Covid-19 booster shot programme
	E	Viral post is asking government to cancel Covid-19 booster shot programme with misleading information
(e) Civil servants refusing vaccine to face action	H	The government are taking action for those citizens who refuse to take the vaccination

The table above shows the incorrect interpretations from the participants. In the headline (a), the participant did not know the definition of “staggered,” so they guessed the meaning. For example, respondent D reported, “I don’t know the meaning of the staggered,” and answered as “full.” This might also be because the context is unknown, and they did not know what “staggered” implies in this sentence. Participant I also indicated that “there won’t be so many people who will register for multiple reasons.”

All participants offered the incorrect interpretation of headline (b) except for participant C. The exact meaning of this headline is about the government obtaining vaccines for children by taking proactive action to finalise the purchase. Instead of using the word “obtain,” the participants interpreted it as “protect.” When they read the headline, the first that came to their mind of the word “secure” is protected from harm. Additionally, the participants perceived children as the principal aim, yet the headline emphasised securing Covid-19 rather than children. This might be because they overlooked the entire sentence.

There are various reasons why people obtain the erroneous meaning for the headline (c). Participant E assumed that the PPV was part of the word set. One of the compelling reasons that the participant misinterpreted PPV and set was because participant E seldom reads vaccination news and only focuses on the entertainment part. The participant was not well-informed about the background and lacked share knowledge of the topic. Besides, the headline was reported to be too short to be analysed. The shortness of the headlines does not allow the readers to become familiar with the background of the headline. In headline (d), participant D

and participant E provided false interpretations because of the ambiguous sentence structure. Lastly, only participant H misinterpreted the whole meaning of headline (e) due to failure to read the entire sentence.

Back to the previous part, which is easy and difficult, some participants expressed that they can understand the headlines without the content, yet they still made mistakes and misinterpreted the headlines. From the findings, participant C was the only one who interpreted all the headlines correctly. The participant also reported that understanding the headlines required a certain amount of time. Participants F and H indicated confidently that it was easy to interpret the headlines, but their interpretations contained errors. According to participant I, some headlines were too short and confused. Furthermore, participant G pointed out that it is simple to interpret the headlines, but it is crucial to comprehend the content.

While in the “difficult category,” participant A reported that it is difficult to interpret the headlines and analyse what they are talking about without the content, but still managed to interpret most of the headlines correctly. The participant added that it might be because of the news reading habit. Participant B and participant D stated that they did not understand certain words, thus leading to misinterpreting the meanings, whilst participant E stated that it is arduous to understand without the context.

Conclusion

Limitations and Recommendations for Future Research

The first limitation found in this study was the selection of the topic, as it was only limited to the topic of vaccination. This is because it is one of the hot topics in society today due to Covid-19. Therefore, it does not mean that the other topics would generalise the same results. Another limitation lies in the small number of participants. Due to the time constraints, the researchers could not find other participants. Only nine participants from different educational backgrounds and readers of The Star news were selected. The research findings may not apply to the entire nation's population.

Considering the limitations of the research, some recommendations for future research could be introduced to fill the current research gaps. The researchers could explore other topics in the news headlines, such as entertainment, crime, sport, and living, because different people read the news sections differently. In addition, researchers can examine a more dependable larger sample to improve the reliability of the data. Of course, not only to investigate the readers but also the non-readers to determine whether there is a difference in the findings produced. Also, they can examine how these ambiguities affect the community.

Overall, the primary purpose of this study is to find out the lexical ambiguity and syntactic ambiguity in the vaccine news headlines of The Star and how it impacts readers' interpretations. The data revealed that lexical and syntactic ambiguity existed in The Star news, but they did not affect the participants' interpretations of the headlines, despite being confused and taking time to think about what the headlines meant. However, there is still room for improvement in this study.

References

- Albakri, N. (2021, November 18). Viral post urging government to cancel Covid-19 booster shot programme uses misleading information. *The Star*. Retrieved from <https://www.thestar.com.my/news/true-or-not/2021/11/18/viral-post-urging-govt-to-cancel-covid-19-booster-shot-programme-uses-misleading-information#:~:text=PETALING%20JAYA%3A%20A%20viral%20post,as%20booster%20shots%20is%20misleading>.
- Anggur, B. (2019). Ambiguity in writing story text of experience of grade IV students of the champion school Denpasar-Bali. *RETORIKA: Jurnal Ilmu Bahasa*, 5(1), 68-71. <http://dx.doi.org/10.22225/jr.5.1.807.68-71>
- Anis, M. N. (2021, November 3). In hindsight, registration for Covid-19 vaccination could have been staggered. *The Star*. Retrieved from <https://www.thestar.com.my/news/nation/2021/11/03/in-hindsight-registration-for-covid-19-vaccination-could-have-been-staggered-says-khairi>
- Back. (n.d.). In *Oxford Learner's Dictionary*. Retrieved from https://www.oxfordlearnersdictionaries.com/definition/english/back_4
- Benjamin, N. & Devi, V. (2021, October 19). Debunk anti-vaccine myths with scientific facts, says expert. *The Star*. Retrieved from <https://www.thestar.com.my/news/nation/2021/10/19/debunk-anti-vaccine-myths-with-scientific-facts-says-expert>
- Bonyadi, A., & Samuel, M. (2013). Headlines in newspaper editorials: A contrastive study. *Sage Open*, 3(2), 1-10. <https://doi.org/10.1177/2158244013494863>
- Carvalho, M. (2021, December 1). Take steps to secure Covid-19 vaccines for children under 12, PAC tells govt. *The Star*. Retrieved from <https://www.thestar.com.my/news/nation/2021/12/01/take-steps-to-secure-covid-19-vaccines-for-children-under-12-pac-tells-govt>
- Chiluwa, I. (2007). News headlines as pragmatic strategy in Nigerian press discourse. *The International Journal of Language Society and Culture*, 27, 63-71. Retrieved from https://www.researchgate.net/publication/254873632_News_Headlines_as_Pragmatic_Strategy_in_Nigerian_Press_Discourse
- Civil servants refusing vaccine to face action. (2021, October 23). *The Star*. Retrieved from <https://www.thestar.com.my/news/nation/2021/10/23/civil-servants-refusing-vaccine-to-face-action>
- Dong, M., & Zheng, J. (2020). Letter to the editor: headline stress disorder caused by Netnews during the outbreak of Covid-19. *An International Journal of Public Participation in Health Care and Health Policy*, 23(2), 259-260. doi:10.1111/hex.13055
- Drive (n.d.). In *Oxford Learner's Dictionary*. Retrieved from https://www.oxfordlearnersdictionaries.com/definition/english/drive_2
- Expert back not jabbing kids under 12. (2021, October 19). *The Star*. Retrieved from <https://www.thestar.com.my/news/nation/2021/10/19/experts-back-not-jabbing-kids-under-12>
- Fera, A. (2019). Lexical ambiguity compared to syntactic/or structural ambiguity. *Knowledge International Journal*, 30(5), 1113-1116. <https://doi.org/10.35120/kij30051113f>
- Fitri, A. (2019). Lexical and syntactical ambiguity in the headlines of CNN. *Research Repository*. Retrieved from <http://repository.umsu.ac.id/handle/123456789/97>
- Fruttaldo, A. (2017). *New discourse and digital currents: a corpus-based genre analysis of news tricksters*. UK: Cambridge Scholars Publishing.

- Hameed, H. T. (2008). Tense in news headlines. *Journal of Research Diyala Humanity*, 30, 257-281. Retrieved from <https://silo.tips/download/diala-jour-volume-30-2008>
- Ifantidou, E. (2009). Newspaper headlines and relevance: ad hoc concepts in ad hoc contexts. *Journal of Pragmatics*, 41(4), 699-720. <https://doi.org/10.1016/j.pragma.2008.10.016>
- Irawan, W. B. (2009). An analysis of ambiguity in the articles of The Jakarta Post. *Sebelas Maret Institutional Repository*. Retrieved from <https://core.ac.uk/download/pdf/16507098.pdf>
- Khalifa, R. (2018). Ambiguity in news headlines: a psycholinguistic study. *ResearchGate*. Retrieved from https://www.researchgate.net/publication/331876605_Ambiguity_in_News_Headlines_A_Psycholinguistic_Study
- Livingston, J. (2021). Irresponsible headlines on Massachusetts outbreak mislead the public and cause harm. *MacArthur Medical Center*. Retrieved from <https://macarthurmc.com/irresponsible-headlines-on-massachusetts-outbreak-mislead-the-public-and-cause-harm/>
- Makpul, S. D., & Akinremi, I. I. (2020). Ambiguity in Covid-19 news headlines of selected national and international media outlets. *Research in Pragmatics*, 2(2), 23-38. Retrieved from <https://journal.pragmaticsng.org/index.php/about/article/view/16>
- Oluga, S. O. (2010). Ambiguity in human communication: causes, consequences and resolution. *Jurnal Komunikasi: Malaysian Journal of Communication*, 26(1), 37-46. Retrieved from <https://www.researchgate.net/profile/Sam-Oluga/publication/266467001>
- Reah, D. (Eds.). (2002). *The language of newspapers*. London, England: Routledge.
- Rodd, J. (2018). Lexical ambiguity. *The Oxford Handbook of Psycholinguistics*, 120-144. New York, NY: Oxford University Press.
- Secure (n.d.). In *Oxford Learner's Dictionary*. Retrieved from https://www.oxfordlearnersdictionaries.com/definition/english/secure_1?q=secure
- Set. (n.d.). In *Oxford Learner's Dictionary*. Retrieved from https://www.oxfordlearnersdictionaries.com/definition/english/set_1?q=set
- Simatupang, M. S. (2007). How ambiguous is the structural ambiguity. *Jurnal Lingua Cultura*, 1(2), 99-104. Retrieved from <http://repository.uki.ac.id/id/eprint/699>
- Staggered.(n.d.). In *Oxford Learner's Dictionary*. Retrieved from <https://www.oxfordlearnersdictionaries.com/definition/english/staggered?q=staggered>
- Tauran, F. F., Hamzah, Z. A. Z., & Yaakob, N. A. (2021). Implicit meaning of single word in Utusan Malaysia news headline. *Sciences*, 11(4), 552-561. doi:10.6007/IJARBS/v11-i4/9700
- The success of the vaccination drive has revived country's economy. (2021, December 10). *The Star*. Retrieved from <https://www.thestar.com.my/news/nation/2021/12/10/pm-the-success-of-the-vaccination-drive-has-revived-countrys-economy>
- Tirangga, B. (2014). Lexical and grammatical ambiguities of the news headline of the Jakarta post and New York Times. Retrieved from http://eprints.dinus.ac.id/8312/1/jurnal_14035.pdf
- Williams, C. (2007). Research methods. *Journal of Business & Economics Research (JBER)*, 5(3), 65-72. <https://doi.org/10.19030/jber.v5i3.2532>
- Yan, H. (2020). Here's where we stand on getting a coronavirus vaccine. *CNN*. Retrieved from <https://edition.cnn.com/2020/06/08/health/covid-19-vaccine-latest/index.html>

- Zainal, F. (2021). PPV set for booster rollout. *The Star*. Retrieved from <https://www.thestar.com.my/news/nation/2021/12/18/ppv-set-for-booster-rollout>
- Zhang, X. (2019). A probe into Chinese university students' English lexical ambiguity. *English Language Teaching*, 12(10), 55-64. <https://doi.org/10.5539/elt.v12n10p55>