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Dr. Alexandra Galani
Editor-in-Chief
Theory and Practice in Language Studies Journal

February 13, 2023

Dear Dr. Alexandra Galani,

I wish to submit an original research article entitled "Transitivity and Modality Analysis of Tedros Adhanom Ghebreyesus's Speeches on Handling COVID-19" for consideration by Theory and Practice in Language Studies Journal.

I confirm that this work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere.

In this paper, I report on Transitivity and Modality used by Tedros Adhanom Ghebreyesus's Speeches on Handling COVID-19. This is significant because it is necessary to provide information through credible media that can be used as a reference for handling the virus. The information is included in Dr Tedros's speeches represented by the use of the transitivity process and modality which describe the speaker's ideas, experiences and attitudes in efforts to handle the virus.

I believe that this manuscript is appropriate for publication by Theory and Practice in Language Studies Journal because it discusses the application of Systemic Functional Linguistics theory, especially in the application of transitivity and modality theory to Dr Tedros's speeches on handling COVID-19 so that this linguistic study can make a real contribution to efforts to handle human health globally in this pandemic era through the message conveyed by Dr Tedros in his speeches.

The use of the modality system as a reflection of the speaker's attitude and judgment based on Halliday's (1994) and Lock's (1996) theories, which is juxtaposed with the analysis of transitivity system, has not been investigated in the study of speech texts, in contrast to the preceding studies. As a result, the current study makes an effort to contribute a novelty to the study of transitivity by talking about interpersonal metafunction in Dr Tedros's speeches represented by the use of modality.

The researcher uses the combination of modality theory from Halliday (1994) and Lock (1996) because it provides an up-to-date modality theory and presents quite deep and diverse examples. In Lock's theory, there is one additional type of modality, namely potentiality/ability which all add up to five types of modalities that have not been analyzed by other researchers. Thus, this study provides more comprehensive results regarding the development of modality studies. Based on the argument, it is very important to investigate the modality aspect further to get more empirical evidence related to the use of different theories.

We have no conflicts of interest to disclose.

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Thank you for your consideration of this manuscript.

Sincerely,

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Transitivity and Modality Analysis of Tedros Adhanom Ghebreyesus's Speeches on Handling COVID-19

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Abstract— Speech is one of communication media that can be used to convey certain ideas and intentions of the speaker. The current study aims to analyze the use of transitivity and modality in Tedros Adhanom Ghebreyesus's speeches on handling COVID-19 and interpret their meanings. Data comprises the transcripts of two speeches delivered at the media briefing on COVID-19 on 11 March 2020 and 1 April 2021 available on the World Health Organization website (www.who.int). The transcripts were then examined and evaluated using Halliday's (1994) transitivity theory and Halliday's (1994) and Lock's (1996) modality theories. The results reveal that the speeches made use of material, relational, mental, behavioral, verbal, and existential processes of transitivity, as well as potentiality/ability, obligation, usuality, inclination, and probability of modality. Depending on the contexts of speech, the use of transitivity and modality indicates certain interpretations of meaning. Moreover, this study contributes best practices to health socialization during the pandemic and gives a great impact toward public's better understanding on how to properly handle COVID-19.

Index Terms—transitivity, modality, speeches, COVID-19

I. INTRODUCTION

A. Background of Study

Text cannot be separated from language because it owns a semantic system that depends on the context, viewpoint, and ideology behind its creation (Sinar, 2012; Gusthini et al., 2018; Qian & Pan, 2019). According to the theory of Systemic Functional Linguistics henceforth (SFL), there are three parts to the language meaning: ideational, interpersonal, and textual (Halliday, 1994; Thompson, 2014). A person's experience is described by the ideational meaning. The interactional relationship between speech participants is highlighted by interpersonal meaning. The textual meaning, on the other hand, brings language experience together into a coherent whole.

Speech is one of the texts that has significance. The speaker uses a potent type of language in speech to make their intentions and ideas known to the listeners (Hidayat et al., 2019). With an emphasis on oral language skills and the use of various persuasion techniques, speech is a type of communication that is efficiently and effectively conveyed (Sutrisno & Wiendijarti, 2015; AbuAlhuda & Alshboul, 2022). Therefore, it is very important to comprehend that a speech made by an expert in their field may undoubtedly be a reference in solving problems because it is strong and convincing (Rahayu et al., 2018; Jannatussolihah & Triyono, 2020).

The current study analyzes the texts that come from the speeches on handling COVID-19 delivered by Tedros Adhanom Ghebreyesus henceforth (Dr Tedros), the World Health Organization's Director-General by employing SFL framework. The significance of this study is closely related to the need of credible information about the outbreak of COVID-19 cases and its handling process since nowadays many hoaxes and misinformation appeared along with the increasingly massive news on COVID-19 in the mass media. A study has released the discovery of 1,600 hoax news and misinformation about the virus from January 2020 to June 2021 (unicef.org, 2021). Both influence people's reluctance to follow health protocols, get treatment at health facilities, or participate in vaccinations. Some people, for example, refuse to be vaccinated because being told that the COVID-19 vaccine causes the recipient to die within three years of the vaccine being administered.

Given the current state of crisis, the news that should be circulating is credible regarding the effective measures to deal with COVID-19 so that the outbreak of this dangerous virus can be ended immediately. Therefore, it is necessary to provide information through credible media that can be used as a reference for handling the virus. The information is included in Dr Tedros's speeches represented by the use of the transitivity and modality which describe the speaker's ideas, experiences and attitudes in efforts to handle the virus.

B. Objectives and Research Questions

Referring to the background, the current study can significantly advance the handling of COVID-19 that is bundled in the structure and meaning of Dr. Tedros's speeches. Given the pandemic condition, it is expected that the study findings are deserving of public disclosure. Therefore, this study is intended to explore the types of transitivity and modality in Dr Tedros's speeches and interpret their meanings by considering the following research questions:

1. What are the types of transitivity that Dr Tedros use in his speeches on handling COVID-19?
2. What are the types of modality that Dr Tedros use in his speeches on handling COVID-19?
3. How are the meanings of transitivity and modality in Dr Tedros's speeches on handling COVID-19 interpreted?

II. THEORETICAL BASIS

To benefit from the text study, the SFL theory is applied as an analytical framework with the focus on two language metafunctions, ideational and interpersonal. In the ideational metafunction, Dr Tedros's ideas and experiences in handling COVID-19 are realized by transitivity processes. Meanwhile, in the interpersonal metafunction, the communication between Dr Tedros and the audience of his speeches was represented by modality. So the information contained in Dr Tedros's speeches is realized by the choice of verbs that represents the transitivity process and modal verbs that express the speaker's attitude in interactional relationship between the speaker and the audience.

A. Transitivity

Transitivity is a component of the ideational metafunction and focuses on the sentence level, where the clause is seen as an interpretation of how human experience is represented in reality by various processes (Wang, 2010). The process can depict what is actually doing, happening, experiencing, or being in actuality (Eggs, 2004). Halliday (1994) classifies the process into 6 types: material, mental, verbal, behavioral, relational, dan existential. Furthermore, Wang (2010) made an overview of process types adapted in this study as analytical framework of transitivity process types used in Dr Tedros's speeches. The overview can be seen in table 1.

TABLE 1
OVERVIEW OF PROCESS TYPES

No	Type of Process	Core Meaning	Participant
1	Material	Doing (Transitive) Happening (intransitive) Passive Dispositive recipient Dispositive clients With range	Actor, process, goal Actor, process Goal, process, actor Actor, process, recipient, goal Actor, process, client, goal Actor, process, range
2	Mental	Sensing	Senser, process, phenomenon
3	Verbal	Saying	Sayer, verbiage, receiver
4	Behavioral	Behaving-verbal Behaving-mental	Behaver, receiver, verbiage Behaver, phenomenon
5	Relational	Being Process	Carrier, attribute Token, process, value
6	Existential	Existing	Process, existent, circumstance

B. Modality

The theory of modality types has been postulated by a number of linguists. Modality is a technique for revealing the speaker's attitudes and judgement (Toolan, 1998) by using modal verbs (Wang, 2010). Similarly, Downing (2015) argues that a statement with no modal is more straightforward in terms of meaning. In reality, people frequently speak even when they are unsure of whether they are making a favorable or negative judgment. People judge certainty, commitment, frequency, and other concepts differently. They require a modal representation in order to be understood. Briefly, the modal verb is genuinely able to display the range of judgmental intensity that extends beyond "yes" and "no."

In addition, Halliday (1994) maintains that modality is a measure that illustrates the importance of the "yes" or "no" decision. The sentence's modalities, for example inclination, usuality, obligation, and probability, are utilized to express several parameters. Lock (1996) adds a new criteria called potentiality/ability. Inclination conveys the speaker's desire to act or a commitment for the future. Meanwhile, usuality is the evaluation of a person's frequency of performance of

an action. The types of modality inherited from Halliday's (1994) and Lock's (1996) theories will serve as an analytical framework for discussing the modality used in Dr Tedros's speeches, as shown in table 2 below.

TABLE 2
TYPES OF MODALITY

No	Modality	Level	Example
1	Inclination	High	I <i>will</i> go and you can't stop me.
		Mid	Now, I <i>will</i> tell you right now what my activity is.
		Low	I'll take some of the scripts so long as you're not expecting anything in before next week.
2	Potentiality/Ability	-	I am someone who can make friends easily.
		-	...this situation can and will be changed.
3	Usuality	High	He <i>must</i> be there at 7 a.m
		Mid	He <i>'ll</i> walk past you without even saying goodbye
		Low	...but long journey like that <i>can</i> be very uncomfortable.
4	Obligation	High	You <i>must</i> do that.
		Mid	You <i>should</i> do that.
		Low	You <i>can</i> do that.
5	Probability	High	That <i>must</i> be John
		Mid	That <i>will</i> be John.
		Low	That <i>may</i> be John.

III. REVIEW OF RELATED LITERATURE

In relation to the focus of study, numerous experts have concentrated their research on transitivity in various contexts, for instance in books (Anggun, 2016; Oriza, 2017; Riztya, 2019), politics (Fauzan, 2015; Ong 'onda, 2016), speeches (Hemas & Ariyanti, 2016; Kusumawardani & Laksana, 2020; Helena et al., 2021; Liani et al., 2021), debates (Zhang, 2017), text genres including advertisement (Claria, 2018, 2021), humor (Yuwana, 2019; Yuwana et al., 2019), legal draft (Fitri et al., 2021), religious scripts (Hakim, 2016; Haeri, 2021), and literatures including short story (Nurrahmah et al., 2020), novels (Suryatini, 2014; Pratiwi, 2016), and movies (Sihura, 2019; Hajar, 2021).

The current study has summarized all the characteristics of the transitivity system of the various texts examined. Even from the analysis of speech texts that is similar to the topic of this research, it has been shown the use of verbs that represent the process of political activities or events that imply a certain political ideology. Thus, from the results of the previously relevant studies, there is something different that the current study would like to show. By taking a similar research focus, this study aims to explore further information about the use of verbs that states the transitivity processes and the meanings expressed by the use of the processes.

In other instances, the analysis of modality as presented by Chalimah & Sumarlam (2017) has been incorporated into the study of transitivity in speech texts. They examined the transitivity and modality of President Joko Widodo's address. Specifically, they employed Wang's (2010) modality theory with the emphasis on the politeness at low, median, and high levels. Similar to this, Liani et al. (2021) discussed how Kamala Harris used the transitivity system to represent her political ideology regarding how COVID-19 should be handled in the United States.

Briefly, the use of the modality system as a reflection of the speaker's attitude and judgment based on Halliday's (1994) and Lock's (1996) theories, which is juxtaposed with the analysis of transitivity system, has not been investigated in the study of speech texts, in contrast to the preceding two findings. As a result, the current study makes an effort to contribute a novelty to the study of transitivity by talking about interpersonal metafunction in Dr Tedros's speeches represented by the use of modality.

The researcher uses the combination of modality theory from Halliday and Lock because it provides an up-to-date modality theory and presents quite deep and diverse examples. This study also aims to interpret the meaning of each transitivity and modality expression used in Dr Tedros's speeches. This study provides a theoretical contribution regarding the use of the modality theory of Halliday (1994) and Lock (1996). In Lock's theory, there is one additional type of modality which all add up to five types of modalities that have not been analyzed by other researchers. Thus, this study provides more comprehensive results regarding the development of modality studies. Based on the argument,

it is very important to investigate the modality aspect further to get more empirical evidence related to the use of different theories.

IV. METHOD

This is a type of qualitative research in which data is presented in the form of sentences and analyzed descriptively based on the research objectives (Ary et al., 2010). The study sample comprises two speeches delivered by Dr Tedros at the media briefing on COVID-19 which can be downloaded from the WHO official website (www.who.int). The first speech was delivered on 11 March 2020 available at <https://www.who.int/news-room/speeches/item/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020> and the second was delivered on 1 April 2021 at <https://www.who.int/news-room/speeches/item/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-1-april-2021>.

The selection of the two speeches was based on the consideration that both speeches focused on the topic of COVID-19 and its handling process at the beginning of the outbreak and at the end of the pandemic. In addition, many examples of linguistic expressions were also found in the data which could meet the criteria of research purposes. The linguistic expressions that included the transitivity and modality were needed to be more deeply explored as the representation of Dr Tedros's ideas, experiences, and attitudes on best practices of handling COVID-19 so that the audience and the general public can follow the practices to combat the virus.

From the transcript, the researcher continued the data analysis with the focus on sentences containing transitivity and modality expressions. After obtaining 99 sentences as transitivity data and 26 sentences as modality data, the next step was classifying data into the types of transitivity process based on Halliday's theory (1994) and the types of modality with reference to Halliday's (1994) and Lock's (1996) theories. Finally, all transitivity and modality expressions were interpreted based on the framework of SFL included in the research findings.

V. FINDINGS AND DISCUSSION

This study seeks to explore research findings concerning the use of transitivity and modality that represents ideas, experiences and attitudes of the speaker on handling COVID-19. Specifically, this section attempts to answer research questions which are divided into three points, namely analyzing a) the types of transitivity used in Dr Tedros's speeches, b) the types of modality used in Dr Tedros's speeches, and c) the meanings interpreted from the use of transitivity and modality.

A. Types of Transitivity Used by Dr Tedros in His Speeches on Handling COVID-19

The findings revealed that there were 99 clauses containing transitivity process in the two speeches. Speech 1 contained 54 clauses, and Speech 2 contained 45 clauses. The details can be seen in table 3 below.

TABLE 3
DISTRIBUTION OF TRANSITIVITY PROCESS

Process	Speech 1	Speech 2	Frequency	Percentage
Material	25	15	40	40.4 %
Relational	10	17	27	27.27 %
Mental	7	8	15	15.15 %
Behavioral	6	2	8	8.08 %
Verbal	4	1	5	5.05 %
Existential	2	2	4	4.04 %
Total	54	45	99	100 %

Table 3 presents six types of transitivity process used by the speaker. According to frequency of occurrence, the material process occupies the top spot in the transitivity hierarchy with a rank of 40.4%, followed by relational process with a rank of 27.27%, mental process with a rank of 15.15%, behavioral process with a rank of 8.08%, verbal process with a rank of 5.05%, and existential process with a rank of 4.04%.

From these findings, it can be said that all transitivity processes have been used by Dr Tedros in his speeches on handling COVID-19. This is in line with the function of the transitivity process as an experiential meaning, which is about how a person sees the world, experiences the world, and perceives the world (Halliday & Mathiessen, 2014). In this context, the findings have proven how Dr Tedros's ideas, experiences, and perceptions on efforts to deal with COVID-19 from the beginning to the end of the pandemic have been manifested through various types of transitivity process. By involving the entire transitivity processes in the narration of the speech, it is hoped that the messages of the

speech can be well understood by listeners and obeyed in the context of handling this pandemic virus.

The findings also exposed that the type of process most frequently used by Dr Tedros was material process. The same thing was also seen in the findings of Wang (2010) and Chalimah & Sumarlam (2017). What was highlighted was the similarity in the meaning of the messages conveyed in the speeches of the two leaders, namely Barack Obama from the United States (Wang, 2010) and Joko Widodo from Indonesia (Chalimah & Sumarlam, 2017). The dominant use of material process is the right choice for the speakers to explain what has been done and achieved, what is being done, and what will be done in their capacity as the state leaders. Thus, from the explanation, the public can understand the progress of the government's achievements and can benefit from the government's work.

The following is an example of data containing the expression of material process used by Dr Tedros in his speeches on handling COVID-19.

- (1) *We (actor) have made (material process) the assessment (goal) that COVID-19 can be characterized as pandemic.*

From the above example, it can be known that the material process is realized by the transitive verb *made*. The verb *made* is a type of verb that states an action with two participants, namely the actor *We* and the goal *the assessment*. Thus, the use of the verb *made* reflects a process of doing as a characteristic of material process (Halliday, 1994; Egins, 2004). In the findings of the current study, the dominance of material process suggests that Dr Tedros as WHO leader explained the efforts to overcome COVID-19 and the achievements of handling the virus from the beginning to the end of the pandemic, as well as the steps to anticipate in the future if the similar virus outbreaks again.

B. Types of Modality Used by Dr Tedros in His Speeches on Handling COVID-19

The investigation on modality system found 26 clauses containing modal verbs. 14 modals were in speech 1, and 12 modals were in speech 2, as shown in table 4.

TABLE 4
DISTRIBUTION OF MODALITY

Modality	Speech 1	Speech 2	Frequency	Percentage
Potentiality/Ability	6	3	9	34.6 %
Obligation	4	4	8	30.7 %
Usuality	2	2	4	15.3 %
Inclination	1	2	3	11.5 %
Probability	1	1	2	7.6 %
Total	14	12	26	100 %

Table 4 exposes the findings related to the distribution of modality used by Dr Tedros in his speeches on handling COVID-19. Table 4 shows that the most dominant use of modality occurs in two types, namely potentiality/ability of 34.6% and obligation of 30.7%. Then the order of frequency of modality is occupied by usuality of 15.3%, inclination of 11.5% and probability of 7.6%.

From these findings, it can be understood that all modality types have been used by the speaker. This emphasizes on the function of the modality as an interpersonal meaning, which is about how a speaker extends their attitude towards the situation or event illustrated by a sentence (Lock, 1996; Guoling, 2006). In this context, the findings have proven how Dr Tedros's judgement and attitude towards the efforts to deal with COVID-19 from the beginning to the end of the pandemic have been realized through all types of modality. By involving the entire modality types, it is expected that the interactional relationship between the speaker and listeners can be well established so that Dr Tedros's messages on handling COVID-19 can be well received by listeners.

The findings also confirm that the most dominant type of modality found is potentiality/ability. This is in line with the findings of Pionery & Isti'annah (2017) which states that the potentiality/ability modality is directed by the speaker at conditioning human ability to deal with unfavorable conditions and situations. In the context of this study, the use of the potentiality/ability modality was intended by Dr Tedros to encourage audiences to be able to use their own potentials in dealing with pandemic outbreaks by complying with health protocols, starting with oneself and then developing in society.

The following is an example of data containing a potentiality/ability expression used by Dr Tedros in his speeches on handling COVID-19.

- (2) *Communicate with your people about the risks and how they can protect themselves.*

From example (2), it can be understood that the modality is identified by the transitive verb *protect* that comes after the modal *can*. *Can* is used to describe a person's capacity for action (Guoling, 2006). The subject *they* refers back to *your people*. This statement implies that the community has the potential to prevent early exposure to the virus by

informing them of the risks and hazards of COVID-19.

C. Meanings Interpreted from the Use of Transitivity

(a). Material Process

Physical and tangible activities carried out by verbs that indicate events or actions are what defines the material process (Eggs, 2004). Two participants are involved: the actor and the goal. Meanwhile, there are actor players in the intransitive kind, there are no goals present. Below are a few illustrations of the material process.

- (3) *All countries (actor) can still change (material process) the course of the pandemic (goal).*
- (4) *COVAX (actor) has already delivered (material process) 35 million doses (goal) to more than 78 countries.*
- (5) *More than 25 leaders from G20, G7 and from every region (actor) united (process material) behind the idea of pandemic treaty (circumstance).*
- (6) *Health and care workers (actor) must come (material process) first (circumstance).*

Transitive verbs *change* (3) and *delivered* (4), which describe action activities with two participants—an actor and a goal—realize the material process. Additionally, there are intransitive verbs like *united* (5) and *come* (6) that describe occurrences involving actors and circumstances. The domination of this material process as one of the transitivity types used in the speeches suggests that Dr Tedros, in his capacity as Director-General of WHO, is taking greater initiatives to meet the goal of handling COVID-19 internationally. The use of verbs describing actions is intended to persuade the international community to join efforts to combat COVID-19 (Luo, 2020).

(b). Relational Process

Relational process displays the connections between various entities. According to Eggs (2004), the relational process might either be an identifying process or an attributive process. Check out the examples below.

- (7) *We (carrier) have (relational process-possessive) nine days (attribute) left until we reach the hundredth day of the year.*
- (8) *We (carrier) are (relational process-attributive) grateful (attribute) for measures being taken in Iran, Italy, and the Republic of Korea.*
- (9) *WHO's mandate (token) is (relational process-identifying) public health (value).*

The relationship, known as the ownership relationship, can exist between the owner and the property as in (7). The type may also take the shape of an identification relationship, which is a link between two entities (8), or it may take the form of an attributive relationship, which is a connection between two entities (9). The purpose of this relational process is to communicate the depth and caliber of the speaker's relationships with his various business partners in order to invite them to collaborate on efforts to combat the pandemic (Hemas & Ariyanti, 2016).

(c). Mental Process

One way to demonstrate mental process is to ask, "What do you think of x?" The process is divided into three categories by Halliday (1994), namely cognition, affection, and perception. The number of participants is another factor that separates the mental process from the material process. There should be two parties in the mental process. Both participants must be human, with one being referred to as *senser* and the other as *phenomenon*. The mental processes listed below are a few examples.

- (10) *We (senser) have never before seen (mental process) a pandemic (phenomenon) sparked by a coronavirus.*
- (11) *We (senser) know (mental process) that even before the pandemic (phenomenon), there was a shortfall of at least 18 million health workers.*
- (12) *I (senser) thank (mental process) you (phenomenon) for those inspiring words, Carl!*

The mental process is demonstrated in data (10-12) by cognitive actions *see*, *know*, and *thank* by pronouns *We* and *I* that identify *Dr Tedros* as a senser, with cognitive objects labeled as *pandemic* and *you* as phenomenon (Wang, 2010). The speaker's perception, cognition, and affection for the COVID-19 pandemic and his hopes for reversing its harmful effects are evident in a number of the mental processes.

(d). Behavioral Process

A mix of physical and mental processes is referred to as behavioral process (Eggs, 2004). As a result, the meaning derived also combines the two. The behavior, who makes up the majority of this process, is the lone participant. The examples of behavioral process are as follows.

- (13) *Thousands more (behave) are fighting (behavioral process) for their lives (circumstance) in hospitals.*
- (14) *We (behave) are working (behavioral process) with many partners (circumstance) across all sectors to*

mitigate the social and economic consequences of this pandemic.
(15) *The clock (behavior) is still tickling (behavioral process) on vaccine equity (circumstance).*

The sentences in examples (13–15) cannot be projected into other constructions. This is a trait of behavioral process. The presence of one participant who engages in intense activity using *-ing* forms and is equipped with circumstances that point to a cause or method is another factor that supports the usage of behavioral process (Chalimah & Sumarlam, 2017). Here by employing a behavioral process, Dr Tedros aims to emphasize the value of teamwork in order to stop the spread of COVID-19 and reverse its consequences, which have caused several victims.

(e). *Verbal Process*

Proclaiming a thing or an occurrence verbally is the aim of verbal process (Eggins, 2004). *Sayer*, *receiver*, and *verbiage* are the normal participants in this interaction. Sayer is an active participant who uses verbiage that is addressed to the receiver in a verbal process. Examples of verbal process are shown below.

- (16) *81 countries (sayer) have not reported (verbal process) any cases (verbiage).*
(17) *We (sayer) cannot say (verbal process) this (verbiage) loudly enough, or clearly enough, or often enough.*
(18) *I (sayer) have said (verbal process) from the beginning that countries must take a whole-of-government, whole-of-society approach, built around a comprehensive strategy to prevent infections, save lives and minimize impact (verbiage).*

According to the aforementioned examples, the verb *reported* in (16) denotes a verbal process with *81 nations* serving as a non-persona sayer and *any cases* serving as verbiage. The verbs *say* (17) and *said* (18) denote the verbal exchange of information regarding the treatment of COVID-19 between the sayer, Dr Tedros, and the audience as receiver.

(f). *Existential Process*

By the appearance of words of existence, this process proves that a thing or entity is real or actually existing (Eggins, 2004). Consider the instances below.

- (19) *There are (existential process) now more than 118.000 cases (existent) in 114 countries (circumstance).*
(20) *There will always be (existential process) new pathogens (existent) with pandemic potential (circumstance).*

In examples above, the copula verb *are* (19), *be* (20), and *there* are arranged before the participants, *existent*, who complete the existential process with the situation of location or way. In this context, by employing the existential process the speaker intends to demonstrate the presence of the rising number of cases in many nations and the new infections brought about by the virus dissemination (Liani et al., 2021). In light of this information, it is hoped that the general public would become more aware of emerging virus variations and vigilant about avoiding exposure to them.

Referring to the findings, the study suggests that transitivity used in Dr Tedros's speeches on handling COVID-19 includes material, relational, mental, verbal, and existential processes. All of these processes were used by Dr Tedros in his two speeches. This indicates that the process of handling COVID-19 is the main focus of Dr Tedros in his authority as the WHO Director-General where his ideas and experiences in handling COVID-19 as experiential meaning are realized in all types of transitivity process. This is consistent with the findings of Chalimah & Sumarlam (2017) and Helena et al. (2021), who argue that the process serves to represent a person's experiences and ideas when observing events or acts in the outside world.

As for the transitivity, Dr Tedros's objective to take genuine activities with all facets of society to combat COVID-19 is reflected in the predominance of material process with action verbs. This conclusion supports Hajar's (2021) assertion that real physical acts and depictions of actual events are stressed in the usage of material process. In addition, by assuming that material processes are employed to understand human experience in actions or events that occur in life, Hemas & Ariyanti (2016), Yuliana et al. (2018), and Kusumawardani & Laksana (2020) reaffirm the present study findings. The relational process, meantime, expresses Dr. Tedros's viewpoint on the COVID-19 pandemic's current state and represents his strong notion and desire to keep positive relationships with business partners for coordinated efforts to deal with the COVID-19 calamity. The relational process essentially highlights how the speaker connects his experience to other things. As a result, it can be claimed that this relational process illustrates the speaker's sentiment regarding a real-life incident (Nurrahmah et al., 2020; Sugianto, 2020).

D. Meanings Interpreted from the Use of Modality

(a). Potentiality/Ability

The findings exposed that Dr. Tedros's speeches frequently used modality of potentiality/ability. This style of modality denotes having the skills or knowledge to do something (Darong, 2021). For example.

(21) *We have therefore made the assessment that COVID-19 can be characterized as a pandemic.*

From example (21), it is clear that human capacity and other factors unrelated to human are the two factors that explain potentiality (Pionery & Isti'annah, 2017). The passive verb *be characterized* in front of the modal *can* (20) denotes the potentiality of COVID-19 to cause a pandemic, or a worldwide disease outbreak.

(b). Obligation

Obligation was ranked as the second most common modality found. It takes place when a speaker demands something of the listener and offers suggestions and recommendations (Eggins, 2004). The followings are some examples of sentences that contain obligation.

(22) *One key aspect that should be enshrined in the treaty, is to a stronger health workforce, which is the very essence of health systems resilience.*

(23) *We must collectively do better in future outbreaks.*

The obligation, which indicates a duty to do, is shown by the modal *should* in (22) followed by the passive verb *be enshrined*. The sentence means that health professionals, who form the backbone of the health system's resilience against COVID-19, must be taken into account as one of the most important factors in this situation. In (23), the modal *must* as the high level of obligation, indicates a non-negotiable item. The verb *do* and the comparative *better* are placed after the modal. Here it means that we must be able to stop the spread of COVID-19 more effectively in the future. Due to the pressing need to prepare for circumstances like this in the future, this is something that cannot be negotiated. The usage of this modality is meant to demonstrate a leader's strong invitation to the world's community by working together to overcome the difficulties being faced (Pionery & Isti'annah, 2017; Darong, 2021).

(c). Usuality

The modal verbs *can*, *will*, and *would* were found in both speeches, representing usuality. According to Lock (1996), the modality of usuality is the property or state of being typical. The data listed below shows the examples.

(24) *Even those countries with community transmission or large clusters can turn the tide on this virus.*

(25) *There will always be new pathogens with pandemic potential.*

The modal *can* followed by the verb *turn* in sentence (24), is a kind of usuality which denotes rarity. The subject *Even those countries* refers to 4 nations with significant COVID-19 cases. The sentence implies that even nations with significant COVID-19 cases still have difficulty controlling the virus's rapid spread. Sentence (25) provides a distinct justification from (24). According to Pionery and Isti'annah (2017), the modal *will* indicates usually meaning at a mid-level of usuality.

(d). Inclination

A desire to accomplish something is referred to as an inclination (Eggins, 2004). Each utterance contains about the same number of inclinations. Based on findings, the levels utilized in both utterances are high 'determination', mid 'intention', and low 'willingness', realized by the modal verbs *will* and *would*. The followings list some clauses containing inclination meaning.

(26) *The challenge for many countries who are now dealing with large clusters or community transmission is not whether they can do the same – it's whether they will.*

(27) *Carl will help the collective advocacy for the ACT-Accelerator.*

(28) *I would like to turn to Health Minister of Turkey, Dr Fahrettin Koca.*

Due to the fact that it shows the strong preparedness of many countries to cope with COVID-19, the modal *will* in (26) is thought to have a high level of inclination. Dr Tedros insists on a shared commitment from all nations to stop the spread of the COVID-19 catastrophe. As it implies intention, the modal *will* in (27) is classed as having a mid-level inclination. In this context, Dr Tedros states that Carl will lead the group's lobbying for the ACT-accelerator to combat the COVID-19. Furthermore, the modal *would* employed in (28) displays a low level of inclination because it expresses Dr Tedros's readiness to provide Dr Fahrettin Koca, Turkey's health minister, the chance to make his statement.

(e). *Probability*

The results show that there are only two sentences of probability in the speeches. Probability, according to Halliday (1994), refers to a circumstance or condition where something may potentially take place. The following are some examples of sentences.

- (29) *This is not just a public health crisis, it is a crisis that will touch every sector – so every sector and every individual must be involved in the fight.*
- (30) *The extra 10 million doses would be an urgent stop-gap measure so that 20 countries could begin before the hundredth day – 10 April.*

The modal *will* in (29) is represented by mid-level probability, indicating most likely something occurs. Dr Tedros states that this catastrophe will affect all facets of existence. He may not only be uncertain about human health but also about every other aspect of human life in the future. He nonetheless continues to believe that everyone must work together to resolve the situation.

Additionally, the mid-level of probability also includes the modal *would* in (30). Using this mode, Dr Tedros predicts the future and emphasizes the need for an additional 10 million doses in order to stop the COVID-19 spread. Since Dr Tedros is still unsure of what might happen on April 10, 2021, it is still acceptable to call the statement a forecast. This conclusion suggests that there is a probability case—an indication of future predictions and promises—in the language of a leader's speech (Chalimah & Sumarlam, 2017).

As for the modality, the predominance of potentiality/ability and obligation means that COVID-19 may become a pandemic and Dr Tedros gives support and warnings to the public about the threat and risk of the pandemic. People should therefore be able to defend themselves from the virus attack. This result is consistent with Pionery & Isti'annah's (2017) assertion that, in the situation of potentiality/ability, the emphasis on the meaning of the clause favors human ability or capacity to accomplish something better. Additionally, Dr. Tedros's viewpoint was seen to support the necessary efforts in the fight against COVID-19 spread. The speaker emphasizes the importance of performing an action in this circumstance, which is crucial because there is no other option (Darong, 2021).

VI. CONCLUSION

The present study investigates the types of transitivity and modality used in Dr Tedros's speeches on handling COVID-19 as well as interpret their meanings using the SFL approach. The ideational and interpersonal metafunctions are covered, focusing on transitivity process and modality. The study concluded that Dr Tedros used all sorts of transitivity in his speeches, including existential, relational, mental, behavioral, and material transitivity. Additionally, all types of modality—potentiality/ability, obligation, usuality, inclination, and probability—were employed. The meanings of the findings primarily highlight the importance of quick action and collaborative relationships in the fight against COVID-19, the hope and capacity for self-defense against the COVID-19 attack, and the need for collective action to lessen the pandemic's negative effects in the future.

This study adds to the richness of linguistic research on COVID-19 issues and aids in the dissemination of the best healthcare practices during a pandemic. The study's sample size limitations prevent generalizing the findings about the organization and content of all of Dr. Tedros's speeches on handling COVID-19. So that a thorough result may be obtained, other research are expected to use this study as a reference for ones that are comparable but use a larger data corpus. To make the study more comprehensive, it is advised that textual meaning be taken into account throughout the SFL analysis. The study's findings have significant implications for raising public awareness of the threat posed by COVID-19 so that people can take precautions to avoid getting the fatal virus.

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Dr. Alexandra Galani
Editor-in-Chief
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February 13, 2023

Dear Dr. Alexandra Galani,

I wish to submit an original research article entitled "Transitivity and Modality Analysis of Tedros Adhanom Ghebreyesus's Speeches on Handling COVID-19" for consideration by Theory and Practice in Language Studies Journal.

I confirm that this work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere.

In this paper, I report on Transitivity and Modality used by Tedros Adhanom Ghebreyesus's Speeches on Handling COVID-19. This is significant because it is necessary to provide information through credible media that can be used as a reference for handling the virus. The information is included in Dr Tedros's speeches represented by the use of the transitivity process and modality which describe the speaker's ideas, experiences and attitudes in efforts to handle the virus.

I believe that this manuscript is appropriate for publication by Theory and Practice in Language Studies Journal because it discusses the application of Systemic Functional Linguistics theory, especially in the application of transitivity and modality theory to Dr Tedros's speeches on handling COVID-19 so that this linguistic study can make a real contribution to efforts to handle human health globally in this pandemic era through the message conveyed by Dr Tedros in his speeches.

The use of the modality system as a reflection of the speaker's attitude and judgment based on Halliday's (1994) and Lock's (1996) theories, which is juxtaposed with the analysis of transitivity system, has not been investigated in the study of speech texts, in contrast to the preceding studies. As a result, the current study makes an effort to contribute a novelty to the study of transitivity by talking about interpersonal metafunction in Dr Tedros's speeches represented by the use of modality.

The researcher uses the combination of modality theory from Halliday (1994) and Lock (1996) because it provides an up-to-date modality theory and presents quite deep and diverse examples. In Lock's theory, there is one additional type of modality, namely potentiality/ability which all add up to five types of modalities that have not been analyzed by other researchers. Thus, this study provides more comprehensive results regarding the development of modality studies. Based on the argument, it is very important to investigate the modality aspect further to get more empirical evidence related to the use of different theories.

We have no conflicts of interest to disclose.

Please address all correspondence concerning this manuscript to me at mohammadmuhasin@radenintan.ac.id

Thank you for your consideration of this manuscript.

Sincerely,

Dr. Mohammad Muhassin
Associate Professor, Department of English Education
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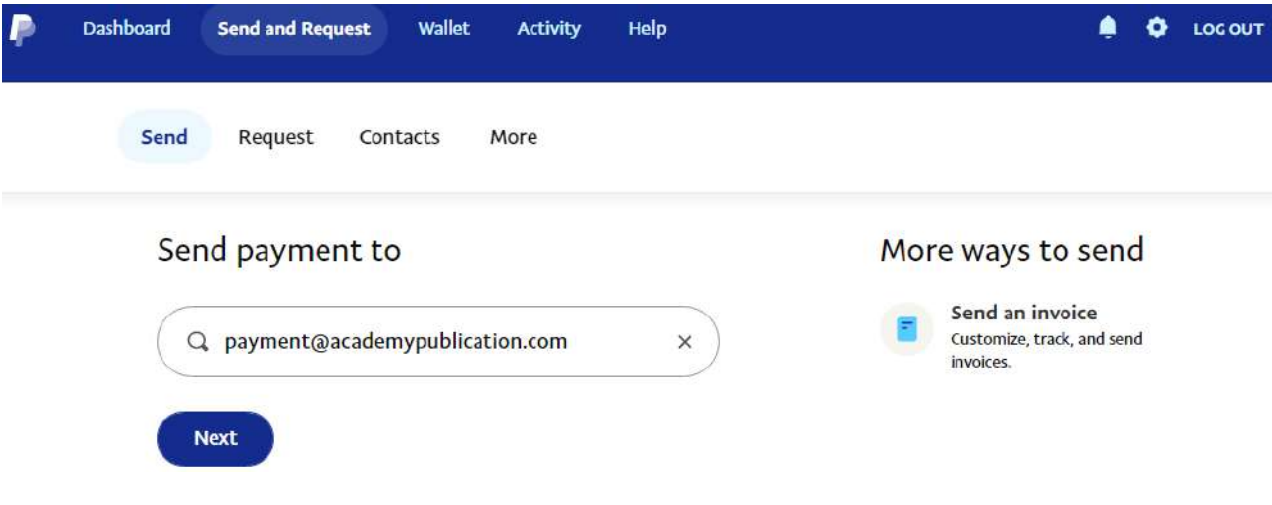
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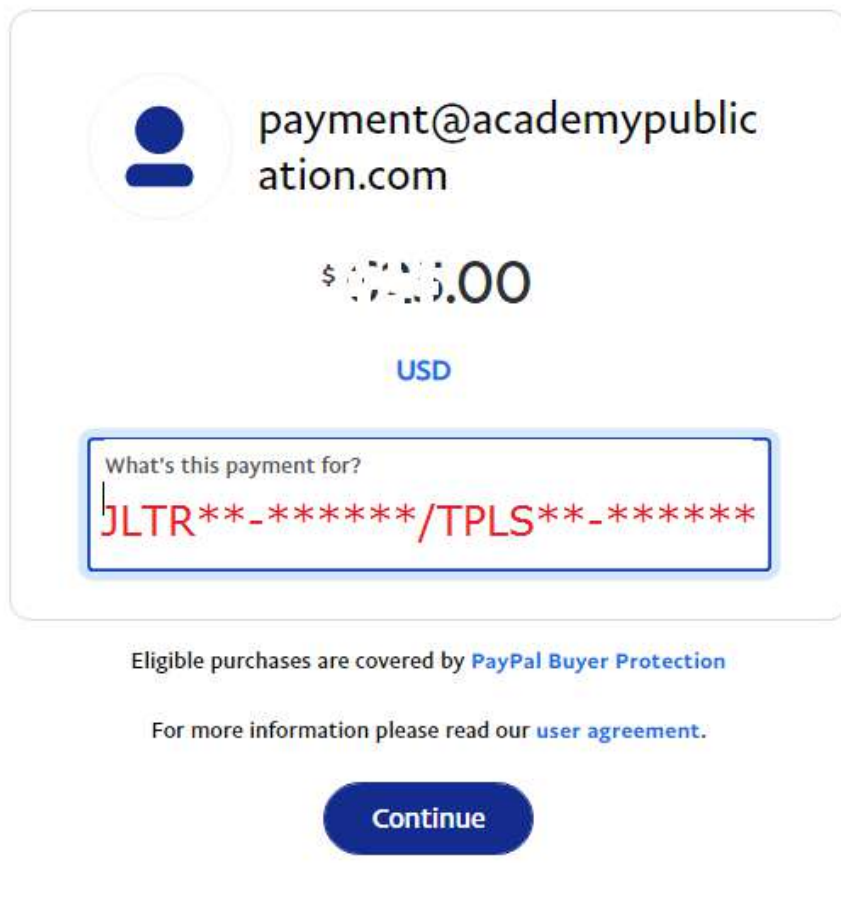
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Transitivity and Modality Analysis of Tedros Adhanom Ghebreyesus's Speeches on Handling COVID-19

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Abstract— Speech is one of the communication media that can be used to convey certain ideas and intentions of the speaker. The current study aims to analyze the use of transitivity and modality in Tedros Adhanom Ghebreyesus's speeches on handling COVID-19 and interpret their meanings. Data comprises the transcripts of two speeches delivered at the media briefing on COVID-19 on 11 March 2020 and 1 April 2021 available on the World Health Organization website (www.who.int). The transcripts were then examined and evaluated using Halliday's (1994) transitivity theory and Halliday's (1994) and Lock's (1996) modality theories. The results reveal that the speeches made use of material, relational, mental, behavioral, verbal, and existential processes of transitivity, as well as potentiality/ability, obligation, usuality, inclination, and probability of modality. Depending on the contexts of speech, the use of transitivity and modality indicates certain interpretations of meaning. Moreover, this study contributes best practices to health socialization during the pandemic and gives a great impact on the public's better understanding of how to properly handle COVID-19.

Index Terms—transitivity, modality, speeches, COVID-19

1. INTRODUCTION

A. Background of Study

Text cannot be separated from language because it owns a semantic system that depends on the context, viewpoint, and ideology behind its creation (Sinar, 2012; Gusthini et al., 2018; Qian & Pan, 2019). According to the theory of Systemic Functional Linguistics henceforth (SFL), there are three parts to language meaning: ideational, interpersonal, and textual (Halliday, 1994; Thompson, 2014). A person's experience is described by ideational meaning. The interactional relationship between speech participants is highlighted by interpersonal meaning. Textual meaning, on the other hand, brings language experience together into a coherent whole.

Speech is one of the texts that have significance. The speaker uses a potent type of language in a speech to make their intentions and ideas known to the listeners (Hidayat et al., 2019). With an emphasis on oral language skills and the use of various persuasion techniques, speech is a type of communication that is efficiently and effectively conveyed (Sutrisno & Wiendijarti, 2015; AbuAlhuda & Alshboul, 2022). Therefore, it is very important to comprehend that a speech made by an expert in their field may undoubtedly be a reference in solving problems because it is strong and convincing (Rahayu et al., 2018; Jannatussolihah & Triyono, 2020).

The current study analyzes the texts that come from the speeches on handling COVID-19 delivered by Tedros Adhanom Ghebreyesus henceforth (Dr Tedros), the World Health Organization's Director-General by employing the SFL framework. The significance of this study is closely related to the need for credible information about the outbreak of COVID-19 cases and its handling process since nowadays many hoaxes and misinformation appeared along with the increasingly massive news on COVID-19 in the mass media. A study has released the discovery of 1,600 hoax news and misinformation about the virus from January 2020 to June 2021 (unicef.org, 2021). Both influence people's reluctance to follow health protocols, get treatment at health facilities or participate in vaccinations. Some people, for example, refuse to be vaccinated because being told that the COVID-19 vaccine causes the recipient to die within three years of the vaccine being administered.

Given the current state of crisis, the news that should be circulating is credible regarding the effective measures to deal with COVID-19 so that the outbreak of this dangerous virus can be ended immediately. Therefore, it is necessary to provide information through credible media that can be used as a reference for handling the virus. The information is included in Dr Tedros's speeches represented by the use of transitivity and modality which describe the speaker's ideas, experiences, and attitudes in efforts to handle the virus.

B. Objectives and Research Questions

Referring to the background, the current study can significantly advance the handling of COVID-19 that is bundled in the structure and meaning of Dr Tedros's speeches. Given the pandemic condition, it is expected that the study findings are deserving of public disclosure. Therefore, this study is intended to explore the types of transitivity and modality in Dr Tedros's speeches and interpret their meanings by considering the following research questions:

1. What are the types of transitivity that Dr Tedros use in his speeches on handling COVID-19?
2. What are the types of modality that Dr Tedros use in his speeches on handling COVID-19?
3. How are the meanings of transitivity and modality in Dr Tedros's speeches on handling COVID-19 interpreted?

II. THEORETICAL BASIS

To benefit from the text study, the SFL theory is applied as an analytical framework with a focus on two language metafunctions, ideational and interpersonal. In the ideational metafunction, Dr Tedros's ideas and experiences in handling COVID-19 are realized by transitivity processes. Meanwhile, in the interpersonal metafunction, the communication between Dr Tedros and the audience of his speeches was represented by modality. So the information contained in Dr Tedros's speeches is realized by the choice of verbs that represents the transitivity process and modal verbs that express the speaker's attitude in the interactional relationship between the speaker and the audience.

A. Transitivity

Transitivity is a component of the ideational metafunction and focuses on the sentence level, where the clause is seen as an interpretation of how human experience is represented in reality by various processes (Wang, 2010). The process can depict what is doing, happening, experiencing, or being in actuality (Eggins, 2004). Halliday (1994) classified the process into six types: material, mental, verbal, behavioral, relational, dan existential. Furthermore, Wang (2010) made an overview of process types adopted in this study as the analytical framework of transitivity processes used in Dr Tedros's speeches. The overview can be seen in table 1.

TABLE 1
OVERVIEW OF PROCESS TYPES

No	Type of Process	Core Meaning	Participant
1	Material	Doing (Transitive) Happening (intransitive) Passive Dispositive recipient Dispositive clients With range	Actor, process, goal Actor, process Goal, process, actor Actor, process, recipient, goal Actor, process, client, goal Actor, process, range
2	Mental	Sensing	Senser, process, phenomenon
3	Verbal	Saying	Sayer, verbiage, receiver
4	Behavioral	Behaving-verbal Behaving-mental	Behaver, receiver, verbiage Behaver, phenomenon
5	Relational	Being Process	Carrier, attribute Token, process, value
6	Existential	Existing	Process, existent, circumstance

B. Modality

The theory of modality types has been postulated by several linguists. Modality is a technique for revealing the speaker's attitudes and judgment (Toolan, 1998) by using modal verbs (Wang, 2010). Similarly, Downing (2015) argues that a statement with no modal is more straightforward in terms of meaning. In reality, people frequently speak even when they are unsure of whether they are making a favorable or negative judgment. People judge certainty, commitment, frequency, and other concepts differently. They require a modal representation to be understood. Briefly, the modal verb is genuinely able to display the range of judgmental intensity that extends beyond "yes" and "no."

In addition, Halliday (1994) maintains that modality is a measure that illustrates the importance of the "yes" or "no" decision. The sentence's modalities, for example, inclination, usuality, obligation, and probability, are utilized to express several parameters. Lock (1996) adds a new criterion called potentiality/ability. Inclination conveys the speaker's desire to act or a commitment to the future. Meanwhile, usuality is the evaluation of a person's frequency of performance of an action. The types of modality inherited from Halliday's (1994) and Lock's (1996) theories will serve as an analytical framework for discussing the modality used in Dr Tedros's speeches, as shown in table 2 below.

TABLE 2
TYPES OF MODALITY

No	Modality	Level	Example
1	Inclination	High	I <i>will</i> go and you can't stop me.
		Mid	Now, I <i>will</i> tell you right now what my activity is.
		Low	I <i>ll</i> take some of the scripts so long as you're not expecting anything in before next week.
2	Potentiality/Ability	High	I am someone who can make friends easily.
		Low	...this situation can and will be changed.
3	Usuality	High	He <i>must</i> be there at 7 a.m
		Mid	He <i>ll</i> walk past you without even saying goodbye
		Low	...but long journey like that <i>can</i> be very uncomfortable.
4	Obligation	High	You <i>must</i> do that.
		Mid	You <i>should</i> do that.
		Low	<i>You</i> can do that.
5	Probability	High	That <i>must</i> be John
		Mid	That <i>will</i> be John.
		Low	That <i>may</i> be John.

III. REVIEW OF RELATED LITERATURE

Concerning the focus of the study, numerous experts have concentrated their research on transitivity in various contexts, for instance in books (Anggun, 2016; Oriza, 2017; Riztya, 2019), politics (Fauzan, 2015; Ong 'onda, 2016), speeches (Hemas & Ariyanti, 2016; Kusumawardani & Laksana, 2020; Helena et al., 2021; Liani et al., 2021), debate (Zhang, 2017), text genres including advertisement (Claria, 2018, 2021), humor (Yuwana, 2019; Yuwana et al., 2019), legal draft (Fitri et al., 2021), religious scripts (Hakim, 2016; Haeri, 2021), and literature including short story (Nurrahmah et al., 2020), novels (Suryatini, 2014; Pratiwi, 2016), and movies (Sihura, 2019; Hajar, 2021).

The current study has summarized all the characteristics of the transitivity system of the various texts examined. Even from the analysis of speech texts that is similar to the topic of this research, it has been shown the use of verbs that represent the process of political activities or events that imply a certain political ideology. Thus, from the results of the previous relevant studies, there is something different that the current study would like to show. By taking a similar research focus, this study aims to explore further information about the use of verbs that states the transitivity processes and the meanings expressed by the use of the processes.

In other instances, the analysis of modality as presented by Chalimah and Sumarlam (2017) has been incorporated into the study of transitivity in speech texts. They examined the transitivity and modality of President Joko Widodo's address. Specifically, they employed Wang's (2010) modality theory with the emphasis on the politeness at low, median, and high levels. Similar to this, Liani et al. (2021) discussed how Kamala Harris used the transitivity system to represent her political ideology regarding how COVID-19 should be handled in the United States.

Briefly, the use of the modality system as a reflection of the speaker's attitude and judgment based on Halliday's (1994) and Lock's (1996) theories, which is juxtaposed with the analysis of the transitivity system, has not been investigated in the study of speech texts, in contrast to the preceding two findings. As a result, the current study makes an effort to contribute a novelty to the study of transitivity by talking about interpersonal metafunction in Dr Tedros's speeches represented by the use of modality.

The researcher uses the combination of modality theory from Halliday and Lock because it provides an up-to-date modality theory and presents quite deep and diverse examples. This study also aims to interpret the meaning of each transitivity and modality expression used in Dr Tedros's speeches. This study provides a theoretical contribution regarding the use of the modality theory of Halliday (1994) and Lock (1996). In Lock's theory, there is one additional type of modality which add up to five types of modalities that have not been analyzed by other researchers. Thus, this study provides more comprehensive results regarding the development of modality studies. Based on the argument, it is very important to investigate the modality aspect further to get more empirical evidence related to the use of different theories.

IV. METHOD

This is a type of qualitative research in which data is presented in the form of sentences and analyzed descriptively based on the research objectives (Ary et al., 2010). The study sample comprises two speeches delivered by Dr Tedros at the media briefing on COVID-19 which can be downloaded from the WHO official website (www.who.int). The first speech was delivered on 11 March 2020 available at <https://www.who.int/news-room/speeches/item/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19--11-march-2020> and the second was delivered on 1 April 2021 at <https://www.who.int/news-room/speeches/item/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-1-april-2021>.

The selection of the two speeches was based on the consideration that both speeches focused on the topic of COVID-19 and its handling process at the beginning of the outbreak and the end of the pandemic. In addition, many examples of linguistic expressions were also found in the data which could meet the criteria for research purposes. The linguistic expressions that included the transitivity and modality needed to be more deeply explored as the representation of Dr Tedros's ideas, experiences, and attitudes on best practices of handling COVID-19 so that the audience and the general public can follow the practices to combat the virus.

From the transcript, the researcher continued the data analysis with a focus on sentences containing transitivity and modality expressions. After obtaining 99 sentences as transitivity data and 26 sentences as modality data, the next step was classifying data into the types of transitivity process based on Halliday's theory (1994) and the types of modality concerning Halliday's (1994) and Lock's (1996) theories. Finally, all transitivity and modality expressions were interpreted based on the framework of SFL included in the research findings.

V. FINDINGS AND DISCUSSION

This study seeks to explore research findings concerning the use of transitivity and modality that represents ideas, experiences, and attitudes of the speaker on handling COVID-19. Specifically, this section attempts to answer research questions which are divided into three points, namely analyzing a) the types of transitivity used in Dr Tedros's speeches, b) the types of modality used in Dr Tedros's speeches, and c) the meanings interpreted from the use of transitivity and modality.

A. Types of Transitivity Used by Dr Tedros in His Speeches on Handling COVID-19

The findings revealed that there were 99 clauses containing the transitivity process in the two speeches. Speech 1 contained 54 clauses, and Speech 2 contained 45 clauses. The details can be seen in table 3 below.

TABLE 3
DISTRIBUTION OF TRANSITIVITY PROCESS

Process	Speech 1	Speech 2	Frequency	Percentage
Material	25	15	40	40.4 %
Relational	10	17	27	27.27 %
Mental	7	8	15	15.15 %
Behavioral	6	2	8	8.08 %
Verbal	4	1	5	5.05 %
Existential	2	2	4	4.04 %
Total	54	45	99	100 %

Table 3 presents six types of transitivity processes used by the speaker. According to the frequency of occurrence, the material process occupies the top spot in the transitivity hierarchy with a rank of 40.4%, followed by the relational process with a rank of 27.27%, the mental process with a rank of 15.15%, the behavioral process with a rank of 8.08%, the verbal process with a rank of 5.05%, and the existential process with a rank of 4.04%.

From these findings, it can be said that all transitivity processes have been used by Dr Tedros in his speeches on handling COVID-19. This is in line with the function of the transitivity process as an experiential meaning, which is about how a person sees the world, experiences the world, and perceives the world (Halliday & Matthiessen, 2014). In this context, the findings have proven how Dr Tedros's ideas, experiences, and perceptions on efforts to deal with COVID-19 from the beginning to the end of the pandemic have been manifested through various types of transitivity processes. By involving the entire transitivity processes in the narration of the speech, it is hoped that the messages of the speech can be well understood by listeners and obeyed in the context of handling this pandemic virus.

The findings also exposed that the type of process most frequently used by Dr Tedros was the material process. The same case was also seen in the findings of Wang (2010) and Chalimah and Sumarlam (2017). What was highlighted was the similarity in the meaning of the messages conveyed in the speeches of the two leaders, namely Barack Obama

from the United States (Wang, 2010) and Joko Widodo from Indonesia (Chalimah & Sumarlam, 2017). The dominant use of the material process is the right choice for the speakers to explain what has been done and achieved, what is being done, and what will be done in their capacity as state leaders. Thus, from the explanation, the public can understand the progress of the government's achievements and can benefit from the government's work.

The following is an example of data containing the expression of the material process used by Dr Tedros in his speeches on handling COVID-19.

- (1) *We (actor) have made (material process) the assessment (goal) that COVID-19 can be characterized as pandemic.*

From the above example, it can be known that the material process is realized by the transitive verb *made*. The verb *made* is a type of verb that states an action with two participants, namely the actor *We* and the goal of the *assessment*. Thus, the use of the verb *made* reflects a process of doing as a characteristic of the material process (Halliday, 1994; Eggins, 2004). In the findings of the current study, the dominance of material process suggests that Dr Tedros as WHO leader explained the efforts to overcome COVID-19 and the achievements of handling the virus from the beginning to the end of the pandemic, as well as the steps to anticipate in the future if the similar virus outbreaks again.

B. Types of Modality Used by Dr Tedros in His Speeches on Handling COVID-19

The investigation of the modality system found 26 clauses containing modal verbs. 14 modals were in speech 1, and 12 modals were in speech 2, as shown in table 4.

TABLE 4
DISTRIBUTION OF MODALITY

Modality	Speech 1	Speech 2	Frequency	Percentage
Potentiality/Ability	6	3	9	34.6 %
Obligation	4	4	8	30.7 %
Usuality	2	2	4	15.3 %
Inclination	1	2	3	11.5 %
Probability	1	1	2	7.6 %
Total	14	12	26	100 %

Table 4 exposes the findings related to the distribution of modality used by Dr Tedros in his speeches on handling COVID-19. Table 4 shows that the most dominant use of modality occurs in two types, namely potentiality/ability at 34.6% and obligation at 30.7%. Then the order of frequency of modality is occupied by usuality of 15.3%, inclination of 11.5%, and probability of 7.6%.

From these findings, it can be understood that all modality types have been used by the speaker. This emphasizes the function of the modality as an interpersonal meaning, which is about how a speaker extends their attitude towards the situation or event illustrated by a sentence (Lock, 1996; Wang, 2010). In this context, the findings have proven how Dr Tedros's judgment and attitude towards the efforts to deal with COVID-19 from the beginning to the end of the pandemic have been realized through all types of modality. By involving the entire modality types, it is expected that the interactional relationship between the speaker and listeners can be well established so that Dr Tedros's messages on handling COVID-19 can be well received by listeners.

The findings also confirm that the most dominant type of modality found is potentiality/ability. This is in line with the findings of Pionery and Ist'annah (2017) which state that the potentiality/ability modality is directed by the speaker at conditioning human ability to deal with unfavorable conditions and situations. In the context of this study, the use of the potentiality/ability modality was intended by Dr Tedros to encourage audiences to be able to use their potential in dealing with pandemic outbreaks by complying with health protocols, starting with oneself and then developing in society.

The following is an example of data containing a potentiality/ability expression used by Dr Tedros in his speeches on handling COVID-19.

- (2) *Communicate with your people about the risks and how they can protect themselves.*

From example (2), it can be understood that the modality is identified by the transitive verb *protect* that comes after the modal *can*. *Can* is used to describe a person's capacity for action (Wang, 2010). The subject *they* refers back to *your people*. This statement implies that the community has the potential to prevent early exposure to the virus by informing them of the risks and hazards of COVID-19.

C. Meanings Interpreted from the Use of Transitivity

(a). Material Process

Physical and tangible activities carried out by verbs that indicate events or actions are what defines the material process (Eggs, 2004). Two participants are involved: the actor and the goal. Meanwhile, there are actor players in the intransitive kind, there are no goals present. Below are a few illustrations of the material process.

- (3) ³ All countries (actor) can still change (material process) ¹ course of the pandemic (goal).
- (4) ¹ COVIDAX (actor) has already delivered (material process) 35 million doses (goal) to more than 78 countries.
- (5) More than 25 leaders from G20, G7 and from every region (actor) united (prose material) behind the idea of pandemic treaty (circumstance).
- (6) Health and care workers (actor) must come (material process) first (circumstance).

Transitive verbs *change* (3) and *delivered* (4), which describe action activities with two participants—an actor and a goal—realize the material process. Additionally, there are intransitive verbs like *united* (5) and *come* (6) that describe occurrences involving actors and circumstances. The domination of this material process as one of the transitivity types used in the speeches suggests that Dr Tedros, in his capacity as Director-General of WHO, is taking greater initiatives to meet the goal of handling COVID-19 internationally. The use of verbs describing actions is intended to persuade the international community to join efforts to combat COVID-19 (Luo, 2020).

(b). Relational Process

Relational process displays the connections between various entities. According to Eggs (2004), the relational process might either be an identifying process or an attributive process. Check out the examples below.

- (7) We (carrier) have (relational process-possessive) ¹ nine days (attribute) left until we reach the hundredth day of the year. ³
- (8) We (carrier) are (relational process-attributive) grateful (attribute) for measures being taken in Iran, Italy, and the Republic of Korea.
- (9) WHO's mandate (token) is (relational process-identifying) public health (value).

The relationship, known as the ownership relationship, can exist between the owner and the property as in (7). The type may also take the shape of an identification relationship, which is a link between two entities (8), or it may take the form of an attributive relationship, which is a connection between two entities (9). The purpose of this relational process is to communicate the depth and caliber of the speaker's relationships with his various business partners to invite them to collaborate on efforts to combat the pandemic (Hemas & Ariyanti, 2016).

(c). Mental Process

One way to demonstrate the mental process is to ask, "What do you think of x?". The process is divided into three categories by Halliday (1994), namely cognition, affection, and perception. The number of participants is another factor that separates the mental process from the material process. There should be two parties in the mental process. Both participants must be human, with one being referred to as *senser* and the other as *phenomenon*. The mental processes listed below are a few examples.

- (10) We (senser) have never before seen ¹ mental process) a pandemic (phenomenon) sparked by a coronavirus.
- (11) We (senser) know (mental process) that even before the pandemic (phenomenon), there was a shortfall of at least 18 million health workers.
- (12) I (senser) thank (mental process) you (phenomenon) for those inspiring words, Carl!

The mental process is demonstrated in data (10-12) by cognitive actions *see*, *know*, and *thank* by pronouns *We* and *I* that identify *Dr Tedros* as *senser*, with cognitive objects labeled as *pandemic* and *you* as *phenomenon* (Wang, 2010). The speaker's perception, cognition, and affection for the COVID-19 pandemic and his hopes for reversing its harmful effects are evident in a number of mental processes.

(d). Behavioral Process

A mix of physical and mental processes is referred to as behavioral process (Eggs, 2004). As a result, the meaning derived also combines the two. The behavior, who makes up the majority of this process, is the lone participant. The examples of behavioral process are as follows.

- (13) Thousands more (behavior) are fighting (behavioral process) for their lives (circumstance) in hospitals.
- (14) We (behavior) are working (behavioral process) with many partners (circumstance) across all sectors to mitigate the social and economic consequences of this pandemic.
- (15) The clock (behavior) is still tickling (behavioral process) on vaccine equity (circumstance).

The sentences in examples (13–15) cannot be projected into other constructions. This is a trait of the behavioral process. The presence of one participant who engages in intense activity using *-ing* forms and is equipped with circumstances that point to a cause or method is another factor that supports the usage of behavioral process (Chalimah & Sumarlam, 2017). Here by employing a behavioral process, Dr Tedros aims to emphasize the value of teamwork to stop the spread of COVID-19 and reverse its consequences, which have caused several victims.

(e). *Verbal Process*

Proclaiming a thing or an occurrence verbally is the aim of verbal process (Eggins, 2004). *Sayer*, *receiver*, and *verbiage* are the normal participants in this interaction. Sayer is an active participant who uses verbiage that is addressed to the receiver in a verbal process. Examples of verbal process are shown below.

5

(5) *81 countries (sayer) have not reported (verbal process) any cases (verbiage).*

(17) *We (sayer) cannot say (verbal process) this (verbiage) loudly enough, or clearly enough, or often enough.*

(18) *I (sayer) have said (verbal process) from the beginning that countries must take a whole-of-government, whole-of-society approach, built around a comprehensive strategy to prevent infections, save lives and minimize impact (verbiage).*

According to the aforementioned examples, the verb *reported* in (16) denotes a verbal process with *81 nations* serving as a non-persona sayer and *any cases* serving as verbiage. The verbs *say* (17) and *said* (18) denote the verbal exchange of information regarding the treatment of COVID-19 between the sayer, Dr Tedros, and the audience as the receiver.

(f). *Existential Process*

By the appearance of words of existence, this process proves that a thing or entity is real or existing (Eggins, 2004). Consider the instances below.

(19) *There are (existential process) now more than 118,000 cases (existent) in 114 countries (circumstance).*

(20) *There will always be (existential process) new pathogens (existent) with pandemic potential (circumstance).*

In the examples above, the copula verb *are* (19), *be* (20), and *there* are arranged before the participants, *existent*, who complete the existential process with the situation of location or way. In this context, by employing the existential process the speaker intends to demonstrate the presence of the rising number of cases in many nations and the new infections brought about by the virus dissemination (Liani et al., 2021). In light of this information, it is hoped that the general public would become more aware of emerging virus variations and vigilant about avoiding exposure to them.

Referring to the findings, the study suggests that the transitivity used in Dr Tedros's speeches on handling COVID-19 includes material, relational, mental, verbal, and existential processes. All of these processes were used by Dr Tedros in his two speeches. This indicates that the process of handling COVID-19 is the main focus of Dr Tedros in his authority as the WHO Director-General where his ideas and experiences in handling COVID-19 as experiential meaning are realized in all types of transitivity processes. This is consistent with Chalimah and Sumarlam (2017) and Helena et al. (2021), who argue that the process serves to represent a person's experiences and ideas when observing events or acts in the outside world.

As for the transitivity, Dr Tedros's objective to take genuine activities with all facets of society to combat COVID-19 is reflected in the predominance of material process with action verbs. This conclusion supports Hajar's (2021) assertion that real physical acts and depictions of actual events are stressed in the usage of material process. In addition, by assuming that material processes are employed to understand human experience in actions or events that occur in life, Hemas and Ariyanti (2016), Yuliana et al. (2018), and Kusumawardani and Laksana (2020) reaffirm the present study findings. The relational process, meantime, expresses Dr. Tedros's viewpoint on the COVID-19 pandemic's current state and represents his strong notion and desire to keep positive relationships with business partners for coordinated efforts to deal with the COVID-19 calamity. The relational process essentially highlights how the speaker connects his experience to other things. As a result, it can be claimed that this relational process illustrates the speaker's sentiment regarding a real-life incident (Nurrahmah et al., 2020; Sugianto, 2020).

D. Meanings Interpreted from the Use of Modality

(a). *Potentiality/Ability*

The findings exposed that Dr. Tedros's speeches frequently used the modality of potentiality/ability. This style of modality denotes having the skills or knowledge to do something (Darong, 2021). For example.

3
(21) *We have therefore made the assessment that COVID-19 can be characterized as a pandemic.*

From example (21), it is clear that human capacity and other factors unrelated to humans are the two factors that explain potentiality (Pionery & Isti'annah, 2017). The passive verb *be characterized* in front of the modal *can* (20) denotes the potentiality of COVID-19 to cause a pandemic or a worldwide disease outbreak.

(b). *Obligation*

Obligation was ranked as the second most common modality found. It takes place when a speaker demands something from the listener and offers suggestions and recommendations (Eggins, 2004). The followings are some examples of sentences that contain obligation.

(22) *One key aspect that should be enshrined in the treaty, is to a stronger health workforce, which is the very essence of health systems resilience.*

(23) *We must collectively do better in future outbreaks.*

The obligation, which indicates a duty to do, is shown by the modal *should* in (22) followed by the passive verb *be enshrined*. The sentence means that health professionals, who form the backbone of the health system's resilience against COVID-19, must be taken into account as one of the most important factors in this situation. In (23), the modal *must* as the high level of obligation indicates a non-negotiable item. The verb *do* and the comparative *better* are placed after the modal. Here it means that we must be able to stop the spread of COVID-19 more effectively in the future. Due to the pressing need to prepare for circumstances like this in the future, this is something that cannot be negotiated. The usage of this modality is meant to demonstrate a leader's strong invitation to the world's community by working together to overcome the difficulties being faced (Pionery & Isti'annah, 2017; Darong, 2021).

(c). *Usuality*

The modal verbs *can*, *will*, and *would* were found in both speeches, representing usuality. According to Lock (1996), the modality of usuality is the property or state of being typical. The data listed below shows the examples.

(24) *Even those countries with community transmission or large clusters can turn the tide on this virus.*

(25) *There will always be new pathogens with pandemic potential.*

2
The modal *can* followed by the verb *turn* in sentence (24), is a kind of usuality which denotes rarity. The subject *Even those countries* refers to 4 nations with significant COVID-19 cases. The sentence implies that even nations with significant COVID-19 cases still have difficulty controlling the virus's rapid spread. Sentence (25) provides a distinct justification from (24). According to Pionery and Isti'annah (2017), the modal *will* indicates usually meaning at a mid-level of usuality.

(d). *Inclination*

A desire to accomplish something is referred to as an inclination (Eggins, 2004). Each utterance contains about the same number of inclinations. Based on the findings, the levels utilized in both utterances are high 'determination', mid 'intention', and low 'willingness', realized by the modal verbs *will* and *would*. The followings list some clauses containing inclination meaning.

3
(26) *The challenge for many countries who are now dealing with large clusters or community transmission is not whether they can do the same – it's whether they will.*

(27) *Carl will help the collective advocacy for the ACT-Accelerator.*

(28) *I would like to turn to Health Minister of Turkey, Dr Fahrettin Koca.*

Since it shows the strong preparedness of many countries to cope with COVID-19, the modal *will* in (26) is thought to have a high level of inclination. Dr Tedros insists on a shared commitment from all nations to stop the spread of the COVID-19 catastrophe. As it implies intention, the modal *will* in (27) is classed as having a mid-level inclination. In this context, Dr Tedros states that Carl will lead the group's lobbying for the ACT accelerator to combat COVID-19. Furthermore, the modal *would* employed in (28) displays a low level of inclination because it expresses Dr Tedros's readiness to provide Dr Fahrettin Koca, Turkey's health minister, the chance to make his statement.

(e). *Probability*

The results show that there are only two sentences of probability in the speeches. Probability, according to Halliday (1994), refers to a circumstance or condition where something may potentially take place. The following are

some examples of sentences.

- 5
(29) This is not just a public health crisis, it is a crisis that will touch every sector – so every sector and every individual must be involved in the fight.
- (30) The extra 10 million doses would be an urgent stop-gap measure so that 20 countries could begin before the hundredth day – 10 April.

The modal *will* in (29) is represented by mid-level probability, indicating most likely something occurs. Dr Tedros states that this catastrophe will affect all facets of existence. He may not only be uncertain about human health but also about every other aspect of human life in the future. He nonetheless continues to believe that everyone must work together to resolve the situation.

Additionally, the mid-level of probability also includes the modal *would* in (30). Using this mode, Dr Tedros predicts the future and emphasizes the need for an additional 10 million doses to stop the COVID-19 spread. Since Dr Tedros is still unsure of what might happen on April 10, 2021, it is still acceptable to call the statement a forecast. This conclusion suggests that there is a probability case—an indication of future predictions and promises—in the language of a leader's speech (Chalimah & Sumarlam, 2017).

As for the modality, the predominance of potentiality/ability and obligation means that COVID-19 may become a pandemic and Dr Tedros gives support and warnings to the public about the threat and risk of the pandemic. People should therefore be able to defend themselves from the virus attack. This result is consistent with Pionery and Isti'anah's (2017) assertion that, in the situation of potentiality/ability, the emphasis on the meaning of the clause favors human ability or capacity to accomplish something better. Additionally, Dr. Tedros's viewpoint was seen to support the necessary efforts in the fight against COVID-19 spread. The speaker emphasizes the importance of performing an action in this circumstance, which is crucial because there is no other option (Darong, 2021).

VI. CONCLUSION

The present study investigates the types of transitivity and modality used in Dr Tedros's speeches on handling COVID-19 as well as interprets their meanings using the SFL approach. The ideational and interpersonal metafunctions are covered, focusing on the transitivity process and modality. The study concluded that Dr Tedros used all sorts of transitivity in his speeches, including existential, relational, mental, behavioral, and material transitivity. Additionally, all types of modality—potentiality/ability, obligation, usuality, inclination, and probability—were employed. The meanings of findings primarily highlight the importance of quick action and collaborative relationships in the fight against COVID-19, the hope and capacity for self-defense against the COVID-19 attack, and the need for collective action to lessen the pandemic's negative effects in the future.

This study adds to the richness of linguistic research on COVID-19 issues and aids in the dissemination of the best healthcare practices during a pandemic. The study's sample size limitations prevent generalizing the findings about the organization and content of all of Dr. Tedros's speeches on handling COVID-19. So that a thorough result may be obtained, other researchers are expected to use this study as a reference for ones that are comparable but use a larger data corpus. To make the study more comprehensive, it is advised that textual meaning be taken into account throughout the SFL analysis. The study's findings have significant implications for raising public awareness of the threat posed by COVID-19 so that people can take precautions to avoid getting the fatal virus.

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Transitivity and Modality Analysis of Tedros Adhanom Ghebreyesus's Speeches on Handling COVID-19

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Abstract—Speech is one of the communication media that can be used to convey certain ideas and intentions of the speaker. The current study aims to analyze the use of transitivity and modality in Tedros Adhanom Ghebreyesus's speeches on handling COVID-19 and interpret their meanings. Data comprises the transcripts of two speeches delivered at the media briefing on COVID-19 on 11 March 2020 and 1 April 2021 available on the World Health Organization website (www.who.int). The transcripts were then examined and evaluated using Halliday's (1994) transitivity theory and Halliday's (1994) and Lock's (1996) modality theories. The results reveal that the speeches made use of material, relational, mental, behavioral, verbal, and existential processes of transitivity, as well as potentiality/ability, obligation, usuality, inclination, and probability of modality. Depending on the contexts of speech, the use of transitivity and modality indicates certain interpretations of meaning. Moreover, this study contributes best practices to health socialization during the pandemic and gives a great impact on the public's better understanding of how to properly handle COVID-19.

Index Terms—transitivity, modality, speeches, COVID-19

I. INTRODUCTION

A. Background of Study

Text cannot be separated from language because it owns a semantic system that depends on the context, viewpoint, and ideology behind its creation (Sinar, 2012; Gusthini et al., 2018; Qian & Pan, 2019). According to the theory of Systemic Functional Linguistics henceforth (SFL), there are three parts to language meaning: ideational, interpersonal, and textual (Halliday, 1994; Thompson, 2014). A person's experience is described by ideational meaning. The interactional relationship between speech participants is highlighted by interpersonal meaning. Textual meaning, on the other hand, brings language experience together into a coherent whole.

Speech is one of the texts that have significance. The speaker uses a potent type of language in a speech to make their intentions and ideas known to the listeners (Hidayat et al., 2019). With an emphasis on oral language skills and the use of various persuasion techniques, speech is a type of communication that is efficiently and effectively conveyed (Sutrisno & Wiendijarti, 2015; AbuAlhuda & Alshboul, 2022). Therefore, it is very important to comprehend that a speech made by an expert in their field may undoubtedly be a reference in solving problems because it is strong and convincing (Rahayu et al., 2018; Jannatussolihah & Triyono, 2020).

The current study analyzes the texts that come from the speeches on handling COVID-19 delivered by Tedros Adhanom Ghebreyesus henceforth (Dr Tedros), the World Health Organization's Director-General by employing the SFL framework. The significance of this study is closely related to the need for credible information about the outbreak of COVID-19 cases and its handling process since nowadays many hoaxes and misinformation appeared along with the increasingly massive news on COVID-19 in the mass media. A study has released the discovery of 1,600 hoax news and misinformation about the virus from January 2020 to June 2021 (unicef.org, 2021). Both influence people's reluctance to follow health protocols, get treatment at health facilities or participate in vaccinations. Some people, for example, refuse to be vaccinated because being told that the COVID-19 vaccine causes the recipient to die within three years of the vaccine being administered.

Given the current state of crisis, the news that should be circulating is credible regarding the effective measures to deal with COVID-19 so that the outbreak of this dangerous virus can be ended immediately. Therefore, it is necessary to provide information through credible media that can be used as a reference for handling the virus. The information is included in Dr Tedros's speeches represented by the use of transitivity and modality which describe the speaker's ideas, experiences, and attitudes in efforts to handle the virus.

B. Objectives and Research Questions

Referring to the background, the current study can significantly advance the handling of COVID-19 that is bundled in the structure and meaning of Dr Tedros's speeches. Given the pandemic condition, it is expected that the study

findings are deserving of public disclosure. Therefore, this study is intended to explore the types of transitivity and modality in Dr Tedros's speeches and interpret their meanings by considering the following research questions:

1. What are the types of transitivity that Dr Tedros use in his speeches on handling COVID-19?
2. What are the types of modality that Dr Tedros use in his speeches on handling COVID-19?
3. How are the meanings of transitivity and modality in Dr Tedros's speeches on handling COVID-19 interpreted?

II. THEORETICAL BASIS

To benefit from the text study, the SFL theory is applied as an analytical framework with a focus on two language metafunctions, ideational and interpersonal. In the ideational metafunction, Dr Tedros's ideas and experiences in handling COVID-19 are realized by transitivity processes. Meanwhile, in the interpersonal metafunction, the communication between Dr Tedros and the audience of his speeches was represented by modality. So the information contained in Dr Tedros's speeches is realized by the choice of verbs that represents the transitivity process and modal verbs that express the speaker's attitude in the interactional relationship between the speaker and the audience.

A. Transitivity

Transitivity is a component of the ideational metafunction and focuses on the sentence level, where the clause is seen as an interpretation of how human experience is represented in reality by various processes (Wang, 2010). The process can depict what is doing, happening, experiencing, or being in actuality (Eggins, 2004). Halliday (1994) classified the process into six types: material, mental, verbal, behavioral, relational, dan existential. Furthermore, Wang (2010) made an overview of process types adopted in this study as the analytical framework of transitivity processes used in Dr Tedros's speeches. The overview can be seen in Table 1.

TABLE 1
OVERVIEW OF PROCESS TYPES

No	Type of Process	Core Meaning	Participant
1	Material	Doing (Transitive) Happening (intransitive) Passive Dispositive recipient Dispositive clients With range	Actor, process, goal Actor, process Goal, process, actor Actor, process, recipient, goal Actor, process, client, goal Actor, process, range
2	Mental	Sensing	Senser, process, phenomenon
3	Verbal	Saying	Sayer, verbiage, receiver
4	Behavioral	Behaving-verbal Behaving-mental	Behaver, receiver, verbiage Behaver, phenomenon
5	Relational	Being Process	Carrier, attribute Token, process, value
6	Existential	Existing	Process, existent, circumstance

B. Modality

The theory of modality types has been postulated by several linguists. Modality is a technique for revealing the speaker's attitudes and judgment (Toolan, 1998) by using modal verbs (Wang, 2010). Similarly, Downing (2015) argues that a statement with no modal is more straightforward in terms of meaning. In reality, people frequently speak even when they are unsure of whether they are making a favorable or negative judgment. People judge certainty, commitment, frequency, and other concepts differently. They require a modal representation to be understood. Briefly, the modal verb is genuinely able to display the range of judgmental intensity that extends beyond "yes" and "no".

In addition, Halliday (1994) maintains that modality is a measure that illustrates the importance of the "yes" or "no" decision. The sentence's modalities, for example, inclination, usuality, obligation, and probability, are utilized to express several parameters. Lock (1996) adds a new criterion called potentiality/ability. Inclination conveys the speaker's desire to act or a commitment to the future. Meanwhile, usuality is the evaluation of a person's frequency of performance of an action. The types of modality inherited from Halliday's (1994) and Lock's (1996) theories will serve as an analytical framework for discussing the modality used in Dr Tedros's speeches, as shown in Table 2 below.

TABLE 2
TYPES OF MODALITY

No	Modality	Level	Example
1	Inclination	High	I <i>will</i> go and you can't stop me.
		Mid	Now, I <i>will</i> tell you right now what my activity is.
		Low	I <i>'ll</i> take some of the scripts so long as you're not expecting anything in before next week.
2	Potentiality/Ability	-	I am someone who can make friends easily. ...this situation can and will be changed.
3	Usuality	High	He <i>must</i> be there at 7 a.m
		Mid	He <i>'ll</i> walk past you without even saying goodbye
		Low	...but long journey like that <i>can</i> be very uncomfortable.
4	Obligation	High	You <i>must</i> do that.
		Mid	You <i>should</i> do that.
		Low	You <i>can</i> do that.
5	Probability	High	That <i>must</i> be John
		Mid	That <i>will</i> be John.
		Low	That <i>may</i> be John.

III. REVIEW OF RELATED LITERATURE

Concerning the focus of the study, numerous experts have concentrated their research on transitivity in various contexts, for instance in books (Anggun, 2016; Oriza, 2017; Riztya, 2019), politics (Fauzan, 2015; Ong 'onda, 2016), speeches (Hemas & Ariyanti, 2016; Kusumawardani & Laksana, 2020; Helena et al., 2021; Liani et al., 2021), debate (Zhang, 2017), text genres including advertisement (Claria, 2018, 2021), humor (Yuwana, 2019; Yuwana et al., 2019), legal draft (Fitri et al., 2021), religious scripts (Hakim, 2016; Haeri, 2021), and literature including short story (Nurrahmah et al., 2020), novels (Suryatini, 2014; Pratiwi, 2016), and movies (Sihura, 2019; Hajar, 2021).

The current study has summarized all the characteristics of the transitivity system of the various texts examined. Even from the analysis of speech texts that is similar to the topic of this research, it has been shown the use of verbs that represent the process of political activities or events that imply a certain political ideology. Thus, from the results of the previous relevant studies, there is something different that the current study would like to show. By taking a similar research focus, this study aims to explore further information about the use of verbs that states the transitivity processes and the meanings expressed by the use of the processes.

In other instances, the analysis of modality as presented by Chalimah and Sumarlam (2017) has been incorporated into the study of transitivity in speech texts. They examined the transitivity and modality of President Joko Widodo's address. Specifically, they employed Wang's (2010) modality theory with the emphasis on the politeness at low, median, and high levels. Similar to this, Liani et al. (2021) discussed how Kamala Harris used the transitivity system to represent her political ideology regarding how COVID-19 should be handled in the United States.

Briefly, the use of the modality system as a reflection of the speaker's attitude and judgment based on Halliday's (1994) and Lock's (1996) theories, which is juxtaposed with the analysis of the transitivity system, has not been investigated in the study of speech texts, in contrast to the preceding two findings. As a result, the current study makes an effort to contribute a novelty to the study of transitivity by talking about interpersonal metafunction in Dr Tedros's speeches represented by the use of modality.

The researcher uses the combination of modality theory from Halliday and Lock because it provides an up-to-date modality theory and presents quite deep and diverse examples. This study also aims to interpret the meaning of each transitivity and modality expression used in Dr Tedros's speeches. This study provides a theoretical contribution regarding the use of the modality theory of Halliday (1994) and Lock (1996). In Lock's theory, there is one additional type of modality which adds up to five types of modalities that have not been analyzed by other researchers. Thus, this study provides more comprehensive results regarding the development of modality studies. Based on the argument, it is very important to investigate the modality aspect further to get more empirical evidence related to the use of different theories.

IV. METHOD

This is a type of qualitative research in which data is presented in the form of sentences and analyzed descriptively based on the research objectives (Ary et al., 2010). The study sample comprises two speeches delivered by Dr Tedros at the media briefing on COVID-19 which can be downloaded from the WHO official website (www.who.int). The first speech was delivered on 11 March 2020 available at <https://www.who.int/news-room/speeches/item/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020> and the second was delivered on 1 April 2021 at <https://www.who.int/news-room/speeches/item/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-1-april-2021>.

The selection of the two speeches was based on the consideration that both speeches focused on the topic of COVID-19 and its handling process at the beginning of the outbreak and the end of the pandemic. In addition, many examples of linguistic expressions were also found in the data which could meet the criteria for research purposes. The linguistic expressions that included the transitivity and modality needed to be more deeply explored as the representation of Dr Tedros's ideas, experiences, and attitudes on best practices of handling COVID-19 so that the audience and the general public can follow the practices to combat the virus.

From the transcript, the researcher continued the data analysis with a focus on sentences containing transitivity and modality expressions. After obtaining 99 sentences as transitivity data and 26 sentences as modality data, the next step was classifying data into the types of transitivity process based on Halliday's (1994) theory and the types of modality concerning Halliday's (1994) and Lock's (1996) theories. Finally, all transitivity and modality expressions were interpreted based on the framework of SFL included in the research findings.

V. FINDINGS AND DISCUSSION

This study seeks to explore research findings concerning the use of transitivity and modality that represents ideas, experiences, and attitudes of the speaker on handling COVID-19. Specifically, this section attempts to answer research questions which are divided into three points, namely analyzing a) the types of transitivity used in Dr Tedros's speeches, b) the types of modality used in Dr Tedros's speeches, and c) the meanings interpreted from the use of transitivity and modality.

A. Types of Transitivity Used by Dr Tedros in His Speeches on Handling COVID-19

The findings revealed that there were 99 clauses containing the transitivity process in the two speeches. Speech 1 contained 54 clauses, and Speech 2 contained 45 clauses. The details can be seen in Table 3 below.

TABLE 3
DISTRIBUTION OF TRANSITIVITY PROCESS

Process	Speech 1	Speech 2	Frequency	Percentage
Material	25	15	40	40.4 %
Relational	10	17	27	27.27 %
Mental	7	8	15	15.15 %
Behavioral	6	2	8	8.08 %
Verbal	4	1	5	5.05 %
Existential	2	2	4	4.04 %
Total	54	45	99	100 %

Table 3 presents six types of transitivity processes used by the speaker. According to the frequency of occurrence, the material process occupies the top spot in the transitivity hierarchy with a rank of 40.4%, followed by the relational process with a rank of 27.27%, the mental process with a rank of 15.15%, the behavioral process with a rank of 8.08%, the verbal process with a rank of 5.05%, and the existential process with a rank of 4.04%.

From these findings, it can be said that all transitivity processes have been used by Dr Tedros in his speeches on handling COVID-19. This is in line with the function of the transitivity process as an experiential meaning, which is about how a person sees the world, experiences the world, and perceives the world (Halliday & Matthiessen, 2014). In this context, the findings have proven how Dr Tedros's ideas, experiences, and perceptions on efforts to deal with COVID-19 from the beginning to the end of the pandemic have been manifested through various types of transitivity processes. By involving the entire transitivity processes in the narration of the speech, it is hoped that the messages of the speech can be well understood by listeners and obeyed in the context of handling this pandemic virus.

The findings also exposed that the type of process most frequently used by Dr Tedros was the material process. The same case was also seen in the findings of Wang (2010) and Chalimah and Sumarlam (2017). What was highlighted was the similarity in the meaning of the messages conveyed in the speeches of the two leaders, namely Barack Obama from the United States (Wang, 2010) and Joko Widodo from Indonesia (Chalimah & Sumarlam, 2017). The dominant use of the material process is the right choice for the speakers to explain what has been done and achieved, what is being done, and what will be done in their capacity as state leaders. Thus, from the explanation, the public can understand the progress of the government's achievements and can benefit from the government's work.

The following is an example of data containing the expression of the material process used by Dr Tedros in his speeches on handling COVID-19.

(1) *We (actor) have made (material process) the assessment (goal) that COVID-19 can be characterized as pandemic.*

From the above example, it can be known that the material process is realized by the transitive verb *made*. The verb *made* is a type of verb that states an action with two participants, namely the actor *We* and the goal *of the assessment*. Thus, the use of the verb *made* reflects a process of doing as a characteristic of the material process (Halliday, 1994; Eggins, 2004). In the findings of the current study, the dominance of material process suggests that Dr Tedros as WHO leader explained the efforts to overcome COVID-19 and the achievements of handling the virus from the beginning to

the end of the pandemic, as well as the steps to anticipate in the future if the similar virus outbreaks again.

B. Types of Modality Used by Dr Tedros in His Speeches on Handling COVID-19

The investigation of the modality system found 26 clauses containing modal verbs. 14 modals were in speech 1, and 12 modals were in speech 2, as shown in Table 4.

TABLE 4
DISTRIBUTION OF MODALITY

Modality	Speech 1	Speech 2	Frequency	Percentage
Potentiality/Ability	6	3	9	34.6 %
Obligation	4	4	8	30.7 %
Usuality	2	2	4	15.3 %
Inclination	1	2	3	11.5 %
Probability	1	1	2	7.6 %
Total	14	12	26	100 %

Table 4 exposes the findings related to the distribution of modality used by Dr Tedros in his speeches on handling COVID-19. Table 4 shows that the most dominant use of modality occurs in two types, namely potentiality/ability at 34.6% and obligation at 30.7%. Then the order of frequency of modality is occupied by usuality of 15.3%, inclination of 11.5%, and probability of 7.6%.

From these findings, it can be understood that all modality types have been used by the speaker. This emphasizes the function of the modality as an interpersonal meaning, which is about how a speaker extends their attitude towards the situation or event illustrated by a sentence (Lock, 1996; Wang, 2010). In this context, the findings have proven how Dr Tedros's judgment and attitude towards the efforts to deal with COVID-19 from the beginning to the end of the pandemic have been realized through all types of modality. By involving the entire modality types, it is expected that the interactional relationship between the speaker and listeners can be well established so that Dr Tedros's messages on handling COVID-19 can be well received by listeners.

The findings also confirm that the most dominant type of modality found is potentiality/ability. This is in line with the findings of Pionery and Isti'annah (2017) which state that the potentiality/ability modality is directed by the speaker at conditioning human ability to deal with unfavorable conditions and situations. In the context of this study, the use of the potentiality/ability modality was intended by Dr Tedros to encourage audiences to be able to use their potential in dealing with pandemic outbreaks by complying with health protocols, starting with oneself and then developing in society.

The following is an example of data containing a potentiality/ability expression used by Dr Tedros in his speeches on handling COVID-19.

(2) *Communicate with your people about the risks and how they can protect themselves.*

From example (2), it can be understood that the modality is identified by the transitive verb *protect* that comes after the modal *can*. *Can* is used to describe a person's capacity for action (Wang, 2010). The subject *they* refers back to *your people*. This statement implies that the community has the potential to prevent early exposure to the virus by informing them of the risks and hazards of COVID-19.

C. Meanings Interpreted From the Use of Transitivity

(a). Material Process

Physical and tangible activities carried out by verbs that indicate events or actions are what defines the material process (Eggins, 2004). Two participants are involved: the actor and the goal. Meanwhile, there are actor players in the intransitive kind, there are no goals present. Below are a few illustrations of the material process.

(3) *All countries (actor) can still change (material process) the course of the pandemic (goal).*

(4) *COVAX (actor) has already delivered (material process) 35 million doses (goal) to more than 78 countries.*

(5) *More than 25 leaders from G20, G7 and from every region (actor) united (proses material) behind the idea of pandemic treaty (circumstance).*

(6) *Health and care workers (actor) must come (material process) first (circumstance).*

Transitive verbs *change* (3) and *delivered* (4), which describe action activities with two participants—an actor and a goal—realize the material process. Additionally, there are intransitive verbs like *united* (5) and *come* (6) that describe occurrences involving actors and circumstances. The domination of this material process as one of the transitivity types used in the speeches suggests that Dr Tedros, in his capacity as Director-General of WHO, is taking greater initiatives to meet the goal of handling COVID-19 internationally. The use of verbs describing actions is intended to persuade the international community to join efforts to combat COVID-19 (Luo, 2020).

(b). Relational Process

Relational process displays the connections between various entities. According to Eggins (2004), the relational process might either be an identifying process or an attributive process. Check out the examples below.

(7) *We (carrier) have (relational process-possessive) nine days (attribute) left until we reach the hundredth day of*

the year.

(8) *We (carrier) are (relational process-attributive) grateful (attribute) for measures being taken in Iran, Italy, and the Republic of Korea.*

(9) *WHO's mandate (token) is (relational process-identifying) public health (value).*

The relationship, known as the ownership relationship, can exist between the owner and the property as in (7). The type may also take the shape of an identification relationship, which is a link between two entities (8), or it may take the form of an attributive relationship, which is a connection between two entities (9). The purpose of this relational process is to communicate the depth and caliber of the speaker's relationships with his various business partners to invite them to collaborate on efforts to combat the pandemic (Hemas & Ariyanti, 2016).

(c). *Mental Process*

One way to demonstrate the mental process is to ask, "What do you think of x?". The process is divided into three categories by Halliday (1994), namely cognition, affection, and perception. The number of participants is another factor that separates the mental process from the material process. There should be two parties in the mental process. Both participants must be human, with one being referred to as *senser* and the other as *phenomenon*. The mental processes listed below are a few examples.

(10) *We (senser) have never before seen (mental process) a pandemic (phenomenon) sparked by a coronavirus.*

(11) *We (senser) know (mental process) that even before the pandemic (phenomenon), there was a shortfall of at least 18 million health workers.*

(12) *I (senser) thank (mental process) you (phenomenon) for those inspiring words, Carl!*

The mental process is demonstrated in data (10-12) by cognitive actions *see*, *know*, and *thank* by pronouns *We* and *I* that identify *Dr Tedros* as *senser*, with cognitive objects labeled as *pandemic* and *you* as *phenomenon* (Wang, 2010). The speaker's perception, cognition, and affection for the COVID-19 pandemic and his hopes for reversing its harmful effects are evident in a number of mental processes.

(d). *Behavioral Process*

A mix of physical and mental processes is referred to as behavioral process (Eggins, 2004). As a result, the meaning derived also combines the two. The behavior, who makes up the majority of this process, is the lone participant. The examples of behavioral process are as follows.

(13) *Thousands more (behavior) are fighting (behavioral process) for their lives (circumstance) in hospitals.*

(14) *We (behavior) are working (behavioral process) with many partners (circumstance) across all sectors to mitigate the social and economic consequences of this pandemic.*

(15) *The clock (behavior) is still tickling (behavioral process) on vaccine equity (circumstance).*

The sentences in examples (13–15) cannot be projected into other constructions. This is a trait of the behavioral process. The presence of one participant who engages in intense activity using *-ing* forms and is equipped with circumstances that point to a cause or method is another factor that supports the usage of behavioral process (Chalimah & Sumarlam, 2017). Here by employing a behavioral process, *Dr Tedros* aims to emphasize the value of teamwork to stop the spread of COVID-19 and reverse its consequences, which have caused several victims.

(e). *Verbal Process*

Proclaiming a thing or an occurrence verbally is the aim of verbal process (Eggins, 2004). *Sayer*, *receiver*, and *verbiage* are the normal participants in this interaction. *Sayer* is an active participant who uses *verbiage* that is addressed to the receiver in a verbal process. Examples of verbal process are shown below.

(16) *81 countries (sayer) have not reported (verbal process) any cases (verbiage).*

(17) *We (sayer) cannot say (verbal process) this (verbiage) loudly enough, or clearly enough, or often enough.*

(18) *I (sayer) have said (verbal process) from the beginning that countries must take a whole-of-government, whole-of-society approach, built around a comprehensive strategy to prevent infections, save lives and minimize impact (verbiage).*

According to the aforementioned examples, the verb *reported* in (16) denotes a verbal process with *81 nations* serving as a non-persona *sayer* and *any cases* serving as *verbiage*. The verbs *say* (17) and *said* (18) denote the verbal exchange of information regarding the treatment of COVID-19 between the *sayer*, *Dr Tedros*, and the audience as the receiver.

(f). *Existential Process*

By the appearance of words of existence, this process proves that a thing or entity is real or existing (Eggins, 2004). Consider the instances below.

(19) *There are (existential process) now more than 118.000 cases (existent) in 114 countries (circumstance).*

(20) *There will always be (existential process) new pathogens (existent) with pandemic potential (circumstance).*

In the examples above, the copula verb *are* (19), *be* (20), and *there* are arranged before the participants, *existent*, who complete the existential process with the situation of location or way. In this context, by employing the existential process the speaker intends to demonstrate the presence of the rising number of cases in many nations and the new

infections brought about by the virus dissemination (Liani et al., 2021). In light of this information, it is hoped that the general public would become more aware of emerging virus variations and vigilant about avoiding exposure to them.

Referring to the findings, the study suggests that the transitivity used in Dr Tedros's speeches on handling COVID-19 includes material, relational, mental, verbal, and existential processes. All of these processes were used by Dr Tedros in his two speeches. This indicates that the process of handling COVID-19 is the main focus of Dr Tedros in his authority as the WHO Director-General where his ideas and experiences in handling COVID-19 as experiential meaning are realized in all types of transitivity processes. This is consistent with Chalimah and Sumarlam (2017) and Helena et al. (2021), who argue that the process serves to represent a person's experiences and ideas when observing events or acts in the outside world.

As for the transitivity, Dr Tedros's objective to take genuine activities with all facets of society to combat COVID-19 is reflected in the predominance of material process with action verbs. This conclusion supports Hajar's (2021) assertion that real physical acts and depictions of actual events are stressed in the usage of material process. In addition, by assuming that material processes are employed to understand human experience in actions or events that occur in life, Hemas and Ariyanti (2016), Yuliana et al. (2018), and Kusumawardani and Laksana (2020) reaffirm the present study findings. The relational process, meantime, expresses Dr. Tedros's viewpoint on the COVID-19 pandemic's current state and represents his strong notion and desire to keep positive relationships with business partners for coordinated efforts to deal with the COVID-19 calamity. The relational process essentially highlights how the speaker connects his experience to other things. As a result, it can be claimed that this relational process illustrates the speaker's sentiment regarding a real-life incident (Nurrahmah et al., 2020; Sugianto, 2020).

D. Meanings Interpreted From the Use of Modality

(a). Potentiality/Ability

The findings exposed that Dr. Tedros's speeches frequently used the modality of potentiality/ability. This style of modality denotes having the skills or knowledge to do something (Darong, 2021). For example,

(21) *We have therefore made the assessment that COVID-19 can be characterized as a pandemic.*

From example (21), it is clear that human capacity and other factors unrelated to humans are the two factors that explain potentiality (Pionery & Isti'annah, 2017). The passive verb *be characterized* in front of the modal *can* (20) denotes the potentiality of COVID-19 to cause a pandemic or a worldwide disease outbreak.

(b). Obligation

Obligation was ranked as the second most common modality found. It takes place when a speaker demands something from the listener and offers suggestions and recommendations (Eggin, 2004). The followings are some examples of sentences that contain obligation.

(22) *One key aspect that should be enshrined in the treaty, is to a stronger health workforce, which is the very essence of health systems resilience.*

(23) *We must collectively do better in future outbreaks.*

The obligation, which indicates a duty to do, is shown by the modal *should* in (22) followed by the passive verb *be enshrined*. The sentence means that health professionals, who form the backbone of the health system's resilience against COVID-19, must be taken into account as one of the most important factors in this situation. In (23), the modal *must* as the high level of obligation indicates a non-negotiable item. The verb *do* and the comparative *better* are placed after the modal. Here it means that we must be able to stop the spread of COVID-19 more effectively in the future. Due to the pressing need to prepare for circumstances like this in the future, this is something that cannot be negotiated. The usage of this modality is meant to demonstrate a leader's strong invitation to the world's community by working together to overcome the difficulties being faced (Pionery & Isti'annah, 2017; Darong, 2021).

(c). Usuality

The modal verbs *can*, *will*, and *would* were found in both speeches, representing usuality. According to Lock (1996), the modality of usuality is the property or state of being typical. The data listed below shows the examples.

(24) *Even those countries with community transmission or large clusters can turn the tide on this virus.*

(25) *There will always be new pathogens with pandemic potential.*

The modal *can* followed by the verb *turn* in sentence (24), is a kind of usuality which denotes rarity. The subject *Even those countries* refers to 4 nations with significant COVID-19 cases. The sentence implies that even nations with significant COVID-19 cases still have difficulty controlling the virus's rapid spread. Sentence (25) provides a distinct justification from (24). According to Pionery and Isti'annah (2017), the modal *will* indicates usually meaning at a mid-level of usuality.

(d). Inclination

A desire to accomplish something is referred to as an inclination (Eggin, 2004). Each utterance contains about the same number of inclinations. Based on the findings, the levels utilized in both utterances are high 'determination', mid 'intention', and low 'willingness', realized by the modal verbs *will* and *would*. The followings list some clauses containing inclination meaning.

(26) *The challenge for many countries who are now dealing with large clusters or community transmission is not whether they can do the same – it's whether they will.*

(27) *Carl will help the collective advocacy for the ACT-Accelerator.*

(28) *I would like to turn to Health Minister of Turkey, Dr Fahrettin Koca.*

Since it shows the strong preparedness of many countries to cope with COVID-19, the modal *will* in (26) is thought to have a high level of inclination. Dr Tedros insists on a shared commitment from all nations to stop the spread of the COVID-19 catastrophe. As it implies intention, the modal *will* in (27) is classed as having a mid-level inclination. In this context, Dr Tedros states that Carl will lead the group's lobbying for the ACT accelerator to combat COVID-19. Furthermore, the modal *would* employed in (28) displays a low level of inclination because it expresses Dr Tedros's readiness to provide Dr Fahrettin Koca, Turkey's health minister, the chance to make his statement.

(e). *Probability*

The results show that there are only two sentences of probability in the speeches. Probability, according to Halliday (1994), refers to a circumstance or condition where something may potentially take place. The following are some examples of sentences.

(29) *This is not just a public health crisis, it is a crisis that will touch every sector – so every sector and every individual must be involved in the fight.*

(30) *The extra 10 million doses would be an urgent stop-gap measure so that 20 countries could begin before the hundredth day – 10 April.*

The modal *will* in (29) is represented by mid-level probability, indicating most likely something occurs. Dr Tedros states that this catastrophe will affect all facets of existence. He may not only be uncertain about human health but also about every other aspect of human life in the future. He nonetheless continues to believe that everyone must work together to resolve the situation.

Additionally, the mid-level of probability also includes the modal *would* in (30). Using this mode, Dr Tedros predicts the future and emphasizes the need for an additional 10 million doses to stop the COVID-19 spread. Since Dr Tedros is still unsure of what might happen on April 10, 2021, it is still acceptable to call the statement a forecast. This conclusion suggests that there is a probability case—an indication of future predictions and promises—in the language of a leader's speech (Chalimah & Sumarlam, 2017).

As for the modality, the predominance of potentiality/ability and obligation means that COVID-19 may become a pandemic and Dr Tedros gives support and warnings to the public about the threat and risk of the pandemic. People should therefore be able to defend themselves from the virus attack. This result is consistent with Pionery and Isti'annah's (2017) assertion that, in the situation of potentiality/ability, the emphasis on the meaning of the clause favors human ability or capacity to accomplish something better. Additionally, Dr. Tedros's viewpoint was seen to support the necessary efforts in the fight against COVID-19 spread. The speaker emphasizes the importance of performing an action in this circumstance, which is crucial because there is no other option (Darong, 2021).

VI. CONCLUSION

The present study investigates the types of transitivity and modality used in Dr Tedros's speeches on handling COVID-19 as well as interprets their meanings using the SFL approach. The ideational and interpersonal metafunctions are covered, focusing on the transitivity process and modality. The study concluded that Dr Tedros used all sorts of transitivity in his speeches, including existential, relational, mental, behavioral, and material transitivity. Additionally, all types of modality—potentiality/ability, obligation, usuality, inclination, and probability—were employed. The meanings of findings primarily highlight the importance of quick action and collaborative relationships in the fight against COVID-19, the hope and capacity for self-defense against the COVID-19 attack, and the need for collective action to lessen the pandemic's negative effects in the future.

This study adds to the richness of linguistic research on COVID-19 issues and aids in the dissemination of the best healthcare practices during a pandemic. The study's sample size limitations prevent generalizing the findings about the organization and content of all of Dr. Tedros's speeches on handling COVID-19. So that a thorough result may be obtained, other researchers are expected to use this study as a reference for ones that are comparable but use a larger data corpus. To make the study more comprehensive, it is advised that textual meaning be taken into account throughout the SFL analysis. The study's findings have significant implications for raising public awareness of the threat posed by COVID-19 so that people can take precautions to avoid getting the fatal virus.

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