



## RESEARCH ARTICLE

## Systemic Functional Linguistics Meaning of Joe Biden's Speeches Regarding Covid-19 Using Uam Corpustool 6.0

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## ABSTRACT

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This study investigates President Joe Biden's rhetorical strategies in his speeches concerning the COVID-19 pandemic through a Systemic Functional Linguistics (SFL) approach, specifically focusing on Transitivity analysis (Halliday & Matthiessen, 2014). The corpus comprises 12 speeches delivered from January to December 2021, analyzed using the UAM Corpus Tool 6.0. Results reveal a significant prevalence of Material Processes (57.7%), highlighting Biden's emphasis on tangible actions and practical measures against the pandemic, such as vaccination programs and economic relief efforts. Relational Processes (25.1%) were utilized extensively to establish clear relationships and definitions, emphasizing the importance of collective identity and unity. Mental Processes (11.3%) underscored Biden's appeals to public emotions, hope, and collective consciousness, aiming to encourage public compliance and optimism. Verbal (4.5%) and Existential Processes (1.5%) appeared less frequently but served important functions by reinforcing authoritative statements and recognizing challenges facing society. This analysis demonstrates that Biden strategically employed Transitivity processes to influence public perception, behavior, and adherence to COVID-19 mitigation efforts. The findings contribute to existing literature by providing insights into political discourse analysis during public health crises, underscoring how linguistic choices can shape public attitudes and actions.

## INTRODUCTION

The World Health Organization (WHO) declared the COVID-19 pandemic on March 11, 2020. The global COVID-19 pandemic has resulted in significant deaths, impacting not only the United States but other countries worldwide. The virus is highly transmissible and is usually transmitted by direct contact with respiratory droplets. Leaders across the globe were compelled to respond to this crisis and provide citizens with guidance on the steps that they should adopt to prevent the transmission of COVID-19. Based on information from the official website of the World Health Organization (WHO) and The New York Times, the United States (US) has recorded around 47.3 million confirmed cases and approximately 765,000 deaths since January 2020. As reported by Tempo.co, December 2020 witnessed the highest number of COVID-19 fatalities since the 78000s, with a significant loss of lives.

Joe Biden replaced Donald Trump as the 46th president of the United States. According to the White House (2021) in its official website, Joe Biden was born in Scranton. He was elected to the United States Senate at the age of 29, making him one of the youngest ever to hold the position. On April 25, 2019, he declared his candidacy for the presidency of the United States and became victorious in the election. Amidst the COVID-19 pandemic, he assumed the presidency and has emerged as the beacon of hope for the United States in its endeavor to fight COVID-19 more effectively. President Joe Biden conveyed his opinions and outlined his strategy to combat COVID-19 through his speeches.

The significance of a president's speech lies in its ability to shape the effectiveness of his governance over the nation. Additionally, the president's address serves to convey philosophy to the audience. Speech is a kind of communication when a sender conveys a message to a small or large group of

recipients. According to Schmitt and Viala (1982), speech can be categorized as a type of public communication. During formal occasions, speeches are presented by delivering a pre-written text, such as a presidential speech.

Examining the president's speeches is highly interesting as they can influence the nations they govern. Zhang (2017) asserts that speechmakers master language manipulation techniques to convince the public to accept and support relevant policies effectively. Speech, as a form of communication, adheres to a distinct framework, sequence, and perspective through which it conveys values and meanings. Speech is considered a crucial social tool for communication since it has an important effect on expressing cultural, political, and social aspects of life (Darong, 2021). Furthermore, according to Chinwendu & Botchwey (2017), Political leaders and rulers of nations/states have a crucial role in the growth of their country and in international politics, regardless of the type of political system in place. They frequently depend on speech to influence people and inspire their supporters, aiming to raise awareness about the advantages their government offers. Therefore, analyzing a presidential speech is crucial.

Systemic Functional Linguistics (SFL), initially introduced by Halliday, offers various techniques and discourse tools that enable discourse analysts to understand better and interpret the significance of spoken and written communication, as well as listening and reading activities (Halliday, 1994). SFL has presented an innovative approach to understanding the underlying significance of language. Gerot and Wignell (1995) state that Systemic Functional Linguistics (SFL) examines the relationship between language and its context, specifically focusing on text and its contexts to analyze how language is used. Therefore, SFL focuses on the study of language and its relationship to context. The focus is on both the structure and the way those structures generate meaning.

## **LITERATURE REVIEW**

Systemic Functional Linguistics (SFL) was developed in the late 1960s and 1970s as a reaction to formalist linguistic frameworks that focused mostly on the structure of language, detached from its social context. Michael Alexander Kirkwood Halliday's SFL is a functional approach to language as it places meaning, not syntax, at the center of consideration (Halliday, 1978). Halliday, influenced by Prague School and Firthian linguistics, as well as Malinowski's anthropology, argued that language must be studied through its deployment within social interactions, focusing on how people fulfill their aims and relate to one another through discourse (Halliday & Matthiessen, 2014). Halliday's early works on what he called "scale and category grammar" began developing a comprehensive model of grammar and semantics within social semiotic theory. Halliday proposed that language comprises three interdependent metafunctions—ideational, interpersonal, and textual—which later became the cornerstones of SFL (Halliday, 1994). The establishment of SFL was groundbreaking as it offered new ways of analyzing the relationship between language, meaning and society. It revolutionized the paradigm of linguistics. Halliday & Matthiessen (2015) and Eggins (2004) are some of the scholars who contributed to the expansion and refinement of SFL, which underscores its relevance in diverse fields like education, discourse analysis, sociolinguistics, and computational linguistics.

The shift from formalism to functionalism in linguistics brought about new insights into the nature of language. Formalist approaches, such as the ones by Noam Chomsky, regarded language as an abstract self-contained system of syntactic structures divorced from social usage and functions (Chomsky, 1965). In contrast, more recent theories, especially Systemic Functional Linguistics (SFL) developed by Halliday, stressed that language must be analyzed as a social semiotic system, that is, a resource for meaning making which is shaped by and embedded into the society. This change was a part of the growing understanding that the purpose of language goes beyond the formulation of grammatically correct sentences, language serves communicative functions, including but not limited to expressing ideas, enacting social roles, and organizing discourse (Thompson, 2004). Under the functionalist paradigm, grammar is viewed as shaped by the demands of communication, not arising in a vacuum, and thus suffocated by it. Due to this, scholars began moving from examining structures in isolation to observing how language functions in the interactions of everyday life. This shift broadened the focus of linguistic inquiry while simultaneously making room for multi-disciplinary approaches within the investigation, for example, in education, sociolinguistics, discourse analysis, and media studies.

The ideational metafunction deals with how language captures experiences as well as how it shapes reality. In the understanding of Halliday and Matthiessen (2014), an individual construes the world around them through language by organizing experiences meaningfully through the categorization system. It has two components: the experiential function which focuses on the content expression of actions, events, and states, and the logical function which concerns itself with association of ideas through clause complexes. An integral part of the experiential function is the transitivity system that is concerned with classifying certain processes (material, mental, relational, behavioral, verbal, and existential) and participants and circumstantial elements that go with them (Eggins, 2004). Via the ideational metafunction, language facilitates the construction of knowledge, narration of events, and representation of the physical, mental, and social worlds. This is the function that sustains most of the discourse analysis and studies describing the interplay between language and society, revealing the particular worldviews and ideologies embedded in language use.

Transitivity is an important part of ideational metafunctioning as it offers a model for looking at how experience is expressed linguistically. In SFL, transitivity is not just concerned with grammatical voice; it encompasses the types of processes performed, the participants or actors involved, and even the context in which the action occurs (Halliday & Matthiessen, 2014). Halliday identifies six main types of processes: material (doing and happening), mental (sensing and feeling), relational (being and having), behavioral (behaving), verbal (saying) and existential (being) (Eggins, 2004). Each process category is accompanied by a specific set of participant roles and state components, thus explaining how reality is represented in language. Researchers can analyze texts and identify hidden ideologies, power relations and perceptions of reality within them, especially with regard to how affected agents, actions and participants are portrayed or hidden.

Transitivity analysis helps reveal the implicit meanings inside political discourse. For instance, Alhumsi & Alsaedi (2023) conducted a comparative analysis of political articles asserting that verb choices reveal the transitivity processes and gender dynamics in political media discourse. Their findings indicate that different representations arise from varied verb utilizations, which delineate how social actors are portrayed within the discourse, thus highlighting the pivotal role that verbs play in constructing ideological narratives.

Xiang (2022) analyzed Joe Biden's speeches through the lens of SFL offering an in-depth transitivity analysis of his inaugural address. Specifically, this study discusses the research status of political discourse, which lays a foundation for applying SFL to Biden's rhetoric. The elaboration of the three metafunctions – ideational, interpersonal, and textual – allows for a comprehensive understanding of how Biden constructs meaning and engages with his audience. By examining transitivity within this framework, the paper highlights the ways Biden's speech reflects ideological positions and interpersonal relations, which are essential for understanding political language through SFL. This study thus enriches the literature on political discourse analysis by focusing on Biden's specific rhetorical strategies and their implications.

Fadilah & Kuswoyo (2021) offers a relevant analysis from a SFL perspective, focusing on the transitivity processes within the 2020 presidential debate between Joe Biden and Donald Trump. The authors, Fadilah and Kuswoyo, emphasize the speaker's objectives and the societal context of their discourse, effectively illustrating how Biden's language reflects his intentions and the critical crises faced by the US at that time. By employing SFL concepts, particularly transitivity, the paper elucidates how lexical choices and grammatical structures serve to convey Biden's arguments and positions. This analysis is important to understand the ideational metafunction of language as it relates to Biden's rhetoric and overall communicative strategies during pivotal political moments.

Moreover, a study by Liu & Hui (2021) focused on China's national image construction through transitivity theory, utilizing the UAM Corpus tool to analyze the discourse in the white paper "Fighting COVID-19: China in Action." This research highlights how linguistic choices in political communication can influence global perceptions, emphasizing the importance of transitivity analysis in understanding national responses to crisis. In Indonesia, Guswita & Suhardi (2020) conducted a study about transitivity analysis of Jokowi and Prabowo Campaign Speech in Indonesia Presidential Election 2019. The study aimed to identify and describe the type of transitivity, namely the process, participant, and circumstance which appeared in Jokowi and Prabowo campaign speech in 2019. Employing qualitative method and researcher as key instrument, data collected were analyzed using

transitivity system by Halliday (1994 ). The results of the study based on data analysis show that the most dominant transitivity process used by the two presidential candidates shows that the two presidential candidates try to convey things related to the activities or actions that will be done by each presidential candidate if they are elected to become president of Indonesia in 2019-2024 period.

The implication of transitivity analysis extends to practical applications within political communication, with scholars like Bairmani and Abid (2019) emphasizing the importance of phrasal verbs in discourse analysis frameworks. Their research suggests that phrasal verbs, often overlooked, are crucial in the construction of semantic meaning within political discourse, point to the multifaceted ways in which language function in political contexts.

Lastly, Simanjuntak, et. al. (2024) investigates the transitivity system of President Joko Widodo's speeches as a part of systemic functional linguistic theory using UAM Corpus Tools 3.2. The research found out that the material process types were found more than other process types in 2015 and 2018. This indicates that, by using material clauses, President Joko Widodo strongly desires to emphasize real work or action work in his speech. It also found that in terms of Circumstance, Location, Cause, and Manner were the most dominant in 2014 while in 2018; Cause, Manner, and Location were the most dominant. This research concludes that President Joko Widodo is consistent since he used the same elements from the speech for three years, however, it means that this might not be regarded as a breakthrough.

In essence, transitivity analysis facilitates a comprehensive understanding of how political discourse operates across cultural and national boundaries. The way language is employed in political contexts serves not only to convey information but also to shape ideologies, identities, and public perceptions. Therefore, the application of transitivity analysis within various discourse forms remains essential for scholars aiming to unpack the complexity of political communication and its implication in society.

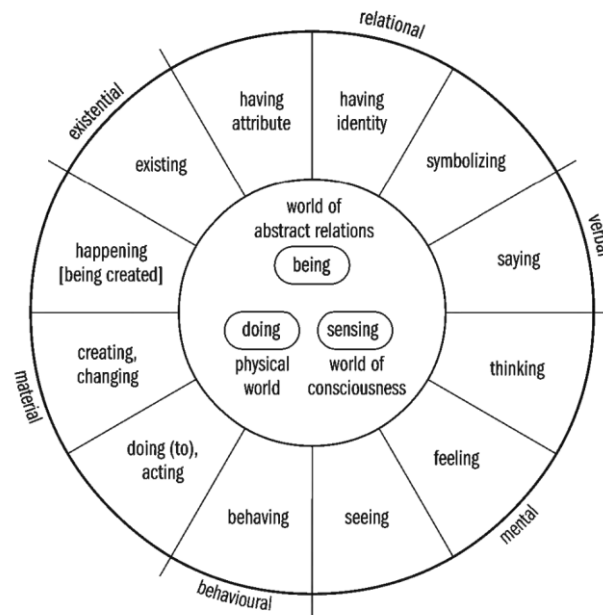
Transitivity is a core component of the ideational metafunction in SFL. It plays a crucial role in this metafunction by analyzing the different types of participants, processes, and circumstances, as in the followings:

### **Participants**

The participant component in transitivity analysis refers to the entities involved in the action or process described in the speech. Participants can be actors, undergoes, or beneficiaries of the action and their roles are crucial in shaping the meaning and dynamics of the discourse (Rahardi et al., 2020). By identifying and analyzing the participants in a speech, researchers can gain insights into the agency, roles, and relationships depicted in the text, providing a deeper understanding of how events are portrayed. The participants can be people, organization, or things. Participants can be:

### **Processes**

The process component in transitivity analysis pertains to the type of action or process being described in the speech. Processes can be material, mental, relational, verbal, behavioural, and existential process. (Halliday & Matthiessen, 2004).



**Figure 1. Types of process in English (Halliday & Matthiessen, 2014)**

Figure 1 illustrates process type as a semiotic space, with distinct regions denoting various types. The regions possess core portions that exemplify prototype members of the process types; yet, the regions are continuous, blending into one another, and these boundary areas signify that the process types are ambiguous categories. Halliday and Matthiessen (2014).

By categorizing and examining the processes in a speech, researchers can uncover the central themes, actions, and intentions conveyed by the speaker, shedding light on the communicative goals and strategies employed in the discourse.

### **Material Process (Process of Doing)**

According to Halliday (2014), there is always only one participant in the material process: the Actor. If there is another participant, that is not the participant but the goal. In line with Halliday, Thompson (2004) states that any material process has a participant Actor who functions as the doer of the process.

For example: Diana bought a new house last year.

Explanation:

Actor: Diana (the one performing action)

Process (Material): bought (an action verb that represents Physical activity)

Goal: a new house (the thing affected by the Action)

Circumstance: last year (provides additional information about time)

### **Mental process (Processes of Sensing)**

Halliday & Matthiessen (2014) states that Mental process express a perception (see, look), reaction (like, please), and cognition (know, believe, convince). The mental process is also distinguished from material process regarding the number of participants. There must be two participants involved in the mental process. One participant must be a human being, called sensor, while the other is called a phenomenon. There are two types of mental process phenomenon: action and fact.

For example: He believes in her abilities.

Explanation:

Senser: He (the one who experiences the process)

Process (mental): believes (a verb that represents cognition)

Phenomenon: her abilities (the thing being sensed)

### **Relational Process (Process of Being and Having)**

Halliday and Matthiessen (2014) states that Relational clauses have two types, namely, attributive and identify. In this Relational process, the participants are called carriers and attributive. For example, the weather is nice. The participants are called token (a thing which is defined) and value (the definition). Relational process is said to be a process that shows or functions to connect one entity to another. The relationship can be the one between the owner and the property which is called an ownership relationship; between one entity and another entity, called an attributive relationship or between one entity and the environment such as neighborhood and the like which is called identification relationship.

Attributive Example: "The sky is blue."

Explanation:

Carrier: The sky (entity being described)

Process (Relational: Attributive) : is (a verb linking the attribute to the entity)

Attribute: blue (the quality or characteristic of the carrier)

Identifying Example: "Einstein was a great scientist"

Token: Einstein (the entity being identified)

Process (Relational: Identifying): was (a verb linking the token to the value)

Value: a great scientist (the identity assigned to the token)

(Halliday & Matthiessen, 2014)

### **Verbal Process (Process of Saying)**

Verbal processes are those of exchanging information. In other words, a verbal process is a process that shows the activity related to information. Saragih (2010) states that Verbal processes show activities related to information. Commonly used verbs are: command, explain, as, say, tell, talk, praise, boast, describe, etc. Additionally, the verbal process usually consists of three participants: the Sayer, the Receiver, and the Verbiage. The sayer is responsible for the Verbal process, not necessarily a living participant. Target is a symbol to whom the Verbal process is addressed. Next, the verbiage is a statement nominalized by a verbal process.

For example: The teacher explained the lesson to the students

Explanation:

Sayer: The teacher (the one who speaks)

Process (Verbal): explained (a verb of saying)

Verbiage: the lesson (what is being said)

Receiver: the students (who receives the message)

### **Behavioral Process (Process of Behaving)**

Gerrot and Wignel (1994) say that Behavioral processes are processes of physiological and psychological behaviour, like breathing, dreaming, snoring, smiling, hiccupping, looking, watching, listening, and pondering. Furthermore, Halliday & Matthiessen (2014) states that Behavioral processes are characterized by the most typical pattern which is a clause consisting of behave and process only, for example, Do not breathe! He is always gambling. Behave is the participant in a Behavioral process. If there is another participant in this process, it is called a phenomenon. According to Eggins (2004), most Behavioral studies have only one participant. Thus, Behavioral

express a form of doing that does not usually extend to another participant. This one obligatory participant is called the Beaver and is typically a conscious being like the Sensor in the Mental process clause.

Example: "She laughed loudly."

Explanation:

Behave: She (the one performing the behavior)

Process (Behavioral): laughed (a verb describing a physiological behavior)

Circumstance: loudly (manner of the behavior)

### Existential Process (Process of Existence)

Existential process represents that something exists or happens in life. Hancock (2004), Existential process is a clause that presents an entity as existing without predicating anything additional about it. It is marked by "There" as the subject in position. In every single Existential process, there is an Existent, for example, there hangs a painting. Further, this process is a process that expresses the existence of an object if the object is real or actually exists. This process is marked by the appearance of words that indicate existence.

Example: "There is a book on the table."

Explanation:

Existential Marker: There (introduces the existence of something)

Process (Existential): is (a verb indicating existence)

Circumstance: on the table (provides location)

### Circumstances

The circumstances component in transitivity analysis refers to the contextual information surrounding the action or process described in the speech. Circumstances provide additional details such as time, place, manner, reason, or condition, enriching the description and interpretation of the events unfolding in the discourse (Rahardi et al., 2020). By considering the circumstances in which actions take place, researchers can elucidate the context, motivations, and implications embedded within the speech, enhancing the overall understanding of the message being conveyed.

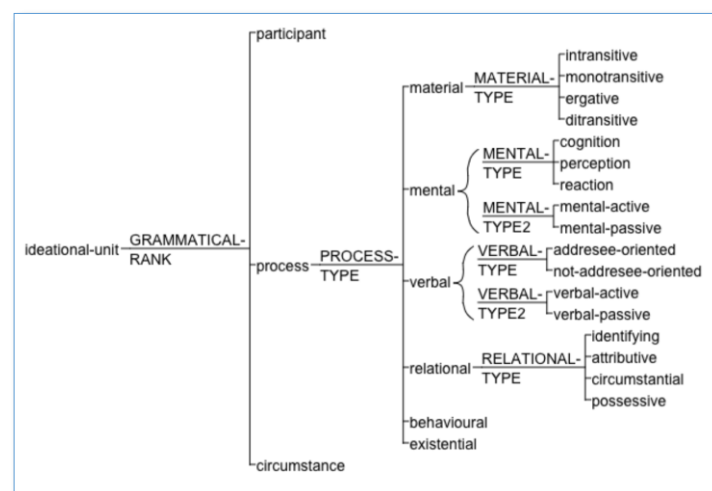


Figure 2. Ideational Metafunction Scheme

This research aims to investigate the ideational meaning manifested in Joe Biden's speeches regarding the COVID-19 pandemic by applying the transitivity system of Systemic Functional Linguistics (SFL), with a focus on identifying and interpreting the frequency and types of Participants, Processes, and Circumstances utilized to construct meaning.

### RESEARCH METHODOLOGY

This study is a content analysis grounded in Systemic Functional Linguistics (SFL) to investigate the ideational metafunction in President Joe Biden's speeches on COVID-19. White & Marsh (2006) assert that content analysis can be employed qualitatively or quantitatively for the systematic examination of written, verbal, or visual materials. In other words, this study is a content analysis study that is employing quantitative and qualitative data to answer the research questions in more comprehensive way. Halliday's Systemic Functional Linguistics paradigm asserts that all texts fulfill several functions, encompassing ideational, interpersonal, and textual roles, thus generating a complex tapestry of meaning through language utilization (Fadanelli, 2022; Zhang, 2017). Consequently, utilizing content analysis within the framework of Systemic Functional Linguistics facilitated a more systematic elucidation of the meaning of Joe Biden's speeches concerning COVID-19.

Moreover, UAM Corpus Tool 6.0 is used to systematically annotate and evaluate the speeches, facilitating the identification of the transitivity system for ideational metafunction and thematic frameworks for textual metafunction.

The data of this research was taken from the twelve speech transcriptions of President Joe Biden regarding COVID-19 published on the official website of the White House Government: [www.whitehouse.gov](http://www.whitehouse.gov). In the copyright policy of the White House Government website, it is stated that government-produced materials appearing on this site are not copyright protected, or in other words, they can be used by the public.

There are several reasons of selecting those twelve particular speeches as the source of data. First, the speeches were carefully selected to provide a chronological representation of Joe Biden's communication regarding COVID-19 over 12 months. By analyzing one speech per month, the study ensures temporal consistency, allowing for an examination of how his language evolved in response to changing pandemic condition. Second, while all speeches address COVID-19, those speeches cover different aspects of the pandemic response, such as, general pandemic strategy (i.e., speech 1, 12); commemoration of victims (i.e., speech 2); vaccination campaigns (i.e., speech 3, 5, 7); variant concerns and updates (i.e., speech 11), and federal policy and public health measures (i.e., speech 4, 10). This variety in themes allow for a richer transitivity analysis (ideational meaning) by showing different processes, and an examination of textual meaning (theme-rheme patterns) across different contexts. Next, the researcher selected the speeches as the data because those speeches were produced in 2021, when it was a critical year in the global fight against COVID-19, particularly in the US.

The selection of these 12 speeches ensures a comprehensive, representative, and systematic approach to analyzing Biden's rhetoric on COVID-19. As Halliday and Matthiessen (2014) explain, discourse is structured through ideational, interpersonal, and textual meaning, making SFL a suitable framework for uncovering patterns in language use, positioning, and policy framing. Additionally, Zarefsky (2004) highlights that presidential rhetoric plays a crucial role in defining crises, a relevant factor in Biden's evolving discourse over the year. The strategic use of linguistic structures in presidential speeches has been widely studied (Campbell & Jamieson, 2008), supporting the need to analyze Biden's speeches as part of crisis communication.

## FINDINGS AND DISCUSSIONS

The transitivity analysis conducted on Joe Biden's speeches regarding COVID-19 focused on the three key components of the transitivity system, namely, Participants, Processes, and Circumstances. The data was analyzed using UAM Corpus Tool 6, and the results are summarized in Table 1

**Table 1. Grammatical Rank**

Grammatical Rank	N	%
participant	3618	40.4%
process	3126	34.9%
circumstance	2207	24.7%
<b>TOTAL</b>	<b>8951</b>	<b>100%</b>

### Participants



In Systemic Functional Linguistics (SFL), particularly in the ideational metafunction, the concept of Participants is central to the Transitivity system. According to Halliday and Matthiessen (2014), Participants refer to the entities that are involved in or affected by a process. They are typically realized through noun groups and play essential roles in construing experiential meaning in clauses.

Participants are vary depending on the process type (e.g., Material, Mental, Relational, Verbal, etc.) (Halliday & Matthiessen, 2014). For example: In Material processes, common participants include Actor (doer of the action) and Goal (recipient of the action). In Mental processes, participants include Sensor (the one who perceives, thinks, or feels) and Phenomenon (what is perceived, thought, or felt). In Relational processes, participants can be Carrier and Attribute (in attributive clauses) or Identified and Identifier (in identifying clauses). In Verbal processes, the key participants are Sayer, Receiver, and Verbiage. In Existential processes, the typical participant is the Existent.

The analysis of Joe Biden's 12 official speeches using the UAM Corpus Tool 6.0 revealed a total of 3,618 Participants, comprising 40.4% of the transitivity-related grammatical elements in the corpus. This significant proportion indicates the heavy use of noun-based representations of people, groups, institutions, and abstract entities throughout the speeches.

The high frequency of Participants suggests that Biden's discourse was strongly centered on entities, whether individuals (e.g., *"I, We, They, the American people," "health workers"*), organizations (e.g., *"CDC," "Pfizer"*), or abstract concepts (e.g., *"hope," "safety," "progress"*). This aligns with the rhetorical objective of presidential addresses, particularly during crises, where emphasis is often placed on human agency, collective identity, and the recipients of governmental actions.

#### Example 1

##### People:

S1.2: "I'm accompanied by Jeff Zients, who is heading up our whole COVID team."

S1.5: "So, we're bringing back the pros to talk about COVID in an unvarnished way."

S1.29: "This is going to help make sure governors, mayors, and local leaders have greater certainty around supply so they can carry out their plans to vaccinate as many people as possible."

S3.9: "Healthcare providers, community leaders from all walks of life – so many volunteers of all ages and backgrounds stepped up as well."

S5.46: "and I want to thank the scientists and researchers; the companies manufacturing the vaccines; National Guard; the U.S. "military; FEMA; the nations' governors; doctors, nurses, pharmatcists."

##### Objects or things:

S3.35: "By getting more vaccine supply to states, community health centers, and pharmacies, we can vaccinate the highest-risk Americans more quickly than..."

S4.12: "That effort has resulted in a drop of 80 percent in deaths among American seniors, a 70 percent drop in hospitalizations."

S4.29: Yes, the vaccines are about saving your life, but also the lives of the people around you."

S5.29: "COVID cases are down in all 50 states."

S5.46: "and I want to thank the scientiests and researchers; the companies manufacturing the vaccines; National Guard; the U.S. military; FEMA; the nations' governors; doctors, nurses, pharmatcists."

The results indicate that participants constitute the largest proportion of transitivity elements in Biden's speeches, with the percentage of 40.4%. This indicates that Biden's speeches focus significantly on who or what is involved in the COVID-19 crisis – whether it be government officials (I, the governor, we), healthcare workers (the team, FEMA- Federal Emergency Management Agency, the health equity task force), experts, American people, scientist, researcher, doctors, nurses,

national guard, US Military, pharmacists, schools and business, people getting infected, and many more.

### Process

In the framework of Systemic Functional Linguistics (SFL), the Transitivity system is a key component of the ideational metafunction, which represents how language construes experience. According to Halliday and Matthiessen (2014), processes are the central component of a clause, and are typically realized through the verb group. Each process type brings together participants and circumstances to form a complete representation of events, states, actions, or relations.

There are six main process types, five of which are commonly examined in discourse analysis. First, Material Process which is the processes of doing or happening. These typically involve an Actor (doer) and often a Goal (recipient). Second, Mental Process or processes of sensing, including perception (e.g., see), cognition (e.g., know), desideration (e.g., want), and emotion (e.g., like). Participants include a Sensor and a Phenomenon. Third, Verbal Process or processes of saying, involving Sayer, Receiver, and Verbiage. Fourth, Relational Process or processes of being or having, classified into attributive and identifying types. Participants include Carrier/Attribute or Identified/Identifier. Fifth is Existential Process or processes that represent the existence of something, typically involving the verb "there is/are" and an Existent (Halliday & Matthiessen, 2014; Eggins (2004).

Based on the analysis using UAM Corpus Tool 6.0, the processes in Biden's speeches account for 34.9% (3429 occurrences) of the total transitivity elements. In Joe Biden's speeches there are five types of process, namely, material, mental, relational, verbal, and existential. The distribution of each process found in Joe Biden's speeches as a whole is summarized in Table 2.

**Table 2. The distribution of process**

Process Type	N	%
Material	1427	57.7%
Mental	280	11.3%
Verbal	112	4.5%
Relational	620	25.1%
Existential	36	1.5%
TOTAL		100%

The transitivity analysis of Joe Biden's speeches reveals a distribution of five (5) process type. Material processes are the most frequent, occurring 1427 times (57.7%) of all processes. After that, Relational processes appear 620 times (25.1%) of the total. Mental processes are identified in 280 instances (11.3%) of the data set. Verbal processes occurs 112 times (4.5%), and finally Existential processes are found in 36 instances (1.5%). For the distribution of process type in each speeches is summarized in Table 3.

**Table 3. The distribution of process in each speech**

	Material	Mental	Verbal	Relational	Existential
Speech 1	133	30	17	64	0
Speech 2	103	38	16	39	5
Speech 3	133	18	7	59	6
Speech 4	65	9	4	26	1
Speech 5	197	38	20	63	5
Speech 6	78	7	2	32	0
Speech 7	111	18	3	44	0
Speech 8	90	13	11	52	5
Speech 9	93	15	6	46	3
Speech 10	73	9	5	27	1
Speech 11	106	28	6	38	4
Speech 12	245	57	15	130	6
TOTAL	1427	280	112	620	36

Table 3 represents the distribution of transitivity process types across 12 speeches of Joe Biden regarding COVID-19. It provides quantitative data on how different types of processes, which are, material, mental, verbal, relational, and existential appear in each speech. This data helps in understanding the linguistic patterns used in Biden's rhetoric without making direct interpretations. The processes type used by President Joe Biden in his speeches are as follows:

### **Material Process (57.7%)**

Material processes, which represent actions, events, and physical activities, constitute the highest frequency among all process types in Biden's speeches. This indicates a strong emphasis on actions being taken in response to the COVID-19 crisis. Across the 12 speeches, Biden frequently uses action-oriented verbs such as: update, handle, administering, give, anticipated, work, step up, increase, distribute, get vaccinated, increase, beat, authorized, ordered, delivered, directed, take care, identified, mobilize, directed, supported, expand, administer, protect. The distribution of Material processes remains consistently high across all speeches, suggesting that Biden maintains a focus on tangible actions.

Examples of Material Processes:

S1.8: And so, I'd like to update you on the aggressive steps we're taking to meet

Our goal of administering 100 million COVID-19 vaccine shots within a hundred days, and to ramp up the vaccine supply as fast as we can.

S1.17: First, after review of the current vaccine supply manufacturing plants, I can

Announce that we will increase overall weekly vaccination distribution to states,

Tribes, and territories from 8.6 million doses to a minimum of 10 million doses,

Starting next week. That's an increase of 1.4 million doses per week.

S3.22: But even so, we have to give more shots in April than we did in March.

S3.57: So to make it easier for Americans to get vaccinated as the supply grows and

Vaccination eligibility expands.

S4.15: I said from the beginning that we're going to fight this virus with equity for

all.

### **Relational Process (25.1%)**

Relational processes are frequently used across Biden's speeches after Material processes. This indicates their importance in defining roles, relationships, and state of being. Relational processes include verbs like is, are, have, become, and represent. Many instances involve identity relations, while others involve attributive, and possessive relations.

Example 2

S4.2: This is our target date to get life in America closer to normal and to begin to

Celebrate our independence from the virus together with our friends and loved

Ones as we – to celebrate Independence Day.

S4.17: These numbers are a sign of progress on that front as well.

S5.29: COVID cases are down in all 50 states.

S5.41: We still have tens of millions left to vaccinate.

S12.99: And those who are not vaccinated are causing hospitals to overrun – become

Overrun again.

S5.99: That represents 13 percent of the vaccines produced by the United States by the end of June.

This finding aligns with Halliday & Matthiessen (2014) which stated that Relational processes are used to establish identity, categorize concepts, and define relationship in discourse. Biden used Relational processes to construct identities and the high frequency of Relational processes suggests Biden's strategy of reinforcing identities, defining policies, and categorizing problems and solutions. Biden also used Relational process to define the nation, categorize issues, and construct ideological perspectives. Fairclough (2003) stated that political speeches often use Relational processes to construct national identity and policy framing. Thus, the references support the claim that Biden uses Relational processes to define identity, categorize the Covid-19 crisis, and justify policy measures.

Relational clauses are used to define or describe relationships between participants or identify states of being, for example is, are, was, will be. At 25.1%, this clause type is significant, suggesting that Biden frequently uses relational processes to describe the current state of the pandemic, the nation's condition, and the roles different entities, for example, government, citizens, play in the response. The prominence of relational clauses implies that Biden's speech is not only focused on actions but also on framing the situation – the nature of crisis, the state of public health, and the nation's readiness for recovery. These clauses likely serve to define the pandemic's impact and to outline future possibilities, making the speech both informative and forward-looking. It suggests a rhetorical strategy that places the audience in a position to understand both the present and the potential outcomes of their collective efforts.

### **Mental Process (11.3%)**

Mental processes appear less frequently than Material and Relational processes but still hold a significant presence in Biden's speeches. According to Halliday & Matthiessen (2014), Mental processes play a crucial role in expressing persuasion and reassurance, particularly in political discourse where emotional connection is key.

Biden's use of Mental processes, for example, the use of word want, know, believe aligns with Halliday's framework, where mental processes serve to engage the audience's emotions and reasoning.

Example 3:

S5.101: We want to lead the world with our values ...

S5.110: But I want to be clear: beating this pandemic globally is beyond the capacity of any one nation, even the United States.

S8.32: Now, I know that parents are concerned about COVID-19 cases among their children.

S1.38: and we believe that we'll soon be able to confirm the purchase of an additional 100 million doses for each of the two FDA-authorized vaccines: Pfizer and Moderna.

S5.7: As everyone knows, I firmly believe – we firmly believe the need to make our tax system work for the middle class.

Biden's use of phrases like this nation will know joy again reflects how he employs Mental processes to express attitude and create emotional alignment with the audience. As Martin & White (2005) stated that politicians use mental processes to signal alignment with societal values and emphasize rational decision – making. Furthermore, Van Dijk (2006) also emphasized that Mental processes are integral to constructing persuasive narratives that encourage public trust and cooperation. Thus, it can be assumed that Biden strategically uses cognition-related verbs to reassure, persuade, and emotionally engage with his audience.

### **Verbal Processes (4.5%)**

Verbal processes typically involve processes of saying or communicating. For example, say state, declare, address, announce, reaffirmed. The occurrence of verbal clauses (4.5%) suggests that some of his words or decisions are based on collective agreements rather than individual assertions.

Example 4:

S6.4: Let me say that again: 300 million shots in arms in under 150

Days.

S10.33: I'll say it again: They're free, available, and convenient to get.

S1.16: I'm pleased to announce the first progress in that work today on day seven of my presidency.

S8.4: After a strict process, the FDA has reaffirmed its findings that the Pfizer COVID-19 vaccine is safe and effective,

Based on the findings, it can be seen that Biden used Verbal processes in quoting experts, reporting government decisions, or addressing the American people directly. Biden's use of Verbal processes reinforces his leadership authority – when he says I declare today a turning point in the fight against COVID-19, he presents himself as a decisive leader who has the power to enact change. As in Halliday & Matthiessen (2014), they stated that in political discourse, Verbal processes serve to construct legitimacy by attributing statements to experts, policies, or national values. This aligns with Biden's strategy in employing Verbal processes. Moreover, Biden's use of Verbal processes to emphasize government decisions aligns with Beard's argument that leaders use speech acts to gain public trust and justify actions (Beard, 2000).

### **Existential Clause (1.5%)**

Existential Clauses usually express the existence of something. For example, there is, there are. With only 1.5%, this suggests that Biden uses existential clauses sparingly, primarily to describe the existence of certain conditions.

Example 5:

S5. 130: There is not a single thing beyond our capacity to do in

this country when we decide to do it and we do it together.

S12.183: We've always endured because we remember there is no challenge too big for America ...

S5.2: There are three things I want to speak briefly today with you all ...

Existential processes function to present events or phenomena as existing realities, which can shape audience perception. Biden's use of Existential Processes aligns with Halliday's framework, where such constructions create a sense of urgency and legitimacy in political discourse. This Existential processes in political discourse serve to frame events as realities that demand attention, guiding public perception (Halliday & Matthiessen, 2014).

Overall discussion, Joe Biden's speech on COVID-19, based on the clause-type distribution, can be seen as heavily action-oriented, with a strong emphasis on material processes (57.7%) to convey the actions being taken to fight the pandemic. While the speech also incorporates relational clauses (25.1%) to define the state of the nation and frame the crisis, it uses mental, verbal, and existential clauses more sparingly. This combination suggests that Biden aims to present a pragmatic, leadership-driven message, focusing on concrete actions and solutions. The speech likely seeks to inspire confidence and a sense of collective responsibility, with less emphasis on emotional reflection or philosophical musings.

The lack of behavioural clauses further supports this interpretation, suggesting Biden is more concerned with outlining policy actions and future directions than with engaging in personal expressions or exploring emotional reactions. The focus on relational clauses indicates that Biden is working to define the situation, which is essential for contextualizing the need for his administration's intervention.

In summary, Biden's speech is characterized by its focus on action, leadership, and solution-oriented language, with a balanced attention to explaining the current state of affairs and defining the roles of various participants in the pandemic response.

### **Circumstances (24, 7%)**

Circumstances describe the conditions or context in which actions occur.

Example 6:

S6.13: and as I announced last week during my visit to Europe, we are now in a position to provide more than half billion vaccine doses to the rest of the world.

S1.17: First, after review of the current vaccine supply manufacturing plants, I can announce that we will increase overall weekly vaccination distribution to states, tribes, and territories from 8.6 million doses to a minimum of 10 million doses, starting next week.

S2.4: That's why the day before my inauguration, at the COVID-19 Memorial at the Reflecting Pool on the National mall, I said to heal, we must remember.

This percentage suggests Biden's speeches provide substantial background information about the situation, such as the state of the nation, the severity of the pandemic, and the conditions under which the actions are taking place. This reflects a need to frame the issue within a broader context, offering rationale and urgency behind the actions he calls for.

### **CONCLUSION**

This study concludes that President Joe Biden strategically utilizes transitivity processes in his COVID-19 speeches to effectively communicate his administration's response and influence public behavior. The dominance of Material Processes illustrates Biden's focus on tangible actions and practical measures to address the pandemic, reflecting his intent to portray a proactive and results-oriented leadership. Relational Processes underscore Biden's emphasis on collective identity, unity, and clearly defined relationships and states, essential in fostering national cohesion. Additionally, Mental Processes are strategically deployed to engage public emotions and inspire optimism, while Verbal and Existential Processes further reinforce authority and acknowledge societal challenges.

The findings of this study have important implications for political communication and crisis management strategies. Understanding how specific linguistic choices, particularly transitivity processes, shape public perception and behavior during crises can aid political leaders, speechwriters, and communicators in crafting more impactful and persuasive messages. Furthermore, this study expands existing research on Systemic Functional Linguistics by demonstrating its practical applicability in political discourse analysis, offering insights into the relationship between language, ideology, and public response during significant global events like the COVID-19 pandemic.

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