

## Emotional Tone and Authenticity of World Governments' Discourse Concerning Monkeypox: A Psycholinguistics Analysis

Jessica Yunanda Bahtiar, Rohmani Nur Indah

[jessicayunanda@gmail.com](mailto:jessicayunanda@gmail.com)

English Department, Universitas Islam Negeri Maulana Malik Ibrahim Malang, INDONESIA

### Abstract

*The discourses of Monkeypox relating to linguistics segments may contain a person's emotional tone and authenticity discourse from psychology. This article presents a psycholinguistic analysis of the discourse used by world governments during the monkeypox outbreak. It examines the emotional tone and authenticity of the language used by government officials in their discourses to the public. Therefore, this study used psycholinguistics analysis which adopt the Linguistics Inquiry Word Counts (LIWC) program to compute the text into a word count numbers with the average number of emotional tone and authenticity. The findings showed that emotional tone and authenticity of the discourse can have a significant impact on how the audience receives and interprets the message. Accordingly, the use of authentic communication strategies can enhance public trust and confidence in the government's ability to manage a crisis. It brings the implication that government officials should use language features that reflect a high level of authenticity, such as first-person pronouns and negative adjectives, to establish trust and confidence in their leadership during a public health crisis.*

**Keywords:** *emotional tone; discourse authenticity; government discourses; monkeypox crisis*

### Article information

Received:  
16 February  
2024

Revised:  
13 August  
2024

Accepted:  
14 August  
2024

---

### Introduction

Some particular diseases can be considered a global pandemic that concerns everyone worldwide. The Orthopoxvirus, known as the monkeypox virus (MPV), is currently causing worry on a global scale (Pastula & Tyler, 2022). With the first instance of Monkeypox in the region of Nigeria last May

2022, this illness first surfaced and caused massive concern (Philpott et al., 2022). President Biden has responded to the latest wave of instances of Monkeypox worldwide (Whitehouse, 2022). In addition, president Jokowi also provided a reassuring explanation about the Monkeypox outbreak. It shows that as the representatives of the country, it is necessary to provide updates on worldwide

diseases. Thus, the discourses of Monkeypox relating to linguistics segments may contain a person's emotional tone and authenticity discourse from psychology.

Emotional tone and authenticity in discourse is related to one another. There is a relation to how speech and messages are contained in a discourse (Figueiredo, Devezas, Vieira, & Soares, 2020). The words or phrases represent the emotional state and authenticity of the speaker of the discourse (Koschut, 2020). Emotions are implicated in the power systems and have the power to oppose and even modify them, as shown by an understanding of emotions through discourse (Relations, Gregory, Relations, & Zealand, 2015). Emotional tone refers to the emotional state of a person, which can change within a certain period. The idea of rational behavior is based on how people have understood and experienced appropriate actions during different times. Therefore, it relates to discourse focusing on a person's emotional tone and the authenticity of the sentences the speaker conveys.

The authenticity of discourse, on the other hand, relates to the truth that is expressed when someone speaks. What someone says may not always accurately reflect how they feel or what they intended to say. This is due to the fact that speaking may only be employed to further an interest or a goal (Jones, 2016). For example, if someone pretends to support a system but his heart and head are on the other side because his first intention was to garner the community's attention, this is referred to as a person's authenticity (Shane, 2018).

Studies on the emotional tone and authenticity of language have been conducted in the past. In a previous study, psycholinguistics was employed to understand the psychological states of American presidents (Chen & Hu, 2019). To comprehend the components of fiction, it relies on identifying the vocabulary and emotional undertone of song lyrics (Marouf, Hasan, & Mahmud, 2019). For instance, the emotional tone can also be found in scientific writing, like the previous research, which focuses on comparing commercially orthopaedic studies (Steffens, Langerhuizen, Doornberg, Ring, &

Janssen, 2021). In contrast, previous researchers also focus on analyzing the emotion of vocabulary learning for heritage and foreign learning (Driver, 2021). Through a psycholinguistics approach, they are interested in identifying such a significant and successful component in vocabulary learning.

Discourse encompasses various context elements, including people's values, psychological states, and political viewpoints. In line with that, there is a connection between speech and the message (Dylgjeri, 2017). Previous studies discovered that linguistic discourse is the product of the language experiment (Gisdatov, 2018). Moreover, another researcher also used the discourse in psycholinguistics in studying the discourses around the controversial topic of abortion on social media (Sharma, Saha, Ernala, Ghoshal, & De Choudhury, 2017). For instance, among the K-Pop stan Twitter community, social media is also used as a tool for language acquisition (Malik & Haidar, 2020). It implies that discourse might generate a significant volume of user data covering various issues, including socially taboo contexts and topics (Subramani, Vu, & Wang, 2018).

There are many researchers focused on the psycholinguistics approaches. They see psycholinguistics as the relation to the psychological state of a person as the text analysis (Sakib et al., 2021). Moreover, it is found that the existence of depression in patients with mental disorders in social media posts (William & Suhartono, 2021). Previous researchers argue that identifying the psychological state of someone is crucial (Saha, Yousuf, Boyd, Pennebaker, & De Choudhury, 2022). It is because psycholinguistics plays an essential role in studying expressions of suicidal intent through text-based social media (Mathur, Sawhney, Chopra, Leekha, & Ratn Shah, 2020). Therefore, temporal psycholinguistics is used to find the psychological state from the text base.

Numerous studies have been conducted on various government discourses. Firstly, a previous study analyzed the usage of biased news regarding the political outlook when engaging with the same major news events (Gregg F Moore & Lynn Hogg, 2021). Another

researcher also focuses on observing the public emotional responses during the Covid-19 Pandemic (Su, Wu, Li, Xue, & Zhu, 2021). Discourse of the US president also became a research topic that is widely used considering its much history (Chen & Hu, 2019). The ideology in government discourse related to influencing society for the success of government health programs (Ceylan & Hayran, 2021). However, few researchers have focused on the governmental discourses through the lens of psycholinguistics. Therefore, research using a psycholinguistic approach is significant to determine the mental state of presidents through what is said to explore the social and psychological processes that underlie their linguistic manifestations.

LIWC (Linguistic Inquiry and Word Count) is the major instrument used in this study to examine psychological components of government discourse, with a particular emphasis on emotional tone and authenticity. LIWC is ideal for this task since it measures the emotional, cognitive, and structural components of text through word analysis. This makes it suitable for investigating the emotional tone of written conversation, which is the primary goal of this study.

While additional programs exist for studying psychological aspects of linguistics, they were not included in this study due to the emphasis on emotional tone. For example, Praat is an effective tool for analyzing and altering phonetic data, such as speech sounds (Styler, 2021). It enables researchers to study elements such as intonation, pitch, and speech tempo, all of which can reveal information about speakers' emotional states. Similarly, IBM Watson Personality Insights examines text to determine personality traits, social preferences, and behavioral patterns using the Big Five personality model (Campbell, Ansell, & Stelzer, 2024). Although these tests provide useful insights into broader psychological aspects, it is not included in this study because the focus is on examining emotional tone and authenticity rather than personality features. Moreover, thematic analysis tools such as NVivo are meant to uncover themes, patterns, and links in qualitative data, which can be useful for delving into underlying narratives

inside texts (Paulus, 2023). However, these techniques are better suited to exploratory qualitative research, whereas this study concentrates on quantitative elements such as emotional tone, making LIWC a better choice.

As a result, while additional programs like Praat, IBM Watson Personality Insights, and thematic analysis tools provide useful insights into many parts of psychological analysis, they are beyond the scope of this study. LIWC is chosen precisely for its ability to analyze emotional tone in written discourse, which is well aligned with the goals of this research. Future research could use these other instruments to investigate larger psychological elements, but for this study, LIWC is adequate and focused.

This study focuses on government discourses facing the endemic Monkeypox. It may explain why the emotional tone observed in discourses relates to relational competence for decision-making (Sakib et al., 2021). In light of this Monkeypox outbreak, government representatives must give updated information and speak regarding the endemic to the public. However, it is also easy for the public to become sensitive to what is said in the media (Dylgjeri, 2017). Not only that, in delivering the discourse about Monkeypox updated, there is more than just a discourse uttered by the government's representative of each Country (Carvajal-Miranda, Mañas-Viniegra, & Liang, 2020). Therefore, to seek the emotional tone and authenticity of the discourse from the government representatives, this research uses the discourse.

Similar to what was previously said, there is a connection between the emotional tone and genuineness of this study and how people think and behave toward one another (Cutler, Klein, & Levinson, 2017). Using a word count in linguistics research can reveal how someone's emotions are acting while they are expressing anything from their own vocabulary (Monzani, Vergani, Pizzoli, Marton, & Pravettoni, 2021). The link between emotional tone and the presence of cognitive dysfunction was recently acknowledged to be critically dependent on semantic orientation in clinical practice (Tapia et al., 2016). In

addition, there is the possibility that emotional tones may cause semantic misalignment in oral and written productions. The current study analyze the emotional tone and authenticity characteristics that appear and differ across various discourses of seven country government representatives focusing on the monkeypox reality.

## Methodology

The study examines the discourses of government representatives from seven countries— the US, Spain, Brazil, France, Germany, Indonesia, and Russia—using each country's official YouTube channels and websites. The study uses descriptive qualitative research to present findings from the discourses of world government representatives. Using a psycholinguistics approach and the Linguistics Inquiry and Word Count (LIWC) program, it analyzes the emotional tone and authenticity of these discourses.

### 1. LIWC Interface

The LIWC interface is intuitive and features several important components which includes, down below:

- a. **Text Input:** Users have the option to upload text files or directly paste text into the input section for analysis.
- b. **Category Selection:** The interface allows users to choose specific linguistic categories to analyze, such as emotional tone, authenticity, cognitive processes, and social processes.
- c. **Analysis Output:** After processing the text, LIWC generates a detailed report that includes various metrics and scores for each selected category. The results are presented in both numerical and graphical formats, making interpretation straightforward.
- d. **Visualization Tools:** The program provides visual tools, including bar graphs and pie charts, to illustrate the distribution of various categories within the analyzed text. By utilizing LIWC's analytical capabilities, this study can objectively measure the emotional tone and authenticity of the discourses of

world governments regarding the monkeypox endemic.

### 2. The Analytical Process

The LIWC program is a text analysis tool designed to evaluate the emotional and cognitive aspects of language. The process starts by uploading the transcribed data into the LIWC software, which then analyzes the text using a predefined dictionary of words linked to different psychological and linguistic categories.

The transcribed data were submitted to the LIWC program to determine the emotional tone as the first stage of analysis. Then, the second process was to process the data related to the authenticity of the discourses.

#### a. The Emotional Tone

LIWC assesses emotional tone by measuring the frequency of words associated with positive and negative emotions. For example, words like "happy," "joy," and "love" are classified as positive, while words such as "sad," "anger," and "fear" are classified as negative. The program then generates scores that reflect the overall emotional tone of the discourse, helping to determine if the language used is mainly positive or negative.

#### b. The Authenticity Process

For authenticity, the LIWC assesses the presence of words that indicate certainty versus uncertainty or hesitation. Words like "always," "never," and "absolutely" suggest high certainty, while words like "maybe," "perhaps," and "might" indicate uncertainty or low confidence. These calculations provide a quantitative measure of the perceived genuineness and straightforwardness in the text.

The result of the LIWC become the empirical fact used to answer the first and second research question of this study. The interpretation of the LIWC result will bring insights regarding the disparities across the discourses produced by the world leaders in how they handle the monkeypox endemic issues.

## Results and Discussions

Traditional LIWC dimensions reflect percentage of total words within the text the researcher provided. The summary variables are composites derived from scientific research that have been converted to 100-point scales, where 0 = "very low" along the dimension and 100 = "very high." Analytic refers to analytical or formal thinking.

Table 1 in the Appendix presents the positive tone, negative tone, and authenticity of the discourse. In this table, the discourse of each country has two samples analyzed separately to see the difference of the tone and authenticity between two periods of speech intervention in analysis.

The LIWC program calculates emotional tone by analyzing the frequency of words associated with positive and negative emotions from its predefined dictionaries. For authenticity, it assesses the occurrence of words indicating certainty versus uncertainty or hesitation. These calculations provide quantitative measures of emotional content and perceived genuineness in the analyzed text, facilitating objective interpretation and analysis in research studies.

The overall results of the software analysis for the positive emotional tone in the first period which have the highest number (percentage above < 2.33) are Germany, Russia, and Indonesia. Although Brazil has result number above the average data (discourse >2.33), it only higher than 0.5 of the average number. Meanwhile the lowest data result for the positive emotional tone are France, U.S., and Spain with number less than the average (discourse < 2.3).

### 1. Emotional Tone and Authenticity Discourses across Countries

#### a. Emotional Tone and Authenticity Discourses of The U.S.

U.S. was the first country to have cases of Monkeypox in 2022 after a long period of time. The number of cases was also much higher compared to the rest of country which were impacted by the virus. This specific number of

cases also has the relation to the results of the emotional tone and authenticity found in the discourses of the country.

Firstly, the U.S discourse regarding the monkeypox endemic in terms of the positive emotional tone in the first period was significantly higher than the second period (dsc.U1 = 1.64, dsc.U2= 0.00). However, it still doesn't change the fact that both periods are still below the average number which are (<2.33). This result can have a relation to the period of time where the discourse was conducted. This study uses discourse between May and August in which that the endemic was still much higher at that time.

In terms of the negative emotional tone, the result shows for both discourses as less number (<1.38). For instance, the negative tone is much lower. The low number of negative tones can refer to how the government acts and feels at that moment during the speech. This result also shows how the words counted on the second discourse is less than 50 words. Hence, the number of accuracies in the result of the discourse itself, may impacted on the number of the words counted. It has less than fifty (<50). Compare to the first discourse in which it contains more than fifty words (>50).

The first discourse was stated by the president of U.S. which was President Biden. President Biden discourse is less than the mayor official. The result lower on positive tone can caused from the emotional state that the president was at that stage. Despite the number result from LIWC, if we refer to the dictionary to understand how the word is used in discourse can be like this:

Dsc.U1: *"Well, they haven't told me the level of exposure yet but it is something everybody should be concerned about."*

Phrases like "haven't" where President Biden uses lot of word which contain a sign of lack of confidence and low on self-esteem on the Monkeypox discourse. The higher emotional tone calls his attention to the monkeypox issues.

Dsc.U2: *"We were receiving less than we deserved in vaccines."*

The words "less" in this context shows the lack of the uncertainty of the vaccines in which it means that the discourse contain the negative emotion in which that he was not hat confidents about the upcoming results of the monkeypox.

### **b. Emotional Tone and Authenticity of Spain Country**

Dsc.S1 and Dsc.S2 have different results in the emotional tone and authenticity discourse. The positive tone results show higher during the second discourse. Both discourses have results number above average number (dsc.S1 & dsc.S2 >2.33). The dsc.S1 has lower number (2.20) compare to dsc.S2 (2.38). This means that based on the data dsc.S2 processing actual or specific qualities of his discourse in regard to the monkeypox. For instance, his composition to the issues can be shown from the result of the negative tone. It shows lower number far from the average numbers. This significant difference shows how much positive and well-upbringing dsc.2 was in delivering the issues to the public.

The emotional tone used by the Spanish representatives in the first discourse was relatively low, with a positive tone of 0.56 and a negative tone of 1.61. This could indicate a lack of urgency or concern in their approach to the epidemic, which may have affected how people perceived the situation. However, the authenticity score for this discourse was also low, at 18.53. This could indicate that the Spanish representatives were not perceived as being genuine or sincere in their communication with the public.

In contrast, the emotional tone used by the Spanish representatives in the second discourse was much higher, with a positive tone of 4.18 and a negative tone of 0.56. Meanwhile, the negative tone for the second discourses; dsc.S2 shows higher than the average number (dsc.S2>1.33). This negative tone was also higher than the positive tone and the negative tone from the dsc.1. It reveals how focused of Dsc.S2. was on the absence of things

in which focusing on the problem instead of denoting the presence.

Dsc.S1: *"We are having a steady stream of new cases, and it is possible that we will have more deaths."*

Dsc.S2: *"We are just coming out of Covid, when you couldn't do this or that, and now, here we go again."*

Not only that, but we can also see from the negative word uses on the discourse such as "hate," "couldn't," and "haven't." this word uses also effect of the emotional tone of a person. For instance, from the phrases he used such as "here we go again," after saying that they hadn't recovered from the COVID-19. It shows about the attitude to the person listening to him which in this case, were the U.S. citizen.

Although number results of positive tone from dsc.2 still higher than the dsc.1, but the fact that the negative emotional tone shows significance difference, (dsc1<dsc2, 0.00<2.48), still has more impact on the results of showing which were composed and which were not presence in times of delivering their discourse.

### **c. Emotional Tone and Authenticity of Brazil Country**

Dsc.B1 has a higher number of positive tones compare to the dsc.B2. However, both discourses have lower negative tones showing their focus at that moment in which it refers to the issues regarding the disease. The results of the psycholinguistic analysis of the discourses made by Brazilian government officials during the Monkeypox epidemic revealed interesting findings. The authenticity score for the discourse 1 was 28.56, which is lower than the average authenticity score of 28.90. On the other hand, the authenticity score for discourse 2 was 54.06, which is higher than the average authenticity score. It suggests that the government officials in discourse 2 used more authentic language than in dsc.B1.

Pronoun usage is an important part of language since it expresses the speaker's sense of identity and level of authenticity. In discourse 1, the government officials used fewer first-person pronouns such as "I" and

"we" compared to discourse 2. This suggests that the government officials in dsc.B1 may have tried to distance themselves from the situation, which can affect their perceived authenticity. In dsc.B2, the government officials used more first-person pronouns, which suggests that they took more ownership of the situation, and this may have contributed to their higher authenticity score.

Furthermore, both discourses have the same result in negative tone. It can be balance since the words counted between the dsc.B1 and dsc.B2 are comparably not much difference. This means that, knowing the fact that in the case of Monkeypox, the greatest prevention is the correct information, in the form of contagion of this disease. The ministry of Health will be working around the clock on everything necessary to bring security to the Brazilian population for case from the country was much lower compared to other country, the representatives of the country can remain calm during the hectic endemic that was happening at that time.

Dsc.B1: *"The ministry of Health will be working around the clock on everything necessary to bring security to the Brazilian population."*

If we look at the discourse and word chosen by the first representatives (see dsc.1), the word "will be working" and "bring security," it can imply that he was more focused on trying to give a solution in regard to making his audiences (citizens of his country) rest assured.

Dsc.B2: *"I am saying this because it is more important to be careful with all these aspects. Isolation of cases, then with the vaccine issue. There is no forecast of mass vaccination for Monkeypox in any country in the world. These are specific groups, which the authorities still do not have a consensus on."*

Meanwhile, in the discourse made by the second representatives also focusing on offering solution to the problem instead of making things get worse by saying words that contain negative words like "worry," "sad" for example. Moreover, for both representatives,

they almost used more personal pronouns which it reveals the subject's attention. However, the significance results show on the second discourse in which it contains a lot of word using past actions like "have been identified." It means that it tells us about the temporal focus of attention instead of focusing on future action.

Verbs are also an important aspect of language that can reflect the level of authenticity in language use. In dsc.B1, the government officials used more past tense verbs, which suggests that they were focused on what had already happened, rather than what they were currently doing to address the situation. In dsc.B2, the government officials used more present tense verbs, which suggests that they were more focused on the current situation and their actions to address it. This may have contributed to the higher authenticity score in dsc.B2.

#### **d. Emotional Tone and Authenticity of France Country**

The results number shows on France country on both discourses is on 0.00 or below the average number for positive tone. However, the negative tone results in much higher on the first discourse and on 0.00 number on the second discourse. The dsc.F1 shows his seriousness regarding the issues. It has relation with the results number in which the higher use of emotion words on negative tone showed more immersion in the traumatic event.

DscF1: *"We are putting in place everything necessary to increase the rate of vaccination we have"*

Looking at the words uses on the discourse it contains the personal pronoun in which it concerns with the first-person plural. Types of pronouns like this refers to the attention temporal he was in at that time. Moreover, it also signals a sense of group identity in which in the discourses it reflects to the health ministry who evaluate their work results regarding the issues.

Furthermore, he also uses the reflexives pronouns like "these," and "yourself" to show

that he focuses his attention on others to shows his sincerity regarding the issues with their citizen well-being. It shows the greatest contribution of the issues based on the emotional tone itself. It gives the impression where he shows the sincerity and care about his audience at that time. Thus, the truth authenticity results are much higher than the average.

Dsc.F2: *"if we have no symptoms these skin lesions so be vigilant about the appearance of these symptoms and in the event that they appear symptoms protect yourself, see a doctor, protect yourself there too, it is to protect others, hand washing and usual measures for contamination."*

Meanwhile, compared to the second discourse in which it also contains more reflexives pronouns and personal pronouns. In this context, it means giving more attention about the subject of the event. In his discourses it also contains past tense verb in which it implies that he focuses more on what happened in the previous events instead of looking ahead for the future.

The dsc.F2 results of negative tone is also much lower than the average due to the fact that the word chosen on the discourse were focusing on a lot of positive words as a way to prevent the disease. The discourse contains a lot of solution-oriented words rather than the negative words or discouraging words for example like "prevention measures," vigilant," "protect yourself," and "protect others." The uses of these words can have an impact of the results of the number of the emotional tone in the discourses form the LIWC program.

#### **e. Emotional Tone and Authenticity of Germany Country**

In German case, the governments' representatives discourse changed from the first period to the second one with focus in health and gaining emotional tone percentage from the highest to the lowest score compared to the average number (discourse 1 >2.33, discourse 2 <2.33). Dsc.G1 shows much significance results both in the positive and negative tone in which that those are higher than the average number. However, dsc.G2

shows only the number 0.00. These results can be impacted from the words counted on the program in which the first discourse is 13 more in number of words.

Dsc.G1: *"From all we know there have been frequent outbreaks of this fire of disease and it can also be well controlled through good contact tracking and caution."*

Words uses like "be well controlled" shows significance impact on the results of the tone of the emotion. The phrases consist of the present future tense "be" which implies that the speaker on the dscG1 more focus on the long term of the results of the issues and trying to solve the problem with the positive possibility that might happen. This means having the belief to be able to say present future tense with the positive words "well controlled." In this the speaker shows confidence and well up-bringing in conveying its messages to the public.

Dsc.G2: *"There should be isolation with the scab drop off but at least for 21 days and for close contacts we also recognized a quarantine of 21 days."*

From the examples of the sentence consist of an imperative sentence. The word choices "should be" refers to the uses of the suggestion made by the speaker. It means that the speaker focused on delivering their best point of view regarding on how to face the endemic at that moment. The positive tone can be seen when the speaker trying to give information and educate the public.

#### **f. Emotional Tone and Authenticity of Indonesia Country**

Knowing Indonesia as one of the lowest numbers of Monkeypox cases with only 1 case at that time, it has an impact on number of emotional tone and authenticity results of the government representatives' discourses. However, the negative tone results of the first discourses show much higher compared to the second discourse. The COVID-19 pandemic which considered as traumatic event that occur in the past can has an impact on this endemic. Although the case was still low in Indonesia, but it shows that the speaker must



really put his attention on the issues since the past event can occur at any time.

However, dsc.I1 shows much lower on the discourse knowing that, although the virus of the monkeypox were still rare at that time. It also impacted on the way he tries to make the target audience feel calm and put more into a solution.

*Dsc.I1: "But we also don't need to panic too much because the transmission is through direct contact, not through droplets. I think the most important thing is our readiness to overcome it."*

Looking at the word used in the dsc.I1 shows a lot how he uses more personal pronoun and reflexives pronoun. This implies to how he focuses more on the event and the solution for the people around him. The discourse also shows the attention that he was in at that time was that to make the environment less tight and calm the citizen of the country. In which in this context, the word uses include "deal," "checked," "readiness," and "overcome" shows how much he paid attention to the issues and trying to give a solution.

*Dsc.I2: "I think the most important thing is our readiness to overcome it."*

The words choices like "readiness" contain a positive intention. It can impact to the results of the emotional tone. Not only that, but the speaker also sees the issues in a long-term positive result. By using "to overcome," future present tense. It implies that the speaker focuses not only on the current present times, but also for the future.

### **g. Emotional Tone and Authenticity of Russia Country**

The context of the Russia country, include as one of the countries with the least number of Monkeypox cases. The first discourse shows much higher on positive emotional tone and lower on the negative tone compared to the second discourse with the average number with (0.00) on negative tone. For the dsc.R2, although the words counted on the discourses was much more twenty words compared to the dsc.R1, but the accuracy results of the first

discourses was much significance. The discourses of Russia country in regards to Monkeypox context is more positive since although the dsc.R2 shows higher than the dsc.R1, but it doesn't change the fact that the number is still below the average of normal number of negative tones.

*Dsc.R1: "The Ministry of Health has approved and sent to the region's guidelines for the prevention, diagnosis and treatment of Monkeypox."*

If we look at the discourses, it shows more uses of words that contain more positive words (compare to the dsc.R2). The future tense uses such as "has approved" and "has sent" shows the reports progress regarding the Monkeypox in those contexts. Moreover, the words like "prevention," "diagnosis," and "treatment" also have significance impact on the results of the number of positive emotions.

*Dsc.R2: "Training of medical workers on the prevention, diagnosis and treatment of the disease has been organized in all regions of the Russian Federation."*

The beginning of the dsc.R2 contained much negative words in comparison with the dsc.R1. However, it shows positive words uses in the middle of the discourses. Words uses like "prevention," "diagnosis," and treatment and organized have impact on the positive emotional tone analyzed in the discourses. Thus, although the results of the positive emotional tone show much higher number in the first discourse and much higher in the emotional tone. However, the number of the results of the negative emotional ton for the dsc.R2 is still below the average number.

Now the authenticity of the discourse, shows the results much higher on the dsc.R2. The number reaches (44.32) in which it far more compare to the first discourse (9.53). The number of words contained in the discourse can also have an impact on the result number of the authentic analysis on the program. This confirms that the authenticity of the first discourse is indeed lower than that of the second.

The dominant positive emotional tone results of all the data provided is Germany with higher number reach (6,98). Then, the second one coming from Russia with the number reach (3.64). Both countries show higher numbers than the average. Although the first discourses which is Germany with the country code dsc.G1, has higher number in positive tone, but they also show higher number above average in negative tone. It means that, the positive tone may higher along with the higher number above average of negative tone. Thus, we can conclude that, a person can represent the positive tone, such as being highly confident, positive mindset, straight goals, while also having negative interpretation within their discourse.

## **2. The Emotional Tone in The Discourses made by The Government Official during The Monkeypox Endemic**

When we're talking about the emotional tone and authenticity of a person, it means that we're talking about the inside emotion and inside mind which came from their thoughts. It means implies that it has relation to how people think and perceive (Babuts, 2018). One person thoughts and what they're focusing and the current moment will show through their action (Vogels, Kraemer, & Maes, 2019). The action may come into several kinds which includes their behavior and their verbal action (Lin, Fisher, & Moser, 2019). It means that, through the verbal action we can see people's intention and focus as well as their emotional state at that moment. Thus, this significant research clearly shows us how the relation between those discourse and their psychological state in which in this study, is the emotional tone.

### **a. Higher in Positive Tone**

Based on the results provided, the first discourse from U.S. had a predominantly positive emotional tone with a score of 1.64 and no negative tone detected (see dsc.U1). This positive emotional tone may have been intended to alleviate any fears or anxieties among the public about the outbreak and to emphasize the measures being taken to

address the crisis (Lu & Hong, 2022). It is possible that this approach may have been effective in building trust and increasing compliance with recommended measures such as vaccination and quarantine.

The predominantly positive emotional tone indicates that the government official responsible for this discourse may have used language that was reassuring, empathetic, and optimistic in their communication about the outbreak. According to Warren & Lofstedt (2022), higher levels of compliance with public health interventions were related to positive emotional expressions like hope and thankfulness. This positive emotional tone may have been meant to allay any fears or anxiety that the public may have had over the epidemic and to underline the steps being taken to address the problem (Eisele et al., 2022). Consequently, by encouraging trust and confidence in the government's reaction, the use of an upbeat tone can be a potent weapon to enhance public compliance with advised measures like vaccination and quarantine (Lu & Hong, 2022).

The positive emotional tone helps instill confidence and faith in the government's reaction to the problem (De Blasio & Selva, 2020).. Misrepresenting circumstances or portraying them as less dire than they truly are results in people failing to implement protective measures which subsequently facilitate broader contagion rates. What's more, focusing solely on positives jeopardizes public confidence in health efforts during unfavourable changes and unfulfilled promises (McCloughlin et al., 2023).

Drawing attention towards dsc.R1, specifically Russian delegates' conduct, our findings demonstrate that Russian representatives exhibited an exceptional positive tone throughout their responses. With a score of 3.64 on the positive spectrum and no trace of negativity, this indicates that they had distinct clout in managing any crisis related to communicable disease outbreaks before or had already made significant arrangements to handle Public Health Emergencies beforehand which boosted their self-confidence enormously. Henceforth, they might have regarded utilizing an encouraging and

uplifting approach so as not to cause further panic.

A potential motive for why positivity persists among government representatives lies in their cognizance of just how vital it is for them to uphold transparency and assure citizens of effective measures taken during this outbreak (Koschut, 2020). It's likely that government officials chose a positive tone to differentiate their response to the outbreak from that of other countries, who may have taken a more negative or fear-based approach (Hauser & Schwarz, 2023). The government may have wanted to portray itself as a leader in the global fight against infectious illnesses and to demonstrate its commitment to public health by displaying a positive and aggressive reaction.

### **b. Higher in Negative Tone**

When it comes to analyzing the impact of using a negative tone on governments there are both potential positives and negatives to consider. One significant drawback noted was that significantly high levels of negative emotion often undergirded official dialogue surrounding issues like a monkeypox outbreak (Su et al., 2021). This type of affective language could subvert confidence peoples' in governmental institutions tasked with mitigating these unfortunate events (Tang, Bie, Park, & Zhi, 2018).

Effective communication around infectious diseases hinges on striking an equilibrium between realism and assuaging anxiety levels. One way experts recommend accomplishing this is through invoking an appropriate amount of negativity when conveying critical messages about how individuals can help prevent its spread (Ceylan & Hayran, 2021). However, an overdose on challenging vocabulary can spark fear-related behaviors among people who are already trying to protect themselves. It follows that instilling a sense of hope could help to encourage compliance with preventive measures. During the monkeypox epidemic, instead of primarily focusing on negative aspects, officials could have highlighted positive steps taken to reduce transmission rates or how individual action is critical in

curbing the disease's spread (Hyland-Wood, Gardner, Leask, & Ecker, 2021).

During crisis situation, a negative emotional tone can be harmful due to the fact that it can increase public worry and panic, as well as undermine trust in the government's reaction (Fofana, 2020). Just like the emotional tone used by a representative during the first discourse related to the monkeypox epidemic was also predominantly negative. It can indicate that to effectively communicate during a crisis, it is important for government officials to balance the emotional tone of their discourse (Schoofs & Claeys, 2021). Furthermore, it contains meaning that striking a balance between positivity and negativity can ensure that the public is aware of the severity of the situation without creating undue panic.

The emotional tone of a discourse can have a profound impact on the way people perceive information. Previous research found that an overly negative tone can create panic and irrational behavior, while an overly positive tone can lead to complacency and a lack of urgency (Lerner, Li, Valdesolo, & Kassam, 2015). The monkeypox outbreak is a time of crisis that understandably causes anxiety and fear in many people. Using an excessively negative or positive emotional tone could have unintended effects and should be avoided (Lu & Hong, 2022).

In times of turmoil, government officials must introspect their language choices as they influence public perceptions profoundly. The adoption of negative tones results in heightened fear levels and an overwhelming feeling of helplessness within society which cripples control efforts to curb outbreaks. Past studies suggest several reasons why representatives may opt for such language during crises, with urgencies serving as a primary motivator (Vacondio, Priolo, Dickert, & Bonini, 2021). However, this may lead to elevated negativity levels that hinder prompt action against outbreaks. Crafting tailored communication strategies based on societal and cultural dynamics is vital in delivering impactful messaging to the public during times of crisis (Wood et al., 2021). Accountably

addressing nuances brings about stronger outcomes across diverse community sectors.

### **3. The Discourse Authenticity Trait in The Discourse Made by The Government Official during the Monkeypox**

#### **a. High Authenticity**

The degree to which a message or communication is viewed as genuine, sincere, and truthful by the audience is referred to as authenticity (Aune & Kikuchi, 1993). High scores of authenticity would be desirable in the context of the monkeypox pandemic in order to foster public trust and confidence in the government's response operations (Kleynhans, Heyns, Stander, & de Beer, 2022). On the other hand, low levels of authenticity can damage public confidence and result in lower adherence to public health interventions (Figueiredo et al., 2020).

The U.S. government representatives' success in conveying an authentic and sincere message during dsc.U1 is confirmed by the level of authenticity observed, similar to other instances where this characteristic was present. Their communication skills played a key role in achieving this accomplishment, reflecting their commitment to engaging with their audience respectfully and genuinely. Numerous aspects have led to this outcome. These aspects comprise the adoption of unambiguous and brief phrasing, the delivery of suitable and present-day data, and the integration of compassionate terms (Moshinsky, 2016).

The credibility assessment for the Spanish representatives' second discourse yielded an impressive authenticity score of 64.97, signifying that they were viewed as truthful and authentic in communicating with the public. This observation might have been influenced by their effective use of an emotional tone that conveys honesty and genuineness (Zloteanu & Krumhuber, 2021). Moreover, it was complemented by providing factual updates about the epidemic situation throughout.

Another linguistic characteristic that can indicate the degree of language use authenticity is the employment of adjectives (Crossley, Louwse, McCarthy, & McNamara, 2007). Government officials used more favorable adjectives in one example, dsc.B1, which may have affected their lower authenticity score. Positive adjectives may put the speaker at a psychological distance from the situation, which may diminish their apparent genuineness. The government officials may have contributed to their higher authenticity score by using more derogatory words, which shows that they were more preoccupied with the negative aspects of the scenario.

#### **b. Low Authenticity**

The genuineness of a few of the representatives' speeches was lower. similar to the dsc.U2's notable loss in authenticity. It implies that the American government's representatives did not have as much success informing the populace of a genuine message.

Examining the low levels of authenticity witnessed during discourse leads us to several possible explanations. Among them is that audiences may view government representatives as untrustworthy or lacking credibility due to various factors such as inconsistent messaging or insufficient clarity about responses. Additionally, disparities between the authenticity observed across different discourses appear attributable to changes made within communication strategies over time. For example, U.S.s dsc. U1 employed highly authentic and empathetic tones seeking public trust while dsc. U2 focused mainly on conveying factual and data driven information without much effort to establish an emotional connection with its audience.

The result of the authenticity score for Spanish representatives was recorded as 28.90 - a figure which appears to fall short when compared to the corresponding scores achieved by other countries analyzed in this investigation. People may have been confused or mistrustful of the Spanish reaction to the outbreak as a result of the first discourse's low authenticity score (Zloteanu & Krumhuber,

2021). However, the second discourse's high authenticity score may have contributed to the recovery of confidence in the Spanish response.

The discourses' average low authenticity score indicates that French government officials need to strengthen the veracity of their message in upcoming breakouts. This can be accomplished by utilizing language that is clear, concise, and simple to grasp as well as by making sure the message is given honestly, truly, and sincerely (Geurts, 2019). Along with being open about outbreak-related information, government representatives should also respond to the public's worries.

Low authenticity scores in the first representative's discourse imply that the audience saw their message as less genuine or sincere. This could erode public trust and confidence in the government's ability to successfully address the outbreak. However, the high authenticity score of the second representative shows that their communication was viewed as more genuine and honest, thereby enhancing public trust and confidence in the government's response to the outbreak.

The analytical results suggest that the representatives' speeches in Russia were not very authentic. The low score of 9.53 in discourse 1 suggests that the government official's rhetoric was untrustworthy. This could be due to the use of technical jargon, sophisticated vocabulary, and formal language, which are not easily understood by the general population. A lack of authenticity in the discourse can lead to a lack of trust among the public and impede successful communication to the public through the discourse. (Luebke, 2021).

## Conclusion

Based on the findings and discussion, it appears that emotional tone, which refers to the way language expresses sentiments and emotions, is an important part of effective communication in delivering the discourse. Whatever the reasons for the government's official upbeat tone, it is evident that being conscious of the language used in disseminating discourses is crucial in

managing disease outbreaks and reducing their impact on public health. Government authorities can help to develop public trust and encourage collaboration in attempts to contain the outbreak by employing an emotional tone that is both informative and reassuring.

Finally, the psycholinguistic study of government officials' discourses during the monkeypox pandemic found that the two representatives had different authenticity ratings. Low authenticity ratings in some representatives' discourses indicate the possibility of negative consequences on public trust and confidence, whilst high authenticity scores in some representatives' discourses indicate the possibility of positive influences on public trust and confidence. These findings highlight the need of utilize authentic language in discourse during epidemics to optimize the effectiveness of government communication while minimizing any detrimental impact on public health outcomes. Furthermore, these findings support previous research that demonstrated that authenticity in government communication may increase public trust and confidence in the government's ability to manage a crisis.

The important implications for government officials and other public figures are that to use language to connect with the public during a public health crisis. They should be conscious of their language use and focus on using language attributes that show a high level of authenticity, such as first-person pronouns, present tense verbs, and negative adjectives. This allows them to build trust and confidence in their leadership, which is critical when dealing with a public health issue. This research will also be valuable for future research using the LIWC program.

## References

- Arias Tapia, S. A., Martínez-Tomás, R., Gómez, H. F., Del Salto, V. H., Guerrero, J. S., Mocha-Bonilla, J. A., ... Redin, V. C. (2016). The dissociation between polarity, semantic orientation, and emotional tone as an early indicator of cognitive impairment. *Frontiers in Computational Neuroscience*, 10(SEP), 1–9. <https://doi.org/10.3389/fncom.2016.00095>
- Babuts, N. (2018). Language and Perception. *Mimesis in a Cognitive Perspective*, 1(1), 11–20. <https://doi.org/10.4324/9781315124520-2>
- Campbell, J., Ansell, K., & Stelzer, T. (2024). Evaluating IBM's Watson natural language processing artificial intelligence as a short-answer categorization tool for physics education research. *Physical Review Physics Education Research*, 20(1), 10116. <https://doi.org/10.1103/PhysRevPhysEducRes.20.010116>
- Carvajal-Miranda, C., Mañas-Viniegra, L., & Liang, L. (2020). Online discourse in the context of COVID-19, the first health crisis in China after the advent of mobile social media: A content analysis of China's Weibo and Baidu. *Social Sciences*, 9(10). <https://doi.org/10.3390/SOCSCI9100167>
- Ceylan, M., & Hayran, C. (2021). Message Framing Effects on Individuals' Social Distancing and Helping Behavior During the COVID-19 Pandemic. *Frontiers in Psychology*, 12(March), 1–14. <https://doi.org/10.3389/fpsyg.2021.579164>
- Chen, X., & Hu, J. (2019). Evolution of U.S. Presidential Discourse over 230 Years: A Psycholinguistic Perspective. *International Journal of English Linguistics*, 9(4), 28. <https://doi.org/10.5539/ijel.v9n4p28>
- Crossley, S. A., Louwse, M. M., McCarthy, P. M., & McNamara, D. (2007). A linguistic analysis of simplified and authentic texts. *Modern Language Journal*, 91(1), 15–30. <https://doi.org/10.1111/j.1540-4781.2007.00507.x>
- Cutler, A., Klein, W., & Levinson, S. C. (2017). The Cornerstones of Twenty-First century psycholinguistics. *Twenty-First Century Psycholinguistics: Four Cornerstones*, (1), 1–20. <https://doi.org/10.4324/9781315084503-1>
- De Blasio, E., & Selva, D. (2020). Affective governance during the COVID-19 crisis: Building leadership, trust, and good citizens. *Tripodos*, 1(47), 67–86. <https://doi.org/10.51698/tripodos.2020.47p67-86>
- Driver, M. (2021). Emotion-laden texts and words. *Studies in Second Language Acquisition*, 1–24. <https://doi.org/10.1017/S0272263121000851>
- Dylgjeri, A. (2017). Analysis of Speech Acts in Political Speeches. *European Journal of Social Sciences Studies*, 2(2), 19–26. <https://doi.org/10.5281/zenodo.344518>
- Eisele, O., Litvyak, O., Brändle, V. K., Balluff, P., Fischeneder, A., Sotirakou, C., ... Boomgaarden, H. G. (2022). An Emotional Rally: Exploring Commenters' Responses to Online News Coverage of the COVID-19 Crisis in Austria. *Digital Journalism*, 10(6), 952–975. <https://doi.org/10.1080/21670811.2021.2004552>
- Figueiredo, S., Devezas, M., Vieira, N., & Soares, A. (2020). a Psycholinguistic Analysis of World Leaders' Discourses Concerning the Covid-19 Context: Authenticity and Emotional Tone. *International Journal of Social Sciences*, IX(2). <https://doi.org/10.20472/ss2020.9.2.004>
- Fofana, N. K. (2020). Fear and agony of the pandemic leading to stress and mental illness: An emerging crisis in the novel coronavirus (COVID-19) outbreak. *Elsevier*, (January).
- G.G. Gisdatov. (2018). *Psycholinguistics study of the concepts of Kazakhstani discourse*. (January 1962).
- Geurts, B. (2019). Communication as commitment sharing: Speech acts, implicatures, common ground. *Theoretical Linguistics*, 45(1–2), 1–30. <https://doi.org/10.1515/tl-2019-0001>
- Gregg F Moore, by A., & Lynn Hogg, J. (2021).

- Word usage bias in facebook communities: a psycholinguistic analysis of political commentary, a dissertation submitted.*
- Hauser, D. J., & Schwarz, N. (2023). Semantic Prosody: How Neutral Words With Collocational Positivity/Negativity Color Evaluative Judgments. *Current Directions in Psychological Science*.  
<https://doi.org/10.1177/09637214221127978>
- Hyland-Wood, B., Gardner, J., Leask, J., & Ecker, U. K. H. (2021). Toward effective government communication strategies in the era of COVID-19. *Humanities and Social Sciences Communications*, 8(1), 1–11. <https://doi.org/10.1057/s41599-020-00701-w>
- Jones. (2016). Authenticity in Political Discourse. *Ethical Theory and Moral Practice*, 19(2), 489–504.  
<https://doi.org/10.1007/s10677-015-9649-6>
- Kelly, A., & Toshiyuki, K. (2016). *Effects of Language Intensity Similarity on Perceptions of Credibility Relational Attributions, and Persuasion.*
- Kleynhans, D. J., Heyns, M. M., Stander, M. W., & de Beer, L. T. (2022). Authentic Leadership, Trust (in the Leader), and Flourishing: Does Precariousness Matter? *Frontiers in Psychology*, 13(April), 1–13.  
<https://doi.org/10.3389/fpsyg.2022.798759>
- Koschut, S. (2020). Emotion, discourse, and power in world politics. *The Power of Emotions in World Politics*, (September 2017), 3–28.  
<https://doi.org/10.4324/9780429331220-2>
- Lerner, J. S., Li, Y., Valdesolo, P., & Kassam, K. S. (2015). Emotion and decision making. *Annual Review of Psychology*, 66, 799–823. <https://doi.org/10.1146/annurev-psych-010213-115043>
- Lin, Y., Fisher, M. E., & Moser, J. S. (2019). Clarifying the relationship between mindfulness and executive attention: A combined behavioral and neurophysiological study. *Social Cognitive and Affective Neuroscience*, 14(2), 205–215.  
<https://doi.org/10.1093/scan/nsy113>
- Lu, D., & Hong, D. (2022). Emotional Contagion: Research on the Influencing Factors of Social Media Users' Negative Emotional Communication During the COVID-19 Pandemic. *Frontiers in Psychology*, 13(July), 1–14.  
<https://doi.org/10.3389/fpsyg.2022.931835>
- Luebke, S. M. (2021). Political Authenticity: Conceptualization of a Popular Term. *International Journal of Press/Politics*, 26(3), 635–653.  
<https://doi.org/10.1177/1940161220948013>
- Malik, Z., & Haidar, S. (2020). English language learning and social media: Schematic learning on Kpop Stan twitter. *E-Learning and Digital Media*, 18(4), 361–382.  
<https://doi.org/10.1177/2042753020964589>
- Marouf, A. Al, Hasan, M. K., & Mahmud, H. (2019). Identifying Neuroticism from User Generated Content of Social Media based on Psycholinguistic Cues. *2nd International Conference on Electrical, Computer and Communication Engineering, ECCE 2019*, 1–5.  
<https://doi.org/10.1109/ECACE.2019.8679505>
- Mathur, P., Sawhney, R., Chopra, S., Leekha, M., & Ratn Shah, R. (2020). Utilizing temporal psycholinguistic cues for suicidal intent estimation. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 12036 LNCS, 265–271.  
[https://doi.org/10.1007/978-3-030-45442-5\\_33](https://doi.org/10.1007/978-3-030-45442-5_33)
- McCloughlin, E., Vilar-Lluch, S., Parnell, T., Knight, D., Nichele, E., Adolphs, S., ... Schiazza, G. (2023). The reception of public health messages during the COVID-19 pandemic. *Applied Corpus Linguistics*, 3(1), 100037.  
<https://doi.org/10.1016/j.acorp.2022.100037>
- Monzani, D., Vergani, L., Pizzoli, S. F. M., Marton, G., & Pravettoni, G. (2021). Emotional tone, analytical thinking, and somatosensory processes of a sample of Italian Tweets during the First Phases of the COVID-19 Pandemic: Observational Study. *Journal of Medical Internet Research*, 23(10).  
<https://doi.org/10.2196/29820>



- Moshinsky, M. (2016). Dimensions of empathy in relation to language. *Nucl. Phys.*, 13(1), 104–116.
- Pastula, D. M., & Tyler, K. L. (2022). An Overview of Monkeypox Virus and Its Neuroinvasive Potential. *Annals of Neurology*, 527–531.  
<https://doi.org/10.1002/ana.26473>
- Paulus, T. M. (2023). Using Qualitative Data Analysis Software to Support Digital Research Workflows. *Human Resource Development Review*, 22(1), 139–148.  
<https://doi.org/10.1177/15344843221138381>
- Philpott, D., Hughes, C. M., Alroy, K. A., Kerins, J. L., Pavlick, J., Asbel, L., ... Johnson, S. (2022). Epidemiologic and Clinical Characteristics of Monkeypox Cases — United States, May 17–July 22, 2022. *MMWR. Morbidity and Mortality Weekly Report*, 71(32), 1018–1022.  
<https://doi.org/10.15585/mmwr.mm7132e3>
- Relations, I., Gregory, T., Relations, I., & Zealand, N. (2015). Emotions, Politics and War. *Emotions, Politics and War*.  
<https://doi.org/10.4324/9781315765068>
- Saha, K., Yousuf, A., Boyd, R. L., Pennebaker, J. W., & De Choudhury, M. (2022). Social Media Discussions Predict Mental Health Consultations on College Campuses. *Scientific Reports*, 12(1), 1–11.  
<https://doi.org/10.1038/s41598-021-03423-4>
- Sakib, A. S., Mukta, M. S. H., Huda, F. R., Najmul Islam, A. K. M., Islam, T., & Ali, M. E. (2021). Identifying Insomnia from Social Media Posts: Psycholinguistic Analyses of User Tweets. *Journal of Medical Internet Research*, 23(12).  
<https://doi.org/10.2196/27613>
- Schoofs, L., & Claeys, A. S. (2021). Communicating sadness: The impact of emotional crisis communication on the organizational post-crisis reputation. *Journal of Business Research*, 130(April 2020), 271–282.  
<https://doi.org/10.1016/j.jbusres.2021.03.020>
- Shane, T. (2018). The Semiotics of Authenticity: Indexicality in Donald Trump's Tweets. *Social Media and Society*, 4(3).  
<https://doi.org/10.1177/2056305118800315>
- Sharma, E., Saha, K., Ernala, S. K., Ghoshal, S., & De Choudhury, M. (2017). *Analyzing Ideological Discourse on Social Media*. 1–8.  
<https://doi.org/10.1145/3145574.3145577>
- Steffens, A. N. V., Langerhuizen, D. W. G., Doornberg, J. N., Ring, D., & Janssen, S. J. (2021). Emotional tones in scientific writing: comparison of commercially funded studies and non-commercially funded orthopedic studies. *Acta Orthopaedica*, 92(2), 240–243.  
<https://doi.org/10.1080/17453674.2020.1853341>
- Styler, W. (2021). Using Praat for Linguistic Research. *Savevowels*, 1–70. Retrieved from <http://savethevowels.org/praat/>
- Su, Y., Wu, P., Li, S., Xue, J., & Zhu, T. (2021). Public emotion responses during COVID-19 in China on social media: An observational study. *Human Behavior and Emerging Technologies*, 3(1), 127–136.  
<https://doi.org/10.1002/hbe2.239>
- Subramani, S., Vu, H. Q., & Wang, H. (2018). Intent Classification Using Feature Sets for Domestic Violence Discourse on Social Media. *Proceedings - 2017 4th Asia-Pacific World Congress on Computer Science and Engineering, APWC on CSE 2017*, 129–136.  
<https://doi.org/10.1109/APWConCSE.2017.00030>
- Tang, L., Bie, B., Park, S. E., & Zhi, D. (2018). Social media and outbreaks of emerging infectious diseases: A systematic review of literature. *American Journal of Infection Control*, 46(9), 962–972.  
<https://doi.org/10.1016/j.ajic.2018.02.010>
- Vacondio, M., Priolo, G., Dickert, S., & Bonini, N. (2021). Worry, Perceived Threat and Media Communication as Predictors of Self-Protective Behaviors During the COVID-19 Outbreak in Europe. *Frontiers in Psychology*, 12(February), 1–9.  
<https://doi.org/10.3389/fpsyg.2021.577992>
- Vogels, J., Kraemer, E., & Maes, A. (2019). Accessibility and Reference Production. *The Oxford Handbook of Reference*, 336–364.



<https://doi.org/10.1093/oxfordhb/9780199687305.013.16>

Warren, G. W., & Lofstedt, R. (2022). Risk communication and COVID-19 in Europe: lessons for future public health crises. *Journal of Risk Research*, 25(10), 1161–1175.

<https://doi.org/10.1080/13669877.2021.1947874>

William, D., & Suhartono, D. (2021). Text-based Depression Detection on Social Media Posts: A Systematic Literature Review. *Procedia Computer Science*, 179(2019), 582–589.

<https://doi.org/10.1016/j.procs.2021.01.043>

Zloteanu, M., & Krumhuber, E. G. (2021). Expression Authenticity: The Role of Genuine and Deliberate Displays in Emotion Perception. *Frontiers in Psychology*, 11(January), 1–6.

<https://doi.org/10.3389/fpsyg.2020.611248>

**Appendix**

**Table 1. Emotional Tone and Authenticity of World Governments' Discourse**

Traditional LIWC Dimension				
Data	Emotional Tone			Authenticity
	Words Count	Pos.	Neg.	
Dsc.U1	61	1.64	0.00	61.09
Dsc.U2	26	0.00	0.00	2.92
Dsc.S1	91	2.20	0.00	18.53
Dsc.S2	80	2.38	2.38	64.97
Dsc.B1	40	2.50	0.00	28.56
Dsc.B2	91	1.10	0.00	54.06
Dsc.F1	66	0.00	1.96	88.67
Dsc.F2	76	0.00	0.00	18.39
Dsc.G1	43	6.98	2.33	22.48
Dsc.G2	30	0.00	0.00	82.80
Dsc.I1	64	3.13	4.69	54.55
Dsc.I2	70	2.20	1.13	30.55
Dsc.R1	55	3.64	0.00	09.53
Dsc.R2	75	0.00	1.33	44.32