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## **Introduction:**

We looked at all of the Inaugural Addresses from Presidents of the United States from President George Washington, to President George W. Bush. The text file where I got the compilation of speech transcriptions does not include any inaugural addresses after President George W. Bush so the inaugural addresses given by President Barack Obama and every president who was elected after him are missing from this analysis. There have been 55 Inauguration speeches given by Presidents of the United States as of the second inauguration of President George W. Bush. President George W. Bush is the 43<sup>rd</sup> President of the United States, and like many before him, was a two term president, so there are pairs of speeches that were given by the same President. Should be noted that for various reasons, some Presidents were never formally inaugurated, that includes Presidents: John Tyler, Millard Fillmore, Andrew Johnson, Chester Arthur, and Gerald Ford, so they do not have inauguration speeches to analyze.

## **Research Question:**

The United States currently boasts the longest history and continuation of a peaceful transfer of power within a nation-state in modern recorded history. Because of this, the inauguration speech has been a standard American tradition at the beginning of each Presidential term since the founding of the nation as we know it. A lot of things has happened since the days of a President George Washington, the culture of the country has changed and the population that the President governs has grown to be more diverse, and even who is legally allowed to vote for these Presidents has changed and expanded drastically since the days of President George Washington. My main question was to look at how Presidential speeches have changed in the United States over its long history. Can we determine if inauguration speeches were made during times of war? Can we group speeches by era? More broadly, the question is: Do these inauguration speeches reflect the time of the speech in anyway and will analyzing the text tell us some kind of approximation of when the speech was given?

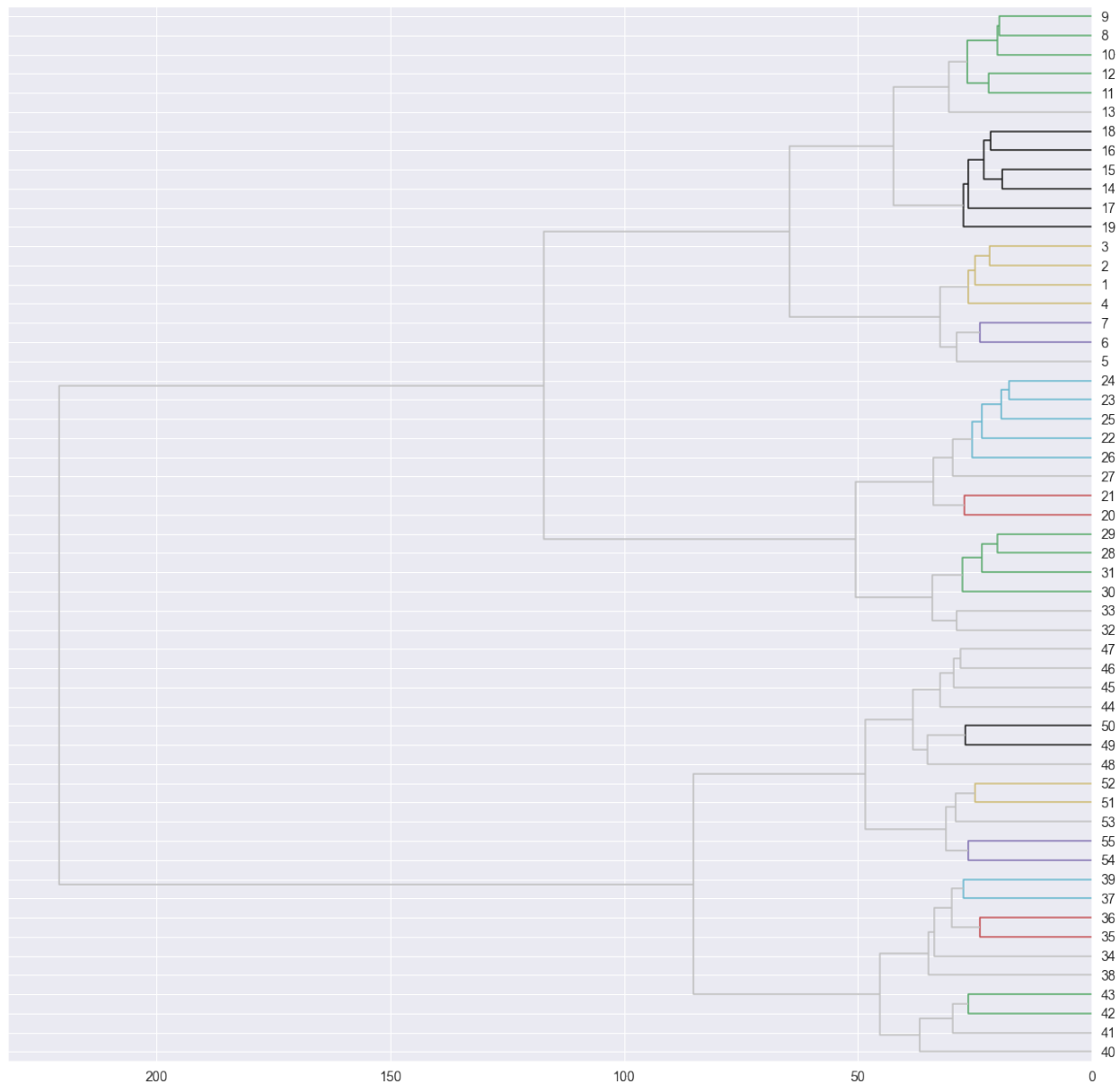
## **About the Source Data:**

I downloaded the original txt file for the collection of speeches on Project Gutenberg. Using Python and Regular Expressions, I was able to extract the text from this file and organize it into a workable corpus, separating things into lines, paragraphs, sentences and tokens. The collection of speeches was broken down into 55 speeches from 55 inaugurations and included various notes about the speeches and about the history of inaugural addresses from Presidents of the United States. Almost every speech had transcribers notes and some had an additional line to show the location of the speech when it happened and because we wanted just the speeches themselves, those had to be removed. As mentioned before, some Presidents were never inaugurated for various reasons including becoming president by being Vice President after the previous president died.

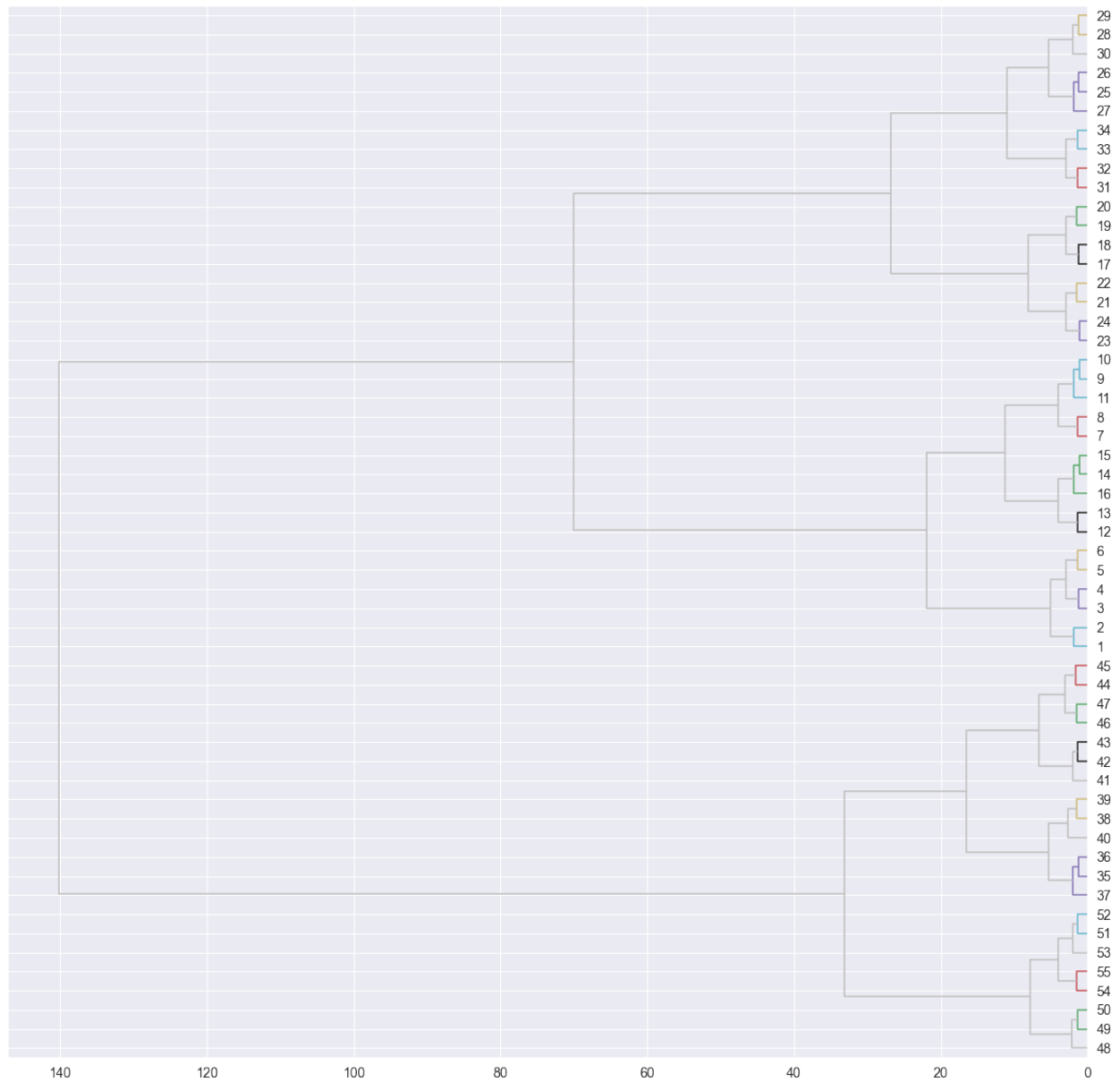
### Analysis:

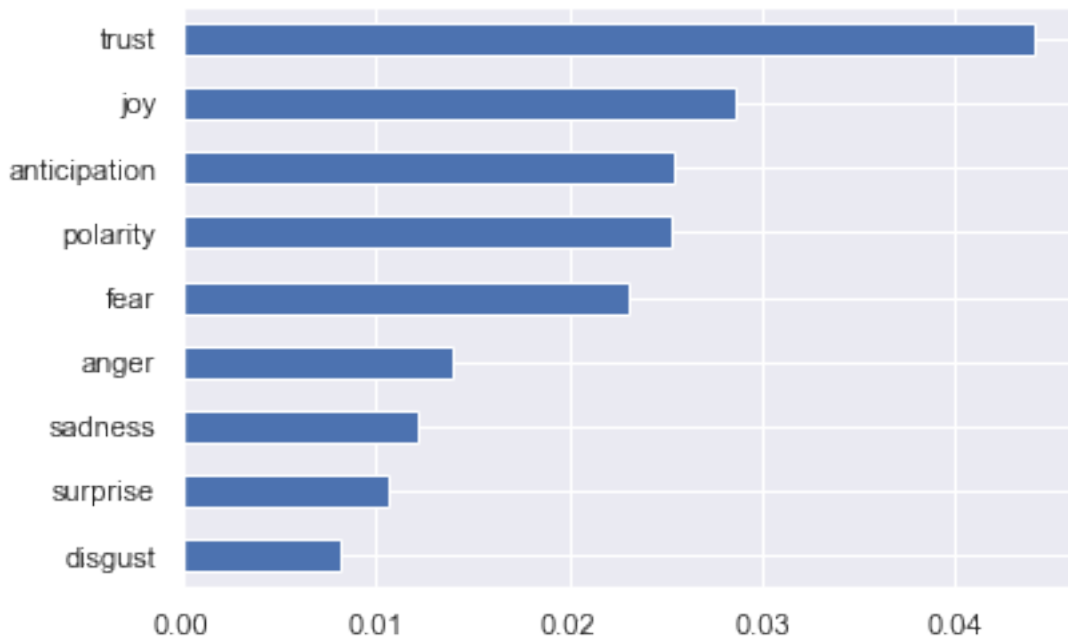
Something I found fascinating is that it appears that the dendrogram largely grouped together Inaugural Addresses that were from around the same time period, inaugural addresses were largely grouped with either the speech from the previous inauguration or the inauguration after it, if not grouped with both of them. Not exactly a timeline but this does address one of the questions I asked which is if speeches can be grouped together by relative period of time or era depending on how you define those measures.

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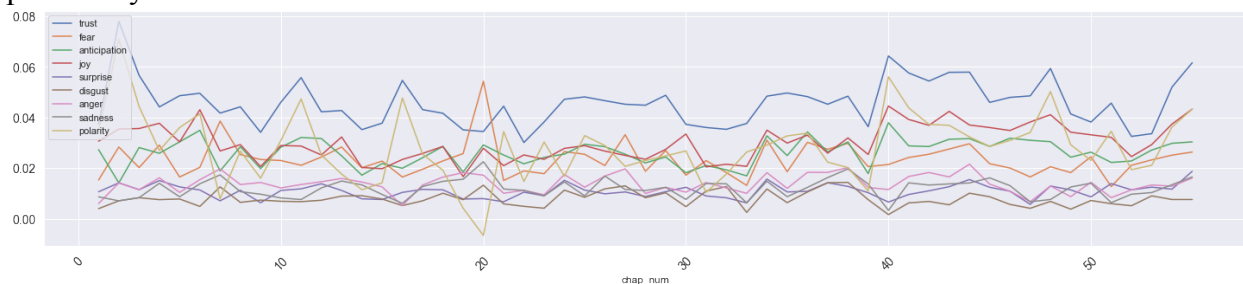


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What I found to be most fascinating was during the sentiment analysis of the speeches. By far the most represented sentiment across all the speeches was Trust, followed by Joy and Anticipation. Disgust is the emotional value that had the smallest value across all of the speeches that were analyzed. The speech that had the most fear sentiment is the inauguration address of President Ulysses Grant. I had originally expecting fear to peak during a war but President Grants presidency is from before World War I.



I also wanted to compare how current events may impact the sentiment behind the word choice of inauguration speeches. For example, I wanted to see the see how inaugural addresses during significant time periods like the two world wars and the great depression, may have opted for different types of sentiment in the wordings of those particular speeches. Maybe even the Cold War as well.

## Conclusion

In conclusion, this analysis of Inaugural Addresses from Presidents of the United States from George Washington to George Bush provided some interesting insight as to how political culture and discourse has changed over time. It appears that you can analyze the words of inauguration speeches given by Presidents of the United States and by some metrics, group them together by

broad time periods as the dendograms have indicated. Going forward, I would like to add more speeches to this corpus, including the inauguration speeches from Presidents elected after George W. Bush, including current President Joe Biden, and the State of the Union speeches, perhaps other speeches that US Presidents have given in the past as well. There is a lot that can be observed from analyzing the words of Presidents of the United States, and I am only scratching the surface of what there is to gain and learn from analyzing these words from these Presidents. And this may be optimistic, but perhaps in the distant future, there will be enough diversity among inaugurated Presidents of the United States so that one will be able analyze the speeches of all the presidents and see if there is any difference if presidents are grouped by categories such as race or gender.