

# Second Capstone Proposal

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Understanding the linguistic and word choice differences between political parties can provide a lot of information of interest. One clear example of presidential speech is executive orders, which will be examined here. The tone of executive orders and the words chosen likely vary according to factors such as time period and the political party of the sitting president. This analysis will examine the relationship between these factors and the word choice and sentiment of the executive orders. It would also be easy to examine the topics addressed in these executive orders, and see how they correlate to each political party. This could provide insights about the values of each party, as well as the typical persuasive strategies and rhetoric each party uses. We could also examine the use of these strategies over time, or for each president individually. This would inform the public of strategies used by each president or party and the use of those strategies over time. Knowledge of common rhetoric is a vital tool in the dismantlement of misinformation, which is so important in our current political climate of “fake news.” Thinking critically about the tactics used to convey information, such as creating a sense of fear or duty, helps us better understand our political system.

To investigate the relationship between various linguistic elements of executive orders and the year, president, and political party in control, I will conduct some natural language processing on a dataset of executive orders given since 1994. This dataset is from the national register, via the Office of the Federal Register, and thus should be quite reliable. The data is available as a simple CSV, or I could connect to the API, so it's easily accessible. This would be a look into the composite of all executive

orders, and could hopefully provide some insight as to how executive orders are created, and whether orders given by one president or party differ significantly from the other.

I would like to use machine learning to see whether or not I can predict the executive order giver's party from the text of the executive order itself. If I can create a strong model, then there are likely some key predictive factors that differentiate the two. These factors can then be examined logically, likely in the form of a report. I could also use this same method to see if the model can predict what president (of the 4 covered in this dataset) gave the order, to examine similar predictors. I'd also like to use bag of words to create some descriptive statistics for certain words or phrases, and compare these across all the independent variables.

Ultimately, this examination would result in a Jupyter notebook, including some visualizations regarding word or phrase frequency, and a report. This report would take the results of the analysis, and put it into context of the political atmosphere and the connotation behind words. While the machine can learn what words are used, connotation and meaning must be provided by the examiner. That will likely be the last step on my project, and it should inform anyone with an interest in politics and the use of executive orders.