

Final Project Milestone #1
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Dataset Description and Research Questions

The dataset that I am working with is data that my lab collected around the time of the 2016 election using Amazon Mechanical Turk. The main question of interest was if there were implicit bias in color preference, measured as a Flanker Effect, arising from political affiliations. There were 190 participants who were tested before and 162 on election day 2016. Participants completed a Flanker task to measure implicit color preferences as well as surveys to gather demographic information, voting record and political preferences, and self-identified color preferences. I will be using the Flanker Effect (continuous predictor), age (continuous predictor), political philosophy (categorical predictor), voting record (categorical predictor), election day voting (categorical predictor), and self-identified color preference (ordinal predictor) to classify subjects' party identification.

In line with the initial study, I am interested in exploring by how much the classification probability for one party will increase given a 5% increase in the Flanker Effect of party's corresponding color. Likewise, I would like to explore if there is a relationship between a decreasing Flanker Effect of the opposite party's color affects the classification probability. Similarly, I would like to see if these same patterns appear for the self-identified color preferences. Also, I would like to see how much a five-year increase in age increases the probability that a subject will be classified as a Republican. Like age, voting record should reliably predict party ID. As a result, I would like to explore how significant of a predictor this is for the dataset and might need to remove it as a predictor if it accounts for too much of the model's predictive power. Lastly, seeing as the democratic candidate won the popular vote in 2016, I will look for how much the probability of being classified as a Democrat increased if the subject tested on election day. Additionally, there is a significant class imbalance which I will have to be mindful of when performing all of the analyses; there are significantly more self-identified Republicans in this dataset than Democrats.

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