

German Political Speeches Sentiment Analysis

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01

Motivation & Context



Motivation

What led me to this project?

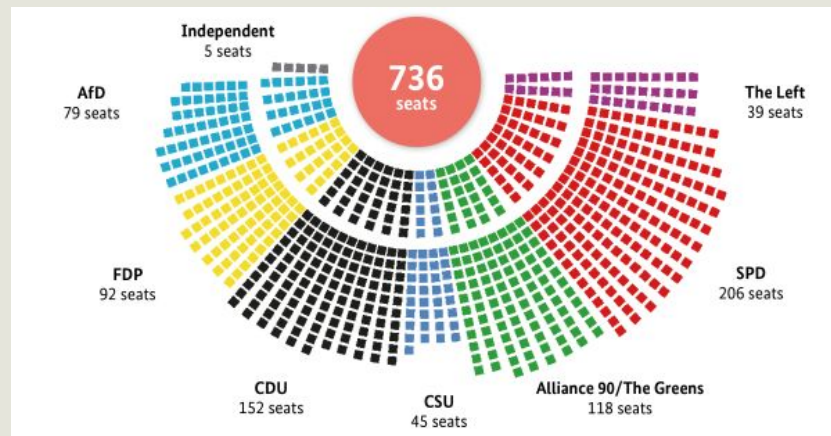
- Wanting to work with German
- Interest in political language



Context

What the heck is the German political system?

- Lots of parties!(sadly not the fun kind:/)



Goals

- Are there any trends across the sentiment of different parties?
- Do other factors, like gender or office, have any correlation with average sentiment score?
- How do the sentiment scores of different parties change over time?



The top-left corner features a branch with reddish-brown leaves. The bottom-left corner features a branch with green leaves and a single, closed, reddish-orange flower bud.

02

Data &
Analysis





Data

- Found the German Political Speeches Corpus!
 - Has 6685 speeches from 71 different speakers
- Lots of value adding(had to go internet stalk a bunch of German politicians)
 - Political party
 - Gender
 - Position



Stats after cleaning & value-adding

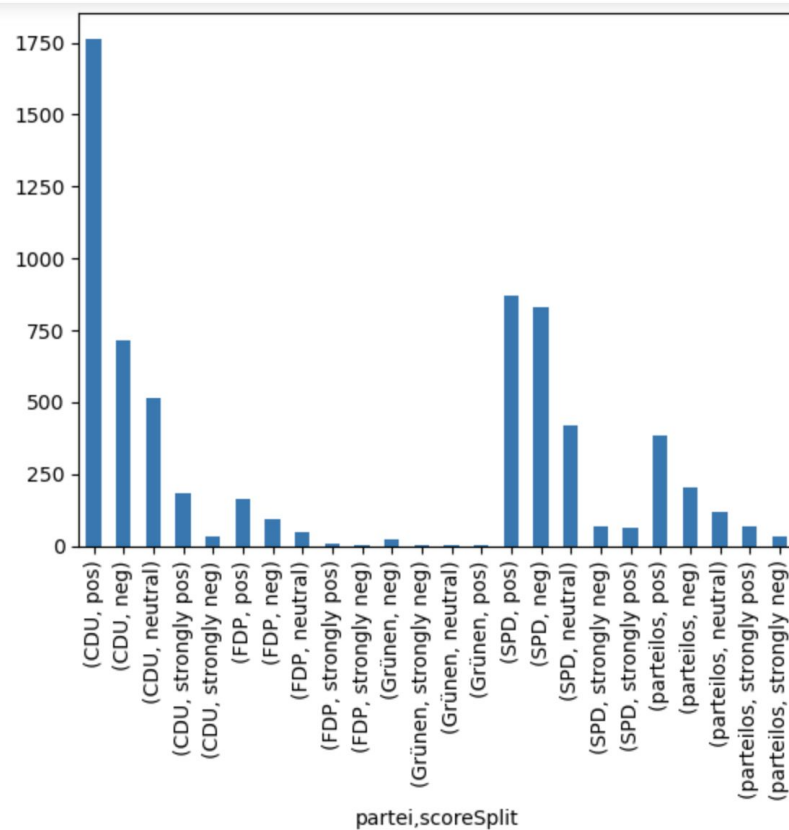
- 6619 speeches by 71 speakers
- Spanning from 1984–2017
- Coming from 5 parties
 - Parteilos(partiless), CDU, SPD,FDP, Grünen(Greens)
- 61.28% of the speeches were made by men and 38.72% by women
- 44 positions are represented(I will not be listing them all)

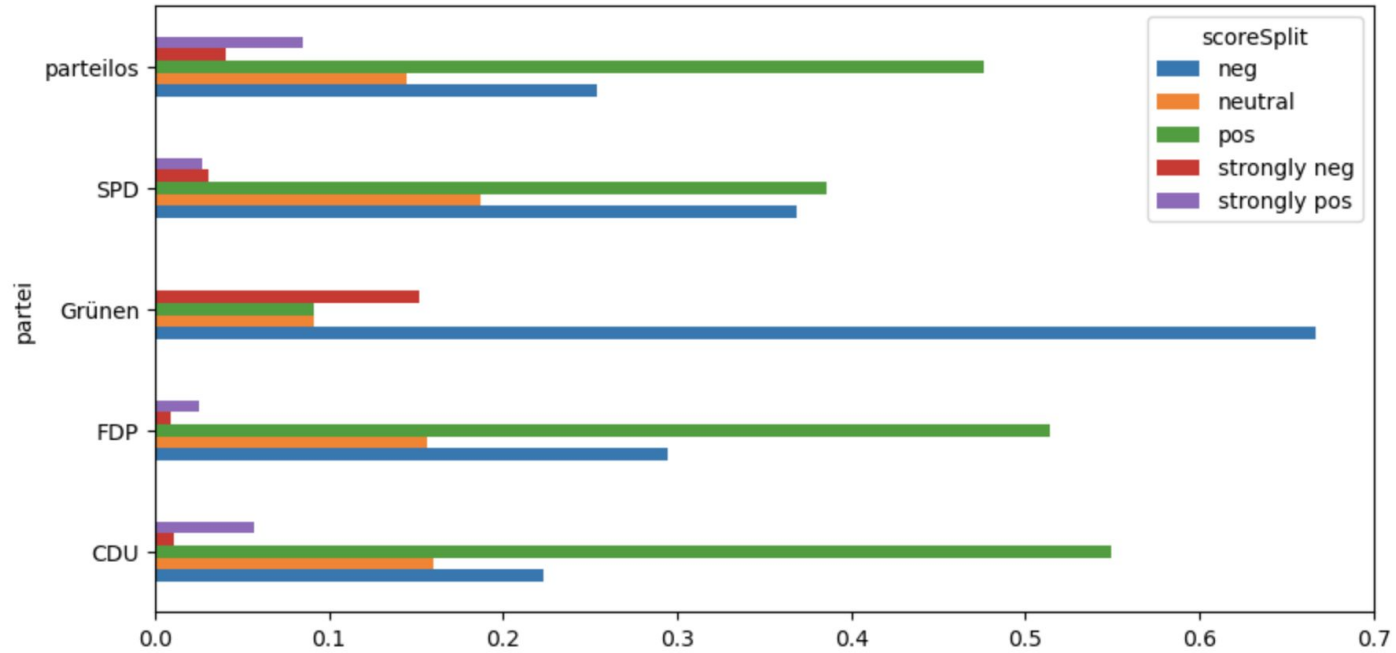


Sentiment Analysis Time!

- Used SentiWS(German sentiment analysis resource)
 - Contains around 1,650 positive and 1,800 negative words, which sum up to around 16,000 positive and 18,000 negative word forms including their inflections
- Lil demo

CDU	3213
SPD	2250
parteilos	804
FDP	319
Grünen	33





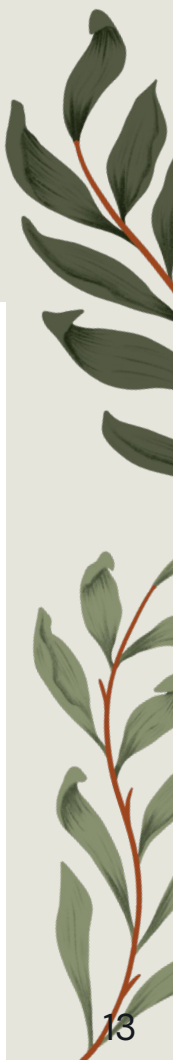
(Checked for statistical significance)

Most common 20 words in strongly positive and their weights::

```
[('freue', 0.2198)]  
[('Freude', 0.6502)]  
[('Erfolg', 0.3446)]  
[('danke', None)]  
[('liebe', None)]  
[('Engagement', 0.2157)]  
[('Mut', 0.6093)]  
[('guten', None)]  
[('Zusammenarbeit', 0.0893)]  
[('feiern', 0.494)]  
[('lernen', 0.2492)]  
[('danken', 0.191)]  
[('wichtige', 0.3822)]  
[('miteinander', 0.3697)]  
[('Bildung', 0.004)]  
[('Freiheit', 0.004)]  
[('freuen', 0.2198)]  
[('Freundschaft', 0.2059)]  
[('Tradition', 0.004)]  
[('Liebe', 0.0985)]
```

Most common 20 words in strongly negative and their weights:

```
[('Krieg', -0.5364)]  
[('Gewalt', -0.5363)]  
[('Frieden', 0.004)]  
[('Verantwortung', 0.004)]  
[('Freiheit', 0.004)]  
[('Leid', -0.5056)]  
[('Schuld', -0.9686)]  
[('Krieges', -0.5364)]  
[('Unrecht', -0.5086)]  
[('Angst', -0.514)]  
[('Kampf', -0.5372)]  
[('Hass', -0.5014)]  
[('Tod', -0.0697)]  
[('Trauer', -0.0048)]  
[('verloren', -0.393)]  
[('Gefahr', -1.0)]  
[('Auseinandersetzung', -0.0603)]  
[('Gedenken', 0.004)]  
[('Sicherheit', 0.004)]  
[('Wahrheit', 0.004)]
```





03

Reflection





Reflection

- Room for improvement
 - SentiWS number of scored words is lacking
 - Skewed data because party representation is uneven
- Possible Future Goals
 - Doing similar analysis with the party websites
 - Try another larger German sentiment analyzer



The slide features a light beige background with decorative floral illustrations in the corners. Top-left: a blue leafy branch. Top-right: a green leafy branch and a single orange flower. Bottom-left: a red leafy branch and a small green branch. Bottom-right: a green leafy branch. Center: the word "Questions?" in a large, dark blue serif font.

Questions?

Thanks for listening:)