Emotions Running High?  
A Synopsis of the State of Turkish Politics through the ParlaMint Corpus 

Gül M. Kurtoğlu Eskişar and Çağrı Çöltekin 

Department of International Relations, Dokuz Eylül University  
Department of Linguistics, University of Tübingen 

ParlaCLARIN 2022, June 2022
Outline / Motivation

• In this study
  – An exploratory study of emotions in Turkish parliament between 2011–2021
  – Observations on change of emotions based on major sociopolitical events
  – Methodology: use of data-driven (machine learning) methods for analyzing political discourse

• (Long-term) motivation
  – More objective analyses of political discourse
  – Analyzing the effects of major changes in a country / parliament (e.g., 2018 constitutional change in Turkey)
Methodology

- We train one-vs-rest SVM emotion classifiers using TREMO (an ISEAR-like data set for Turkish)
- We assign emotion scores based on the classifiers to all speeches in the main proceedings of the parliament
- We visualize the emotions (per party) for all the data available from ParlaMint
- We look closely the changes in emotions in a few recent major social/political events
- Our focus is on Turkish parliament, but we also run similar experiments using the ISEAR data set and ParlaMint-UK as an additional check for the method
An overview of the emotional changes

Average emotion score

- AKP
- CHP
- MHP
- HDP
- IYIP

Events:
- Gezi protests
- Bribery case
- Local elections
- Soma
- Presidential el.
- Kobani
- Gen. elections
- Gen. elections
- Coup attempt
- Referendum
- Presidential el.
- Local el.
- Istanbul el. (repeat)

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Emotions in Turkish Parliament

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Distribution of individual emotions
Anger rules in parliamentary discourse
A closer look at ‘anger’ around some events

![Graph showing anger levels around specific events.](chart)

- **Anger**
  - AKP
  - CHP
  - MHP
  - HDP
  - IYIP

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Emotions in Turkish Parliament

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Concluding remarks

- An objective method for analyzing political discourse using large amount of data
- The method seems useful: emotions in parliament correlate with important events
- Many interesting observations, but they need verification (statistical tests, external checks)
- Comparison with other platforms (e.g., social media) is another interesting direction for future research
- The method needs more improvements/validation
  - Experiments on other parliamentary corpora
  - In-domain, specialized data set(s)
  - Further qualitative checks

Thank you for listening!

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A closer look at ‘fear’

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A closer look at ‘sadness’

The graph shows the percentage of times the term 'sadness' was used in the Turkish Parliament from 2011 to 2021, categorized by political parties (AKP, CHP, MHP, HDP, IYIP). The y-axis represents the percentage of times 'sadness' was mentioned, while the x-axis represents the years from 2011-2021. The graph indicates fluctuations in the use of the term 'sadness' over time, with peaks and troughs that correspond to specific periods.
A closer look at ‘disgust’
A closer look at ‘surprise’
A closer look at ‘joy’

![Graph showing the trend of happiness for different political parties in Turkey from 2011 to 2021.](image)
Emotions in UK parliament (per party)

Average emotion score

Emotions in Turkish Parliament

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Emotions in UK parliament (per emotion)