Language of Polarization

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Introduction and Relevance









Introduction and Relevance

- American politics have become increasingly partisan and polarized since 1960s (Baldassarri & Goldberg 2014)
- Last few years saw a spiking rise in the (negative) language tone (Jensen et al. 2012), especially in the US politics since 2016 (KhudaBukhsh et al. 2021)
- Ideological and affective polarization, also online
- → Simchon et al. (2022): "language of online polarization"
- Polarization in language is not systematically researched (Jensen et al. 2012)

Research Question

How are historical events used in online discussions regarding the Black Lives Matter movement after the George Floyd murder in May 2020?

Theoretical Background

Political Polarization

Affective polarization

(identity-based, out-group animosity)

VS.

ideological polarization

(divergence of political opinion, attitudes ...)

Online Polarization

- Cross-ideological discussions vs. echo chambers (e.g. Guimaraes et al. 2019; Hargittai et al. 2008; Morales et al. 2021; Nithyanand et al. 2017; Rozenbeek/Palau 2017)
- Highly salient topics (such as BLM) can increase language (online)
 polarization (Nithyanand et al. 2017; Soliman et al. 2019)
- → might mirror ideological polarization (Simchon et al. 2022)
 - Research focuses on 2016 US election as a turning point (An et al. 2019; Hofmann et al. 2022; Solimani et al. 2019)

Hypotheses

- 1. The discussion in the online public sphere mirrors ideological polarization in the US, with political left and political right differing in their references to historical events.
- 1. Polarized language increases when BLM and related topics are more salient (e.g. when taking down of statues is discussed).

Data & Method

Data

- Subreddits from the year 2020
 - r/Democrats (left leaning)
 - r/Conservative (right leaning)
- Data collected from ~1.5TB Reddit data dump 2009-2022
- Focus: BLM, pulled statues

Method

- 1. Scraping both titles and comments of the subreddits r/Democrats (206,614 comments) and r/Conservative (3,682,999 comments)
- 2. Scraping pulled statues list from Wikipedia
- 3. Topic Models (STM)
- 4. Dictionary-based analysis
- 5. Word co-occurence analysis
- 6. Word embeddings
- 7. Qualitative expert evaluation

Building a History Dictionary

Keywords for...

- US History (e.g., "george washington", "civil war")
- History of the civil rights movement "CRM" ("abolition", "martin luther king", "ferguson")
- "CSA dictionary" (e.g., "confederate states of america", "plantation", "jefferson davis")

Identifying Frames

It wasn't a mistake to pull down the statue of Ulysses S Grant

We need to change our perspective on how to memorialize complicated individuals from history

INDEPENDENT

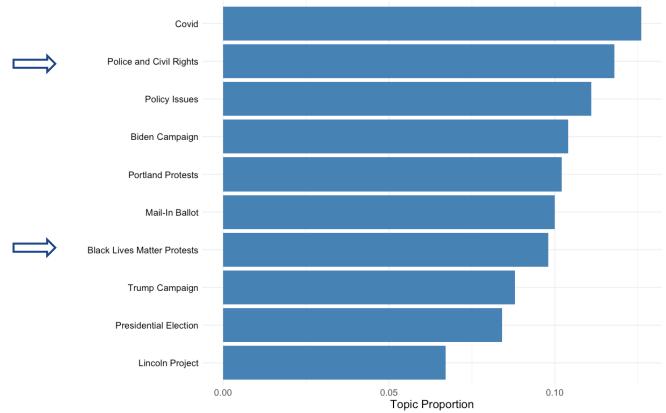
Defend U.S. Statues and Monuments: Here's What the Mobs Really Want to Destroy



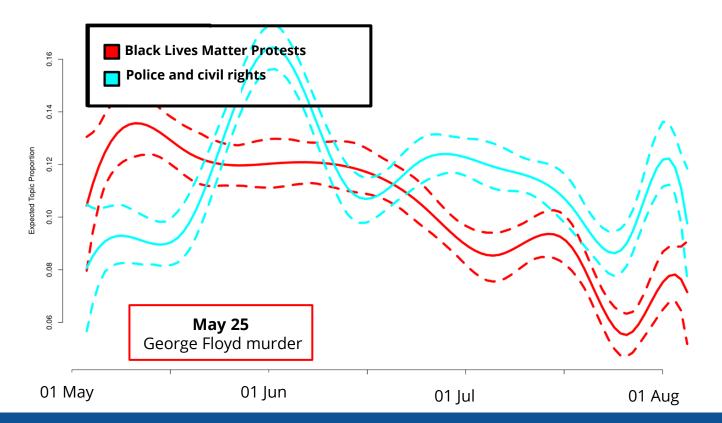
Left-wing Frame	Concept	Right-wing Frame
Statue	Statue	Statue, Monument
Pull down, remove	Bringing down statues	Destroy, tear down
Activists, demonstrators; sad, tired	BLM protestors	Mob, criminals; aggressive, lawless
Change perspectives	Action message	Defend
Complicated individuals	People depicted	Heroes, Symbols

Results

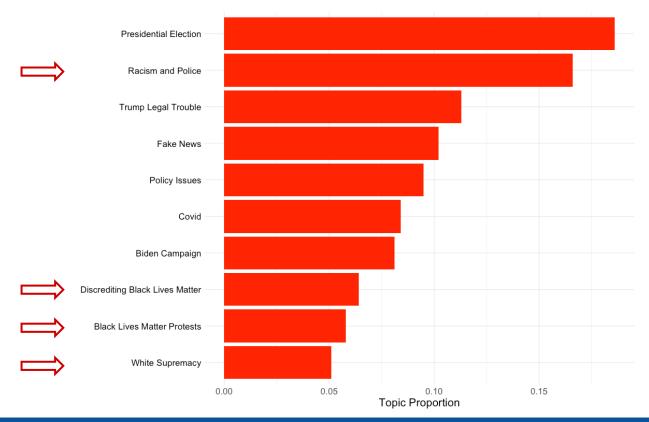
Topic Modelling: r/Democrats



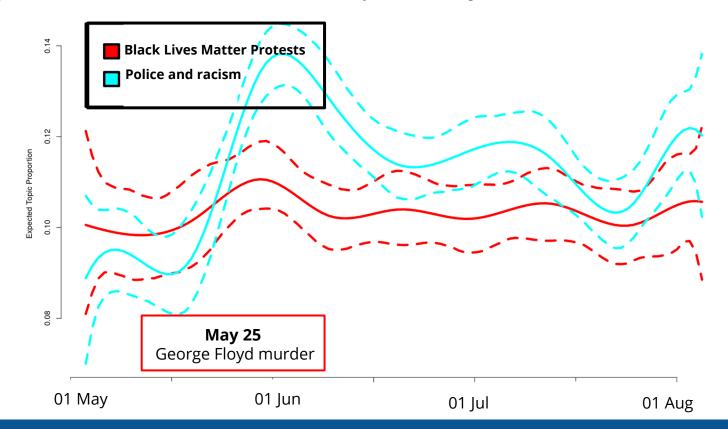
Topic Trends over Time from r/Democrats



Topic Modelling: r/Conservative



Topic Trends over Time from r/Conservative



Comparing Topics: Frex Terms

r/Democrats

Topic: Police and civil rights

great, rights, racist, civil, police, lewis, happen, john, dead, wont, little, defeat, like, booker, video, years, die, let, person, cory

r/Conservative

Topic: Police and racism

racism, officers, officer, woman, thought, council, change, seattle, great, systemic, minneapolis, city, police, shooting, department, fire, atlanta, chief, problem, public

Difference in using Historical Frames



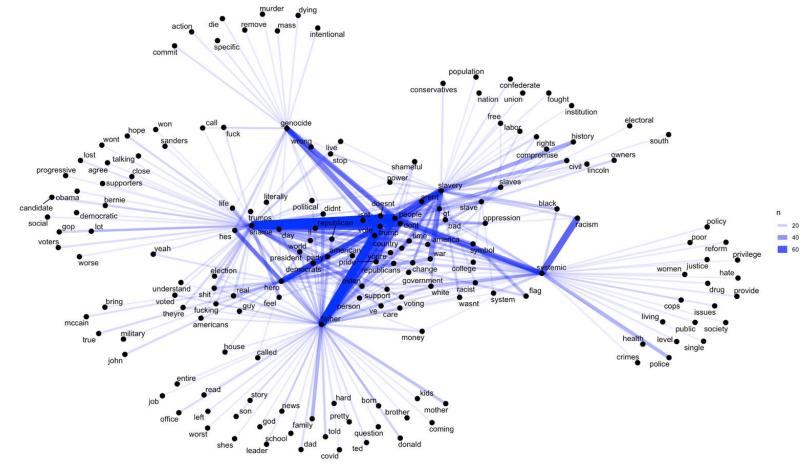
Difference in using Historical Frames July 8 Bodycam footage released **May 31** July 30 First statue Funeral of John Lewis June 19 goes down **More Left** Juneteenth Measure June 24 - July 1 Litigation against police officers Confederate States US History **Even** June 1 Protest violently cleared in DC for Trump **July 17 More Right** Death of 2 CRM icons **May 25** George Floyd murder June 4-11 May-23 May-26 May-29 Jun-01 Jun-04 Jun-07 Jun-10 Jun-13 Jur Daily protests, Removal of statues -19 Jul-22 Jul-25 Jul-28 Jul-31 Aug-03 21

Top 15 Word Embeddings for "Statues"

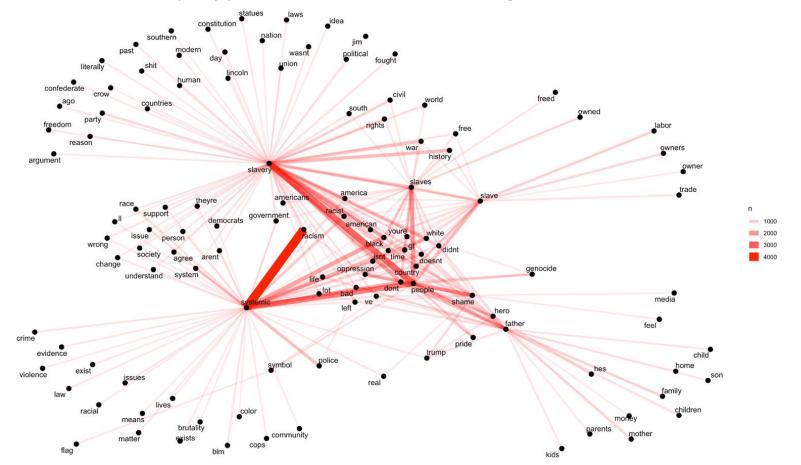
r/Democrats: Posts		
confederate	votinglet	
nicest	texters	
erecting	inappropriate	
dino	stare	
obliged	invoke	
heartbreaking	jbs	
simplicity	higgins	

r/Conservative: Posts		
confederate	monument	
statue	christ	
jesus	tearing	
toppling	destruction	
monuments	lincoln	
historical	churches	
topple	shutting	

Co-Occurence: Jefferson Davis in r/Democrats (n)=10)



Co-Occurence: Jefferson Davis in r/Conservative (n>=300)



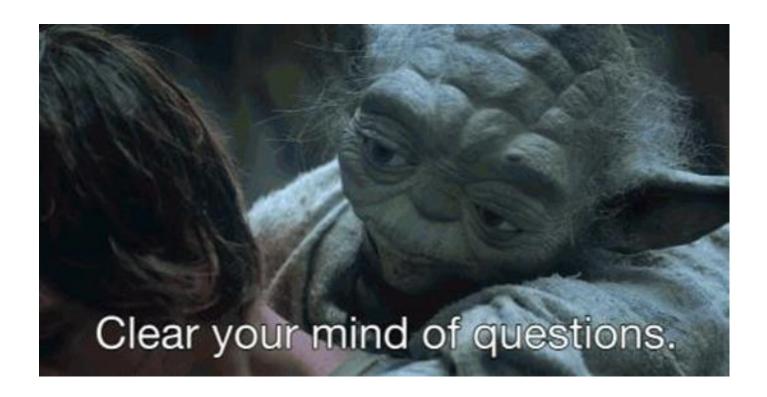
Conclusion

- People in r/Conservative and r/Democrats reference historical events differently.
- → Conservatives defend founding fathers and confederacy
- → Democrats reference civil rights leaders
 - Increase in polarized language after George Floyd murder and in months of protests.

Potential for Further Development

- Validate dictionaries, especially for meaning of left/right context
- Improve sample (e.g. more subreddits)
- Focus analysis on historical memory
- Improve causal argument (theoretically and methodologically)
- Apply additional methods, e.g. embedded regression analysis or sentiment analysis
- Present at conferences!

Questions



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R. KhudaBukhsh, Ashiqur, Rupak Sarkar, Mark S. Kamlet, and Tom Mitchell. 2021. "We Don't Speak the Same Language: Interpreting Polarization Through Machine Translation." AAAI 35 (17): 14893–901. doi:10.1609/aaai.v35i17.17748.

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New Transcripts Detail Last Moments for George Floyd - The New York Times (nytimes.com)

George Floyd told officers 'I can't breathe' more than 20 times, transcripts show | George Floyd | The Guardian

George Floyd's death was 'murder' and the accused officer 'knew what he was doing,' Minneapolis police chief says | CNN

Opinion | We Know How George Floyd Died. It Wasn't From Drugs. - The New York Times (nytimes.com)

<u>Timeline: Key events in the month since George Floyd's death | Reuters</u>

Revisiting Portland's "Summer of Rage" | The New Yorker

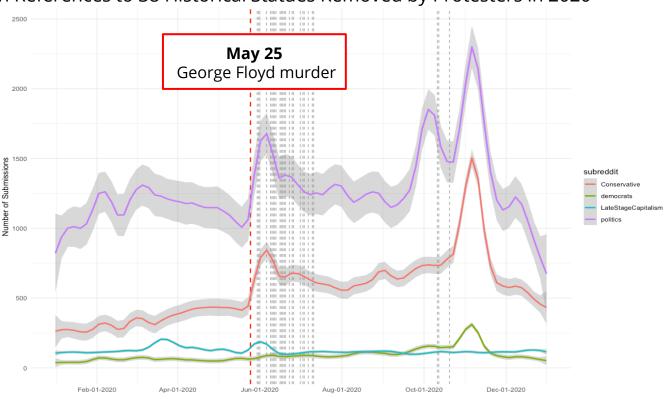
'Emmett Till was my George Floyd': John Lewis makes final rousing call for progress in essay | Civil rights movement | The Guardian

The US loses two icons of the civil rights movement in one day | CNN

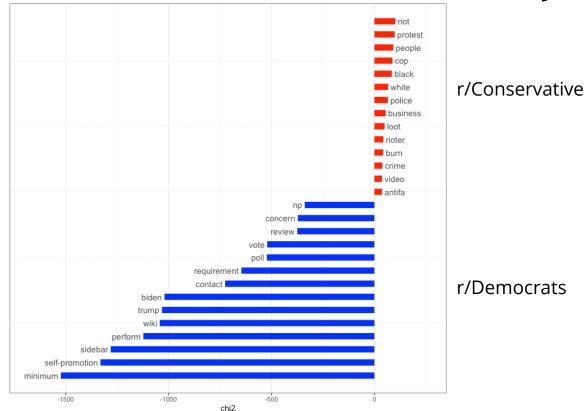
Appendix

Number of Submissions by Political Subreddit

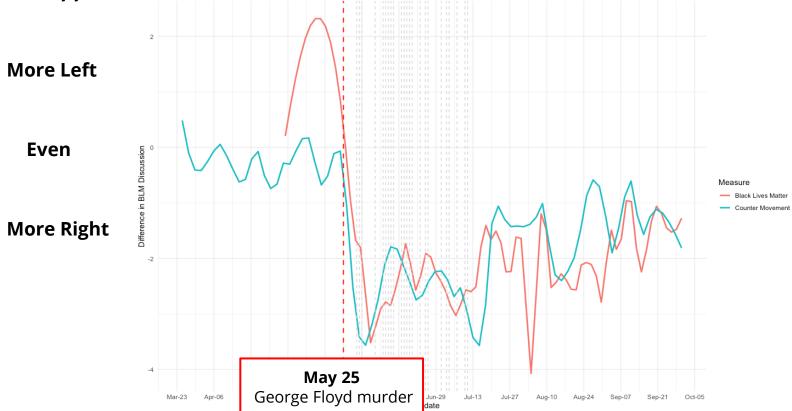
with References to 38 Historical Statues Removed by Protesters in 2020



Polarized Words in Week Following George Floyd Killing



Difference in Using BLM-WLM Terms

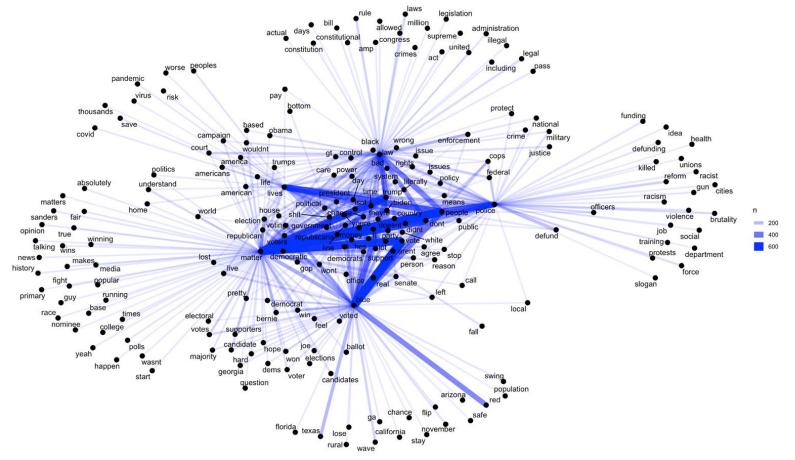


Top 15 word embeddings for "floyd"

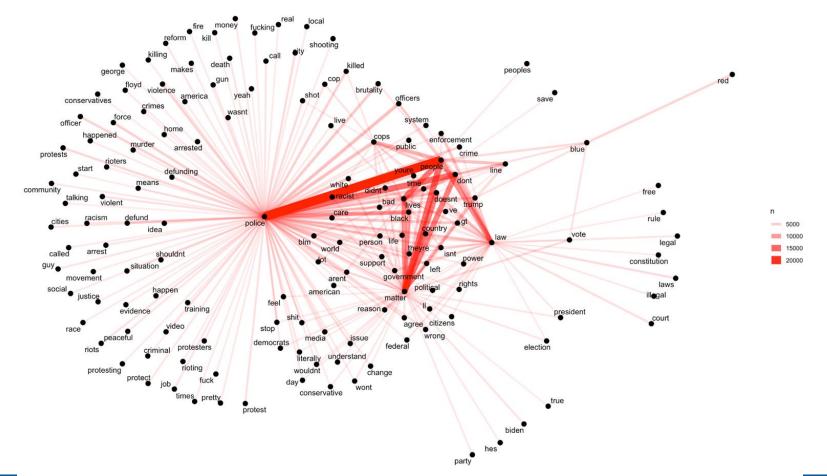
r/politics - posts	
george	cops
floyds	wake
protests	minneapolis
death	arrest
riots	police
killing	murder
protest	protesters

r/Conservative - posts	
george	kenosha
following	killing
protests	protest
floyds	riot
soros	soleimani
riots	murder
death	stephanopoulos

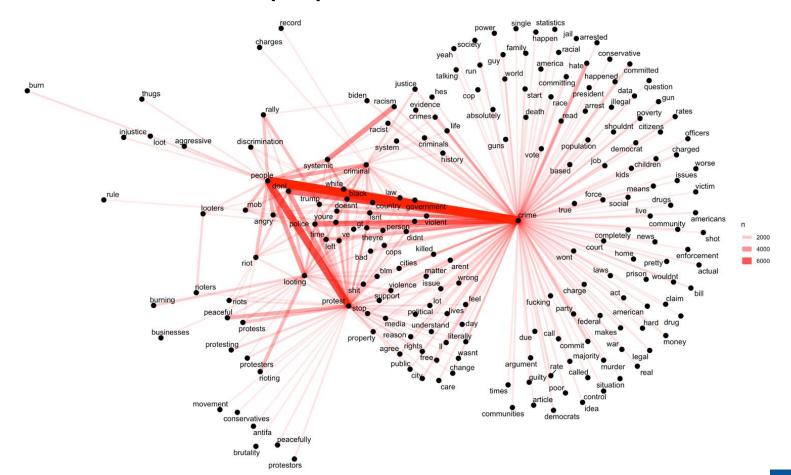
Co-Occurence: Police in r/Democrats (n>=50)



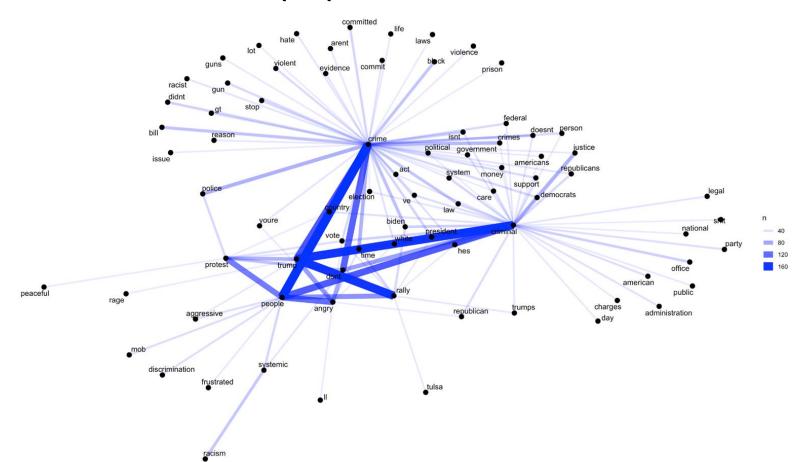
Co-Occurence: Police in r/Conservative (n>=1800)



Co-occurence: concept protest (n>=600)



Co-occurence: concept protest (n>=30)

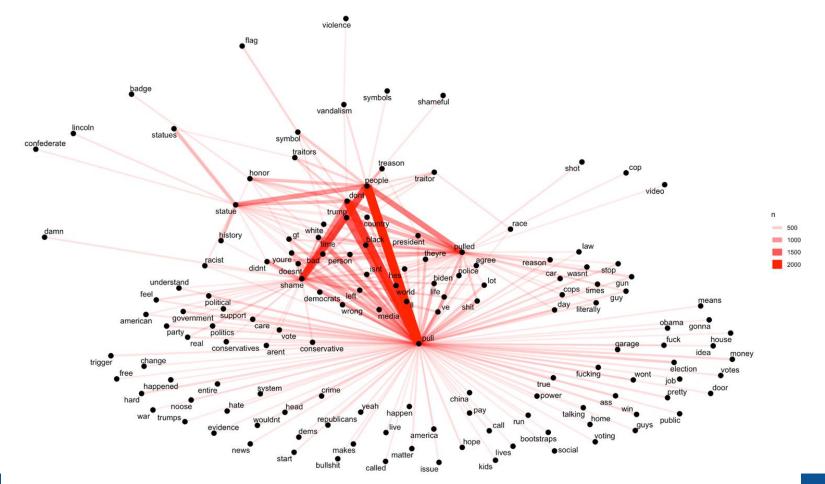


Top 15 word embeddings for "statues"

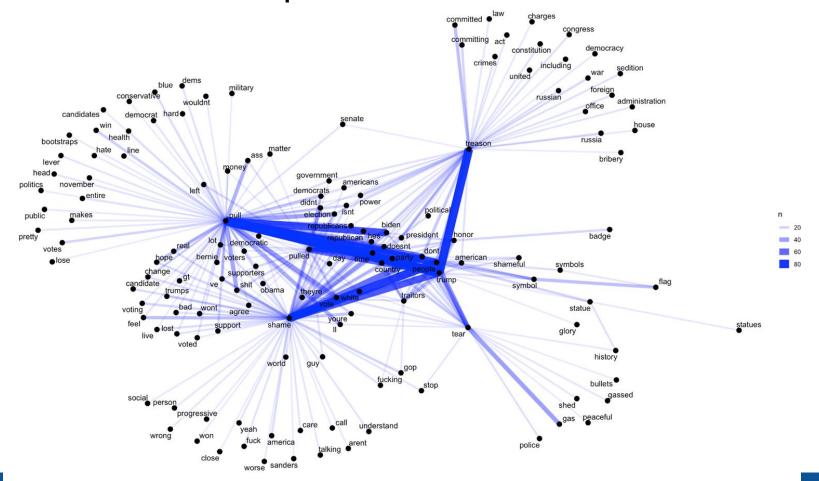
r/Conservative - comments	
monuments	traitors
tearing	confederates
toppling	memorials
statue	torn
confederate	monument
abolitionists	symbol
lincoln	confederacy

r/Democrats - comments	
tearing	burning
confederate	apart
wheels	iz
kinds	stories
flags	unprepared
shutting	laptops
lanyard	dozens

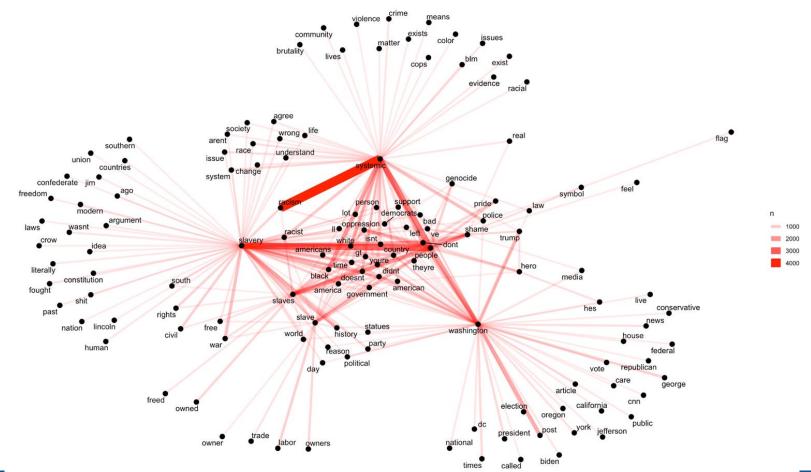
Co-occurence: concept statue (n>=200)



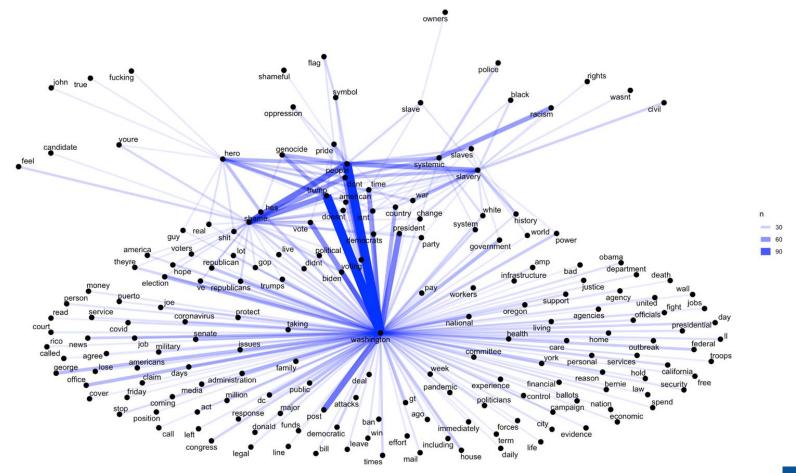
Co-occurence: concept statue (n>=10)



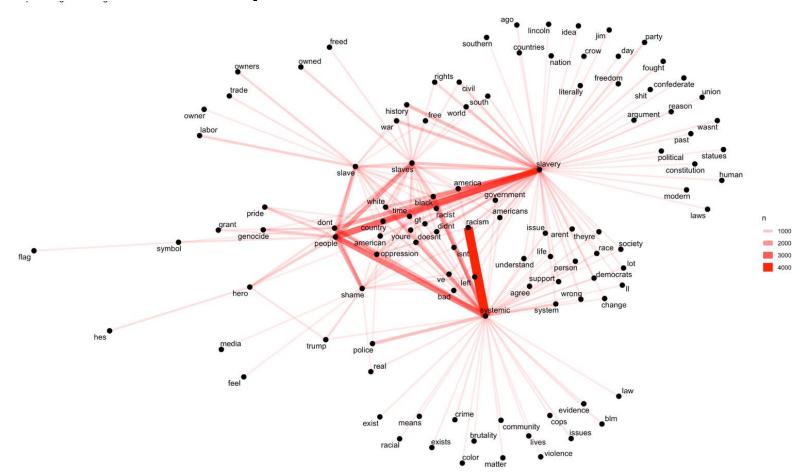
Co-occurence: George Washington (n>=300)



Co-occurence: George Washington (n>=15)



Co-occurence: Ulysses S. Grant (n>=300)



Co-occurence: Ulysses S. Grant (n)=10)

