

EEA-ESEM 2023

State of the Art Session : Violence, Conflict and State Capacity

RECONCILIATION OR PERSISTENCE OF HATRED : CONFLICTS AND THE ROLE OF NARRATIVES

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Narratives and Conflicts



Narratives in Economics : a Working Definition

Simple stories that people use to explain and interpret complex phenomena

Shiller (2017), Akerlof and Snower (2016), Cantoni et al. (2017), Mukand and Rodrik (2018), Nyman et al. (2018), Benabou, Falk and Tirole (2018), Eliaz and Spiegler (2020), Bursztyn et al. (2023), Campante, Depetris-Chauvin and Durante (2023), Gehring and Grigoletto (2023), Andre et al. (2023)...

Narratives and Conflicts : Examples

- The **causes** of the conflict
- The deployment of **violence**
- The **settlement** of disputes



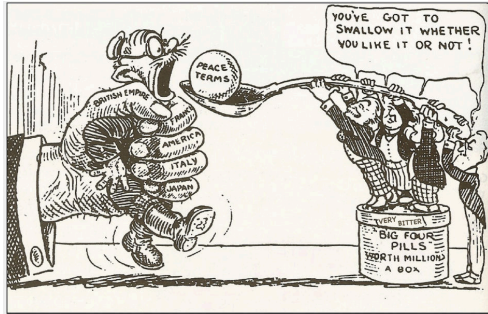
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Narratives and Conflicts : Examples

- The **causes** of the conflict
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Narratives and Conflicts : Open Questions

- i/ Do narratives about conflicts actually matter ?
- ii/ Do they affect the reconciliation process ?
- iii/ Can narratives change attitudes and behaviors ?
- iv/ How do they work ?
- v/ ...

Introduction
○○○

Movie
○○○○○

Design
○○○

Public Debate
○○○○

Military Enlistment
○○

Naming Patterns
○○

Discrimination
○○○

Conclusion
○○○

Narratives and Conflicts : Empirical Challenges

i/ Treatment : Measurement of the Narrative

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ii/ Causality : Exogenous Exposure to the Narrative

Narratives and Conflicts : Empirical Challenges

- i/ Treatment : Measurement of the Narrative

- ii/ Causality : Exogenous Exposure to the Narrative

- iii/ Impacts and Mechanisms : Measurement of the Effects

RECONCILIATION NARRATIVES

–“The Birth of a Nation” after the US Civil War–

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This paper

Reconciliation Narrative after US Civil War

We study how the spread of the “**Lost Cause**” narrative eased reunification after American Civil War (1861-1865)

- Destructive war, left a deeply fractured society
 - 2% of the population died in the line of duty
- Lost Cause : Revisionist record of the war, by southern elites who “*sought justification for their cause and explanations for their defeat*” (Blight 2002)
 - Common Enemy logic
- Lost Cause was popularized after 1915 by the Hollywood blockbuster “**The Birth of a Nation**” [BOAN] by D.W. Griffith

What we do

- i/ Measurement of the Treatment : we map **the screening of BON** (= exposure to the Lost Cause narrative) and estimated the impacts of the movie on attitudes and behaviors

- ii/ Causality : We use exogenous variations in screening generated by the logistics of movie distribution

- i/ Measurement of the Impacts : we measure an array of **attitudes** (opinions & behavior) towards **reconciliation** and **discrimination**
 - 1910-1920, panel of US counties
 - Text from newspapers, archival records of enlistments, names from Census

Main Findings

Finding #1 The movie eased reconciliation between former enemies

- Rhetorics (*opinions*) : Content analysis of newspapers' articles reveals less divisive/more conciliatory words
- Patriotism (*behaviors*) : Increased enlistment rate in the US Navy
- Shared culture (*behaviors*) : Increased adoption of first names from former enemy's regional identity

Finding #2 Reconciliation came with racial discrimination

- Movie increased segregation against African-Americans (public discourse, housing/labor market)

Finding #3 Nation-wide reconciliation

- All the effects are detected both within former confederate and unionist states

The Birth of a Nation

The movie

- *The Birth of a Nation* [BON] premiered in February 1915
- 3 hours Civil War drama
- Part fiction and part history, complex plot appealing to a broad audience.
 - Tells the “true” story of the Civil War. The movie revolves around two families (the Camerons from SC and the Stonemans from PA)
- Most expensive and profitable movie then produced
 - Around \$50 million box office [\$1 billion PPP adjusted (Corliss, 2015)]
- National and international sensation. Controversy & Failed Ban & Riots

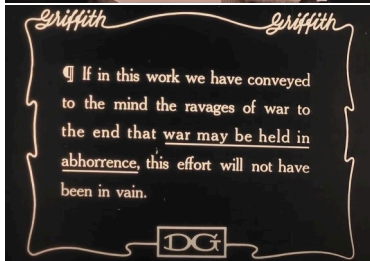
*“It is like writing history with lightning.
And my only regret is that it is all so terribly true.”*

President Woodrow Wilson

The Birth of a Nation

The plot 1/3 : the “True” story

- The “**true**” story of the Civil War and the Reconstruction
- Slavery not the true cause of the war
- Culprit : a greedy Northern Republican mulatto politician
- Northern abolitionists unwilling to respect Southern liberties



The Birth of a Nation

The plot 2/3 : the Common Enemy

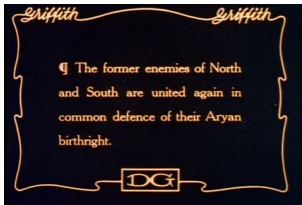
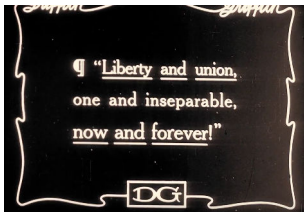
- Black men portrayed as unintelligent and sexually aggressive towards white women
- Enfranchised black a serious social and political threat
- Ku Klux Klan restorer of a just social order



The Birth of a Nation

The plot 3/3 : the Reconciliation

- Reconciliation for securing the supremacy of the white man



Measuring movie diffusion from historical newspaper data I

Historical local Newspapers : Newspapers.com. Largest online archive (+25 million pages, +3700 newspapers)

- 1/ Monthly coverage 1910-1920 :
1,070 counties (HQs location), one third of all US counties
- 2/ Automated text extraction for keywords *The Birth of a Nation*. 55,044 items
- 3/ Human Intelligence Task : 14,421 "true" ads ; 442 counties
- 4/ Assign movie to county of newspaper HQ



- ⇒ Build an Indicator of movie post-screening at county × month level
- $BON_{ct} = 1$ following months where screening proofs have been collected

Baseline Specification

- We start with a two-way fixed effects OLS estimation

$$\text{outcome}_{ct} = \alpha + \beta \times \text{BON}_{ct} + \sum_c \text{FE}_c + \sum_t \text{FE}_t + \epsilon_{ct}$$

- Unit of observation : county c and year-month t (i.e. Jan 1920)
- Sample : 1070 counties, 1910-1920
- $\text{Outcome}_{c,t}$: type of rhetoric, enlistment, naming type, discrimination, ...
- BON_{ct} codes for post-screening period
- FE_c and FE_t : county FE and time FE
- County-level clustered SE

Instrumental Variable : The Million Dollar Mystery

- Distribution of movies early 1900s : **recurrent spatio-temporal patterns**
- Because of logistical constraints :
 - Supply shifters*–
 - no theater in some areas
 - limited number of reels
 - pre-existing movie deals between theaters
- *The Million Dollar Mystery* [MDM] :
 - A **radically different Plot!** A secret society attempts to gain control of a lost million dollars
 - Released in June 1914 [231 days before BON].

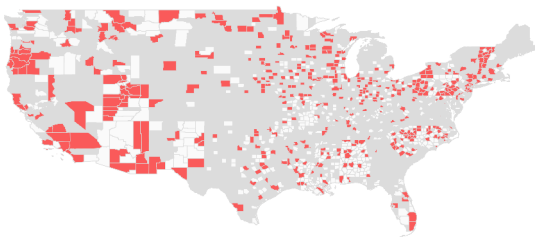
⇒ Instrument of BON_{ct} is the post-screening indicator MDM_{ct} *transposed 231 days later*



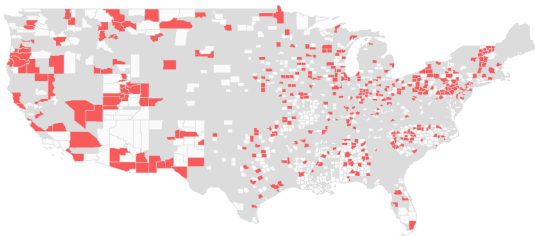
Birth of a Nation and Million Dollar Mystery

The Instrument at work

Birth of a Nation



Million Dollar Mystery



Measuring rhetoric in newspaper articles I

We measure **opinions towards reconciliation** using newspapers

- Local newspapers : key vehicle of communication covering many aspects of social life (news, public debate, ads).

▶ [Newspapers.com](#)

Bags of words approach. In short :

- 1 mln articles from (1904-1914) from *Chronicling America* (text cleaning, identification of common bigrams...)
- Co-occurrence analysis, **Pointwise Mutual Information** Index
 - Start from a list of seeds (from movie scripts, texts, and speeches)
 - [→] Expand the initial list with co-occurring words (or bigrams)
- on **MTurk**, ask workers to assign each word to *Patriotic*, *Divisive* or *N/A* category
- Download the top scoring words from Newspapers.com, use Top 20 lists as baseline

Measuring rhetoric in newspaper articles II

- We obtain 2×20 keywords related to
 - **Patriotic** rhetoric : US Flag, Stars and Stripes, Patriotic...
 - **Divisive** rhetoric : Secession, Civil War, Confederate...

► Bag of Words

- For a given keyword i , we compute

$$\log\text{Freq}_{i,c,t} \equiv \log \left[\frac{1 + \text{Page}_{i,c,t}}{1 + \text{TotPage}_{c,t}} \right] \quad (1)$$

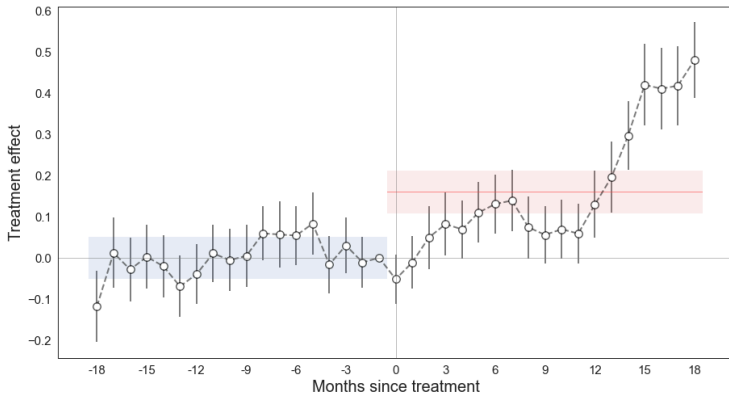
- Finally, we take the 1st Principal Component :
 - **Patriotic** = PC1(log freq patriotic rhetoric list)
 - **Divisive** = PC1(log freq divisive rhetoric list)
 - **Reconciliation** = Patriotic - Divisive

► Time Series

► Map

Event-Study

FIGURE – Reconciliation Discourse - Leads and Lags



NOTE Estimation based on De Chaisemartin and D'Haultfoeuille (2020).

Baseline Results : Reconciliation rhetoric

LHS : PCA First component of keywords log freq for each bag of words (patriotic or divisive)

TABLE – Patriotic vs Divisive Discourse - Newspaper Analysis

	Reconciliation			Patriotic			Divisive		
	(1) OLS	(2) RF	(3) 2SLS	(4) OLS	(5) RF	(6) 2SLS	(7) OLS	(8) RF	(9) 2SLS
Birth of a Nation	0.400*** (0.0214)		1.092*** (0.0711)	0.345*** (0.0234)		0.849*** (0.0706)	-0.0558*** (0.0166)		-0.243*** (0.0474)
Million Dollar Mystery		0.410*** (0.0250)			0.319*** (0.0265)			-0.0911*** (0.0172)	
Observations	89,325	89,325	89,325	89,325	89,325	89,325	89,325	89,325	89,325
F-stat	-	-	217.603	-	-	217.603	-	-	217.603
Sample SD	.928	.928	.928	3.741	3.741	3.741	4.121	4.121	4.121

NOTE: The table reports OLS (Columns 1, 4, and 7), reduced form (Columns 2, 5, and 8), and 2SLS (Columns 3, 6, and 9) estimates. All regressions control for county, month-year, and coverage percentile fixed effects. Standard errors clustered at the county level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

► Robustness, changing words

Patriotism and US Navy Enlistment I

- We measure patriotism through army volunteering (Fouka 2019, Caprettini and Voth 2022)
- Need for county-level monthly variations → Build our own dataset
- Casualties suffered by US Navy in WWI
 - Exhaustive and unexploited dataset collected by the Navy Department (1920)
 - 7,569 deceased sailors after April 1917
 - We observe the date of enrollment and address of closest relative
 - We observe enrollment between January 1913 and December 1918 (before /after BOAN) of individuals from all counties (i.e. no clustering along coasts)
- We build a time-varying proxy for enrollment at the county-level.

$$\text{Enlistments}_{c,t} \equiv [\text{sailors}_{c,t} > 0] \quad (2)$$

Patriotism and US Navy Enlistment II

TABLE – BOAN Exposure and Volunteering

	Navy Enlistments					
	Jan 1913 - Nov 1918			Jan 1913 - Mar 1917		
	(1) OLS	(2) RF	(3) 2SLS	(4) OLS	(5) RF	(6) 2SLS
Birth of a Nation	0.037*** (0.0048)		0.069*** (0.0112)	0.017*** (0.0046)		0.03*** (0.0099)
Million Dollar Mystery		0.0263*** (0.0046)			0.0093*** (0.0031)	
Observations	65,746	65,746	65,746	47,226	47,226	47,226
1st stage F-Stat	-	-	335	-	-	281
Dep. Var. Mean	.03	.03	.03	.01	.01	.01
Dep. Var. Std. Dev.	.18	.18	.18	.1	.1	.1

NOTE: The table reports OLS (Columns 1, and 4), reduced form (Columns 2, and 5), and 2SLS (Columns 3, and 6) estimates. All regressions control for county, and month-year fixed effects. Standard errors clustered at the county level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Magnitude (col. 6)– BOAN brings a 3% increase in likelihood of observing enlistments in a county

Enemy-sounding Name Index

- Common identity = key driver of nation-building
- Parental decisions on babies' **first names** as cultural markers (Fouka 2019, Abramitzky et al. 2020, Algan et al. 2021)
 - We explore the extent of "unionist-sounding" names among babies born in former confederate states (and *vice-versa*).
- Using Census data, we compute the **Enemy-sounding Name Index**

$$ENI_i = \frac{\text{FreqName}_{n(i),g-1(i)}}{\text{FreqName}_{n(i),g-1(i)} + \text{FreqName}_{n(i),g(i)}} \times 100 \quad (3)$$

- We estimate the baseline equation at the individual-level
- babies i born in [1910-1920] in $g \in \{\text{confederate}, \text{union}\}$ with a first name n
- FreqName are pre-1910 frequencies
- $ENI \in [0, 100]$ gauges how relatively more popular is a name in former enemy's regional culture.

Enemy-sounding Name Index

TABLE – Birth of a Nation and Naming Patterns

	Enemy Name Index					
	Continuous			Dummy		
	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	RF	2SLS	OLS	RF	2SLS
Birth of a Nation	0.628*** (0.228)		1.731*** (0.476)	0.0166*** (0.00633)		0.0490*** (0.0132)
Million Dollar Mystery		0.864*** (0.237)			0.0244*** (0.00642)	
1st stage F-Stat	-	-	90	-	-	90
Dep. Var. Mean	44.16	44.16	44.16	.36	.36	.36
Dep. Var. Std. Dev.	16.81	16.81	16.81	.48	.48	.48
Observations	91,612	91,612	91,612	91,612	91,612	91,612

NOTE: The table reports OLS (Columns 1, and 4), reduced form (Columns 2, and 5), and 2SLS (Columns 3, and 6) estimates. All regressions control for county, gender and (year of birth \times census year) fixed effects. Standard errors clustered at the county level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Magnitude (col. 6)– BOAN increases likelihood that a baby receives a enemy popular name by 4.9 pp (sample mean 36 pp)

▶ Robustness Naming Patterns

The common enemy logic at work : Discrimination of African-Americans I

- Did the movie push reconciliation by fostering discrimination ?
 - For Racial Hate see also Ang (2020)
- Using local newspapers, we build two time-varying measures of discrimination observed both in South and North
 - $\text{Supremacism}_{c,t}$ = Indicator variable, **“White Americans”**.
Captures **salience of race in public discourse on national identity**
 - Robustness : “True Americans”, “Aryan(s)”
 - $\text{Discrimination}_{c,t}$ = Indicator variable, **“White Only”**.
Captures **racial discrimination from job/housing ads**
 - Add filter “help” + “wanted” to select pages with job ads
 - Robustness : “White Men Only”, “White Only Wanted”

Discrimination of African-Americans II

Examples of racial discrimination in housing & Labor Market

FIGURE – Racial discrimination in the housing market and in the labor market

Houses For Rent.	
<p>AVONDALE—4252 Greenlee, 6 rooms; garage; \$75. ALAN C. ROUDEBUSH, Main 7996. 24</p>	<p>COOK wanted: short orders; come ready for work. Quality Restaurant, 242 Market.</p>
<p>BELLEVUE, KY. — 3-rm. house, Covert Run pike; \$15. Call H. C. SPINKS ESTATE, Fifth and Monmouth, Newport, S. 225. 23</p>	<p>COOK, for short orders, white man. Apply Savoy Restaurant, 5143 Market st.</p>
<p>COLLEGE HILL—Modern; 6 rooms; near cars and schools. Kirby 3785. 23</p>	<p>COOK wanted, short order. Wayne Restaurant, 4319 Germantown ave.</p>
<p>GEST ST 932—Five rooms and attic; rent \$30; white only. Key at 930 Gest st. 23</p>	<p>COOK, experienced short orders; white only; best wages. 308 S. 2d.</p>
<p>HYDE PARK—House of 6 rooms and maid's room, with double garage, \$85. PIPER & PIPER, 2725 Erie av., East 310 and East 3459 Y evenings. de7-1f</p>	<p>COOPERS, experienced on slack barrels. The Barrett Co., Margaret and Bermuda sts., Fkd.</p>
	<p>CHAMBERMAID and waitress in family of four white only. Call 18 Monroe pl, between Clark and Pierrepont sts. 27-3</p>
	<p>CHAMBERMAID and waitress, experienced girl. Apply 884 Park pl. between New York and Nostrand avs.</p>

NOTE : Three ads documenting racial discrimination in the housing market and in the labor market. *Left Figure* The Cincinnati Enquirer, Ohio. *Top Right Figure* The Philadelphia Enquirer, Pennsylvania. *Bottom Right Figure* The Brooklyn Daily Eagle, New York. Source : newspapers.com.

Discrimination of African-Americans III

TABLE – BOAN and Discrimination of African Americans

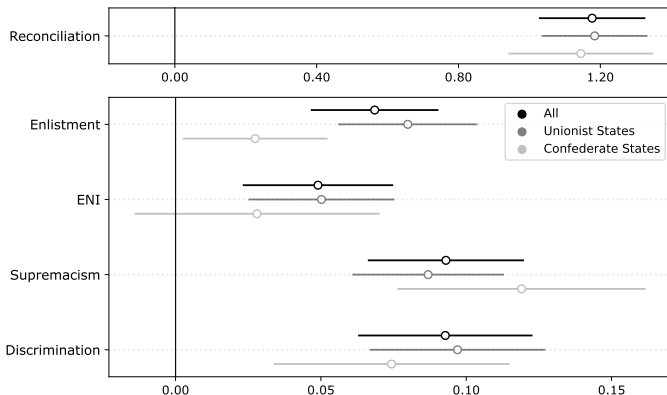
	Supremacism			Discrimination		
	(1) OLS	(2) RF	(3) 2SLS	(4) OLS	(5) RF	(6) 2SLS
Birth of a Nation	0.036*** (0.005)		0.093*** (0.014)	0.037*** (0.005)		0.093*** (0.015)
Million Dollar Mystery		0.035*** (0.005)			0.035*** (0.006)	
1st Stage F-Stat	-	-	218	-	-	223
Dep. Var. Mean	.11	.11	.11	.12	.12	.12
Dep. Var. Std. Dev.	.31	.31	.31	.32	.32	.32
Observations	89,325	89,325	89,325	89,325	89,325	89,325

NOTE: The table reports OLS (Columns 1, and 4), reduced form (Columns 2, and 5), and 2SLS (Columns 3, and 6) estimates. All regressions control for county, month-year, and coverage percentile fixed effects. Standard errors clustered at the county level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Magnitude – Exposure to BOAN increases by 8% the likelihood of references to "White Americans" and by 6% racial discrimination in ads.

A Nation-wide Phenomenon

FIGURE – A Nation-wide Phenomenon



NOTE : The figure summarizes regression estimates looking at the effects of exposure to BOAN on our outcome variables, standardized to have 0 mean and unitary standard deviation. See the text for further details.

Alternative Specifications

- ① Alternative coding choices :
 - Alternative Rules to assign the movie to counties
- ② WWI :
 - Alternative time frame : before US entry, before US participation in fighting
 - Time-varying war-related controls
- ③ Alternative county coverage
 - Only Counties that Screened BOAN by 1920
 - Balanced panel of counties always covered by newspapers
- ④ Validation of the instrumental variable approach :
 - Alternative movies transposed : TRAFFIC IN SOULS (1913), WHAT HAPPENED TO MARY ? (1912)
 - Presence of Theaters
- ⑤ Falsification exercises :
 - Compare the effect of MDM in counties with/without BON
 - Effect of MDM, before or after BON arrived
- ⑥ Alternative Specifications :
 - Flexible controls
 - County-specific time trends
 - State-month FEs
 - Word-based regressions
 - Spatial clustering of SE : aereg, state clusters
 - Spatial spillovers : 30km, 40km, 50km

Conclusion

- This paper provides evidence on the powerful role of **Narratives** in the aftermath of a civil conflict
- Looking at the Lost Cause narrative, as disseminated by the movie “The Birth of Nation” (1915)
- Results suggest that **reconciliation** was fostered by weakening the North/South cleavage while reinforcing the black/white cleavage



Appendix

Literature I

- **Narrative Economics**

“The field of economics should be expanded to include serious quantitative study of changing popular narratives” (Shiller 2017)

[Akerlof & Snower (2016), Mukand and Rodrik (2018); Cantoni et al. (2017)]

- **Small literature on peace- and nation-building policies**

[Cilliers et al. 2016; Fearon et al. 2015, Depetris-Chauvin and Durante 2020]

- **Conflict legacies on social capital**

[Cilliers et al. (2016); Blattman and Annan (2011); Bauer et al. (2014); Rohner et al. (2013); Cassar et al. (2013)]

- **Hatred narratives, propaganda and mass-media**

[Yanagizawa-Drott (2014); Della Vigna et al. (2014); Adena et al. (2015); Voigtlander and Voth (2015); Durante, Pinotti and Tesei (2019); Blouin and Mukand (2019)]

- **Parochial altruism and Group Identity Formation**

[Henrich and Boyd, 2001; Richerson and Boyd, 2001; Bowles, 2006; Choi and Bowles, 2007]

Literature II

History

- Literature on reactivation of history (Fouka and Voth 2016 ; Ochsner and Roesel, 2017)
- Rich literature on the role of memory in US history (Buck 1973, Foster 1988 and Blight 2009)
- Literature on the racist legacy of the movie BOAN (e.g. KKK revival)
 - Compelling quantitative evidence by Ang (2020) : Impact of BOAN on racial violence (lynchings, riots) + LR persistence
 - Our contribution : Racist content of the movie was instrumentally exploited to foster reconciliation, in a common-enemy type of narrative
 - Parallel work with Ang (2020) : Similarities in data collection, different instrumentation strategy, radically different outcome variables.

Newspapers Archives

Newspapers.com

- + Best coverage for the period 1910-1920
 - 1070+ counties with at least one digitized newspaper
- Lack of API, slow

Search algorithm :

- Words/combination of words (AND, OR, NOT)
- Retrieve info on the **number of pages** containing the query

Chronicling American (The Library of Congress)

- + Download full text
- Limited coverage (wrt to Newspapers.com)
- OCR to be improved

▶ Back

Bag of Words Approach : Dictionaries

- **Divisive** Rhetoric :

Armed Conflict, Armed Intervention, Battle Flag, Carpetbaggers, Civil War, Confederacy, Confederate Flag, Confederates, General Lee, Negro Domination, Picket Line, Race Problem, Secede, Secession, Secession Flag, Secessionist, Sectionalism, Slavery, Southerners, Unpatriotic

- **Patriotic** Rhetoric :

American Flag, American people, Americans, Americans together, Liberty and Equality, Liberty and Freedom, National Hymn, National Salute, Our Flag, Patriotic, Patriotism, Reconciliation, Restoration of Peace, Salute Flag, Stars and Stripes, The Star-Spangled Banner, True Patriot, United Country, United States, U.S. flag

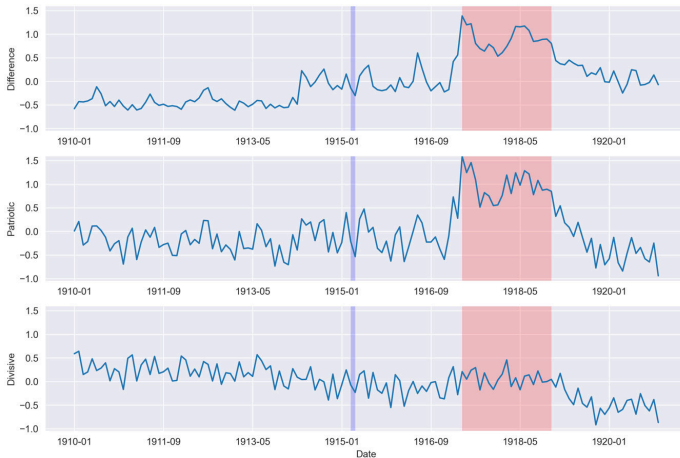
▶ Back

Bag of Words Approach : Selection

- ① 1 mln articles from the period 1904–1914 from *Chronicling America*, text cleaning, identification of common bigrams
- ② Co-occurrence analysis, **Pointwise Mutual Information** Index
 - Start from a list of seeds
 - Expand the initial list with co-occurring words (or bigrams)
- ③ on **MTurk**, ask workers to assign each word to *Patriotic*, *Divisive* or *N/A* category
- ④ Download the top scoring words from Newspapers.com, use Top 20 lists as baseline

▶ Back

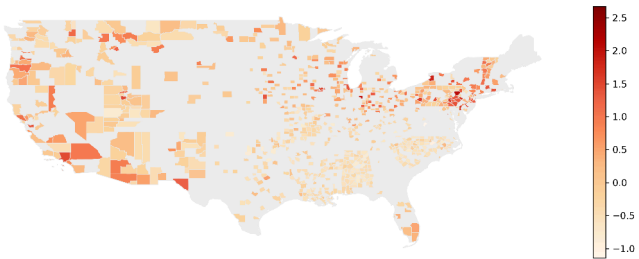
FIGURE – Reconciliation - Time Series Evolution



- In blue, date of release of BOAN
- In red, US involvement in WWI

▶ Back

FIGURE – Reconciliation - Average by county

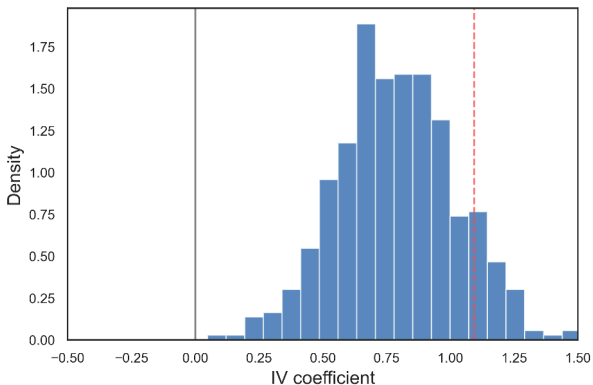


▶ Back

Bag of Words - Validation Exercise

Random Subsets of topic-specific Keywords (0.5 binomial, 500 draws)

FIGURE – Patriotic and Divisive List- Subsets



Military Enlistment - Robustness Exercises

① Alternative definitions of outcome variable :

- Log enlistments over population :

$$\text{logList}_{c,t} \equiv \log \left[\frac{1 + \text{sailors}_{c,t}}{1 + \text{Pop}_c} \right] \quad (4)$$

- Outcome variable : $\log(x + 0.01)$ and $\log(x + 0.1)$ and \sinh transformations ; extensive margin (dummy)
- Alternative Movie : 1 ad ; 5 ads.
- Enlistment measured with deaths of infectious disease

② Alternative county coverage :

- Counties that have newspaper coverage for at least 25% of months in our sample

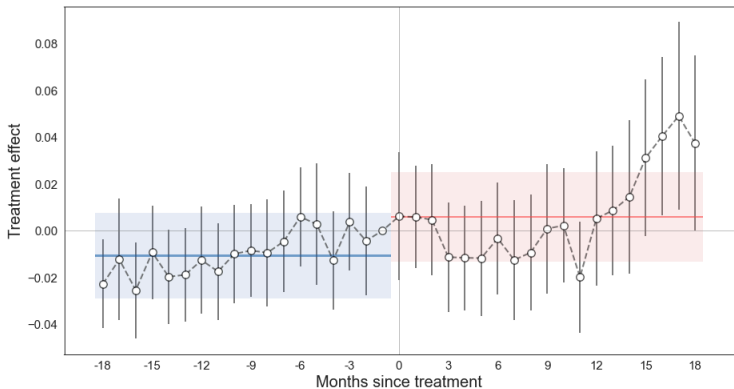
③ Alternative Specifications :

- Spatial clustering of SE : acreg, state clusters

▶ Back

Timing of the effect

FIGURE – Enlistments in the Navy - Leads and Lags



NOTE Estimation based on De Chaisemartin and D'Haultfoeuille (2020).

▶ Back

Enemy-sounding Name Index - Robustness Exercises

① Alternative coding choices :

- Alternative name-soundness
- Alternative definitions of former enemies
- Alternative Movie : 1 ad ; 5 ads.

② Alternative county coverage :

- Counties that have newspaper coverage for at least 25% of months in our sample

③ Alternative Specifications :

- County-year level analysis
- Accounting for migration flows
 - FEs of the state of birth of the individual and of the head of her/his family
 - Excludes families where the head of the family was born in the opposite group
 - Using individuals observed in the 1920 Census
- Spatial clustering of SE : **acreg**

④ Falsification Exercises :

- Newborn black babies
- Older cohorts

▶ Back

Mediation Analysis Approach

- Black_c = pre-1910 indicator of AA pop. share (> 33th pctl)

$$\text{Alienation}_{ct} = \beta_{\text{Ali}} \times \text{BOAN}_{ct} + \gamma_{\text{Ali}} \times \text{BOAN}_{ct} \times \text{Black}_c + \text{FE} + \epsilon_{ct}. \quad (5)$$

- **Identifying Assumption** : *Conditional on alienation, the **direct** effect of the movie on reconciliation is orthogonal to Black_c*
- The true model is

$$\text{Reconciliation}_{ct} = \beta_d \times \text{BOAN}_{ct} + \beta_m \times \text{Alienation}_{ct} + \text{FE} + \epsilon_{ct}.$$

- We estimate the empirical model

$$\text{Reconciliation}_{ct} = (\beta_d + \beta_m \beta_{\text{ALI}}) \times \text{BOAN}_{ct} + \beta_m \gamma_{\text{ALI}} \times \text{BOAN}_{ct} \times \text{Black}_c + \dots$$

⇒ We can infer β_d and β_m out of the point estimates of the previous model and the estimation of (5)