

Learning from Likes: The Effect of Social Engagement Feedback on Politicians' Social Media Communications

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Are Politicians Attentive to Social Engagement Feedback?

Though social media is often described as an alternate platform for politicians to broadcast their messages to the public, social engagement feedback allows politicians to assess public perceptions of their statements. But are politicians paying attention?

Theory

- 1 Politicians seek to understand public opinion
 - internal polling, tallying phone calls and mail, petitions
 - social engagements are micro-targeted feedback on specific communications
- 2 Politicians pay attention to social media
 - their content responds to topics of discussion on the platform (Barberá et al. 2019)
 - they seek to control the narrative and acquire earned media (Kreiss 2016)
- 3 Social media use is moderated by electoral security
 - ideologues and party outsiders (Hong et al. 2019)
 - seat security (Auter & Fine 2018)

Hypotheses

- H1: The content of politicians' social media posts is influenced by social engagement feedback
- H2: The degree to which politicians' social media posts are affected by social engagement feedback is moderated by electoral conditions

Data

- Scraped all Facebook posts for legislators in the 115th U.S. Congress
 - Dates range from July 2017 to the creation of each legislator's account
 - Posts collected from official, public Facebook pages
- Analysis focuses on legislators throughout the 2016 general election period
 - candidate-week time series containing 362,528 posts in Mar. 2015 - Jan. 2017
- Assess the effect of the popularity of topic k in week t on the authorship of posts on the same topic in the following week
 - popularity is defined as the difference between the average likes applied to posts of topic k in week t and the median likes among all posts in that week
- The outcome variable is *the number of posts on a given topic in the current week*
- Electoral conditions include chamber and seat safety (Cook Political Report)

Legislator Descriptives

	House	Senate	Democrat	Republican	Total
Safe District	22	84	54	158	106
Marginal District	403	13	172	222	416
Total	425	97	226	274	522

Post Descriptives

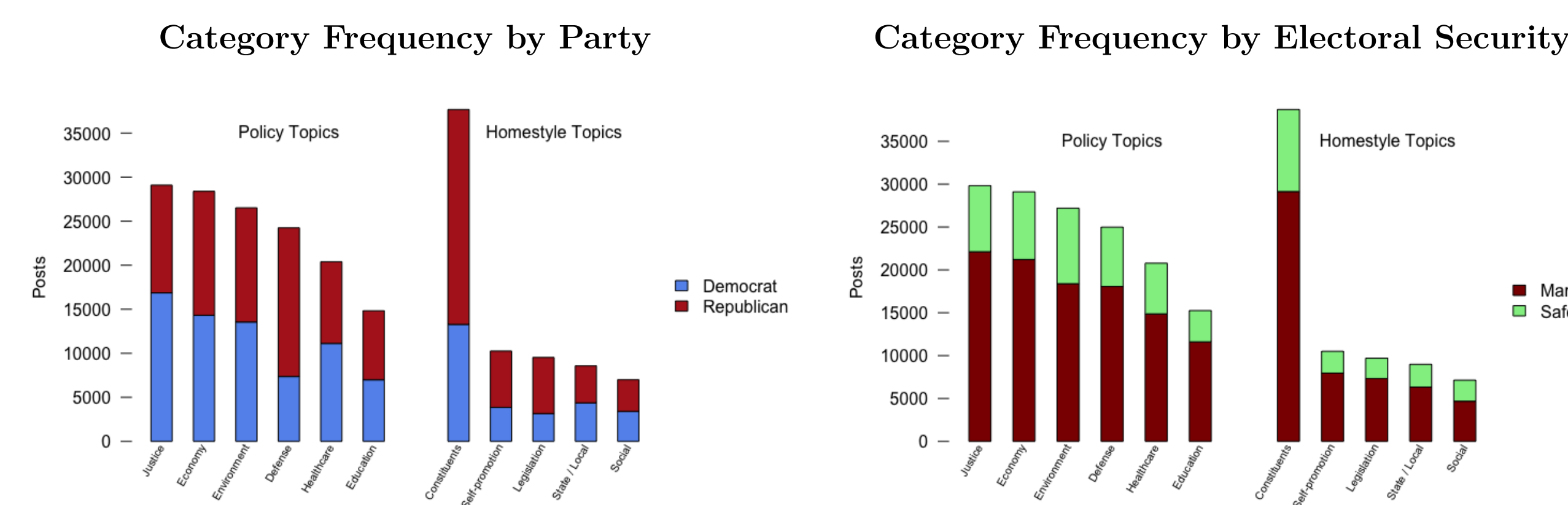
	All	House	Senate	Democrat	Republican
N (thousands)	362.53	287.34	75.19	155.65	194.47
Avg. Legislator	694.50	676.09	775.13	676.72	684.75
Avg. Week	7.07	7.52	6.96	7.05	7.05
Avg. Leg. / Week	6.98	7.34	6.89	6.94	6.98
N (millions)	218.80	44.04	174.76	178.61	37.89
Avg. Legislator	419.16	103.62	1801.16	776.57	133.42
Avg. Week	4.27	17.49	1.07	8.08	1.37
Avg. Leg. / Week	0.41	1.31	0.19	0.60	0.27

Topic Modeling: Congressional Facebook Posts

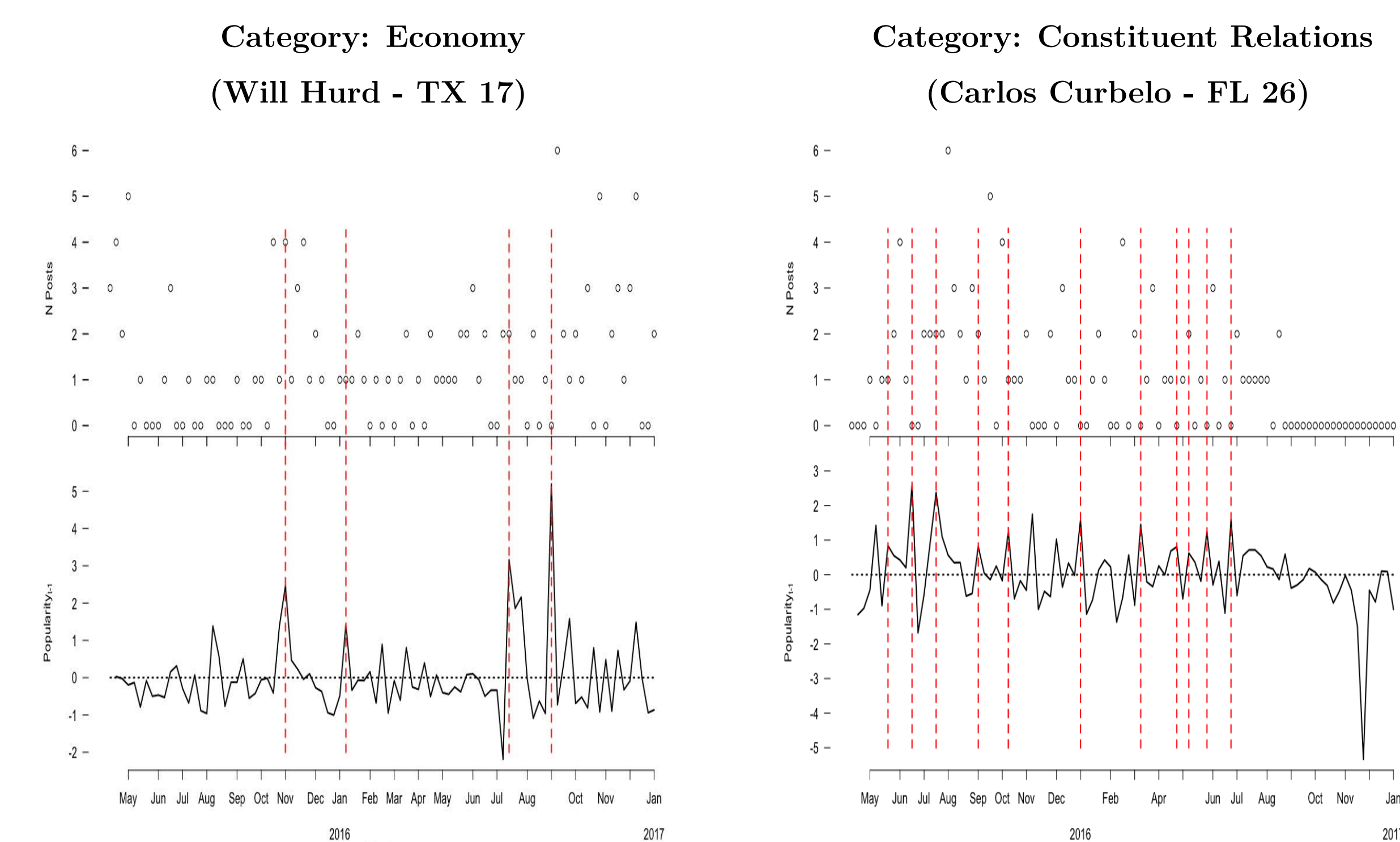
- 1 Estimate 100-topic STM (Roberts et al. 2014)
 - using 812,289 unique congressional Facebook posts
 - estimate topic prevalence with party & chamber covariates
- 2 Label topics
- 3 Combine specific topic into general categories
 - 6 policy categories: economy, education, environment, justice, healthcare, defense
 - 6 homestyle categories: constituent relations, legislative activity, self-promotion, social media actions, state / local issues, symbolic statements
- 4 Sum prevalences by category and assign largest as post category



Topic Categories



Visualizing Trends of Discussion



Analysis

- Negative binomial fixed effects model
 - preferred for overdispersion & presence of numerous zeros
- Unconditional fixed effect negative binomial regression performs comparatively better than conditional, poisson methods (Allison & Waterman 2002)
- Fixed effects requires conditional models to understand heterogeneous effect of time-invariant characteristics

Results

Policy Categories

	Justice	Economy	Environment	Defense	Healthcare	Education
Unconditional	0.000	0.000	0.001	0.001	0.000	0.002
Marginal	0.001	0.006	0.012	0.002	0.003	0.004
Safe	0.000	0.000	0.000	0.001	0.000	0.000
House	0.001	0.007	0.005	0.002	0.005	0.004
Senate	0.000	0.000	0.000	0.001	0.000	0.000

Homestyle Categories

	Constituents	Promotion	Government	Local	Social	Symbolic
Unconditional	0.004	-0.000	0.001	0.006	0.001	0.000
Marginal	0.001	0.001	0.001	0.013	0.011	0.000
Safe	0.001	-0.000	-0.000	0.002	-0.001	0.000
House	0.001	0.000	0.001	0.021	0.012	0.000
Senate	0.001	-0.000	-0.000	0.002	-0.001	0.000

Conclusions & Implications

- Politicians appear responsive to social engagements on policy issues & homestyle
- 10,000 - 50,000 surplus likes associated with an additional post in the following week
- Electoral insecurity associated with increased issue responsiveness on policy domains
- Stylistic responsiveness appears unaffected by seat characteristics
- No evidence of differences in responsiveness across chambers
- Findings are robust to alternate specifications and placebos
- Growing evidence that politicians are attentive to the preferences of the virtual public
- Normatively troubling implications for representation

References

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