Political Speech on Twitter:
A Sentiment Analysis of Tweets and News Coverage of Local Gun Policy

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by

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Abstract

While the gun debate has been one of America's most politically contentious issues, Twitter has become, in recent years a popular venue for politicians to carry out the debate. The present thesis is aimed at better understanding of political speech on Twitter, as well as the ways in which political frames and sentiment on Twitter differ from those of news media coverage regarding gun policy in the state of Arkansas.

The study uses framing theory, which assumes that both news media and individuals use frames to construct perceptions and narratives about issues. Adopting an automated content analysis as a method, the study examined 354 gun-related tweets downloaded from the Twitter accounts of three Arkansas politicians (Charlie Collins, Denise Garner, and Greg Leding) and 40 news articles about gun policy involving these politicians from three local newspapers.

The results indicated that state politicians' discourse on Twitter constituted of a variety of extremely polarized words and frames pertaining and appealing to the core values of their local constituents, while local newspapers' frames were very fact-based and unbiased. The results also showed that political sentiment on Twitter was extremely negative, fearful, and agitated, while news media expressed a very neutral sentiment in their coverage of gun policy, suggesting a new venue for further investigation of current assumptions about the negative nature of news tone.

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I.1   *Introduction*

Gun ownership has comprised a high point of contention in current American politics (Bishop & Cushing, 2008; Bohr, 2017). Partisans groups are creating political division over the issue (Denton & Voth, 2017). Social media, especially Twitter, play an essential role in the gun debate, offering a realm for like-minded individuals to strengthen their ideological views, which creates deeper divisions (Gunnarsson Lorentzen, 2014; Merry, 2016a).

Despite the fact that gun deaths in the United States have surged in recent years, averaging around 38,000 cases annually (Rosenberg, 2019), many states have made policies allowing more gun ownership in public places (Hultin, 2018). The state of Arkansas, for instance, enacted a concealed handgun law in 2017, allowing individuals to possess a concealed guncarry in most public areas, including colleges. This thesis is inspired by these developments. The project studied. Twitter messages, or "tweets," sent out by former state Rep. Charlie Collins, a Republican of Fayetteville, the major sposor of this concealed carry law, as well as the tweets of state Rep. Denise Garner and state Sen. Greg Leding, both Democrats of Fayetteville, who both opposed it. The law was contentious and raised safety concerns among local communities such as Fayetteville Chamber of Commerce, and the Fayetteville Police Department (Bartholomew, 2017a, 2017b). It also comprised a focal point in local political discourse on Twitter and in the news media, especially during the elections of 2018.

That said, the present thesis seeks to analyze political tweets and news media coverage regarding gun policy in Arkansas. It seeks insights into (a) the structure of local political discourse about the gun policy on social media and how it compares to local news media coverage; (b) how state-level policymakers establish their political narratives in the gun debate

on Twitter; (c) how political sentiment on Twitter differs from the sentiment in news media coverage regarding the gun policy.

This thesis relies on framing theory to describe and analyze how local politicians in Arkansas frame the gun policy in their discussions on Twitter and also examines frames in local news coverage. Framing theory holds that media, as well as individuals, frame issues according to their own views and values. According to Robert Entman (1993), framing is to "select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described" (p. 52). Research on framing in social media has shown that the public, including journalists and politicians, use these platforms, namely Twitter, to construct narratives and frame issues (van der Meer & Verhoeven, 2013; Choi & Park, 2014; Merry, 2016b; Moody-Ramirez & Cole, 2018). Accordingly, previous research on news coverage suggests that media organizations capitalize on negative framing of political issues to gain more exposure (Eshbaugh-Soha, 2010; Dunaway, 2013; Soroka & McAdams, 2015).

For a closer look at political sentiment towards gun policy on Twitter, as well as the tone in news media coverage, this thesis uses sentiment analysis, which is the computational study of opinions and emotions in texts (Liu, 2015), as a method. Sentiment analysis is a popular approach to study and analyze attitude and emotional valence in online data (Cho et al., 2003; Bollen, Mao, & Pepe, 2011; Cody et al., 2015; Mohammad, 2016; Barnaghi, Breslin, & Ghaffari. 2016; Sobhani, & S. Kiritchenko, 2017; Oliveira et al., 2017; Dorle, & Pise, 2018).

This thesis offers a local analysis not only of the ways state politicians and news media frame and discuss the local gun policy, but more importantly how their feelings, attitudes, and opinions regarding such a policy diverge.

I.2   *Twitter Uses in Politics*

Twitter is a micro-blogging system that eases communication between individuals by allowing them to exchange personal messages, as well as pictures among other types of information (Park, 2013). Previous research has indicated the importance of such a microblogging site as a channel for political discourse online (e.g., see Wells et al., 2016; Fuchs, 2018; Gaughan, 2017; Zhang, Wells, Wang, & Rohe, 2018). The dynamic nature of Twitter and the fact that it is public and free, give the platform a greater popularity (del Olmo & Díaz, 2016, p. 111). According to a Pew Research Center study, Twitter users demonstrate a high interest in politics compared to other social network sites (Mitchell, Gottfried, Kiley, & Matsa, 2014).

Twitter offers politicians a platform to engage and deliberate with the public, as well as the ability to attack political opponents more effectively (del Olmo & Díaz, 2016). The presidential campaign of Donald Trump in 2016 has demonstrated the tremendous potential that Twitter offers for political speech and campaigning. This platform allowed President Trump the ability not only to address the public in a two way form of communication, but also gave him the opportunity to dodge traditional media by disseminating his views and sometimes important policy statements instantly on Twitter (Gabler, 2016; Fuchs, 2018). In other words, the way by which important political figures, such as President Trump, utilize Twitter sets the agenda for traditional news media and thus turns such a microblogging system into a competing medium (Gabler, 2016).

As it was designed mainly for efficient mobile use (Einspänner, Dang-Anh, & Thimm, 2014) and quick messaging, Twitter, established in 2006 (del Olmo & Díaz, 2016), initially limited its users to 140 characters per post. This limit aimed to reduce the time spent in creating messages and improve "communication flexibility, interactivity, and speed" (Park, 2013, p. 1642). However, as the platform has increasingly attracted more conversations that are important both in political and social issues, Twitter developers realized how hard it was for users to fit, especially, complex ideas or concepts within such a small number of characters. Thus, the message limit on Twitter was doubled in 2017 (Hilliard, 2017), which was indicative not only of the increasing popularity of this platform, but also showed how important it was for people to use it to disseminate information and better communicate with one another.

Recent scholarship on social media shows that politicians nowadays increasingly rely on Twitter for their campaigns and communication strategies (Aharony, 2012; del Olmo & Díaz, 2016; Graham et al., 2016; Theocharis et al., 2016). In one of the earliest studies of political uses of Twitter, Lassen and Brown (2011) indicated that politicians would use Twitter only in cases where they are senators, ordered to do so by their leaders, or representing a minority party. Nonetheless, it is well known nowadays that this is not necessarily the case. People with a particular interest in politics, as well as politicians—in the office or running for one—tend to use Twitter not only to elicit engagement with followers, but also seek information pertaining to certain topics (Theocharis et al., 2016) and attack political rivals (del Olmo & Díaz, 2016).

I.2.1 *Twitter as a Tool of Political Polarization*

Some argue that Twitter inherently encourages cynicism and divisive discourse. Ott (2017), for instance, claims that this microblogging medium, as well as traditional

communication media, "trains our consciousness in particular ways (…) to devalue others, thereby, cultivating mean and malicious discourse" (p. 60). He identifies features that constitute Twitter's "ill" nature. These features include (a) its *simplicity* that hinders detailed and sophisticated discourse; (b) *impulsivity*; the convenience of tweeting anywhere and at any time, impairs people's ability to be considerate and thoughtful; (c) *incivility*, which comes from Twitter's informal structure, normalizing grammatical mistakes and thus uncivil speech among users (APA citation missing).

Ott (2017) suggests that Twitter can help cause political polarization, which is the construct of individuals' opposing attitudes toward social phenomena (Morales, Borondo, Losada, & Benito, 2015; Hong, & Kim, 2016). For instance, the debate over controversial issues, such as gun control and gun rights, is accentuated in Twitter's environment, (Choi, 2014; Gruzd & Roy, 2013). According to Merry (2016b), Twitter facilitates communication among "like-minded individuals" (p. 624) and creates "echo chambers" for polarized views (Hong & Kim, 2016). Hence, these features of Twitter drive people toward a greater division when it comes to political discussions over controversial issues like gun ownership (Hong & Kim, 2016; Merry, 2016b).

Bail et al. (2018) examined individuals' attitudes when they are exposed to political tweets from users who represent an opposing ideological spectrum and concluded that "Republican participants expressed substantially more conservative views after following a liberal Twitter bot, whereas Democrats' attitudes became slightly more liberal after following a conservative Twitter" (Bail et al., 2018, p. 9217). This enforces the idea that polarized views and political partisanships are easily established on Twitter. Such an innate ability to aggregate

ideological hegemonies in one place has gained Twitter great popularity that goes beyond political actors and interest groups.

I.2.2 *Twitter as an Instrument for Political Campaigning*

Research on Twitter and politics shows that using the platform for political campaigning is crucial for politicians because it helps them communicate with voters (Gibson, 2013; Vergeer & Hermans, 2013; Theocharis et al., 2016). Graham, Broersma, Hazelhoff, and Guido (2013) investigated the ways in which political candidates used Twitter in the United Kingdom general election of 2010, concluding that most of these politicians adopted the platform merely as a channel for "unidirectional communication" or, in other words, "broadcasting" (Theocharis et al., 2016). That is, as Graham et al. (2013) suggest, politicians tend to exploit Twitter only for information dissemination instead of conversing with their voters. However, much of the literature shows Twitter suitability for engagement and bidirectional communication. For instance, Lee and Oh (2012), in their study of the effect of politicians' personalized Tweets on the public reactions, claim that personalized/direct messaging on Twitter enhances positiveness and the sense of intimacy perceived by the voters towards the candidates.

Vergeer and Hermans (2013) reached a similar conclusion in their study of political use of Twitter during the Dutch general campaign of 2010. They suggest that campaigning on Twitter has similar mechanisms to those offline in terms of the communication process and that earlier exploitation of Twitter by political candidates "is more effective than adoption shortly before Election Day" (p. 399). Even Graham et al. (2013) admit that some politicians used Twitter during the UK general election of 2010 to mobilize and interact with their constituencies.

The increasing political interest in Twitter among both politicians and the public is due to what Jungherr, Schoen, and Jürgens (2016) describe as "the influence of political reality" (p. 52). That is, people tend to use Twitter as a public space to reflect on the numerous political stimuli surrounding their lives. These stimuli, as Jungherr et al. (2016) wrote, include:

> Subjective experiences of politics—be they problems attributed to politics (e.g., unemployment), campaign contacts, participation in campaign events, or meetings with politicians. Alternatively, users might react to indirect experiences of politics—be they media events, like televised debates, election night coverage, or other high-profile political programs on television. Finally, they might also react to content on the web referring to politics, tweets posted by other users, or content prominently displayed on Twitter based on the service's algorithmic relevance-assessment. (p. 52)

Therefore, as Jungherr et al. (2016) suggest, Twitter has transformed from a simple personal platform into "a new public space where there is a parallel debate to the traditional media such as radio, press or television" (del Olmo, & Díaz, 2106, p. 109). According to Bimber (2001), the affordability of information on the Internet improves people's political participation. Hence, having a Twitter account is both inexpensive and convenient and allows one the ability to converse with the world about a myriad of topics.

I.3   Research Questions

As shown in the previous section, Twitter has become more than just a microblogging system for personal messaging. It has become an essential communication medium for political and ideological views. As this thesis's goal is to analyze political tweets, as well as the tone of news coverage of local gun issues, it aims to answer the following research questions:

RQ1: How do these Arkansas state politicians frame the gun policy when conversing it on Twitter and how do political frames compare to the frames in news media coverage of such a policy?

RQ2: What are the most common words used by these Arkansas state politicians when tweeting about gun policy and how these words shape their political narrative?

RQ3: How does the sentiment of Arkanasas local newspapers' coverage compare to the sentiment of state politicians on Twitter regarding gun policy?

I.4   *The Debate on Gun Policy in the United States*

Gun policy has been an early and essential issue in American politics. The first gun control policy dates back to the 17th century. In July 1619, the First General Assembly of Virginia colony stated "[that] no man do sell or give any Indians any piece, shot, or powder, or any other arms offensive or defensive, upon pain of being held a traitor to the colony and of being hanged as soon as the fact is proved, without all redemption" (Lutz, 1998, p. 287). This law, according to Spitzer (2017), was the first of its kind in American history. Spitzer (2017) argues that "America's early governmental preoccupation with gun possession, storage, and regulation was tied to the overarching concern for public safety, even as it intruded into citizens' private gun ownership and habits" (p, 58).

During the twentieth century, government attempts to regulate firearms' ownership resulted in a few major federal statutes; the National Firearms Act (NFA) of 1934 was the first significant gun law at the time (Spitzer, 2017). The law was proposed by the administration of President Franklin D. Roosevelt, arguing that firearms had exacerbated gangsterism and organized crimes resulting from alcohol prohibition in the 1920s (Lewis, 2011). However, the NRA lobbied for the exclusion of handguns from this federal law before its legislation ("National Firearms Act of 1934," 2016).