Media Agenda against Bernie Sanders? Examining the Emotional Tone of US Political News Articles

Derek Newman
Cambrian College Canada

Abstract: The emotional tone of news articles (N = 120) on Democratic Party primary candidates was examined to determine if the media has bias towards Bernie Sanders. Using the Dictionary of Affect (Whissell, 2009), article words (N = 115,569) in the first 60 days of 2020 were measured for their pleasantness, activation, and imagery by candidate - Bernie Sanders, Joe Biden, Pete Buttigieg, Elizabeth Warren, Amy Klobuchar, and Mike Bloomberg. Significant differences between Bernie Sanders and the other candidates were found for articles pleasantness (p < .001), article imagery (p = 0.003) and headline activation (p = 0.23). Articles written on Bernie Sanders were less pleasant and more active in tone, as well as being more abstract (low in imagery).

Keywords: Bernie Sanders, emotion, language, news articles, media, politics

1. INTRODUCTION

Analysis of news articles has historically been examined from a cognitive rather than an emotional point of view. The cognitive framing of a news story could influence the reader’s beliefs (Ajzen & Fishbein, 1980; Zajonc, 1998) as well as their attitude (Nelson et al., 1997) towards the content. Theories of cognitive framing effects on subsequent judgments include the expectation that a repetition of viewpoints will increase accessibility in memory (Hastie & Park, 1986), that framing will influence the content is be interpreted (Price & Tewksbury, 1997), and that it can also alter a reader’s beliefs (Lecheler & de Vreese, 2012). Cognition and emotion are theorized to go hand-in-hand in interpreting and reacting to news articles via appraisal theories of emotion (Lazarus, 1991). For appraisal theories, the emotions that come from reading news articles are created by the story’s cognitive evaluation, and this assessment is ongoing. The ongoing nature of appraisal theories suggests that reading multiple news articles could influence cognition and emotion. While researchers (Gross, 2008) have agreed that emotions can be elicited by news articles, there is no consensus on which components influence cognitive appraisals. Appraisal could have an effect on voters reading negative articles about candidates. For example, if articles focus on tactics such as job loss, status loss, or removal of rights, they could influence voter behavior (Kühne et al., 2011).

What about emotion and its effect on news frames? Research has proven that news framing can elicit emotions as well as leverage the formation of an opinion. Nerb and Spada (2001) measured sadness and anger aroused by short articles on environmental disasters and found that their participants wanted consistency between their cognitions and emotions. In this study, if the participants concluded that the environmental damage was created by a particular guilty party, they experienced anger and wanted punishment. On the other hand, even if the ecological damage was considerable but there was no single guilty party, the participants felt sadness and didn’t want punishment. Similarly, Kim and Cameron (2011) found that the framing of who is responsible for a cell phone explosion created different emotional responses. Finally, Cho and Boster (2008) used anti-drug ad framing and found persuasive differences when framed for gain versus losses.

Investigating emotion and its role in memory is extremely important as it could affect voting behavior. Research has demonstrated that emotions can lead to increased memory compared to emotional-neutral events while still prone to errors (LeDoux, 2000). The debate surrounds the conditions in which emotions lead to enhanced memories (Eich & Forgas, 2003). For example,
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Research into mood-dependent memory suggests that memory is enhanced when the emotions being felt at the time of encoding match recall time. The emotional tone of news articles could also impact behavior as research indicates that when experiencing positive emotions (happiness), people tend to lean towards general knowledge and heuristics. The opposite is true for those feeling negative emotions (angry, frustration); individuals tend to increase effort for processing and become less reliant on general knowledge and heuristics (Forgas, 1998). Fear, anxiety, or the thought of being threatened has shown that voters seek out more information from a variety of sources (Marcus et al., 2000; Brader, 2006) and retain it better (Valentino et al., 2008).

Research into sentiment or emotional analysis for news articles has been primarily focused on a wide variety of specific topics such as legal decisions (Haider-Merkel, Allen & Johansen, 2006), gender issues (Len-Ríos, Rodgers & Thorsen, 2005) and religion and politics (Kerr & Moy, 2002). In recent years, more focus has been on polarity in politics, with questions surrounding negativity in the news (Soroka, Young, & Balmas, 2015). Druckman and Parkin (2005) argued that positively or negatively written articles can have direct and indirect effects on voting.

Since the introduction of Bernie Sanders (senator representing Vermont) as a candidate running for president of the United States in 2016, there has been much discussion about the media’s portrayal of the candidate. Many online news articles cite distorted polls and slanted commentary (Sullivan, 2019) as well as less and negative coverage compared to other candidates (Cho, 2020; Savage, 2019). Two of the more famous negative commentaries include former assistant U.S. attorney Mimi Rocah, on MSNBC, stating that Bernie Sanders ‘makes my skin crawl’ (Feldman, 2019) and former MSNBC pundit, Chris Matthews, comparing Sanders’ campaign to Nazis (Bauder, 2020). This paper will examine US political news articles’ emotional tone to determine whether there are any differences when reporting on Bernie Sanders, as opposed to other candidates, during the 2020 Democratic primary.

2. Method

Political articles were downloaded via Google News by the candidates’ full names (Bernie Sanders, Joe Biden, Pete Buttigieg, Elizabeth Warren, Amy Klobuchar, and Mike Bloomberg). Google’s search algorithm may make randomization challenging as research demonstrates a multitude of factors, including popularity and what the algorithm considers to be mainstream or national news publishers, that pull news articles to the top of a search (Trielli & Diakopoulos, 2019). The first 20 articles were pulled for each candidate, excluding only long-form interviews with the politician, but including op-ed (or opinion) pieces, if they appeared in the search. In total, 10 opinion pieces came up in the search, with Bernie Sanders having the most (4), Michael Bloomberg (3), PeteButtigieg/Elizabeth Warren/Amy Klobuchar (1), and none for Joe Biden. The time frame of January 1, 2020, to February 29th, 2020, was selected as the first contest in the 2020 Democratic presidential primary: this period includes the Iowa caucuses, which were held in early February 2020. In total, there were four primary contests in the time frame of this study with the fourth, South Carolina, landing on February 29th, 2020. None of the articles randomly pulled reported the results of the South Carolina primary. The search engine found more February news articles (68.3%) than January ones (31.7%). The analysis was performed on the articles as a whole (including the headline) as well as on the headlines separately, documenting the month of publication, the publisher, as well as the gender(s) of the writer(s).

The emotional tone of the articles and headlines were analyzed using the Dictionary of Affect (Whissell, 2009). The Dictionary of Affect (DOA) had multiple participants rate the emotional tone of separate words, outside of any context, on three scales: pleasantness/unpleasantness, activation/passivity, and imagery. For example, words like “love” or “sweet” would be high on pleasantness, while words like “alone” or “abandon” would be high on unpleasantness. Words like “party” or “play” would be high on activation, while words like “empty” or “ending” would be high on passivity. Finally, imagery would represent words that are easy to visualize or picture, such as “baby” or “girl”, while words like “anyways” or “choice” would be low on imagery. The DOA has a mean score of 50 (SD = 17) representing everyday English, so averages above or below indicate an emotional tone difference in one direction. The DOA matching rate was 83.4% for the articles and 61.5% for the headlines, somewhat lower than the rate of 90% expected for everyday English texts (Whissell, 2009). The lower matching rates were likely due to the higher number of names and US states in the political articles.
While the Dictionary of Affect has been used in dozens of academic articles, this will be its first time analyzing political news articles. Previously, it has been used in the political arena analyzing Donald Trump’s Twitter tweets (Whissell, 2018), comparing tweets from Trump and Obama (Whissell, 2018), and Canadian political language during question periods (Whissell, 2012).

3. RESULTS

3.1. Mean Scores

Overall, the words in the articles (N = 115,569) were less pleasant (M = 47.8) than everyday English, but activation (M = 50.7) and imagery (M = 50.9) were close to the mean of everyday English. The words in the headlines (N = 1505) were also less pleasant (M = 47.9) than everyday English, but the activation (M = 54.7) and imagery (M = 57.1) were higher than everyday English. The increase in activation and imagery could be due to the headline’s function of attracting attention with words that can create a visual image in the readers’ minds. The average article length was 936.7 (SD = 569.7) words, and the average headline length was 11.5 (SD = 3.3), but no significant differences were found in article length between the candidates. The writers of the articles were predominantly male (60.0%), with only 12.5% written by multiple authors. There were 25 different publishers, with CNN representing 36.7% of the articles and CNBC a distant second with 9.2%.

3.2. Emotional Tone Differences– Articles and Headlines

A one-way analysis of variance was conducted to explore the emotional tone differences in articles on political candidates. There was a statistically significant difference for article pleasantness [F (5, 114) = 4.76, p = .001] and article imagery [F (5, 114) = 2.75, p = .022]. The effect size was moderate (.17) for article pleasantness as well as article imagery (.11). For article pleasantness, post-hoc comparisons using the Tukey HSD test indicated that the mean score for Bernie Sanders was the lowest of all the candidates (M = 46.7, SD = 1.2) and significantly lower than Pete Buttigieg (M = 48.69, SD = 1.64, p < .001) and Elizabeth Warren (M = 48.11, SD = 1.58, p = .018). For article imagery, post-hoc comparisons using the Tukey HSD test indicated that the mean score for Bernie Sanders was the lowest of all the candidates (M = 49.17, SD = 3.48), but only significantly lower than Joe Biden (p = .012), who had the highest mean score (M = 52.11, SD = 2.00). No significant differences were found between the candidates in article activation or headline pleasantness, activation, or imagery.

To compare Bernie Sanders with all the other candidates as a group, an independent-samples t-test was conducted and significant differences were found with article pleasantness (t = -3.78, p < .001, eta squared = .11), article imagery (t = -3.06, p = 0.003, eta squared = .06) and headline activation (t = 2.30, p = 0.23, eta squared = .04). First, with respect to article pleasantness, Bernie Sanders was significantly lower (M = 46.7, SD = 1.20) than the other candidates (M = 48.00, SD = 1.42). Second, with respect to article imagery, Bernie Sanders was significantly lower (M = 49.18, SD = 3.48) than the other candidates (M = 51.23, SD = 2.57). Finally, with respect to headline activation, Bernie Sanders was significantly higher (M = 60.39, SD = 19.27) than the other candidates (M = 53.51, SD = 10.28). No significant differences were found between Bernie Sanders and the other candidates in article activation, nor headline pleasantness or imagery.

Interestingly, the three scale scores of pleasantness (r = .21, n = 120, p = .02), activation (r = .19, n = 120, p = .04), and imagery (r = .358, n = 120, p < .001) were correlated for articles and headlines.

3.3. Writer Gender Differences

Although there were no significant differences across writer gender for the emotional tone (pleasantness, activation, imagery) of the articles, there was a significant difference with the headlines, specifically for pleasantness. For this analysis, mixed gendered authors were removed. An independent-samples t-test was conducted to compare the headline pleasantness scores for male and female writers. Significant differences were found with females (M = 51.65, SD = 12.19) having more pleasant headlines than males (M = 46.7, SD = 46.7; t = 2.062, p = 0.42), although the effect size was very small (eta squared = 0.019). No writer gender differences were found for headline activation or imagery. Two limitations of the gender headline finding include publishers and/or editors creating new headlines or changing proposed titles.
4. DISCUSSION

In Rhetoric, Aristotle (1954) wrote that leaders could use emotional appeals to persuade and manipulate the masses. Aristotle’s thoughts on using emotions to manipulate can be applied to modern politics, and the findings of this article indicate that Bernie Sanders was treated significantly differently in the emotional tone of articles written to inform, but also to possibly persuade and manipulate voters. When compared to the other candidates combined, Bernie Sanders was lower on article pleasantness and imagery as well as headline activation. If news articles are to report factual information, then some context is needed for this research’s time frame. Here are two factors to consider: the delegate race and national polls.

Iowa was the first primary (USA Today, n.d.-a), where despite losing by only 0.1%, Bernie Sanders (12) received two fewer delegates than Pete Buttigieg (14), with Elizabeth Warren in third (8), Joe Biden in fourth (6), and Amy Klobuchar in fifth (1) position. New Hampshire was the next contest (USA Today, n.d.-b): Bernie Sanders won nine delegates, Pete Buttigieg also won nine despite losing by 1.3%, Amy Klobuchar won six, and Elizabeth Warren/Joe Biden gained no delegates. Nevada was the next primary (USA Today, n.d.-c), with Bernie Sanders beating Joe Biden by 26.6% and gaining 24 delegates to Biden’s nine. Pete Buttigieg came in third, gaining three representatives, with the remaining candidates receiving no delegates. Finally, the South Carolina primary (USA Today, n.d.-d) was on February 29th, the last day of the date range for the articles, where Joe Biden won 39 delegates, with Bernie Sanders in second with 15, and the remaining candidates gaining no delegates (USA Today, n.d.). None of the articles in this study were about the South Carolina primary results, where Joe Biden made a comeback in the race. Hence, before the South Carolina primary, Bernie Sanders was leading in the delegate race with 45, Pete Buttigieg with 26, and Joe Biden/Elizabeth Warren a distant third and fourth with 15 and 14 delegates. Before and after South Carolina, Amy Klobuchar only had a single delegate but was not significantly different against the other candidates in article pleasantness. Therefore, despite leading in the delegate race, Bernie Sanders was written about more negatively than the other candidates, even those far behind in delegates.

The polls: according to Five Thirty Eight (n.d.), Joe Biden led the polls for the entire primary until February 10th, where Bernie Sanders took the lead and held it until March 4th. Within the time frame of this research, Bernie Sanders never relinquished second place in the national polls, with Biden falling to third place between February 21-22 to Mike Bloomberg. Within the entire democratic primary, no candidate outside of Joe Biden and Bernie Sanders claimed first place in the polls, with Warren getting no higher than second between September 2019 and late November 2019. Pete Buttigieg hit a high of third in the polls around April 2019 but stayed fourth for the majority of his run. Amy Klobuchar remained last in the polls for the entire primary amongst the candidates in this study. As stated earlier, Amy Klobuchar was not significantly different from the other candidates in article pleasantness despite having a single delegate and being last in the polls.

This study confirmed that Pete Buttigieg and Elizabeth Warren were significantly higher than Bernie Sanders in article pleasantness. The lower article pleasantness for Bernie Sanders was despite him (1) leading in the delegate race, (2) having 19 and 31 more delegates than Pete Buttigieg and Elizabeth Warren respectively, and (3) being first or second in the national polls during the time period of this research. While there were no statistically significant differences between Bernie Sanders and Joe Biden, the difference was approaching significance (p = .066). Before the South Carolina primary, Bernie Sanders led Joe Biden by 30 delegates, and the future president failed to get a single delegate in one of the first three contests. Despite being so far behind Bernie Sanders in the delegate race before South Carolina and trailing Sanders in the national polls, Joe Biden was not significantly different than any other candidate in the post hoc. In summary, Bernie Sanders, despite being ahead in the polls and delegate race, received significantly lower pleasantness scores in the news articles, and other candidates received similar or higher pleasantness scores despite trailing in both the polls and delegate race by large margins. If the job of the news is to provide factual context, the results of this study place that argument into question.

With respect to article imagery, Bernie Sanders was also significantly lower than the other candidates combined. This means that commentaries written about him were abstract in tone. Imagery has been shown to improve memory (Lord, 1980; Slee, 1978; Swann & Miller, 1982) and using imagery to foresee victory for a political candidate can help with the perception that the politician can actually
win (Carroll, 1978). Vivid writing, or text high in imagery, is like reading a photograph and it can create a picture in the minds of the readers (Cupchik et al. 1998; Kurby, Britt, & Magliano, 2005). David and Kang (1998) also found the high-imagery text can significantly improve recall and memory, attention, and can help persuade the reader. Joe Biden, despite being third in the delegate race, not receiving a single delegate in one of the first three primaries, and falling to second in the national polls to Bernie Sanders, was significantly higher than the Vermont senator in article imagery. Is it possible that the media was trying to paint a vivid picture of Joe Biden in a pleasant light, despite the future president objectively faltering during the time frame of this study?

There was also a significant difference in headline activation between Bernie Sanders and the other candidates, with Sanders having much higher activation (a large difference of 6.88). There is not only a significant difference with headline activation but also with the intent of the words. For example, ‘nightmare’ and ‘play’ are both high in activation but have two different meanings for the readers. When looking extreme scores (>65), three candidates stood out: Bernie Sanders, Pete Buttigieg, and Elizabeth Warren. Upon looking at the words’ framing, you can see the difference in what the headlines are trying to achieve, despite all having high activation scores. For example, the three outliers for Bernie Sanders include “Bernie can’t win” (82), “America’s Nightmare - Bernie Sanders Nominee” (130), and “Chris Matthews Apologizes for Comparison of Bernie Sanders’ Nevada win to Nazi Invasion of France” (70). Compare those headlines to the two outliers on Pete Buttigieg: “Pete Buttigieg’s Iowa Delegate Play” (116) and “I've never sent Hush Money: Buttigieg hits back at Trump and Limbaugh” (78). Finally, Warren’s headline: “Elizabeth Warren’s Evisceration of Mike Bloomberg Should make Donald Trump Nervous” (67). The outlier headlines for Bernie imply the candidate cannot win; he is a nightmare candidate and puts an idea that Sanders” is a nightmare candidate and puts an idea that Sanders’ campaign is correlated with Nazis. The outlier headlines for Buttigieg and Warren imply different messages, including intelligent strategy in Iowa, pushing back on two political individuals that Democratic voters tend to dislike, and suggesting strength in Warren going up against Trump should she win the primary. There are apparent differences between the outlier headlines that demonstrate possible bias against Bernie Sanders.

5. LIMITATIONS AND FUTURE RESEARCH

First, the words in the DOA were evaluated context-free, but background is important for appraising meaning behind the articles in this study. Second, the articles were mostly (83%) news pieces, with only 17% being opinion pieces. It stands to reason that news articles might be simply stating objective facts/results of various polls/primaries, which might not address the writer’s or publisher’s genuine opinions of the candidates. As this study included only 10 op-eds, future research could examine opinion pieces on the various candidates to evaluate any differences between the candidates and the type of article (news v. opinion).

6. CONCLUSION

News articles written on Bernie Sanders were more unpleasant and had less vividly imaged words than those written on other candidates. The headlines about Bernie Sanders were also higher on activation, but not pleasantness or imagery. News has changed in the last 20 years, from the delivery of facts, to more opinion and even dividing the readers (Taibbi, 2019). Politics is, by nature, a competition but the media also seems to be creating an environment of competition to increase profit. Brandenburg (2005) looked at media bias in three areas: visibility bias, tonality bias, and agenda bias. Visibility bias would be reporting on the popularity of the candidate, tonality bias would be evaluating the candidate’s views or policies, and agenda bias would be assessing how the media covers the candidate. Visibility bias aside, the results of this study may confirm tonality and agenda bias towards Bernie Sanders.

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**AUTHOR’S BIOGRAPHY**

**Derek Newman**, is a psychology professor at Cambrian College (Ontario, Canada) and has been teaching for over 15 years. His fields of interest include academic study strategies, metacognition, and language analysis of political news articles and music lyrics.

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