



Pro Gun Control Content on Twitter

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INTRODUCTION

- Annually, more than 3,500 children and teens are killed as a result of gun violence
- Twitter, a social media site used by 47% of teens, is one mode of gun control discourse
- Politics is known to correlate with negative emotions, such as sadness and anxiety
- Little is known about the emotional sentiments surrounding pro gun control discourse on Twitter
- **The purpose of this study is to determine the emotions associated with pro gun control rhetoric on Twitter**

METHOD

Design: Content Analysis + Linguistic Inquiry and Word Count

Setting/Subject: Twitter Posts



Search Strategy:

- Hashtags: #GunControlNow, #EndGunViolence, and #GunReformNow
- First 50 posts under "Top"

Inclusion Criteria: Minimum of 500 likes, Posted within the last year, Minimum of 30 characters, Written in English

Exclusion Criteria: Unrelated to gun control, Anti gun control

Data:

Variable	Description
Negative Emotion	hurt, ugly nasty
Anxiety	worried, fearful
Anger	hate, kill, annoyed
Sadness	crying, grief, sad
Emotional Tone	N/A
Likes	Number of likes on a post

Analysis: Independent samples t-tests were used to compare the prevalence of the LIWC variables. Descriptive statistics were used to compare the emotional tone between hashtags.

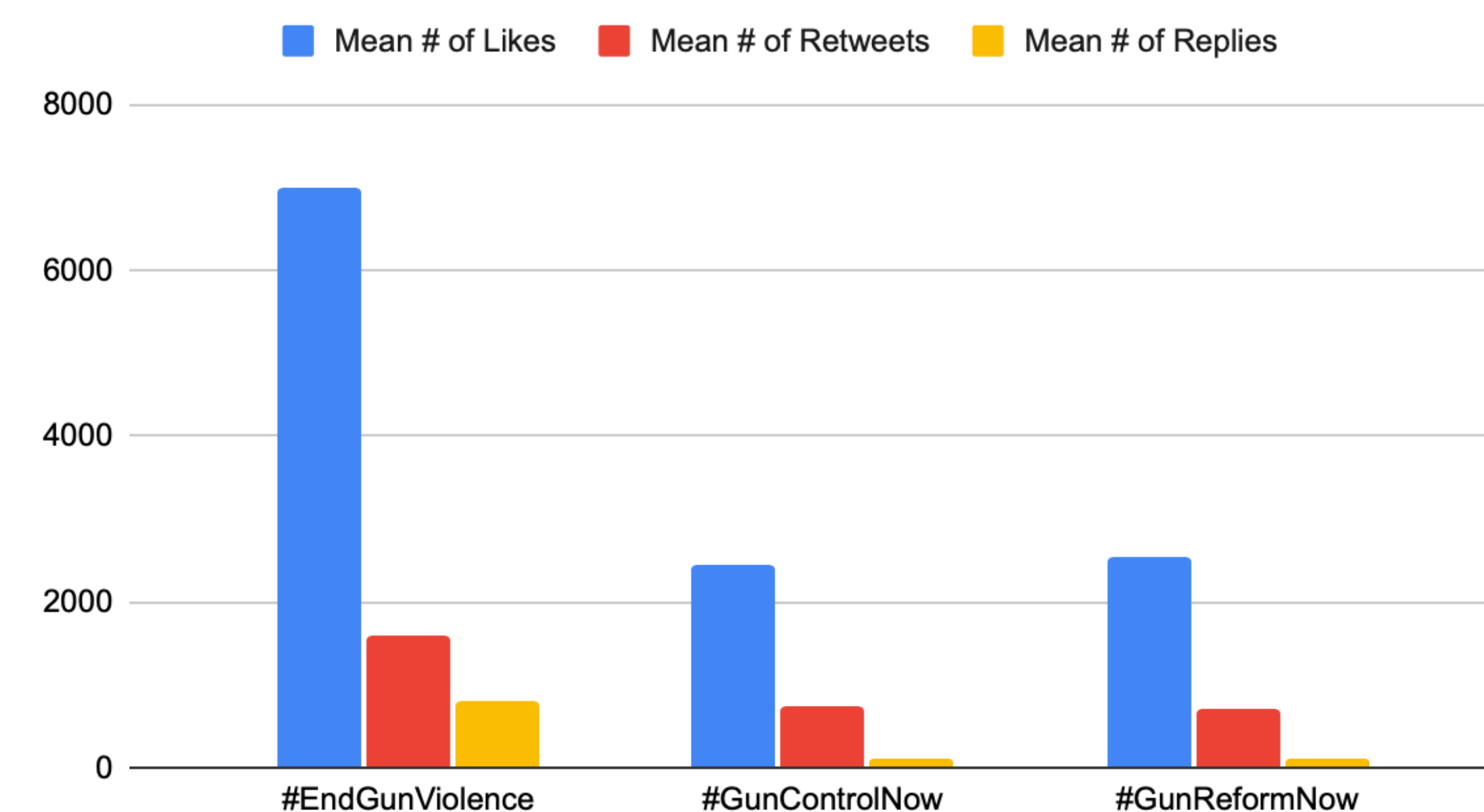
RESULTS

Descriptive Statistics of Gun Control Related Tweets:

	Minimum	Maximum	Mean
Number of Likes	652	69734	3957.38
Number of Retweets	92	15022	1018.97
Number of Replies	6	25100	343.75

Descriptive Statistics across Individual Hashtags:

Likes, Retweets, and Replies Across Hashtags



#EndGunViolence tweets had significantly more likes, $F(2, 147) = 6.24, p = .003$, and retweets, $F(2, 147) = 5.30, p = .006$, compared to #GunControlNow and #GunReformNow tweets. Number of replies were not significantly different across tweets.

The use of a specific hashtag was also not significant when comparing the mean percentage of each emotion:

$F(2, 147) = 2.30, p = .104$ (negative emotion)

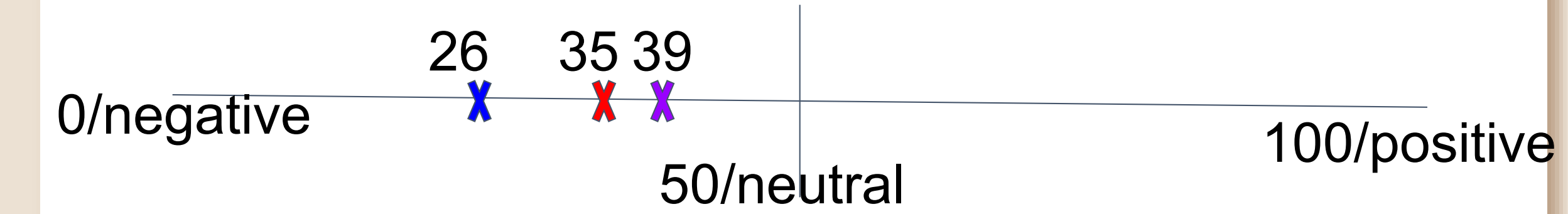
$F(2, 147) = 1.90, p = .153$ (anxiety)

$F(2, 147) = 2.78, p = .07$ (anger)

$F(2, 147) = 1.92, p = .150$ (sadness)

RESULTS

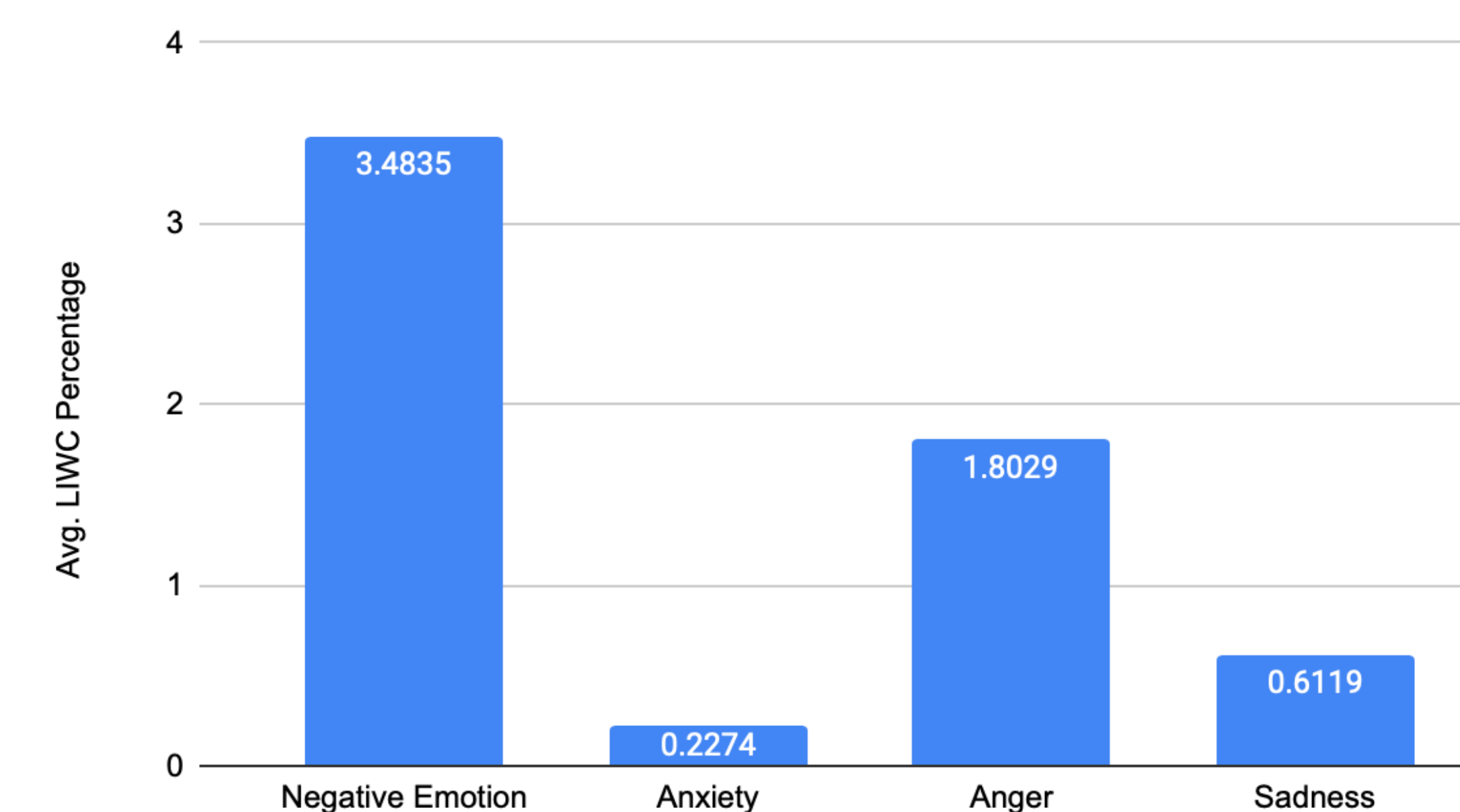
Emotional Tone:



The emotional tone for #EndGunViolence was negative with an emotional tone score of 34.78. The emotional tone for #GunControlNow was 39.32. The emotional tone for #GunReformNow was the most negative, at 26.44.

Average Score of LIWC Emotion Variables across Full Data Set:

LIWC Scores across Variables



There was a significantly higher average percentage of negative emotion language used in the tweets than anxious, angry, and sad language, with their respective results of $t(298)=9.288, p<.001$; $t(298)=3.931, p<.001$; and $t(298)=7.789, p<.001$.

The average percentage of angry language was significantly higher than anxious language $t(298)=-5.644, p<.001$, and was also significantly higher than sad language $t(298)=-3.950, p<.001$.

The average percentage of sad language was significantly higher than anxious language, $t(298)=-2.183, p<.05$.

CONCLUSIONS

Main Findings

- Negative emotion was significantly higher than other variables
 - Anger was significantly higher than anxiety and sadness
 - Emotional tone was negative for all three hashtags, with #GunReformNow having the lowest score
- Future Study**
- More work should look into the link between gun control, social media, and mental illness
 - Future research should use surveys and experiments for increased engagement with people
- Limitation**
- Limited amount of subjects
 - Potentially unrepresentative (only used three hashtags)

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