Sentiment Analysis: Is Naruto or Sasuke Stronger?

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What is the problem?

-Reddit is doing an analysis where they try to track user subscription based on the readers' sentiments in posts.

-They know how many people subscribe to the posts but they lack the means to extract text language and manipulate the text to interpret its meaning.

-As such, they are asking us to help determine how the **viewers perceive the posts** on their website so that they can determine a relationship, if there exists, between subscription and viewer sentiment on posts.

Choose four Reddit posts on a similar topic [e.g. Who is Stronger – Naruto or Sasuke? (anime fans)]

Obtain Json files

```
res = requests.get('https://www.reddit.com/r/Naruto/comments/91pmf2/is_sasuke_stronger_than_naruto.json',
                   headers={'User-agent': 'Naruto project'})
```

```
[{'kind': 'Listing',
  'data': {'modhash': '',
    'dist': 1,
    'children': [{'kind': 't3',
      'data': {'approved_at_utc': None,
        'subreddit': 'Naruto',
        'selftext': "I get that Naruto has a LOT more chakra than Sasuke however I feel like Sasuke's jutsu is far more lethal. For instance, isn't the rinnegans soul grab jutsu an instant death for Naruto. Also, how will Naruto cope with Amerterasu if he's in mid air and can't dodge it for instance. Sasuke's chibaku tensei restrained all the tailed beasts so how can we know if naruto could destroy Sasuke's chibaku tensei. Lastly, while this has never been shown but can't sasuke take control of the Kyuubi through his Sharingan? Naruto has immense power but most of the techniques he chooses to use are not the instant killing type. eg Chidori pierces, Rasengan hits hard like a punch, Sasuke uses kenjutsu, Naruto only uses taijutsu etc. What do you guys think?",
        'user_reports': [],
        'saved': False,
        'mod_reason_title': None,
        'gilded': 0,
        'clicked': False,
        'title': 'Is Sasuke stronger than Naruto',
```

Form a DataFrame from the texts

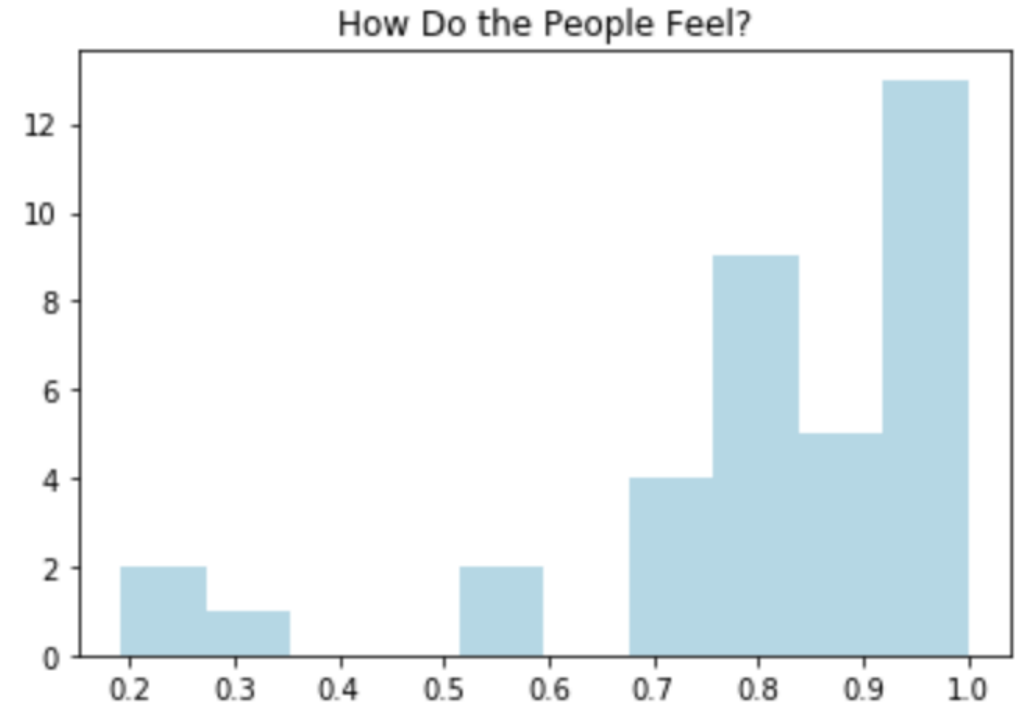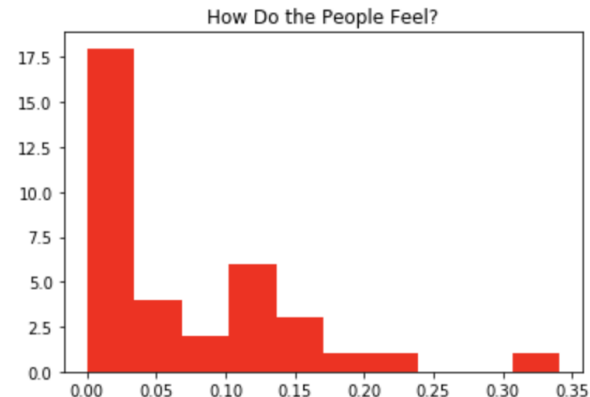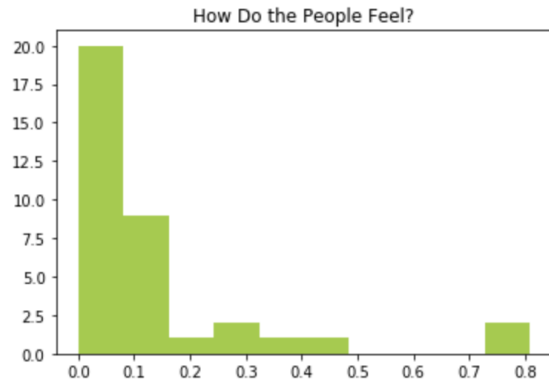|	text
0	I get that Naruto has a LOT more chakra than Sasuke however I feel like Sasuke's jutsu is far more lethal. For instance, isn't the rinnegans soul grab jutsu an instant death for Naruto. Also, how ...
1	It will always end in a tie. Take from that what you will.
2	It doesnt matter and from their final battle it shouldn't . They are gods compared to other ninja. They dont even use handsigns anymore

Apply Sentiment Analysis Using Vader Package

```
sia = SentimentIntensityAnalyzer()
sentiments = [sia.polarity_scores(each) for each in comments]
final = pd.DataFrame(sentiments)
```

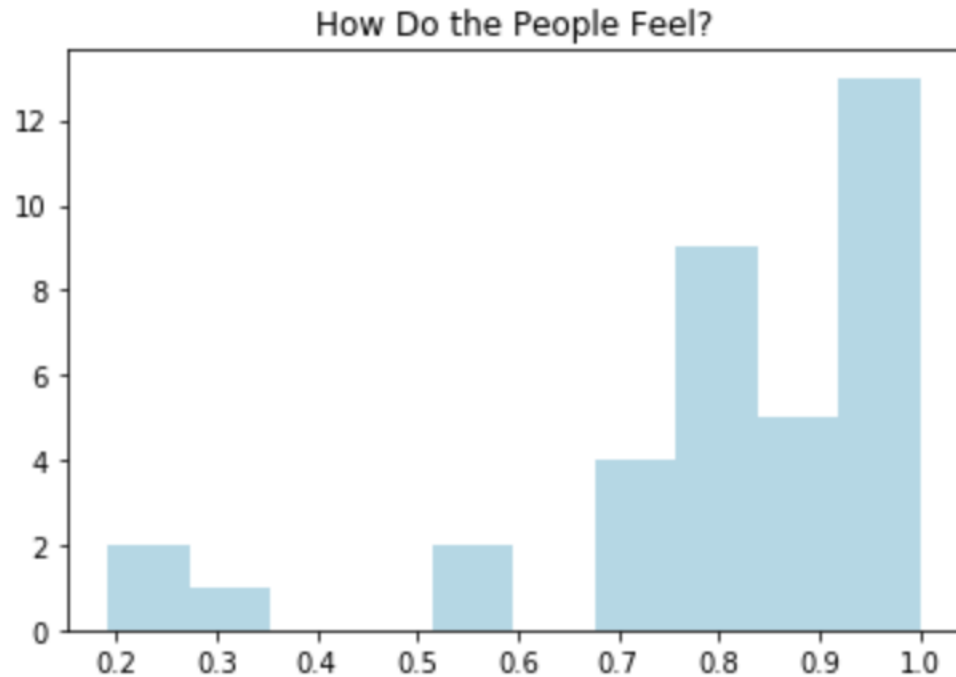|	compound	neg	neu	pos	text
0	0.7035	0.046	0.880	0.074	I get that Naruto has a LOT more chakra than Sasuke however I feel like Sasuke's jutsu is far more lethal. For instance, isn't the rinnegans soul grab jutsu an instant death for Naruto. Also, how ...
1	0.0000	0.000	1.000	0.000	It will always end in a tie. Take from that what you will.
2	-0.3968	0.149	0.851	0.000	It doesnt matter and from their final battle it shouldn't . They are gods compared to other ninja. They dont even use handsigns anymore
3	0.0000	0.000	1.000	0.000	Some will say Sasuke, others say Naruto. Who even knows at this point.\n\n\n\nSasuke is more versatile and has hax, Naruto has physicals and raw power.
4	-0.4700	0.143	0.770	0.087	Based on the final fight, Naruto bc he wasn't trying to kill Sasuke the whole fight. Sasuke can go to a different dimension if he needs a break. But a lot has changed since the final fight so we d...

Summary of Sentiment Analysis Results

	compound	neg	neu	pos
count	36.000000	36.000000	36.000000	36.000000
mean	0.010847	0.062722	0.814361	0.122917
std	0.500128	0.081384	0.213117	0.199770
min	-0.965200	0.000000	0.192000	0.000000
25%	-0.255800	0.000000	0.764250	0.000000
50%	0.000000	0.023000	0.844500	0.056500
75%	0.409825	0.118500	1.000000	0.127000
max	0.902700	0.341000	1.000000	0.808000

On average, how do the subscribers feel about this post/topic?

Results

How Do the People Feel?

The subscribers feel neutral about whether Naruto or Sasuke is stronger. The next question to ask is there a correlation between the number of subscribers and feelings?

References

1) "Project 3 Readme", *General Assembly Data Science Intensive,* Atlanta, GA, August 2019, March 3, 2020

2) u/CloseJoke, "Is Sasuke Stronger than Naruto," *Reddit.com*, January 24, 2019,https://www.reddit.com/r/Naruto/comments/91pmf2/is_sasuke_stronger_than_Naruto, accessed March 3, 2020

3) u/Morus26, "Who Is Stronger Adult Naruto or Adult Sasuke," *Reddit.com*, November 15, 2019, https://www.reddit.com/r/Naruto/comments/94tylq/who_is_stronger_adult_naruto_or_adult_sasuke, accessed March 3, 2020

4) u/Blvckhokage, "Why do people still try to argue that Sasuke is Stronger than Naruto,"*Reddit.com, March 7, 2019* https://www.reddit.com/r/Naruto/comments/8nbou4/why_do_people_still_try_to_argue_that_sasuke_is, accessed March 3, 2020

5) u/UchihaFurkan61, "Naruto is Stronger than Sasuke," *Reddit.com, October 23, 2019* *https://www.reddit.com/r/Naruto/comments/7l3tzk/naruto_is_stronger_than_sasuke, accessed March 3, 2020*