

Author or Argumentation: Exploring the Effect of Prior Beliefs And Personality Traits On Persuasiveness

Nikolay Kolyada

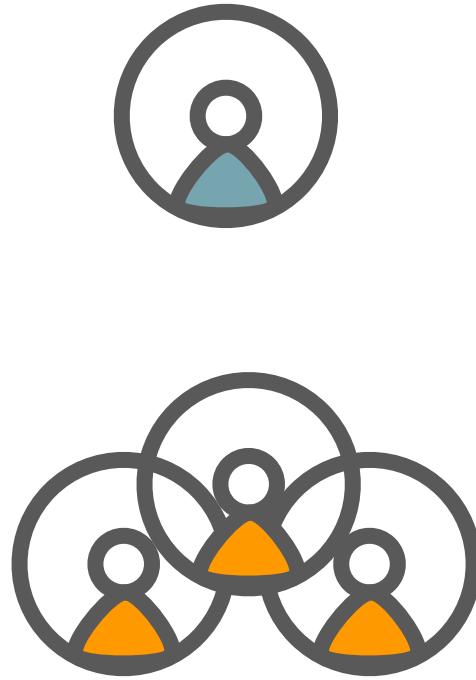
Outline

- Background / Motivation
- Research Questions
- Dataset
- Modelling Authors
 - Modelling Interests
 - Modelling Beliefs
 - Modelling Personality traits
- Evaluation
- Conclusion

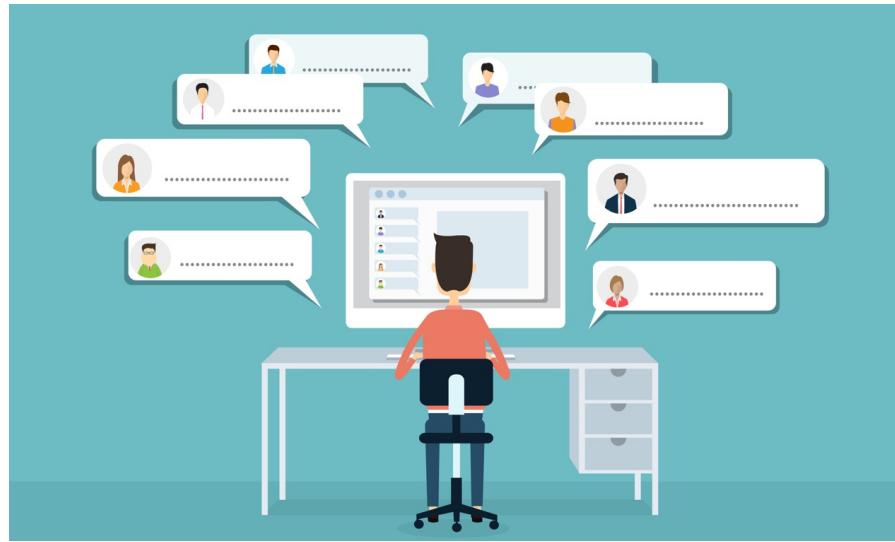
Persuasion



Advertising, Marketing



Online forums



Research Questions

- How to represent person's interests, beliefs, and personality traits?
- How to model the author similarity?
- How to demonstrate the impact of the similarity of people's interests, beliefs, and personality traits on their persuasiveness, if any?

Reddit

The screenshot shows the Reddit homepage. At the top, there's a search bar with "Search Reddit" and a "Popular" link. Below the search bar, there are "VIEW" and "SORT" dropdowns set to "HOT" and "EVERYWHERE".

Post 1: r/AskReddit - Posted by u/heuristic_x 17 hours ago. 35.7k upvotes. "Kids of ‘back in my day’ parents, what’s the most annoying thing they ranted about?" 11.0k comments.

Post 2: r/funny - Posted by u/Carol_Samaniego 8 hours ago. 62.1k upvotes. "It's me... arial" 3.6k comments.

Sidebar (r/popular): The best posts on Reddit for you, pulled from the most active communities on Reddit. Check here to see the most shared, upvoted, and commented content on the internet. Includes a "CREATE POST" button.

Premium Offer: Reddit Premium - The best Reddit experience, with monthly Coins. Try Now.

Trending Communities:

- r/StrangerThings (356k members) - JOIN
- r/ExtraCredits (3.4k members) - JOIN
- r/DogsShopping (12.4k members) - JOIN
- r/technicallythetruth (544k members) - JOIN
- r/confusing_perspective (JOIN)



Reddit

2.6k r/changemyview - Posted by [u/mfDandP](#) 116Δ 1 month ago 5

CMV: Cars should be equipped with both angry and apologetic horns

Deltas(s) from OP

Short of waving my hand vaguely out the window, or holding it appreciatively under my mirror to signify thanks, there's no way to communicate apology or gratitude on the road. I think that since people can only effectively communicate unhappiness, this contributes to road rage.

If someone cuts me off, it certainly would help at least a little bit if I got an apologetic beep in response to my angry WTF beep.

I don't think noise pollution will be much worse. In fact, if I'm startled at home by an angry horn at a stop sign for someone not going, my stress will be lowered if I hear that belated apology horn. It's like seeing a conflict avoided.

i understand the utility of this will be limited once self driving cars get out there.

207 Comments Share Save Hide Report 97% Upvoted

What are your thoughts? Log in or Sign up [LOG IN](#) [SIGN UP](#)

SORT BY Q&A (SUGGESTED) ▾

[DeltaBot](#) 82Δ Score hidden · 1 month ago · Sticked comment · edited 1 month ago

[/u/mfDandP](#) (OP) has awarded 4 delta(s) in this post.

All comments that earned deltas (from OP or other users) are listed [here](#), in [/r/DeltaLog](#).

Please note that a change of view doesn't necessarily mean a reversal, or that the conversation has ended.

[Delta System Explained](#) | [Deltabards](#)

Share Report Save

[miguelguajiro](#) 82Δ 429 points · 1 month ago

I see your point, and I've had the same thought before, but I think the overall utility of the extra horn wouldn't be worth all the extra noise. We shouldn't really be encouraging drivers to "communicate" with their horns beyond what it takes to avert an accident.

Share Report Save

[mfDandP](#) 116Δ 118 points · 1 month ago

my honest take on my witnessed horn usage is that perhaps 1 out of every 10 or 12 uses is in order to prevent an accident. someone merging into an occupied lane, or someone backing out of a driveway into oncoming traffic. the rest are "move your ass" or "you just cut me off" -- the latter of which is not accident prevention, since the person has typically already taken preventative measures. in instances where I have to slam on the brakes, I certainly am not thinking about using the horn, i'm thinking about not getting in a wreck.

r/changemyview
759k Members 1.0k Online

A place to post an opinion you accept may be flawed, in an effort to understand other perspectives on the issue. Enter with a mindset for conversation, not debate.

[JOIN](#)

LINKS
[DELTAS IN POPULAR TOPICS](#) [MESSAGE THE MODERATORS](#) [CHANGEAVIEW.COM](#)

R/CHANGEMYVIEW RULES

1. Rule A - Doesn't Explain View
2. Rule B - 3rd Party/Devils Advocate/Soapboxing
3. Rule C - Unclear/Improper Title
4. Rule D - Neutral/Harm a specific person/Promo/Meta
5. Rule E - No/Minimal Replies from OP in 3 hours
6. Rule 1 - Doesn't Challenge OP (top-level only)
7. Rule 2 - Rude/Hostile Comment
8. Rule 3 - Bad Faith Accusation



SUBREDDITS
887k

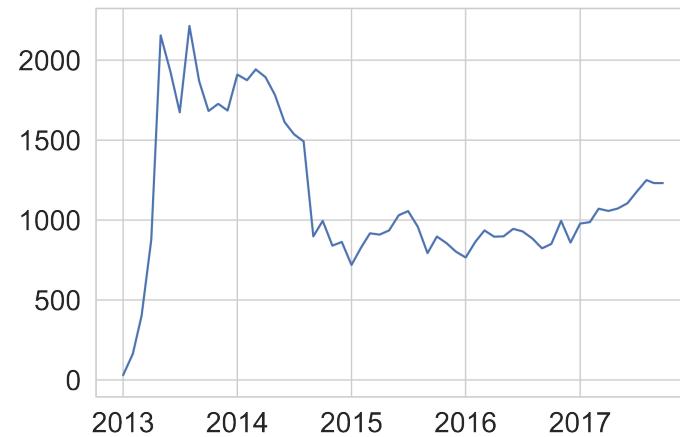
USERS
43m

COMMENTS
3.7b

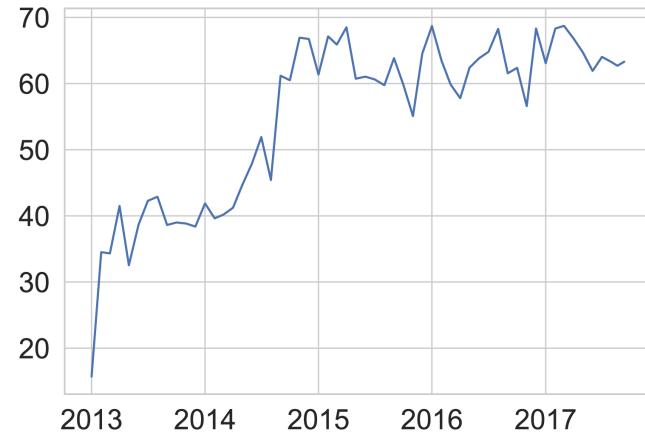
ChangeMyView

ChangeMyView

SUBMISSIONS



AVERAGE COMMENTS PER SUBMISSION



USERS
174k

DISCUSSIONS
60k

Submission



Original Post

Title: Cars should be equipped with both angry and apologetic horns



Reply #1

...

A standard and widely used method of conveying thanks and apology already exists: blinking your hazards a few times.

...



Ah, really? Didn't know that!

▲



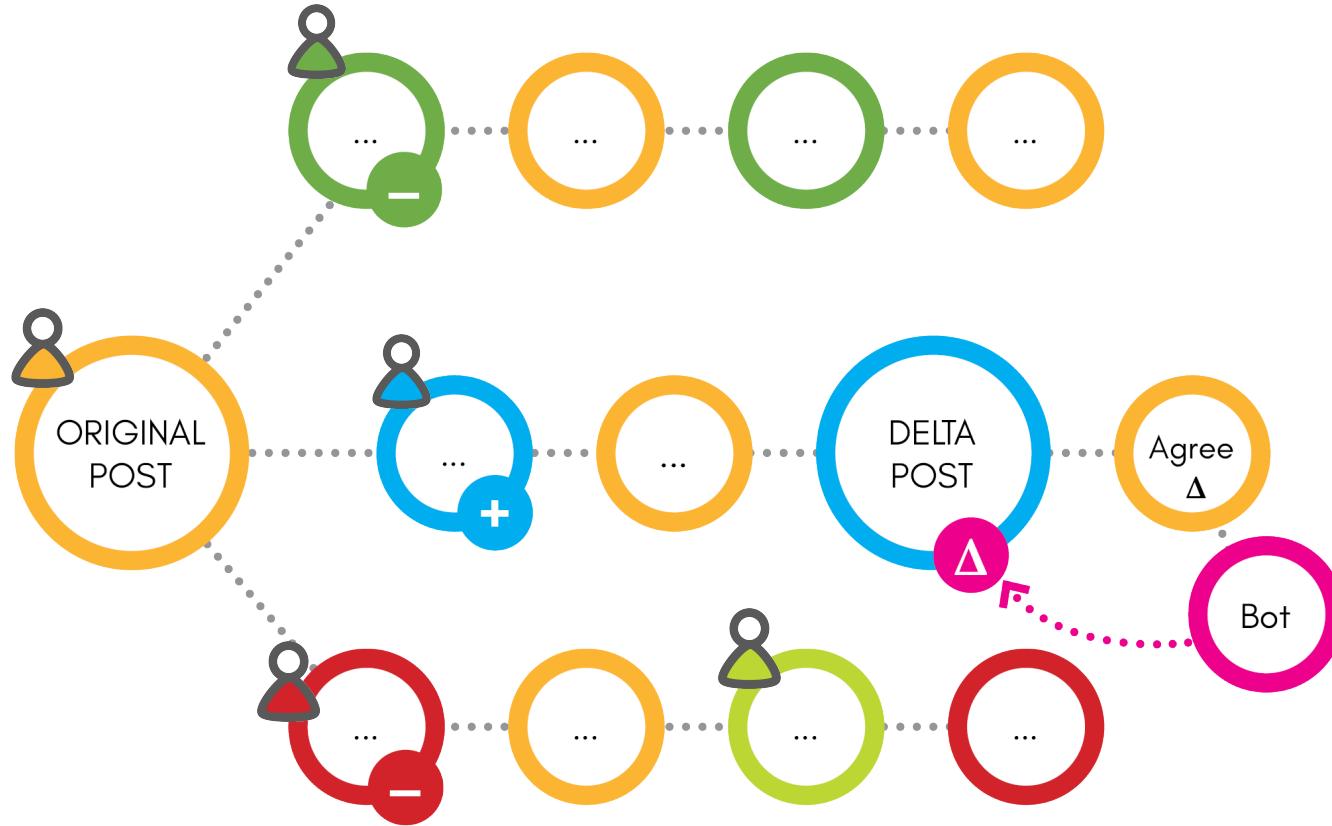
Reply #2

...

You jump a big step here, because you don't explain why the traditional light wave/hand under mirror gesture isn't effective. I see it pretty much every time

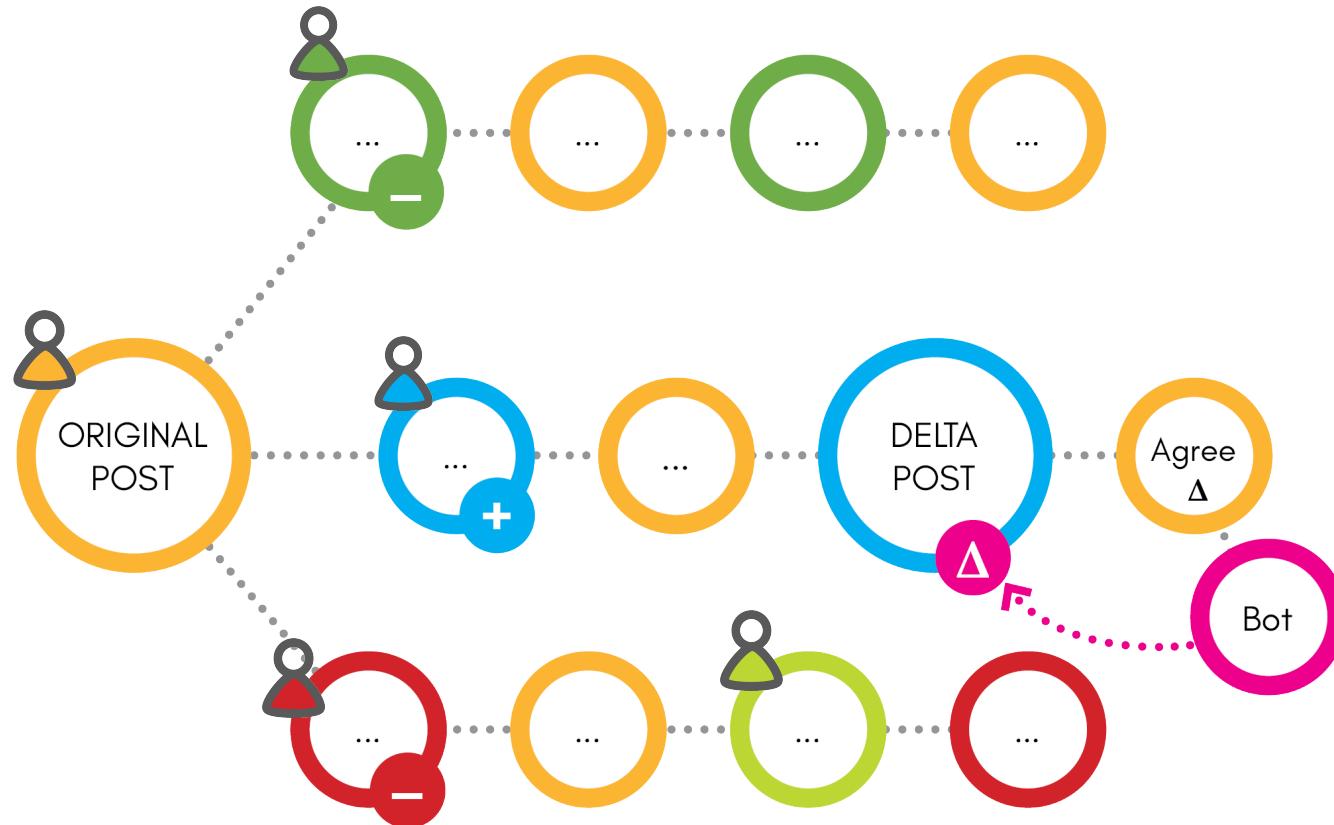
...

Submission

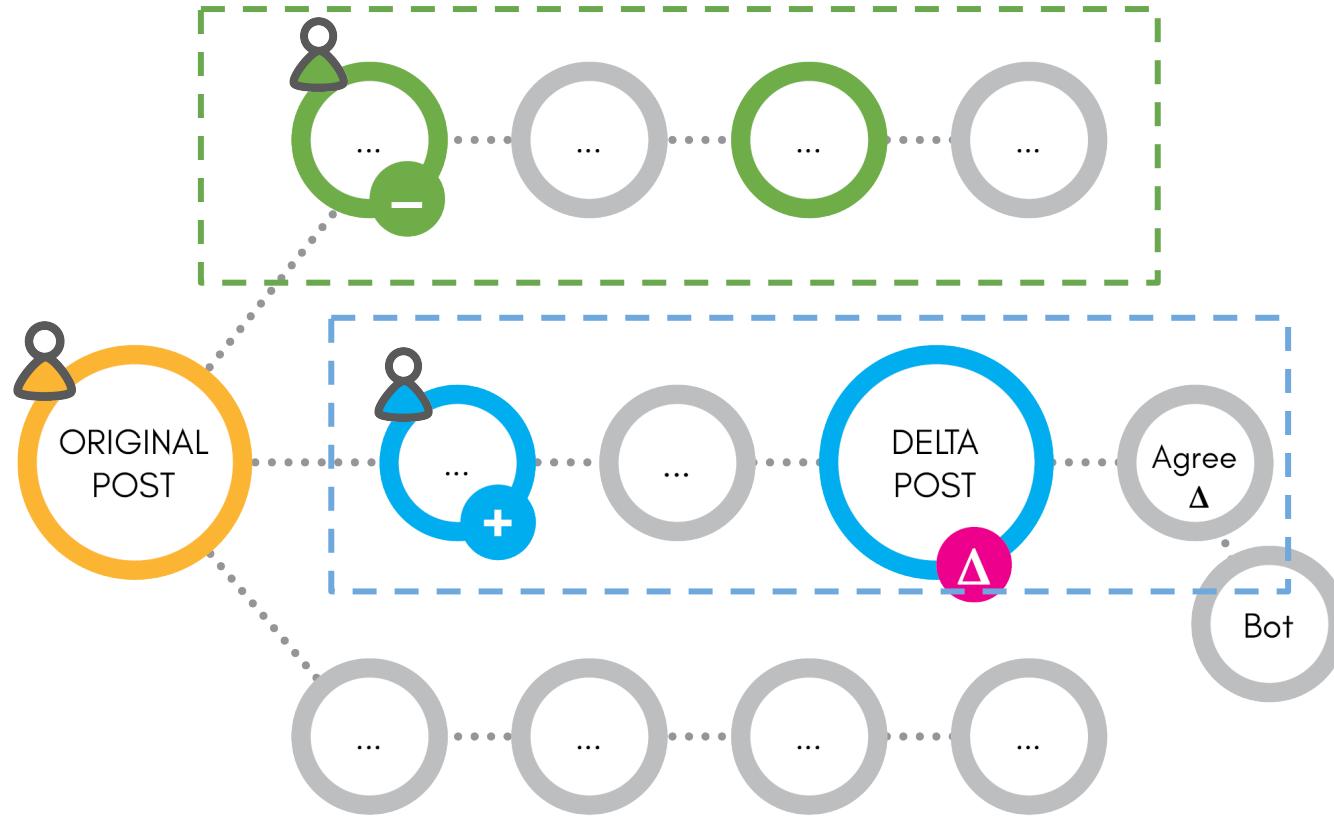


Pairs Dataset

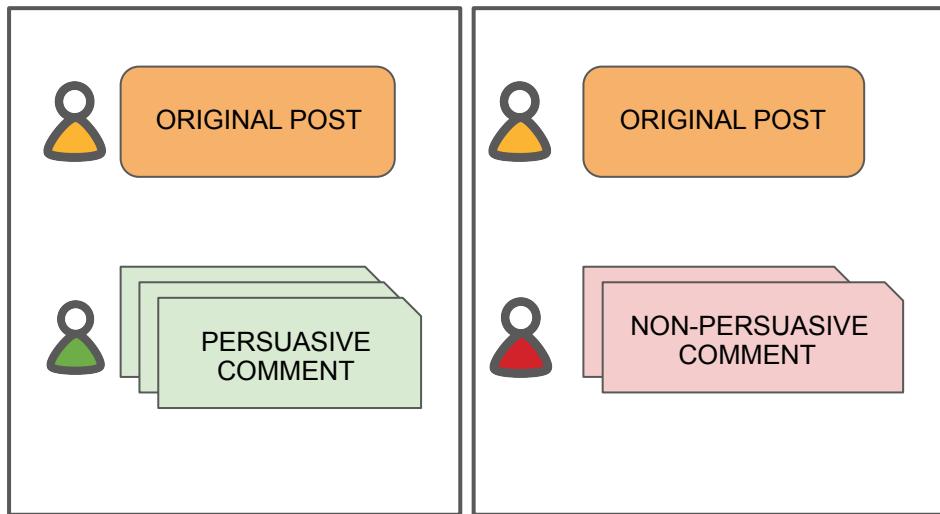
Pairs dataset



Pairs dataset

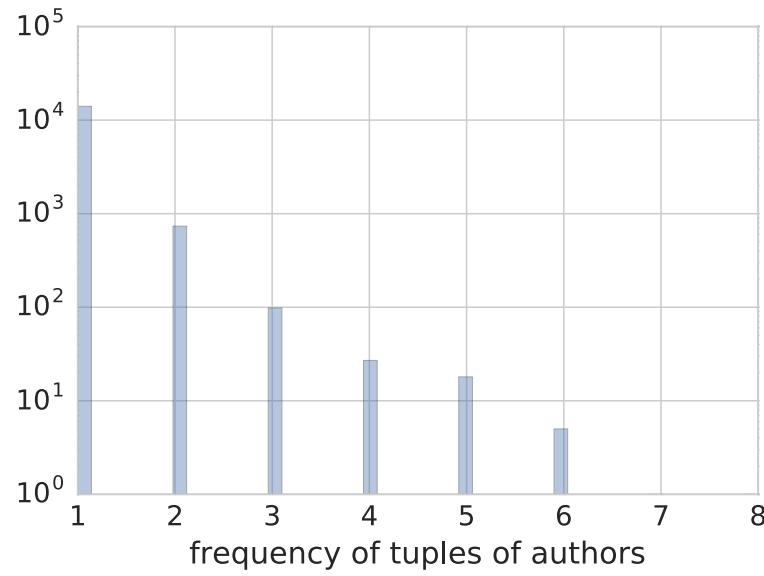


Pairs dataset



OP	- subreddit_id - author - created - title - text
REPLY	- author - created - text - delta
DELTA	True / False

Pairs dataset

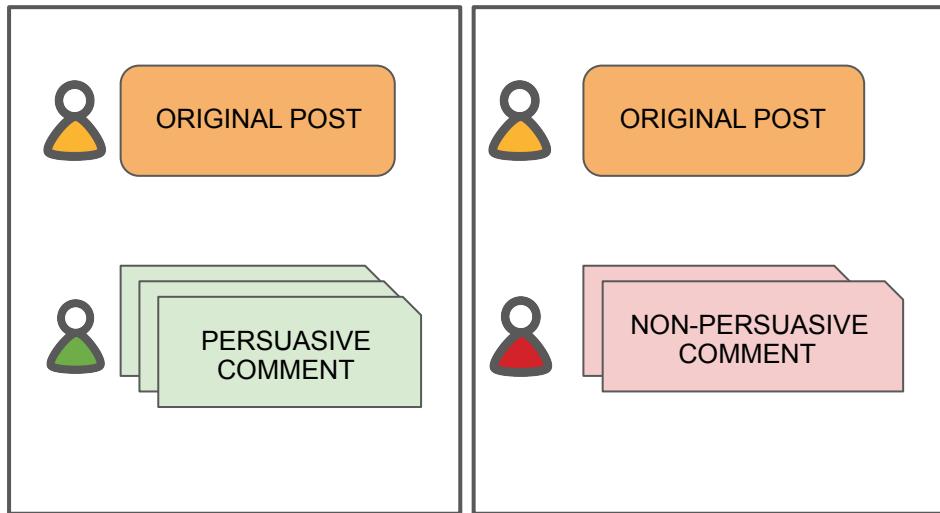


TIMESPAN
01.2013 -
09.2017

8025
PERSUASIVE PAIRS

8025
NON-PERSUASIVE
PAIRS

Argumentation features



- Linguistic features

BOW, articles, pronouns, links, positive/negative words, question marks, quotations

- Interplay features

Argumentation features



- Linguistic features
- Interplay features

Modelling Author Interests

Modelling Interests



Modelling Interests



Modelling Interests

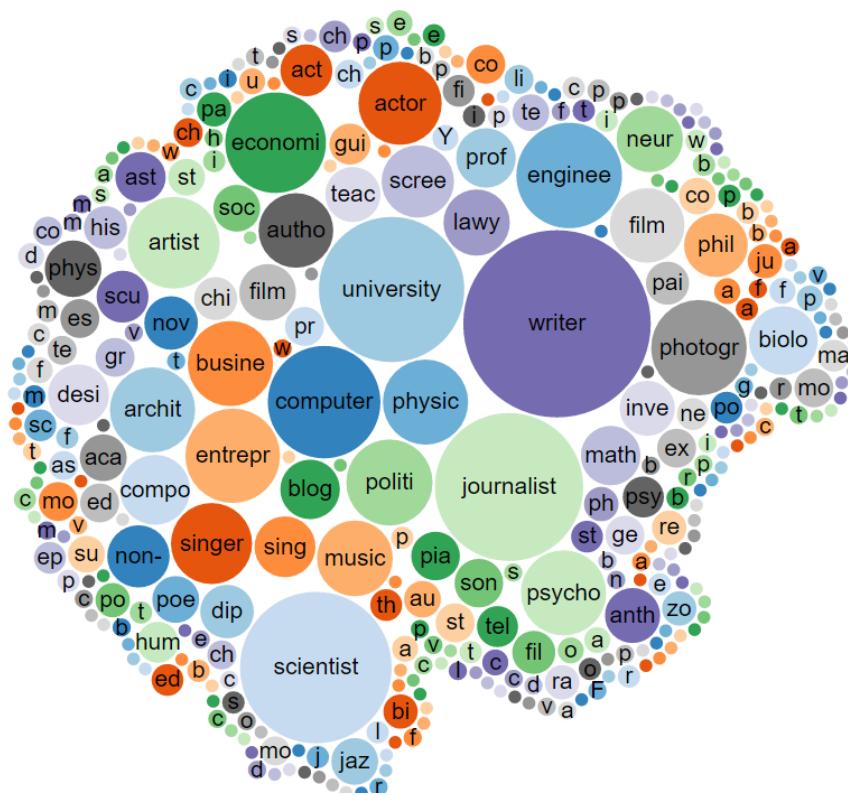


12	r/AskReddit
91	r/space
...	r/todayslearned
32	r/politics
0	r/personalfinance

POST FREQUENCIES
TF-IDF
PCA

Modelling Author Beliefs

Modelling Author Beliefs



Context Sentiment

category	tagret	post text	context sentiment
News And Politics -> Republican	Hillary Clinton	... Besides, Hillary Clinton also has some weaknesses. ...	-0.362

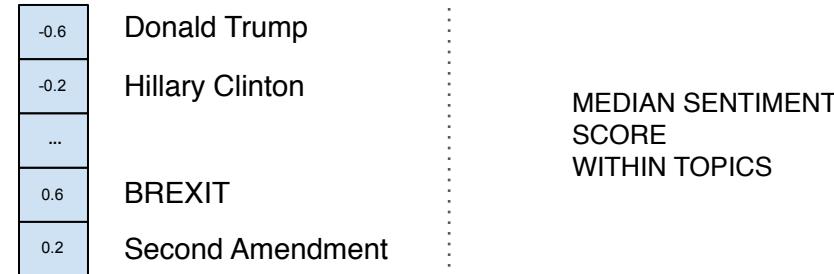
Modelling Author Beliefs



Modelling Author Beliefs



Modelling Author Beliefs



Modelling Personality Traits

Big Five



Modelling Personality Traits



r/changemyview



Modelling Personality Traits



r/changetomyview



BIG FIVE

neuroticism

awful,
though,
lazy,
worse,
depressing,
irony,
road,
terrible,
stressful,
horrible

extraversion

other,
drinks,
restaurant,
dancing,
cats,
grandfather,
countless,
shots,
computer,
glorious

openness

folk,
humans,
poet,
art,
universe,
narrative,
giveaway,
century,
sexual,
films

agreeableness

wonderful,
together,
visiting,
morning,
spring,
walked,
beautiful,
staying,
felt,
cost

conscientiousness

completed,
adventure,
stupid,
boring,
adventures,
desperate,
enjoying,
saying,
utter,
extreme

Label

Group of words

Modelling Personality Traits



 r/changemyview



BIG FIVE

neuroticism

awful,
though,
lazy,
worse,
depressing,
irony,
road,
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horrible

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adventures,
desperate,
enjoying,
saying,
utter,
extreme

Label

Group of words



BIG FIVE

12	91	...	32	0
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TRAITS PERCENTILES

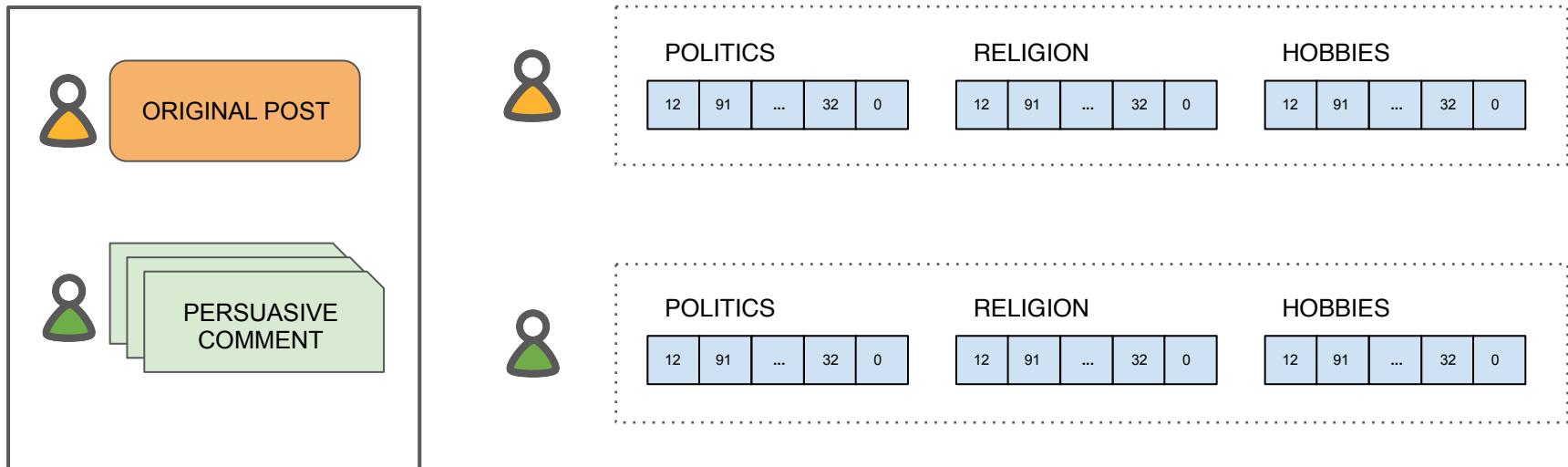
12	91	...	32	0
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WORD CATEGORIES

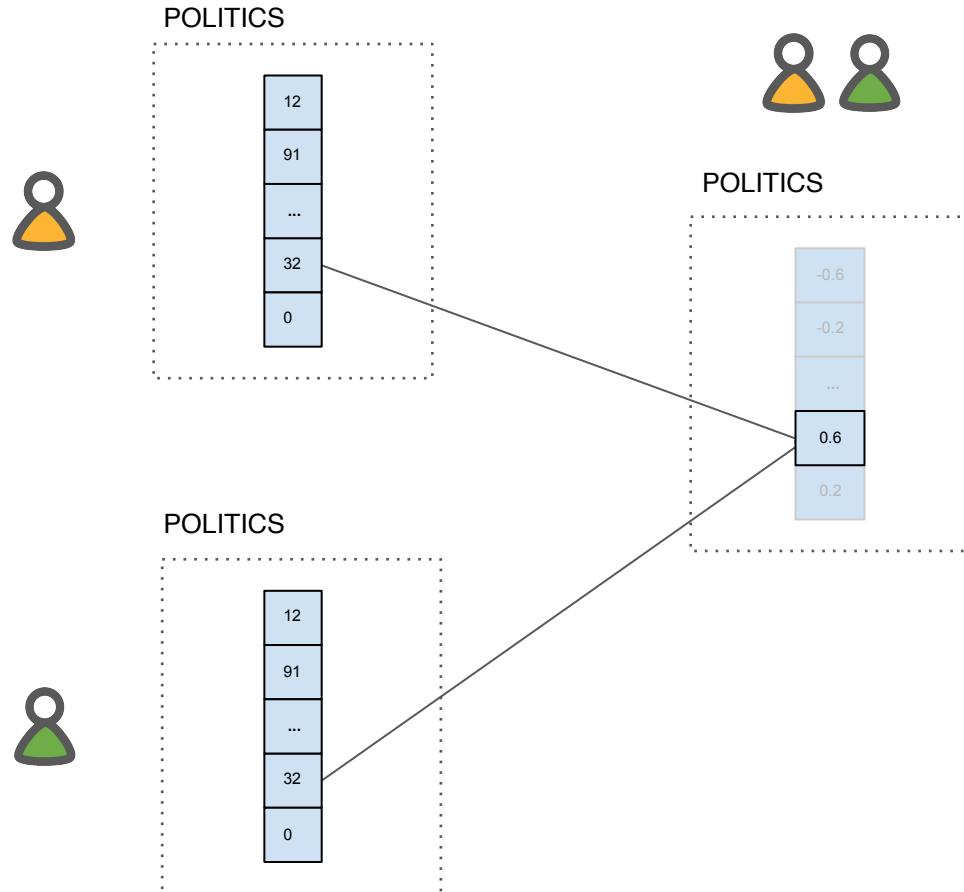
12	91	...	32	0
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Author Similarity

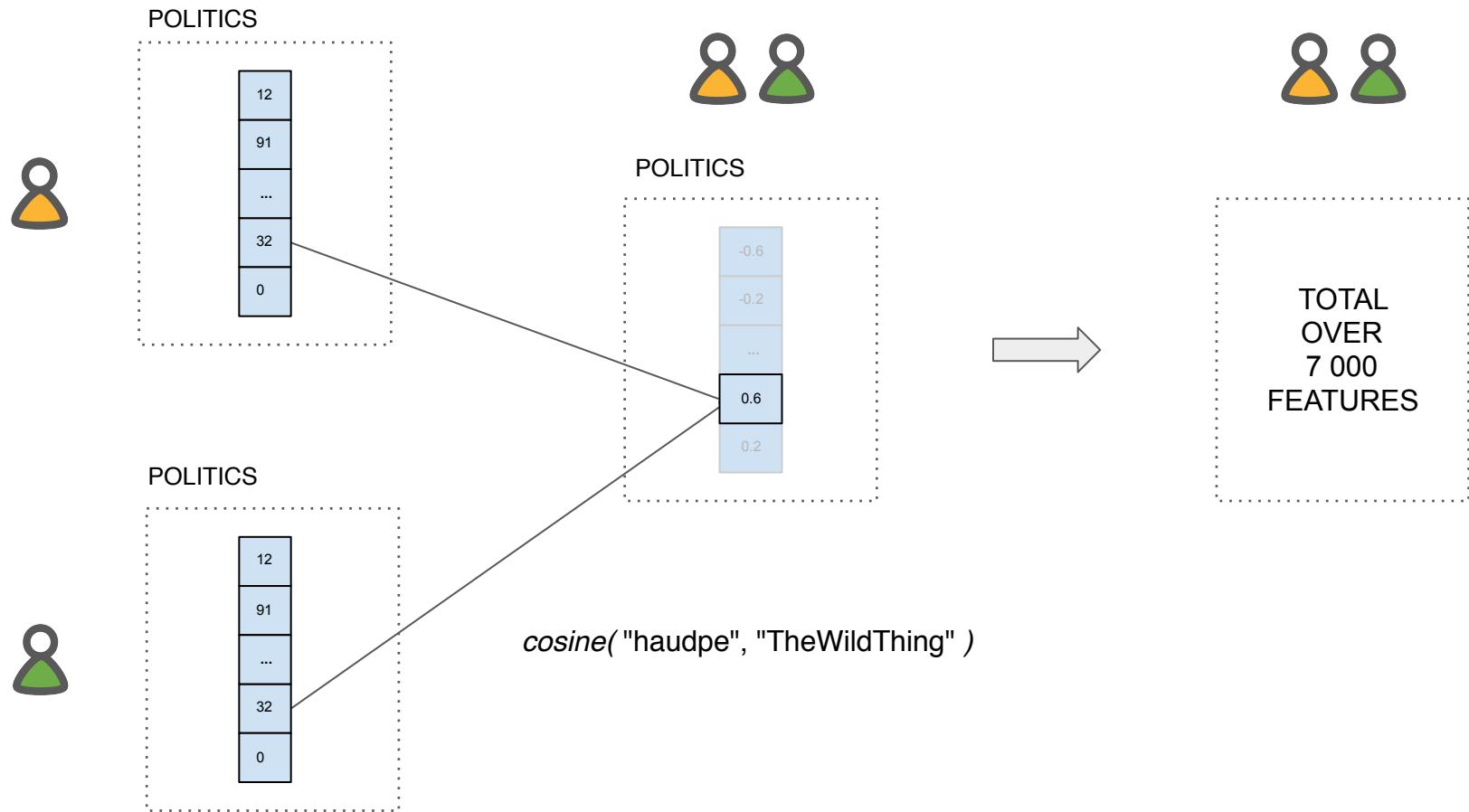
Author Similarity



Author Similarity



Author Similarity



Features overview

Feature groups:

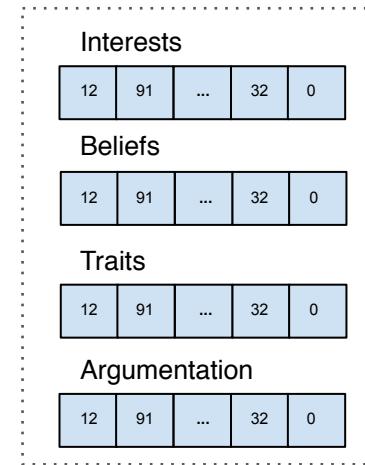
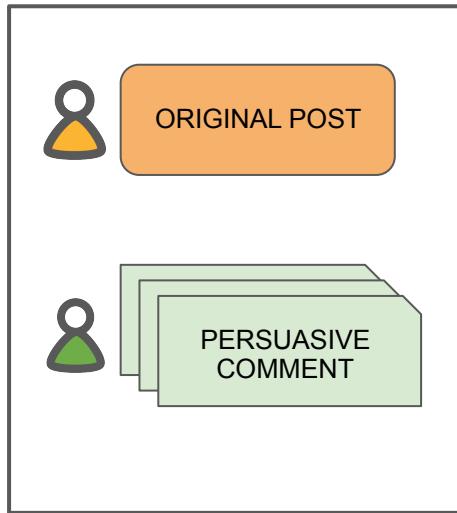
- interests
- beliefs
- personality traits
- argumentation features

- How to demonstrate the impact of the similarity of people's interests, beliefs, and personality traits on their persuasiveness, if any?

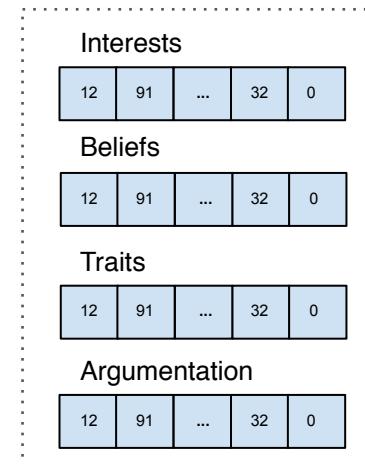
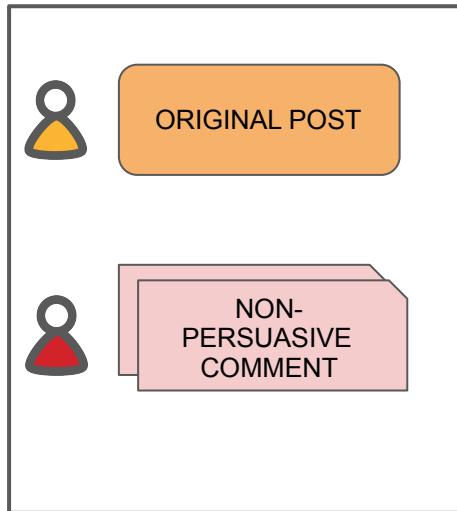
Predicting the Persuasive Argument

Opinion Malleability Prediction

Predicting the Persuasive Argument

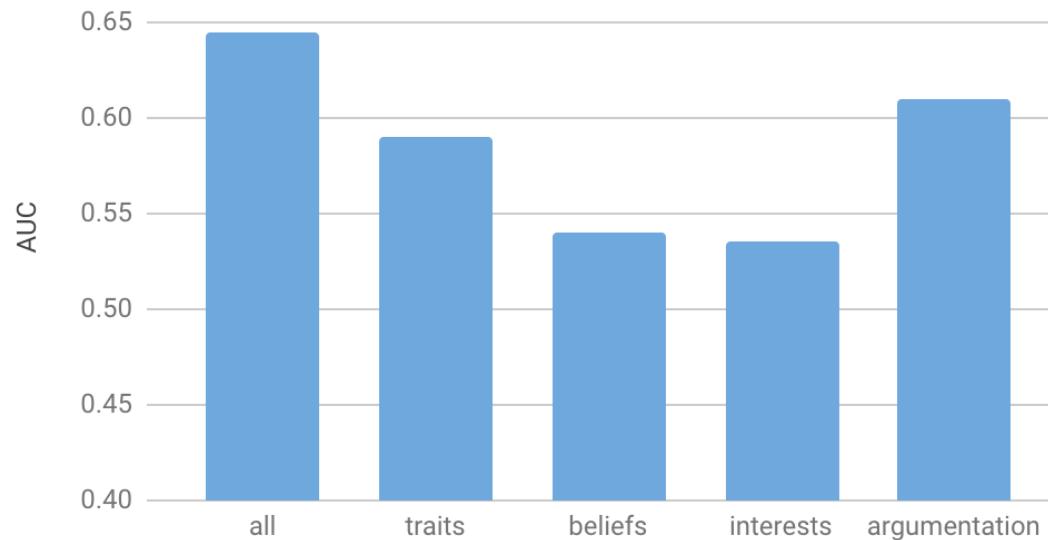


PERSUASIVE
OR
NON-
PERSUASIVE



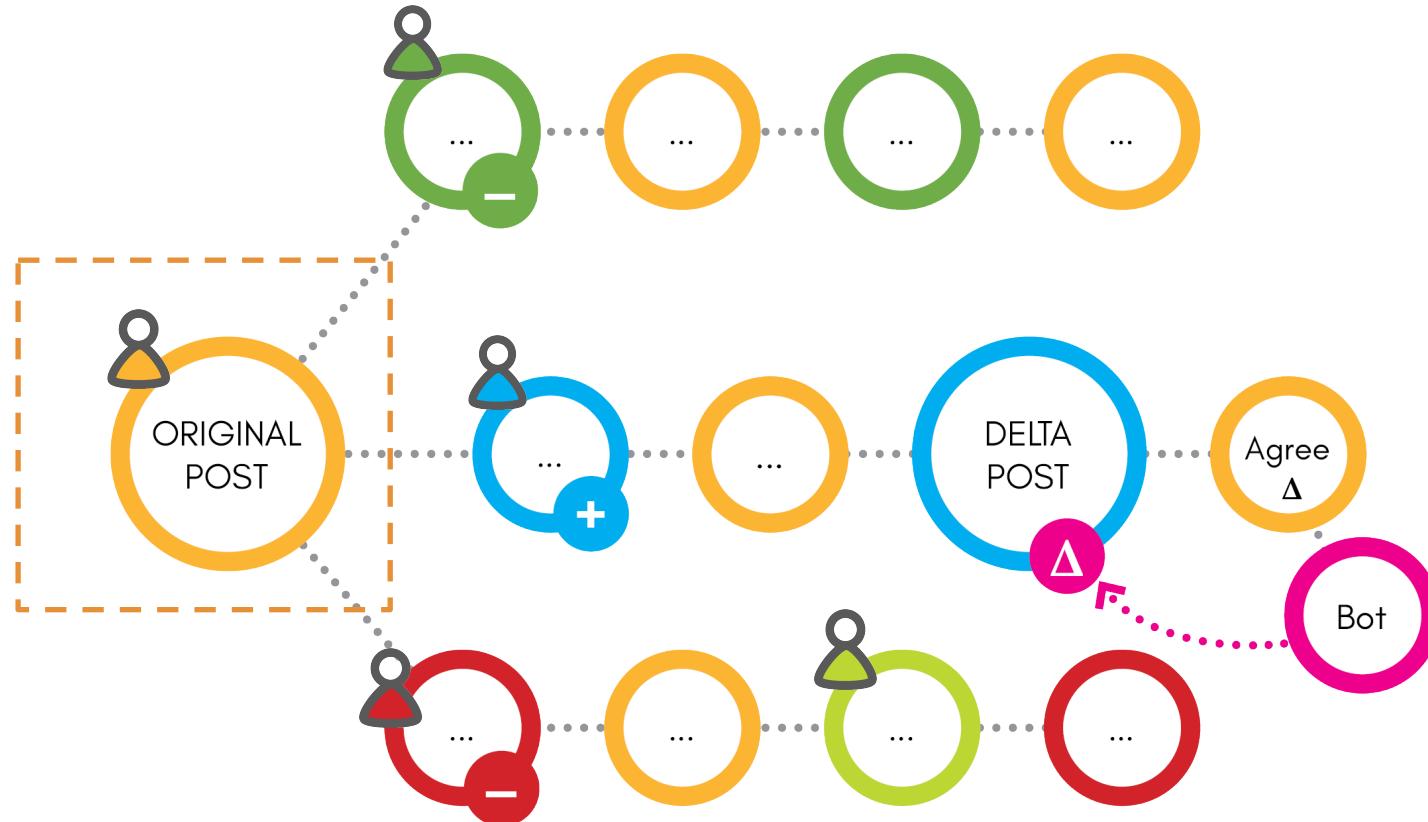
PERSUASIVE
OR
NON-
PERSUASIVE

Predicting the Persuasive Argument

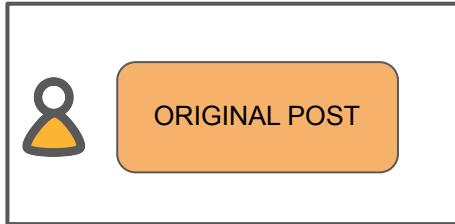


How easy is to persuade OP?

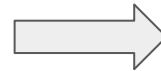
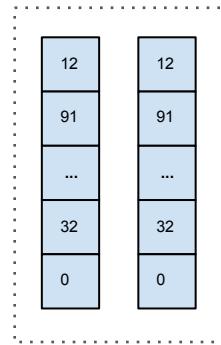
Opinion Malleability



Opinion Malleability



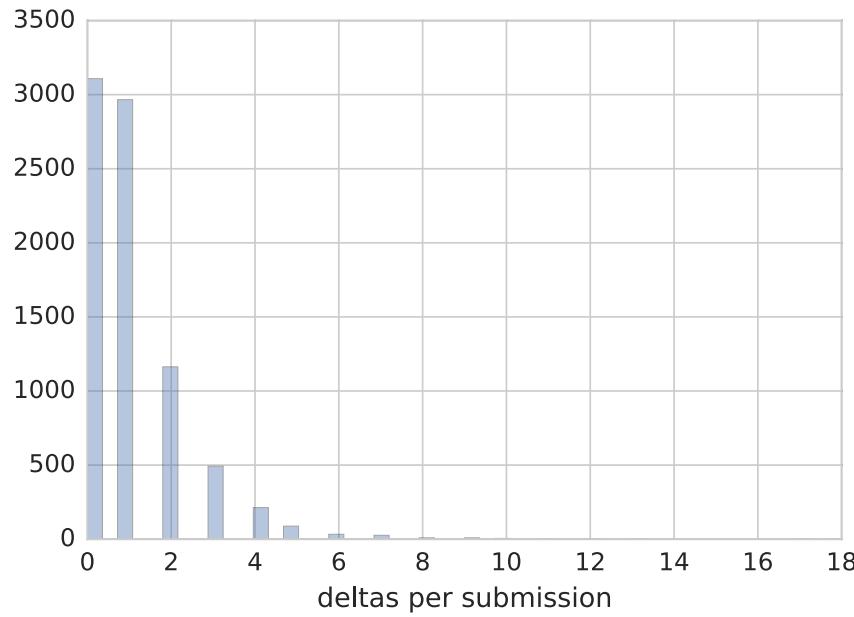
personality traits



BOW

RESISTANT
OR
MALLEABLE

Opinion Malleability

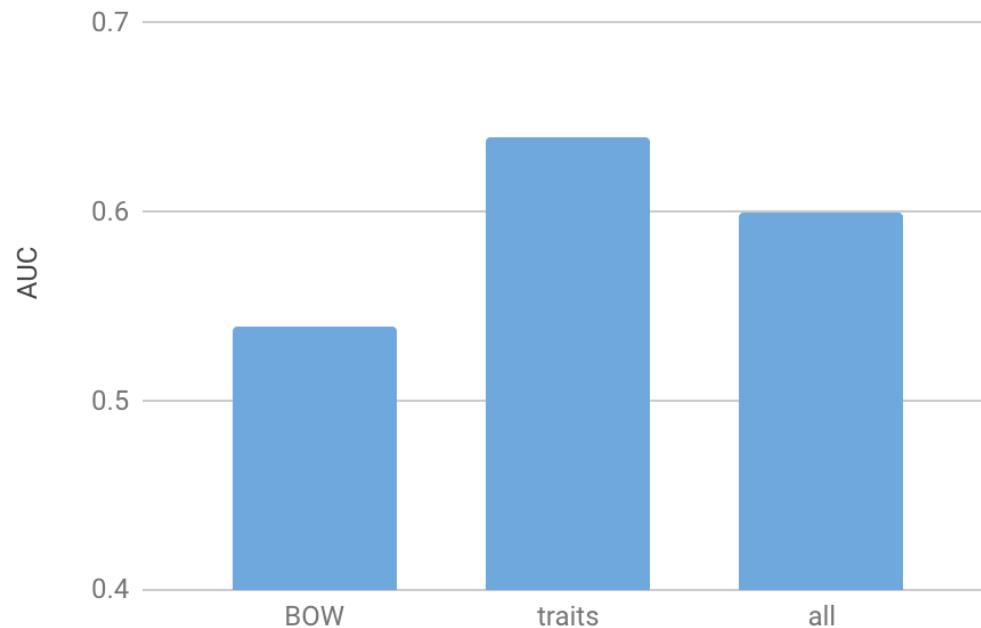


POSTS
8 121

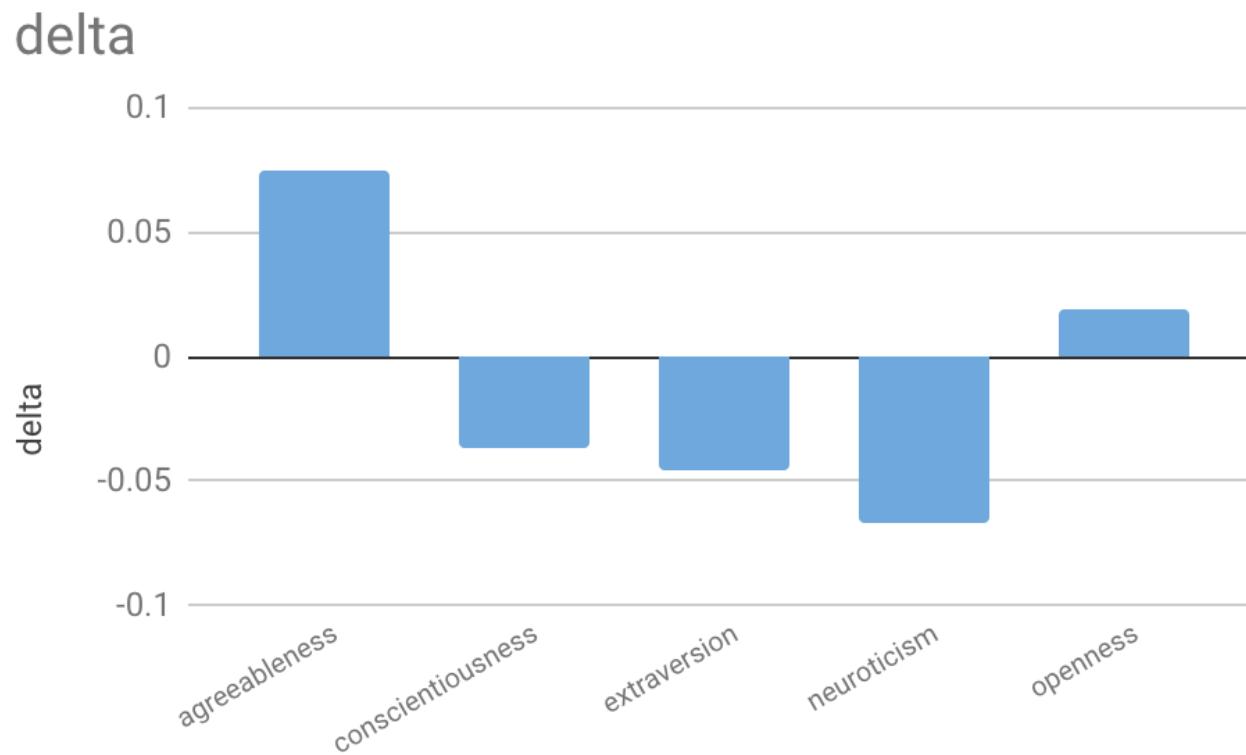
MALLEABLE
3 186

**UNIQUE
AUTHORS**
4 641

Opinion Malleability



Opinion Malleability



Future work

- structure of arguments, quality of arguments
- correlation between author traits and argumentation used
- model the experience: deltas earned
- different discussion platforms

Summary

- Research questions
 - How to represent person's interests, beliefs, and personality traits?
 - How to model the author similarity?
 - How to demonstrate the impact of the similarity of people's interests, beliefs, and personality traits on their persuasiveness, if any?
- Pairs dataset
- Author features: Interests, Beliefs, Personality Traits
- Experiments: Prediction of persuasive argument, Opinion malleability
- Explore the impact of author similarity on persuasion