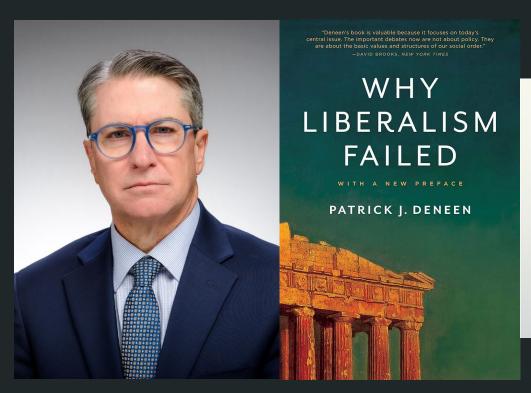
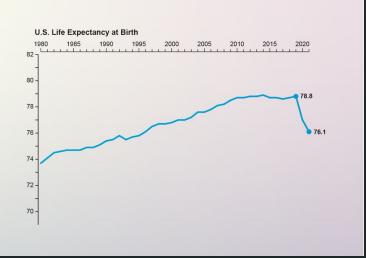
Purpose & Meaning

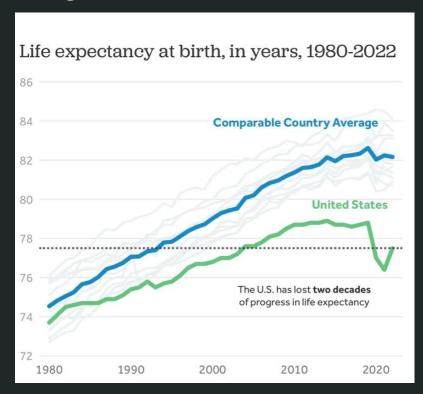
Dan Gilles

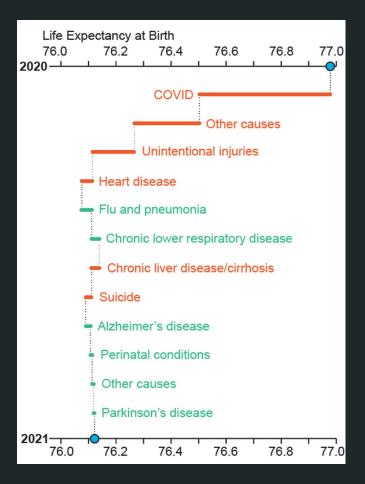
Background





Background

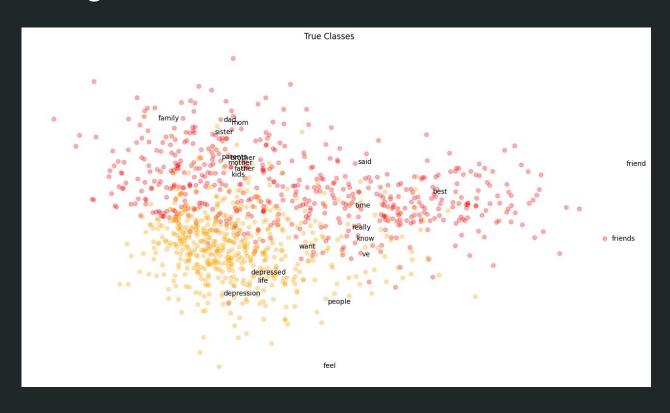


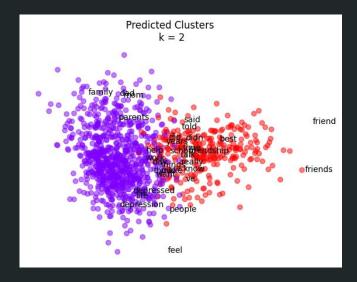


Depression

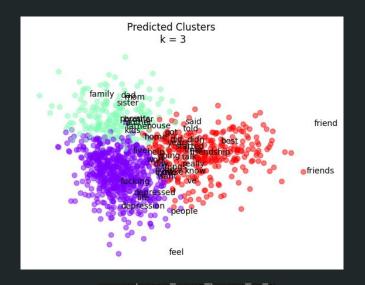
	filename	text	depression
0	Breesasha.txt	Ending a 6 year friendship over her husband\n\	0
1	jasmarie98.txt	Went through tough times, friends weren't ther	0
2	UnknownDude007.txt	Is there any chance of me being able to fix th	0
3	Trumpeachment.txt	My dad is about to be 65. I'm scared suddenly	0
4	smoofsmooff.txt	I want to fix my best friend and I's friendshi	0
1091	fufukuschlipups.txt	Even in objectively good circumstances I feel	1
1092	StrangeStep.txt	Does anyone else "live inside their head"?\nHi	1
1093	MisterGiraffaxx.txt	My birthday is in 15 days.\nl have never felt	1
1094	Marleaubugatti.txt	Antidepressants for GAD\nAre any of you taking	1
1095	TheNarwhalTsar.txt	Thoughts on Antidepressents?\nWhat's the gener	1

Word Usage Differences



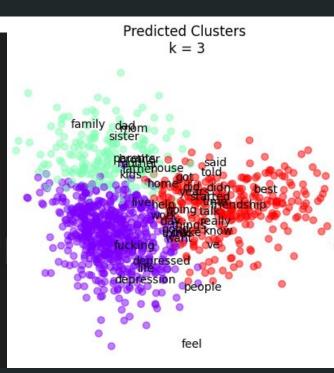


For 2 clusters: Homogeneity: 0.102 Completeness: 0.120 V-measure: 0.110 Adjusted Rand Score: 0.106

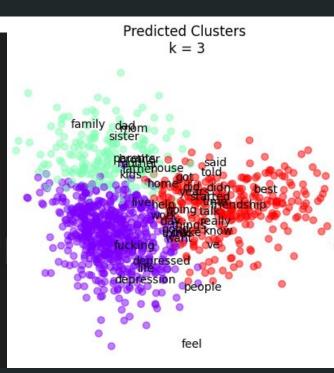


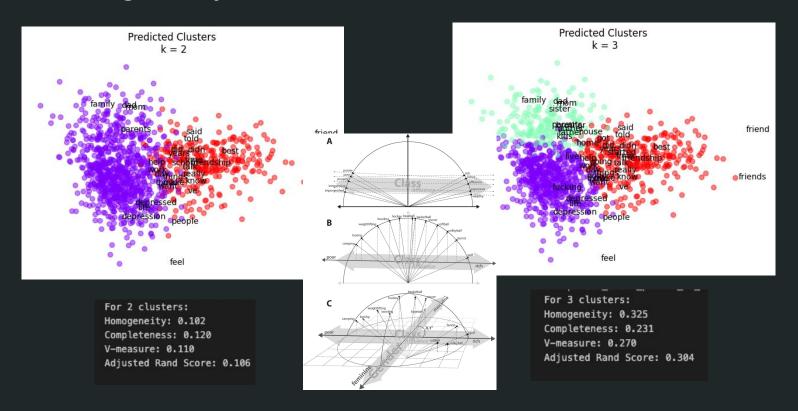
For 3 clusters: Homogeneity: 0.325 Completeness: 0.231 V-measure: 0.270 Adjusted Rand Score: 0.304

```
Top terms per cluster: (3 clusters)
['Cluster 0:', ' feel', ' life', ' want', ' depression', ' people', ' ve', ' know', '
think', ' really', ' time', ' depressed', ' things', ' help', ' day', ' fucking', '
make', 'work', 'good', 'going', 'years', 'happy', 'better', 'feeling', 'hate',
'love', 'wish', 'job', 'talk', 'makes', 'need', 'try', 'bad', 'right', '
sad', 'thoughts', 'having', 'anymore', 'shit', 'friends', 'year', 'today', '
tired', 'way', 'fuck', 'doing', 'school', 'long', 'getting', 'say', 'does',
'Cluster 1:', ' friend', ' friends', ' best', ' know', ' ve', ' feel', ' time', '
really', ' people', ' want', ' said', ' didn', ' told', ' friendship', ' talk', '
make', ' years', ' did', ' things', ' started', ' school', ' got', ' think', ' group',
' person', ' new', ' life', ' say', ' going', ' girl', ' guy', ' way', ' doesn', '
help', ' day', ' tell', ' hang', ' bad', ' talking', ' boyfriend', ' good', ' year',
close', ' recently', ' months', ' sure', ' asked', ' thing', ' advice', ' need',
'Cluster 2:', ' family', ' dad', ' mom', ' sister', ' parents', ' mother', ' brother',
'father', 'house', 'time', 'want', 'home', 'know', 'years', 'kids', 'got',
told', ' live', ' really', ' said', ' husband', ' help', ' feel', ' old', ' things',
didn', ' year', ' wife', ' ve', ' say', ' cousin', ' doesn', ' away', ' money', '
going', 'think', 'went', 'daughter', 'does', 'child', 'work', 'day', 'ago', '
school', 'car', 'mum', 'right', 'died', 'asked', 'care']
```

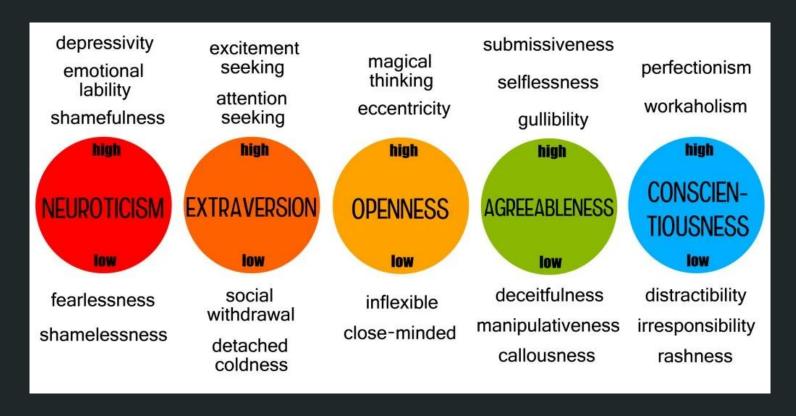


```
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'love', 'wish', 'job', 'talk', 'makes', 'need', 'try', 'bad', 'right', '
sad', 'thoughts', 'having', 'anymore', 'shit', 'friends', 'year', 'today', '
tired', 'way', 'fuck', 'doing', 'school', 'long', 'getting', 'say', 'does',
'Cluster 1:', ' friend', ' friends', ' best', ' know', ' ve', ' feel', ' time', '
really', ' people', ' want', ' said', ' didn', ' told', ' friendship', ' talk', '
make', ' years', ' did', ' things', ' started', ' school', ' got', ' think', ' group',
' person', ' new', ' life', ' say', ' going', ' girl', ' guy', ' way', ' doesn', '
help', ' day', ' tell', ' hang', ' bad', ' talking', ' boyfriend', ' good', ' year',
close', ' recently', ' months', ' sure', ' asked', ' thing', ' advice', ' need',
'Cluster 2:', ' family', ' dad', ' mom', ' sister', ' parents', ' mother', ' brother',
'father', 'house', 'time', 'want', 'home', 'know', 'years', 'kids', 'got',
told', ' live', ' really', ' said', ' husband', ' help', ' feel', ' old', ' things',
didn', ' year', ' wife', ' ve', ' say', ' cousin', ' doesn', ' away', ' money', '
going', 'think', 'went', 'daughter', 'does', 'child', 'work', 'day', 'ago', '
school', 'car', 'mum', 'right', 'died', 'asked', 'care']
```





(Social) Openness/Closedness



convo = utt.get_conversation()
convo.print_conversation_structure(lambda utt: utt.text + "\n \n")

My mother has had an awful life - devoid of love, with no parents, with no close friends after mar have no idea how to express their feelings and affection

1. Data:

import convokit
 from convokit import Corpus, download

corpus = Corpus(download('subreddit-depressed'))

that

Python

Dataset already exists at /Users/dan/.convokit/downloa

My sister has fewer friends than me and fewer to none of the experiences Ive had.

My best friend is living with absolute jerks.

Yet I am the one, in an amazing university, surrounded by nice friends, with variety of unforgetable experiences, that is feeling "depressed", "lonely", "useless" and procrastinates the shit out of her life, crying herself to sleep every other day and thinking of suicide.

The fucking useless pice of shit that I am.... Kinda thinking I am doing it for the attention...

Many of us don't have a "reason" in how pre-existing diseases and/or conditions are the cause of depressive symptoms.

My thyroid gland was tested and it probably contributes.

Depression is a mental disorder, and maybe even a normal part of mental activity in how sadness is almost universally observable in humans.

Your symptoms are real and should be treated.

Even if you feel like there is no reason for your depression, that shouldn't be a reason to tell yourself that your quality of life is not important, because it absolutely is.

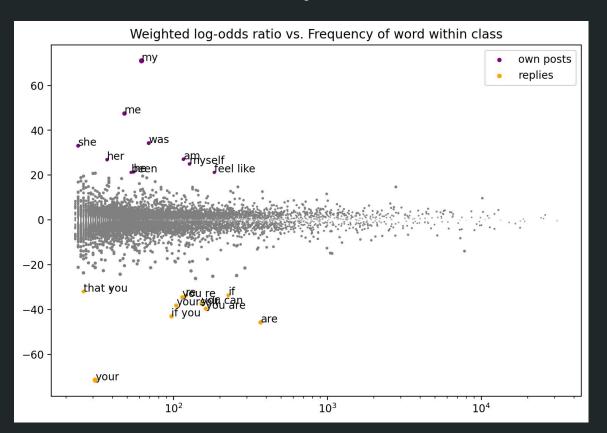
Depression absolutely can be a disorder with no reason — so many people, myself included, lead rich, almost charmed lives and still traverswe huge, unending pits of sadness, still battle with suicidal thoughts, still grasp desperately to find meaning in a world that seems unreasonably bleak, even hostile.

You're not alone in this. We understand that you don't need a reason. It just is what it is. There's no justice in the world, and beating yourself up about that is no going to achieve anything.

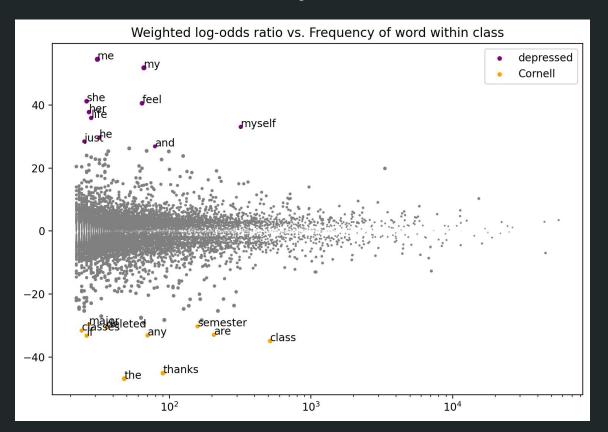
```
# tag whether the utterance is the speaker's own post or
for utt in corpus.iter_utterances():
    if utt.reply_to != None:
        id = utt.id
        convo = utt.get_conversation()
        original_post = corpus.get_utterance(convo.id)
        if original_post.speaker.id == utt.speaker.id:
            utt.meta['own'] = True
        else:
            utt.meta['own'] = False
        else:
            utt.meta['own'] = True
```

```
from convokit import FightingWords
   fw = FightingWords()
                                                                   Python
Initializing default CountVectorizer with ngram range (1, 3)... Done.
   fw.fit(corpus, class1_func = lambda utt: utt.meta['own'] == True,
          class2 func = lambda utt: utt.meta['own'] == False)
                                                                   Python
class1_func returned 8542 valid corpus components. class2_func returned
11272 valid corpus components.
Vocab size is 15000
Comparing language...
ngram zscores computed.
<convokit.fighting_words.fightingWords.FightingWords at 0x7fb2aaa476d0>
```

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class1_func returned 8542 valid corpus components. class2_func returned
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<convokit.fighting_words.fightingWords.FightingWords at 0x7fb2aaa476d0>
```



class	z-score	
		ngram
replies	-71.483892	your
replies	-45.715717	are
replies	-43.006303	if you
replies	-39.604222	you are
replies	-38.173504	yourself
own posts	27.101936	am
own posts	33.113211	she
own posts	34.285602	was
own posts	47.487057	me
own posts	71.018620	my



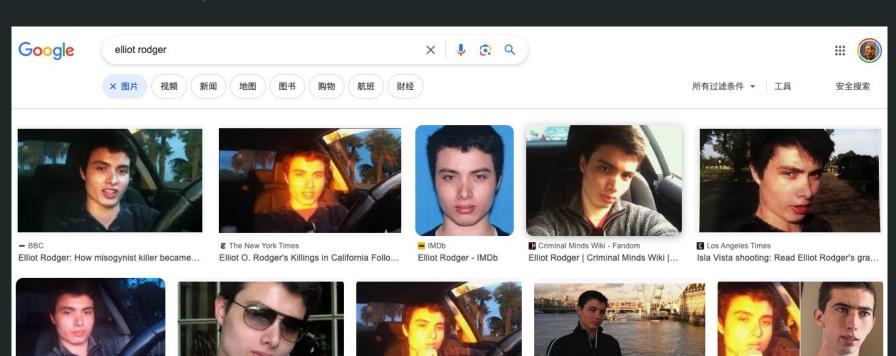
	z-score	class
ngram		
the	-46.813787	Cornell
thanks	-45.052157	Cornell
class	-34.871888	Cornell
if	-33.188343	Cornell
any	-33.114831	Cornell
her	37.721990	depressed
feel	40.518676	depressed
she	41.175328	depressed
my	51.782092	depressed
me	54.478234	depressed

- BBC

Elliot Rodger: How misogynist killer be...

Salon.com

White guy killer syndrome: Elliot R...



Elliot Rodger and why young males go...

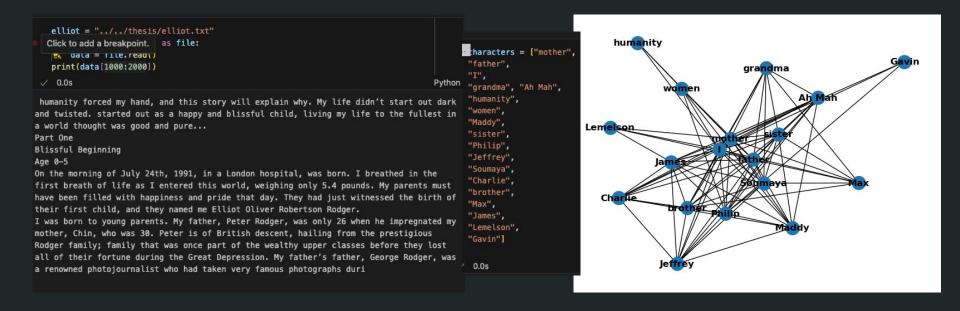
M NBC News

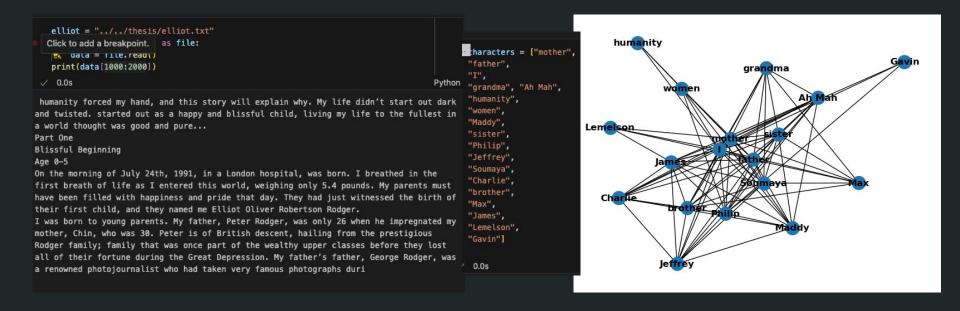
California Shooting Suspect Elliot Rodg...

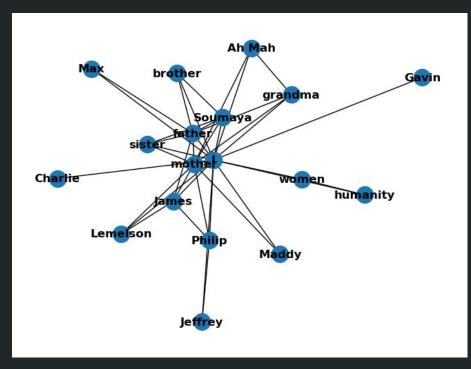
CBC

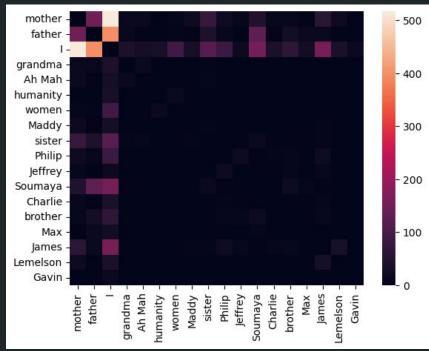
ABC News

Elliot Rodger's Ex-Roommate Reveals...









Next Directions

