

# It's All Fake News: An Investigation Into the Psychological Underpinnings of Conspiracist Beliefs and Personality



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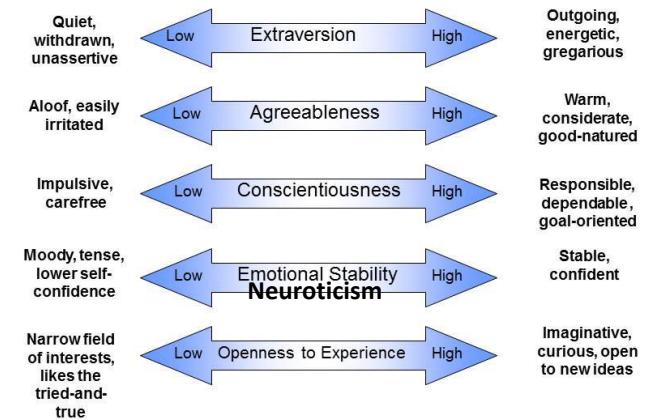
Tulane University

# \*\*\*\*Introduction & Research Questions\*\*\*\*

- Americans have been saturated with conspiracy theories over the past year and a half (e.g., voting fraud, COVID-19 origin/treatment)
- *How might personality play a role?*

The screenshot shows a Jupyter Notebook interface. The title of the notebook is "Measuring Belief In Conspiracy Theories". It is described as having 2K Answers to 15 scale rated items, 30+ other variables, and was last updated by Yam Peleg a month ago (Version 12). The notebook has 9 tasks and 2 code files. Below the notebook, there are links for Data, Tasks (9), Code (2), Discussion (2), Activity, Metadata, Download (512 kB), New Notebook, and a more options menu. At the bottom, there are sections for Usability (9.4), License (Other (specified in description)), and Tags (internet, social science, psychology).

## The Big Five Personality Dimensions

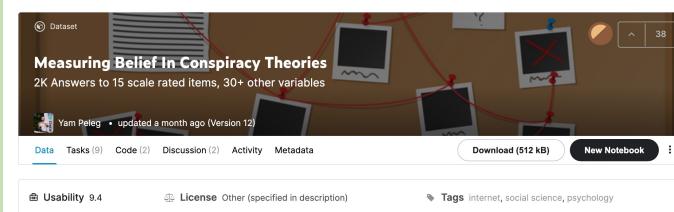


(Tupes & Christal, 1961, as cited by Daft, 2007)

1. At Individual-Level: How do the Big-5 personality traits relate to inclinations toward conspiracist beliefs & does Openness have a significant *unique effect* on these beliefs?
2. At the state-level: How does personality relate to attitudes toward specific conspiracy beliefs? Can these state-level traits predict state government behavior in response to the COVID-19 pandemic?

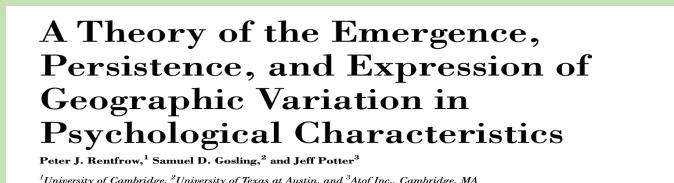
# \*\*\*\*Data Collection\*\*\*\*

1.)



- **Measuring Belief In Conspiracy Theories:** Collected online by researchers at Goldsmiths University of London in 2016
  - *Generic Conspiracist Beliefs Scale*
  - *Ten Item Personality Inventory*
  - **Demographics:** Religion, age, gender, education

2.)



- **Big-5 State-Level Mean Scores:** Provided standardized means, SD, and sample sizes for each state & DC.

3.)



- **American National Election Studies:** Used data collected in 2020
  - Participant state of residence
  - Attitudes toward various false beliefs (e.g., Hydroxychloroquine & COVID-19)

4.)



States with the Fewest COVID-19 Restrictions		
Overall Rank	State	Total Score
1	Iowa	95.97
2	Florida	90.70
3	Wyoming	90.16
4	South Dakota	89.15

- **WalletHub Table:** State with Fewest COVID-19 restrictions (as of 04-21-21)
  - Index created using 13 metrics (each metric graded from 1-100)
  - Metric categories examples:
    - Required mask wearing in public
    - Large gathering restrictions
    - Reopening of non-essential Businesses.

## \*\*\*\*Data Extraction, Transfer, Load\*\*\*\*

### 1.) Individual-Level Big-5-Conspiracy Dataset



- Read in data from .csv file and computed composite scores.

	Extraversion	Agreeableness	Conscientiousness	Neuroticism	Openness	Global_GCBS	education	religion	age
0	3.5	6.0	6.0	1.5	6.5	4.533333	3.0	2	28.0
1	5.5	4.0	4.5	7.0	6.5	4.333333	1.0	1	14.0
3	4.0	3.0	7.0	4.0	7.0	3.666667	3.0	12	25.0
4	2.5	5.0	5.0	2.5	5.5	3.933333	2.0	2	37.0

### 2.) State-Level Mean Big-5 Scores Dataset

- Scrapped table with data from Wikipedia
- Contacted author for additional data.

	State	E_M	A_M	C_M	N_M	O_M	Extra_z	Agree_z	Con_z	Neuro_z	Open_z
0	Alabama	3.2576	3.6051	3.4285	2.9840	3.8116	0.22	-0.27	-0.53	-0.26	-1.32
1	Alaska	3.2020	3.4639	3.3488	2.9416	3.8091	-1.63	-4.33	-3.00	-1.20	-1.37
2	Arizona	3.2501	3.6125	3.4801	2.9467	3.8781	-0.03	-0.06	1.06	-1.09	-0.02

### 3.) ANES Specific Conspiracy Belief Dataset

	version	V200001	V160001_orig	V200002	V200003	V200004	V200005
0	ANES2020TimeSeries_20210719	200015	401318	3	2	3	
1	ANES2020TimeSeries_20210719	200022	300261	3	2	3	

(8280, 1771)

### Specific Conspiracy Theory Narratives

State	Con_id	Highest_Ed	Vote_unfair_count	Belief_temps_not_rise	Belief_vax_causes_autism	Belief_COVID_develop_in_lab	Belief_hydroxychloroquine_treats_COVID
0	AK	5.400000	3.500000	2.500000	0.000000	0.000000	0.666667
1	AL	4.764045	3.310680	2.346535	0.177083	0.114583	0.604167

### 4.) WalletHub Least Restricted Index



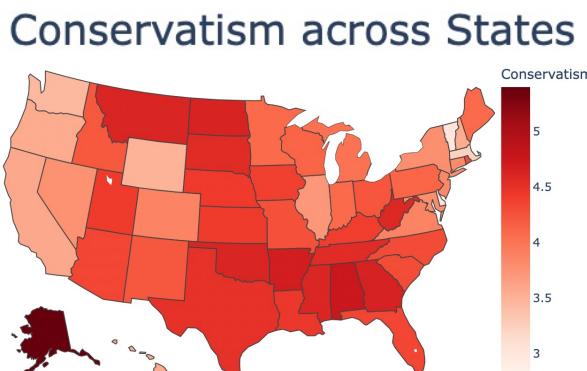
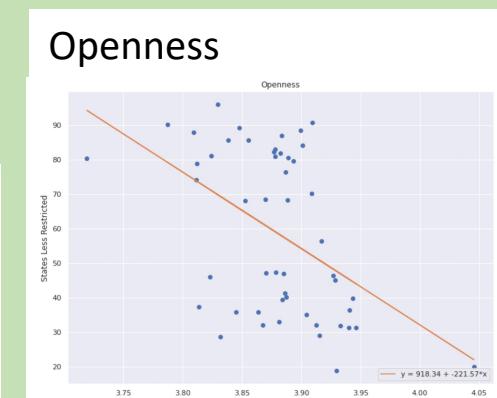
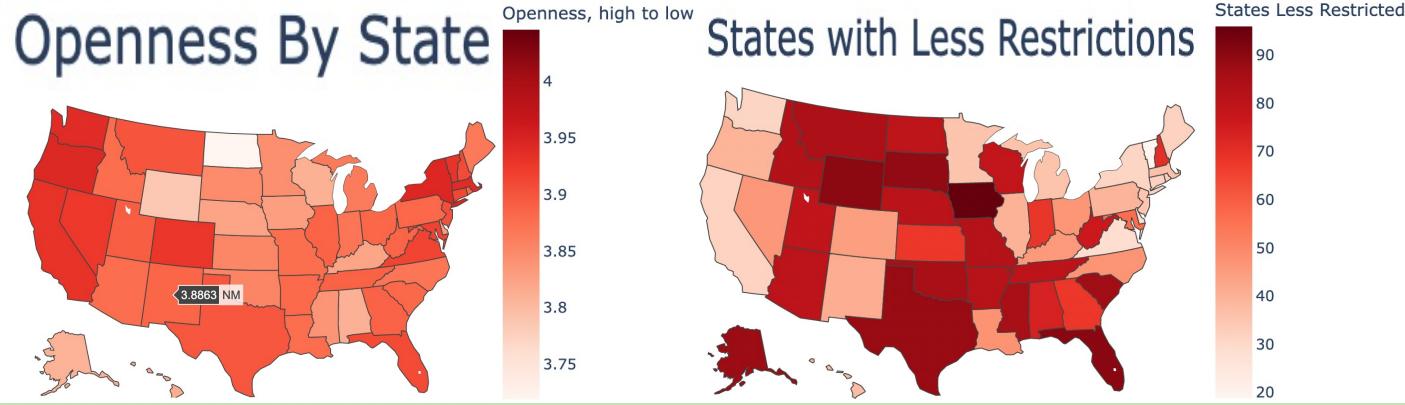
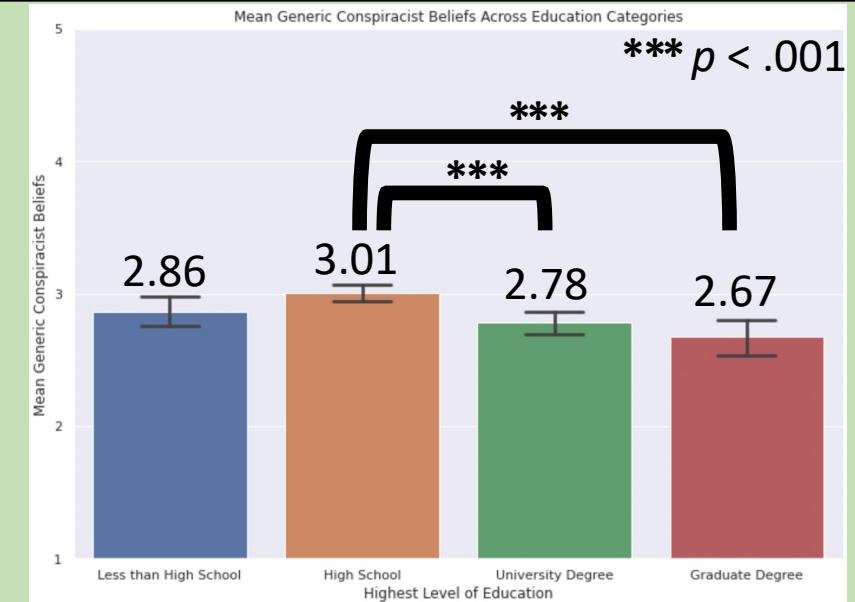
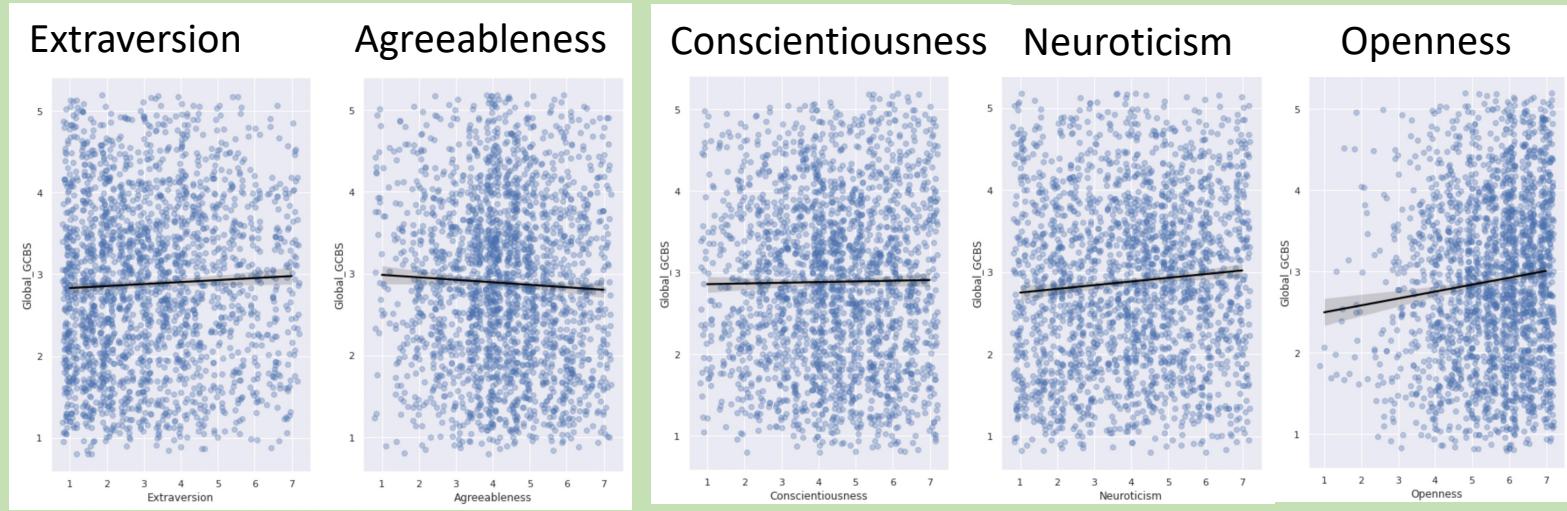
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```
least_restrict_StateLevel[["State", "LeastRestriction_Index"]]
```

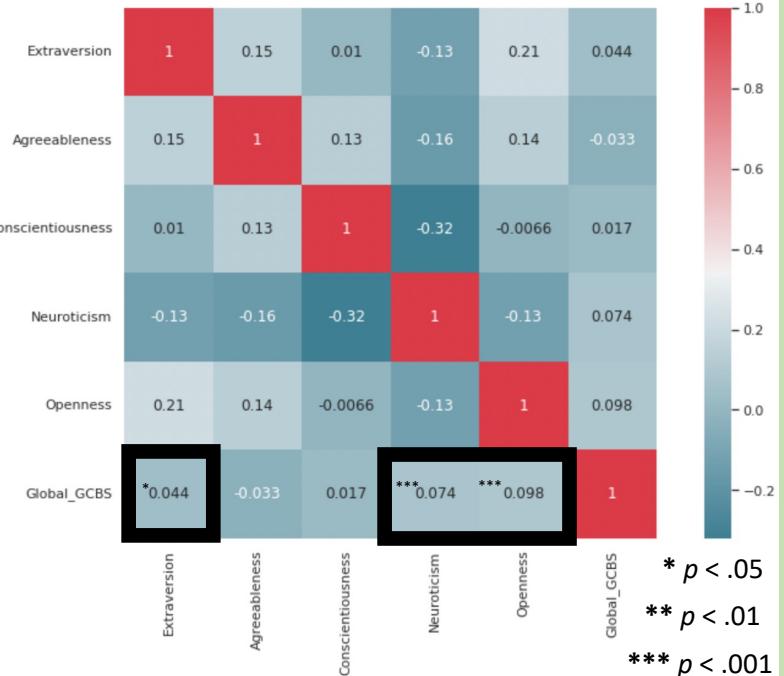
State	LeastRestriction_Index
0	Alabama
1	Alaska
2	Arizona

# \*\*\*\*Exploratory Data Analyses\*\*\*\*

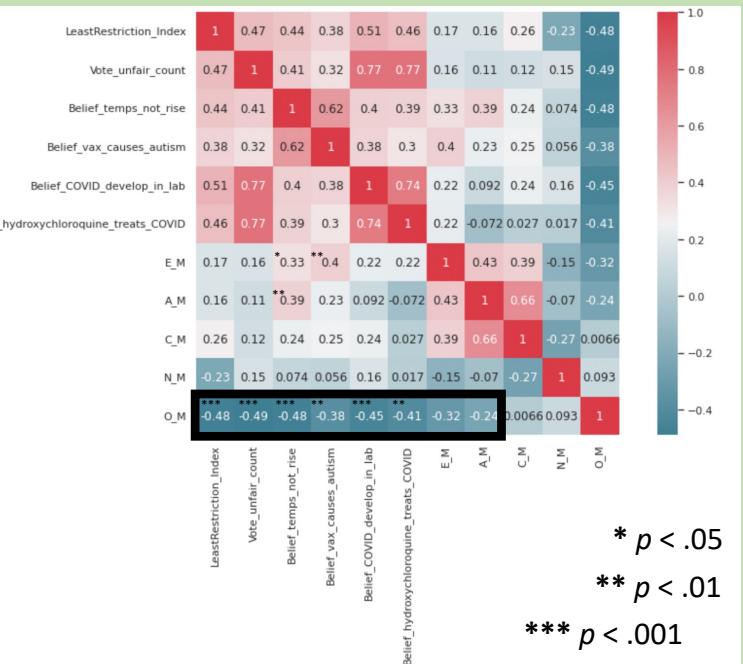


# Hypotheses Testing

How do the Big-5 personality traits relate to inclinations toward conspiracist beliefs & does Openness have a significant *unique effect* on these beliefs?



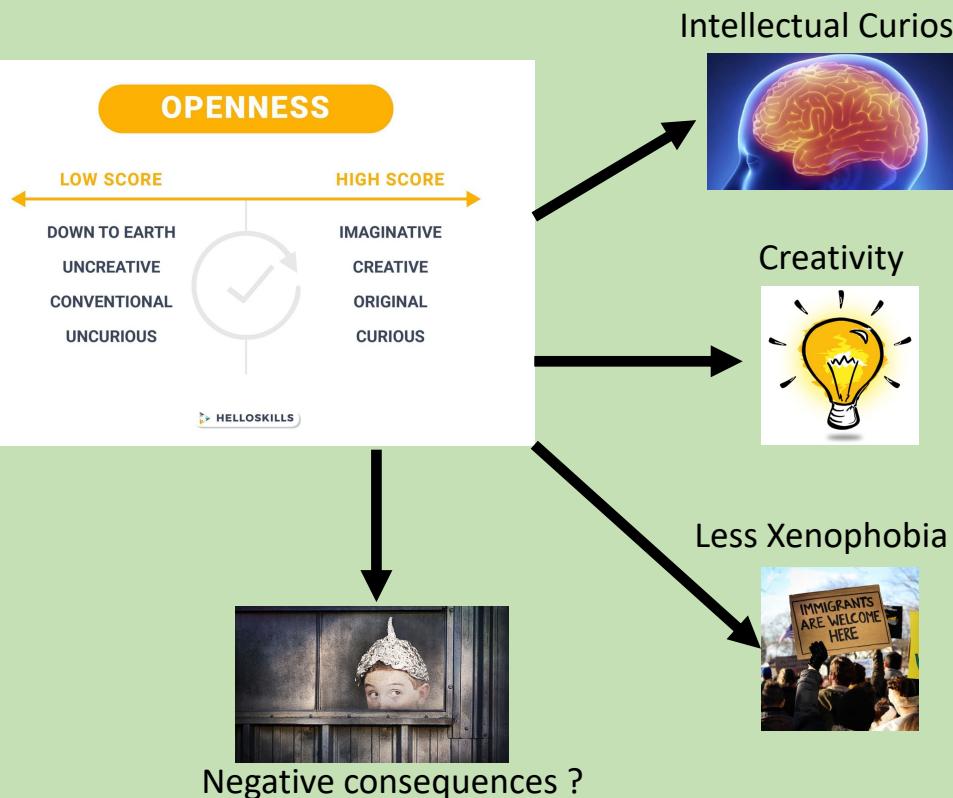
OLS Regression Results									
Dep. Variable:	Global_GCBS	R-squared:	0.082						
Model:	OLS	Adj. R-squared:	0.079						
Method:	Least Squares	F-statistic:	30.34						
Date:	Mon, 13 Dec 2021	Prob (F-statistic):	4.84e-35						
Time:	07:41:23	Log-Likelihood:	-2818.5						
No. Observations:	2048	AIC:	5651.						
Df Residuals:	2041	BIC:	5690.						
Df Model:	6								
Covariance Type:	nonrobust								
	coef	std err	t	P> t	[0.025	0.975]			
Intercept	1.596e-16	0.021	7.52e-15	1.000	-0.042	0.042			
Extra	0.0136	0.022	0.617	0.537	-0.029	0.057			
Neuro	0.0696	0.022	3.128	0.002	0.026	0.113			
Open	0.1023	0.022	4.682	0.000	0.059	0.145			
Gender	-0.0566	0.022	-2.569	0.010	-0.100	-0.013			
Education	0.2224	0.022	10.340	0.000	0.180	0.265			
Religion	0.1070	0.021	5.020	0.000	0.065	0.149			



OLS Regression Results									
Dep. Variable:	LeastRestrictionIndex	R-squared:	0.506						
Model:	OLS	Adj. R-squared:	0.451						
Method:	Least Squares	F-statistic:	9.220						
Date:	Mon, 13 Dec 2021	Prob (F-statistic):	4.27e-06						
Time:	07:41:28	Log-Likelihood:	-54.380						
No. Observations:	51	AIC:	120.8						
Df Residuals:	45	BIC:	132.4						
Df Model:	5								
Covariance Type:	nonrobust								
	coef	std err	t	P> t	[0.025	0.975]			
Intercept	3.886e-16	0.105	3.71e-15	1.000	-0.211	0.211			
Extra	-0.0482	0.120	-0.400	0.691	-0.290	0.194			
Neuro	0.0541	0.121	0.447	0.657	-0.190	0.298			
Open	-0.1366	0.131	-1.045	0.302	-0.400	0.127			
Conservative	0.5390	0.146	3.680	0.001	0.244	0.834			
Education	-0.1254	0.152	-0.824	0.414	-0.432	0.181			
Omnibus:	0.492	Durbin-Watson:	1.274						
Prob(Omnibus):	0.782	Jarque-Bera (JB):	0.641						
Skew:	0.151	Prob(JB):	0.726						
Kurtosis:	2.542	Cond. No.	2.86						

**Interpretation of Findings: Openness may be important predictor of *Generic Conspiracist Beliefs*, but when beliefs are content-specific, other factors like political conservatism better predictor.**

## Why should we care?



The Copper Courier is a news website for Arizona. The header includes the site name, social media links, and a search bar. The main article is titled 'Arizona Taxpayers Forced To Pay For Voting Machines Ruined by GOP 'Audit'' and is written by Emily Singer. Other visible elements include a sidebar for 'ELECTIONS', a 'Wynn LAS VEGAS' advertisement, and a 'Indulge' advertisement.



**THE END**