

Belief in conspiracy theories: Some recent research in New Zealand (and Australia)



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Image by Eugene Mosier, [Wired](#)

Talk structure

1. Definitions
2. Prevalence of beliefs in conspiracy theories
3. Why are beliefs in different conspiracy theories positively correlated?
4. To what extent do beliefs in conspiracy theories change over time?
5. Distress and beliefs in conspiracy theories
6. Upcoming study: What causes people to *change* their beliefs about conspiracy theories?

Defining “conspiracy theory”

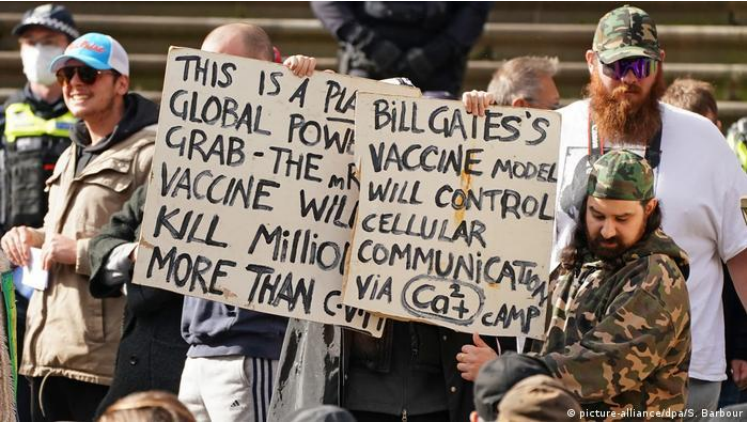


- An explanation of some event or observation as the result of a *conspiracy* - **multiple** actors **secretly** plotting to do something **harmful** or unlawful (e.g., Swami et al., [2016](#))
- Example: “The trails left behind airplanes are toxic chemicals released as part of a secret government programme”
- But what about this one? “The cause of the destruction of the Twin Towers on September 2011 was that members of Al-Qaeda secretly plotted to hijack passenger planes, which they then flew into the towers”

Defining “conspiracy theory”

- I.e., by the preceding (“neutral”) definition, conspiracy theories can be *true, even warranted by evidence*
 - Even if many aren’t!
- There also exist “loaded” definitions (see Coady, 2018). E.g.,
 - “A conspiracy theory can be defined as an **unverified** and relatively **implausible** allegation of conspiracy, claiming that significant events are the result of a secret plot carried out by a preternaturally sinister and powerful group of individuals” (Brotherton & French, [2014](#), p. 238).
- Focus on *unfounded* conspiracy theories in this talk

Why conspiracy theories matter



Experimental studies have found that exposure to conspiracy theories reduces:

- vaccination intentions (Jolley & Douglas, [2014a](#))
- intentions to reduce one's carbon footprint (Jolley & Douglas, [2014b](#)).
- health-seeking intentions (Natoli & Marques, [2021](#))

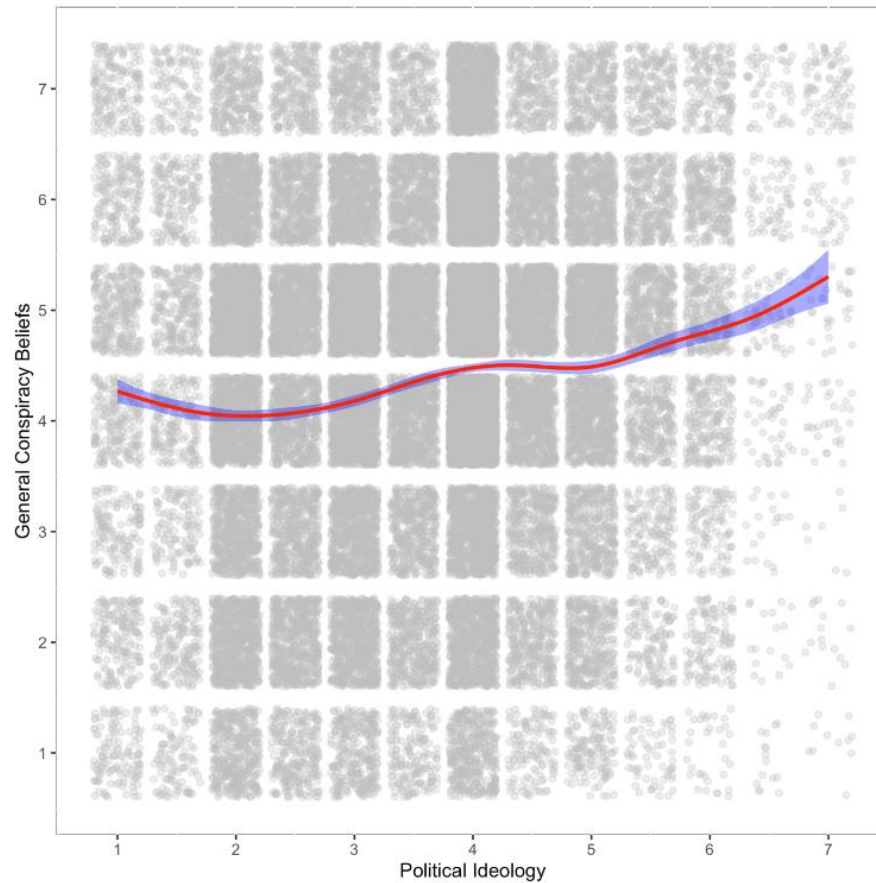


Prevalence

Conspiracy Theory	Heard before?	Strongly agree	Agree	Neither	Disagree	Strongly disagree
The New Zealand All Blacks were deliberately poisoned before their 1995 rugby World Cup Final against South Africa	62	7.7	23.7	46.3	12.3	9.9
The New Zealand government is using 1080 poison to kill off natural and wild food resources so they can control the food supply	31	3.5	8.3	26.8	24.7	36.7
The 2010 and 2011 Canterbury earthquakes were deliberately triggered by the US Military using electromagnetic pulses from the High-frequency Active Auroral Research Project	11	1.5	3.9	14.5	19.7	60.3
The Christchurch mosque shootings were orchestrated with the intent of restricting gun laws in New Zealand	17	3.2	4.9	10.7	18.1	63.1
The New Zealand Government is covering up the health risks of the new 5G cellular network	25	5.6	9.6	33.3	21.8	29.6
Fluoride is being used in water supplies to dim the minds of ordinary New Zealanders and make them easier to control	23	3.7	5.2	14.8	20.6	55.5
The New Zealand government is mandating the switch to LED light bulbs because such lights make people more obedient and easier to control	7	1.8	3.4	15.9	18	60.9

Marques et al. ([2022](#)), data from 754 NZers, demographically representative sample

N = 42,684
from NZAVS
(Marques et
al., [in press](#)).
See also
Enders et al.
([2022](#)).



Note. The fitted line is red with a 99% confidence interval in blue. Political Ideology 1 = Extremely liberal/left-wing to 7 = Extremely conservative/right-wing.

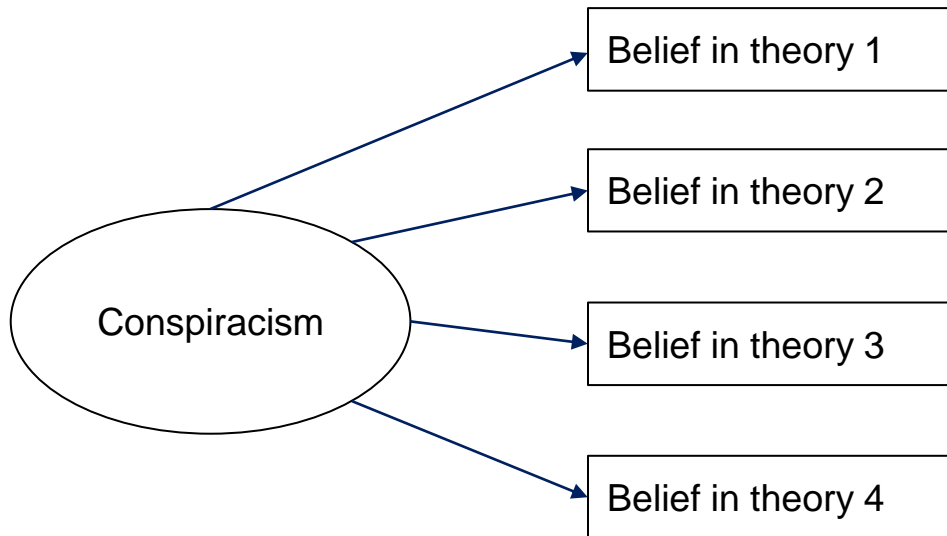
Positive correlations...

People who believe one conspiracy theory are more likely to believe in others
Example from Dagnall et al. ([2015](#))

	1	2	3	4	5	6	7	8	9	10	11	12
(1) JFK												
(2) Apollo 11	0.41**											
(3) Elvis	0.23**	0.40**										
(4) Roswell	0.37**	0.47**	0.44**									
(5) Diana	0.47**	0.49**	0.34**	0.37**								
(6) Marilyn	0.41**	0.43**	0.23*	0.41**	0.61**							
(7) Political	0.30**	0.40**	0.23*	0.34**	0.49**	0.41**						
(8) Hitler	0.28**	0.43**	0.37**	0.40**	0.47**	0.50**	0.39**					
(9) Climate	0.29**	0.38**	0.41**	0.40**	0.37**	0.36**	0.43**	0.39**				
(10) WTC	0.40**	0.51**	0.42**	0.36**	0.50**	0.42**	0.47**	0.45**	0.42**			
(11) GCB	0.39**	0.48**	0.37**	0.40**	0.47**	0.36**	0.37**	0.43**	0.29**	0.45**		
(12) CTQ	0.43**	0.40**	0.24**	0.40**	0.55**	0.45**	0.50**	0.41**	0.33**	0.54**	0.56**	

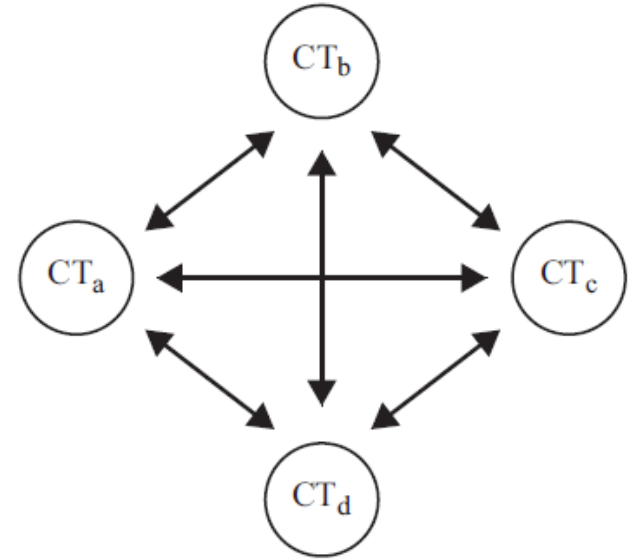
*JFK, Kennedy assassination; Apollo 11, moon landing; Elvis, death of Elvis Presley; Roswell, Roswell incident; Diana, Death of Diana Princess of Wales; Marilyn, Death of Marilyn Munroe; Political, political manipulation of the masses; Hitler, Death of Adolf Hitler; Climate, global warming; WTC, World Trade Centre attack; GCB, General Conspiracist Beliefs; CTQ, Conspiracy Theory Questionnaire. **p < 0.01.*

Why? Unidimensional factor model explanation



Monological belief system (network) explanation

- “In a monological belief system, each of the beliefs serves as evidence for each of the other beliefs. The more conspiracies a monological thinker believes in, the more likely he or she is to believe in any new conspiracy theory which may be proposed” (Goertzel, [1994](#), p. 740).



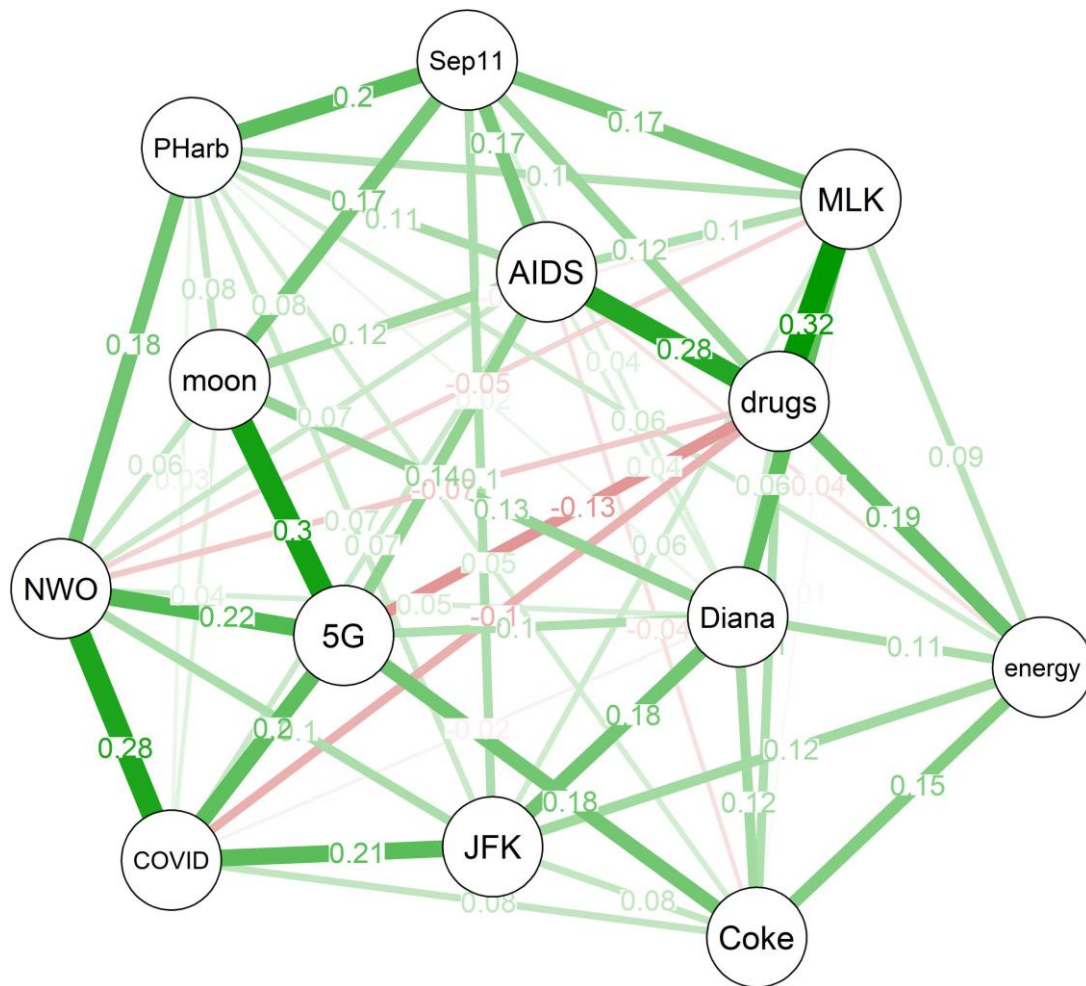
Depiction from Sutton & Douglas
([2014](#))

Network model

Williams et al. ([2022a](#))

1553 Americans, 12 items

**Network/monological model
preferred**



Down the rabbit hole?



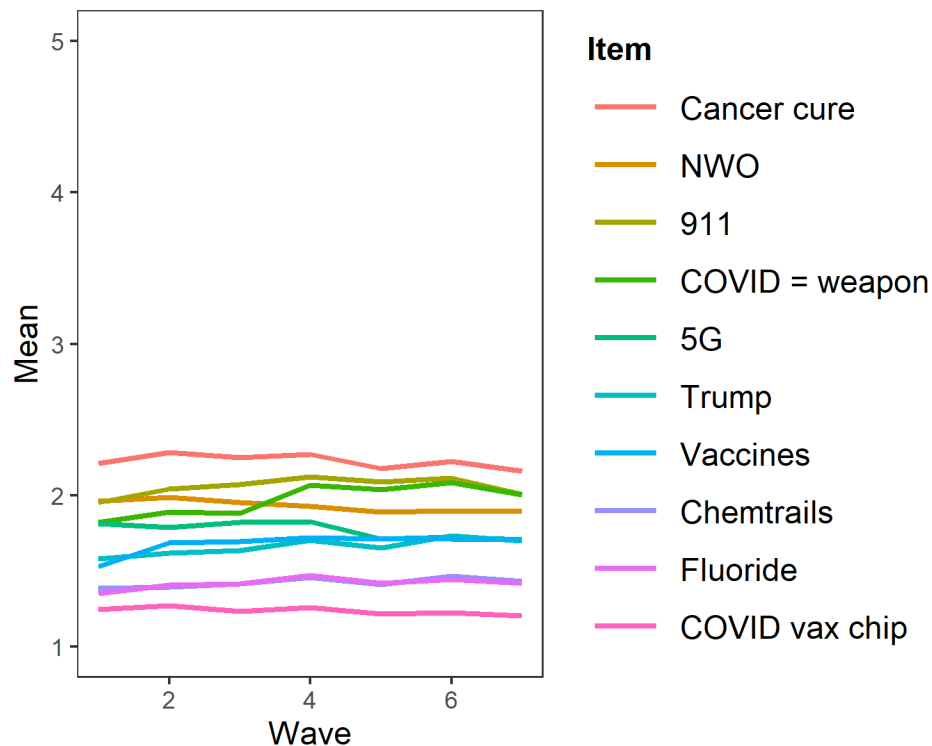
To what extent do belief in conspiracies change over time?

- Williams et al. ([2022b](#))
- 401 Australians and 97 NZers
- Longitudinal study: Six months, seven time points (Mar to Sep 2021)
- Recruitment via prolific.co
- Participants indicated the degree to which they agreed with ten unfounded conspiracy theories at each time point

Abbreviation	Item
COVID = weapon	COVID-19 is a biological weapon intentionally created and released by China.
NWO	A powerful and secretive group, known as the New World Order, are planning to rule the world.
5G	Telecommunication companies are covering up the health risks of the new 5G cellular network.
COVID vax chip	COVID-19 “vaccines” contain microchips to monitor and control people.
Chemtrails	The trails left behind airplanes are toxic chemicals released as part of a secret government programme.
Fluoride	Fluoride is added to the water supply by governments to make people less intelligent and easier to control.
911	The collapse of the World Trade Centre on Sept 11, 2001 was caused by controlled demolitions arranged by US government insiders.
Vaccines	Vaccines are harmful, and this fact is covered up by governments and pharmaceutical companies.
Trump	Democrats stole the 2020 US Presidential election from Donald Trump by creating fraudulent ballots.
Cancer cure	Pharmaceutical companies ("Big Pharma") have suppressed a cure for cancer to protect their profits.

Changes in mean agreement

- **No** evidence of an increase in beliefs in conspiracy theories over time
- See also Uscinski et al. ([2022](#))

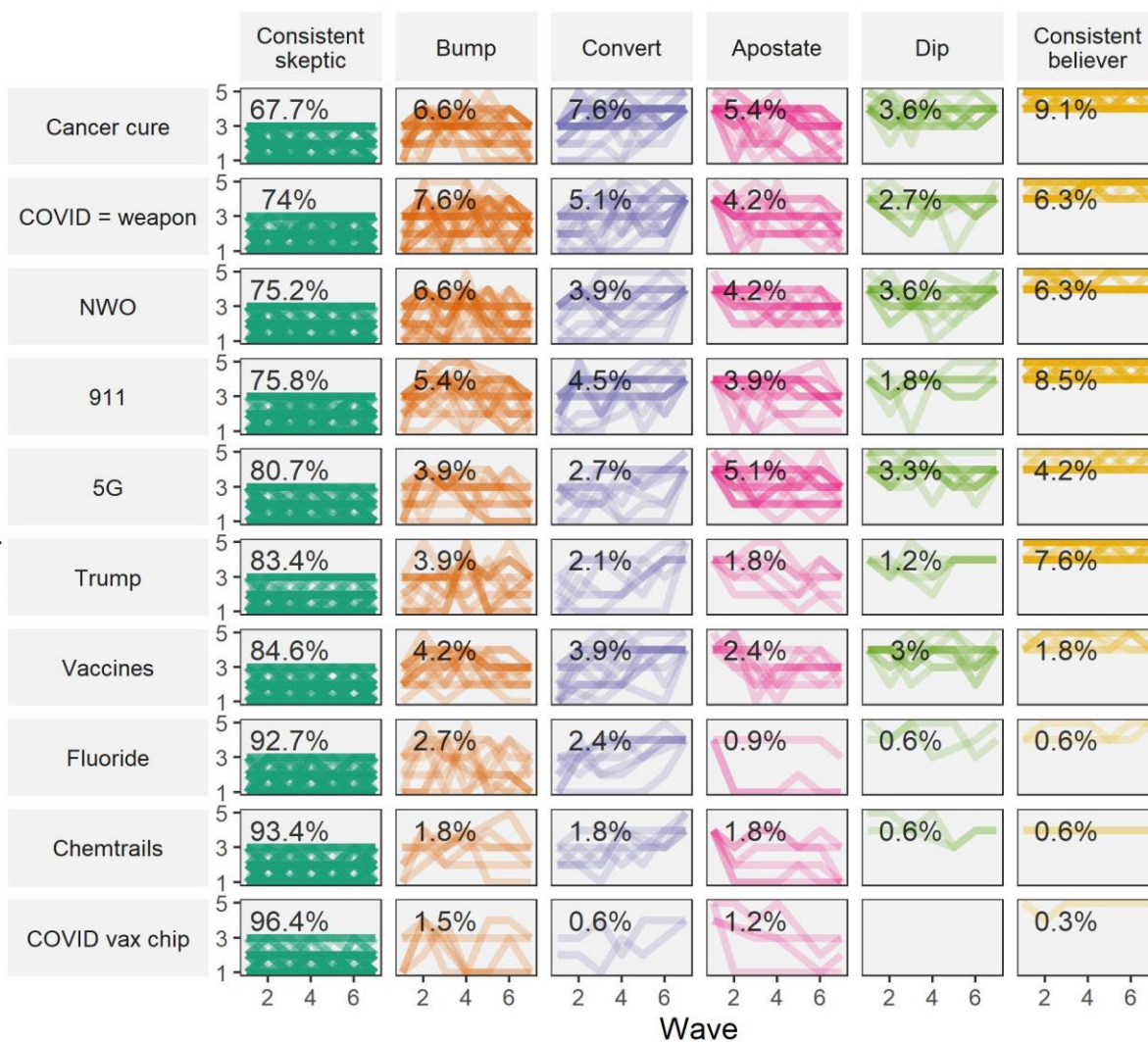


Pearson's Correlations Between Conspiracy Scores Across Times

	Time 1	Time 2	Time 3	Time 4	Time 5	Time 6	Time 7
Time 1	1.00						
Time 2	0.92	1.00					
Time 3	0.91	0.94	1.00				
Time 4	0.88	0.92	0.93	1.00			
Time 5	0.89	0.90	0.92	0.94	1.00		
Time 6	0.88	0.90	0.92	0.91	0.96	1.00	
Time 7	0.86	0.88	0.91	0.91	0.95	0.96	1.00

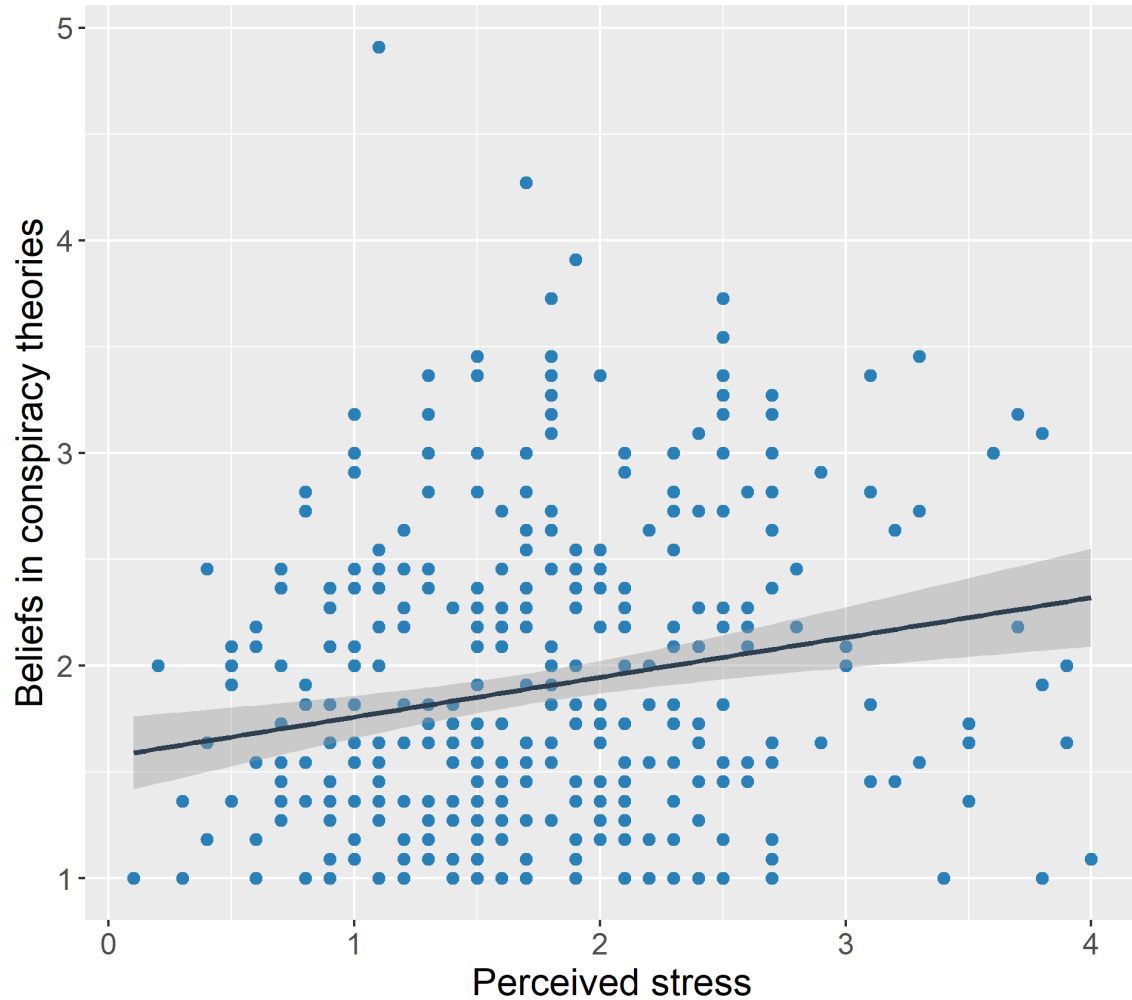
- Intraclass correlation: 0.91

Response



Distress & conspiracism?

- Williams et al. ([2022c](#))
- 372 Aussies and NZers



Stress, anxiety and belief in conspiracy theories

- Fox & Williams ([2022](#))
- Two studies:
 - 502 Australasians
 - 1020 US participants
- Controlled for plausible confounding variables: Education, political orientation, subjective social status and age.
- No evidence for an effect of anxiety in either study; small positive effect of stress in Study 2 only

Planned longitudinal study

- Broad question: What causes people to *change* their minds about conspiracy theories?
- Specific foci:
 - Effect of mental health (anxiety, depression, stress) on belief in conspiracy theories
 - Consequences of belief in conspiracy theories for political efficacy, trust in others, and **sympathy for violent protest**
 - Qualitative element – what reasons do participants give for changing their minds?
 - 2 years, monthly data collection
 - ~1000 participants from NZ, UK and Australia

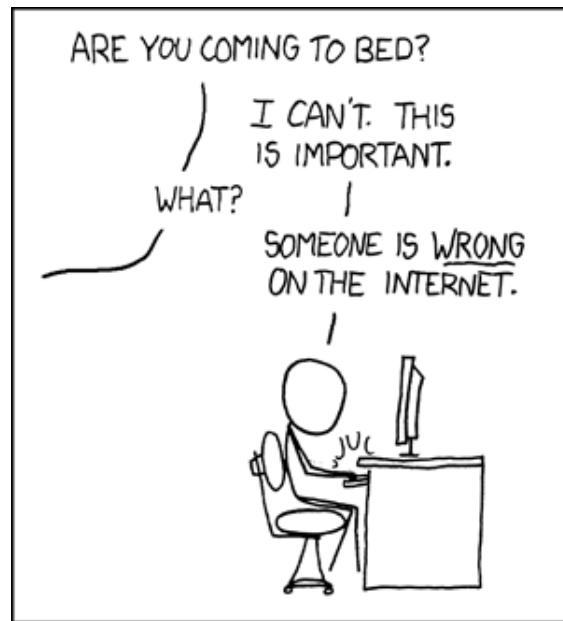
MARSDEN FUND

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SOCIETY
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Implications for communication

- People *do* change their minds about conspiracy theories...
 - Just not very often!
- **Inoculations** may help prevent misinformation from sticking (see Williams & Bond, [2020](#); Maertens et al., [2020](#))
- Debunking can help (to some extent)
 - Little evidence of “backfire” effects (Wood & Porter, [2019](#); Ecker et al., [2020](#))

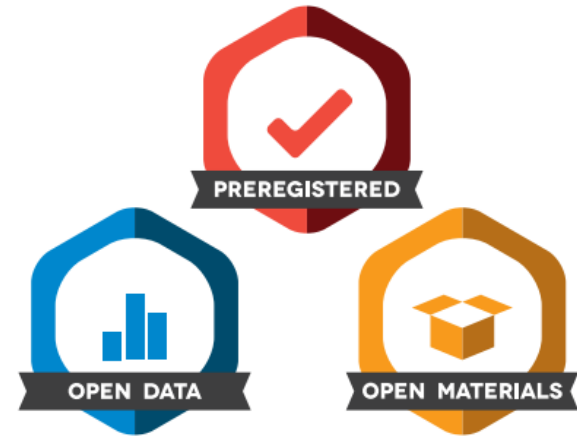


xkcd: [Duty Calls](#)

Open science commitments

Whenever possible:

- Open materials
- Open (de-identified) data
- Preregistration or Registered Report (e.g., Williams et al., [2022a](#))
- Open access manuscripts (green model)



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