

# KNOWLEDGE RESISTANCE

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Slides available via the “Blog” section of my website  
<https://neilbarton.net/blog/>



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Forskningsrådet

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- **Question:** Do we know that we'll go for the **good stuff**?
- In a Lakatosian framework, is it **naive** to think that degenerating research programmes will be **abandoned** and **progressive** programmes taken up?
- To what extent do we naturally **conform** to good scientific practice (and epistemic practice more generally)?

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- **Confession:** Between the ages of 13 and 16, I believed that telekinesis was **real**.
- Integrating evidence well is **hard** for us.

## TODAY'S QUESTIONS

What is this **resistance** to knowledge/facts? What might **explain** it? What are some **common pitfalls**?

INTRODUCTION

DANGERS OF KNOWLEDGE/FACT RESISTANCE

WHAT IS KNOWLEDGE?

COGNITIVE DISTORTIONS

SUMMING UP

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- So, is this an **interesting** question?
- **Observation.** Our beliefs and (apparent) knowledge **guide action**.
- **Example.** My getting into the lecture theatre today depended upon a **whole lot of knowledge**.
- **Less trivial example.** We often make **important decisions** about our (and others) **well-being** on the basis of our beliefs.

# Letting them die: parents refuse medical help for children in the name of Christ

The Followers of Christ is a religious sect that preaches faith healing in states such as Idaho, which offers a faith-based shield for felony crimes - despite alarming child mortality rates among these groups

—*The Guardian*, 2016.

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- We may behave, as a **group** in ways that go substantially **beyond** what we enact as **individuals**.

## The impact of misinformation on the COVID-19 pandemic

[Maria Mercedes Ferreira Caceres](#),<sup>1</sup> [Juan Pablo Sosa](#),<sup>1,\*</sup> [Jannel A Lawrence](#),<sup>1</sup> [Cristina Sestacovschi](#),<sup>1</sup>  
[Atiyah Tidd-Johnson](#),<sup>1,2</sup> [Muhammad Haseeb Ul Rasool](#),<sup>1</sup> [Vinay Kumar Gadamidi](#),<sup>1</sup> [Saleha Ozair](#),<sup>1</sup> [Krunal Panday](#),<sup>1</sup>  
[Claudia Cuevas-Lou](#),<sup>3</sup> [Matthew Parrish](#),<sup>3</sup> [Ivan Rodriguez](#),<sup>1,4</sup> and [Javier Perez Fernandez](#)<sup>1,5</sup>

“[Misinformation] has perpetuated **beliefs** that led to vaccine avoidance, mask refusal, and utilization of medications with insignificant scientific data, ultimately contributing to increased morbidity. **Undoubtedly, misinformation has become a challenge and a burden** to individual health, public health, and governments globally.”

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- There the activities of **voting**, **elections**, and **referendums** can be viewed as enormous **collective action** activities.

## Final Say: The misinformation that was told about Brexit during and after the referendum

- 1 'The money saved from leaving the EU will result in the NHS getting £350m a week'
- 2 'A free-trade deal with the EU will be 'the easiest thing in human history'
- 3 'Two thirds of British jobs in manufacturing are dependent on demand from Europe'
- 4 'Turkey is going to join the EU and millions of people will flock to the UK'
- 5 'Brexit will lead to Scotland renewing calls for independence'
- 6 'Brexit does not mean the UK will leave the single market'

—*The Independent*, 2018.

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- **Rather:** We are concerned with resistance to facts/knowledge that I **can** know and have an **interest** in.





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- **Huge** debate (especially in the 20th century) about the relationship between the two.



A standard characterisation of knowledge that (going way back—something like it appears in Plato's *Theaetetus*) holds that agent  $S$  **knows** a proposition  $P$  when:

- $P$  is **true**
- $S$  **believes**  $P$
- $S$  has **justification/evidence** for  $P$ .

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- **Note:** The correspondence theory may seem obvious (why even say anything?). There are certain accounts of truth (e.g. verificationism) that include a component coming from the **epistemic agent**.

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- e.g. Trump can **say** he respects women, but his actions reveal his beliefs.

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- **Note:** Philosophers (e.g Alvin Plantinga) use the notion of **warrant** to refer to whatever it is that distinguishes knowledge from belief, but I'll stick with just considering **justification** from now on.



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- **Tidbit:** Edmund Gettier's two-and-a-half page (!) Gettier cases paper has been cited at least 5'800 times!



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- **Note:** There are some people in philosophy who hold **infallibilist** conceptions of justification, we'll put these to one side.

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- We want to analyse **how** and **why** we fall into error, and what we can **do** about it.

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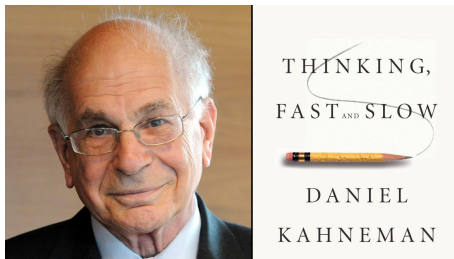
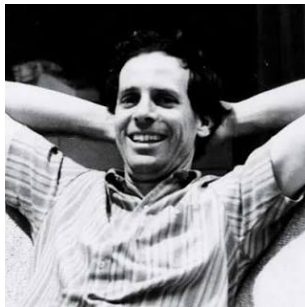
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- Of course **I'm** not biased, right?



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- The **presentation** of the information **tricks us**.

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- **Note:** It's unclear whether you really **believe** the proposition here. But it's helpful to see how your cognitive apparatus can **distort** things.



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- It’s reasonable to think that these kinds of biases can have **profound** political and economic consequences.

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- It’s reasonable to think that these kinds of biases can have **profound** political and economic consequences.
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- **Note:** This doesn’t mean that life is all roses if you come from a group that tends to benefit from biases.

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- Some **important** biases that have been discovered:



- **Halo effect.** We are more likely to find people who we find **impressive in one respect**, impressive in an **irrelevant** domain.
- **Confirmation Bias.** We are biased towards interpreting information in a way that **confirms our present beliefs**.
- **The Dunning-Kruger Effect.** When we have **limited competence** in a given domain, we tend to **overestimate** our abilities.
- **Note:** Often Dunning-Kruger is taken to include decreasing confidence with increasing competence.

- **Kahneman's proposal:** There are **two** 'systems' of thinking.
- **System 1.** Concerns quick 'snap' judgements we make on the fly.
- It is **fast**, **unconscious**, and **low resource**.
- **System 2.** Is how we puzzle out problems that require
- Detailed explanation of how **System 1** and **System 2** **interact**.
- **Important point.** We are products of **evolution**, and **System 1** is the one that primarily keeps us safe short-term and at low cost.
- But **System 1** is likely to also lead us astray concerning propositional matters, so it has to be **tempered** by **System 2**.

- This session we've seen:
- 1. Knowledge/fact resistance is **dangerous**.
- 2. In some sense though, a **degree** of knowledge resistance is pervasive.
- I will leave it up to you to think about possible ways of **fighting** knowledge resistance, both in yourself and others.
- Indeed how to do so is a **vibrant** area of research!
- **Important point.** Be **aware** of your own **biases**, and how these might affect your judgements and behaviour (in every sphere of life, from politics to science).
- **Personal anecdote.** Even when I'm working on the relatively abstract work I do on philosophy of mathematics and infinity, I have to work **hard** (and **not** always successfully) against my own confirmation bias especially.