



NZ Food Safety

LECTURE SERIES 2019



7 October 2019, Christchurch

Welcome



Regaining consumer trust in a digital age

J. R. Roche

Chief Science Advisor

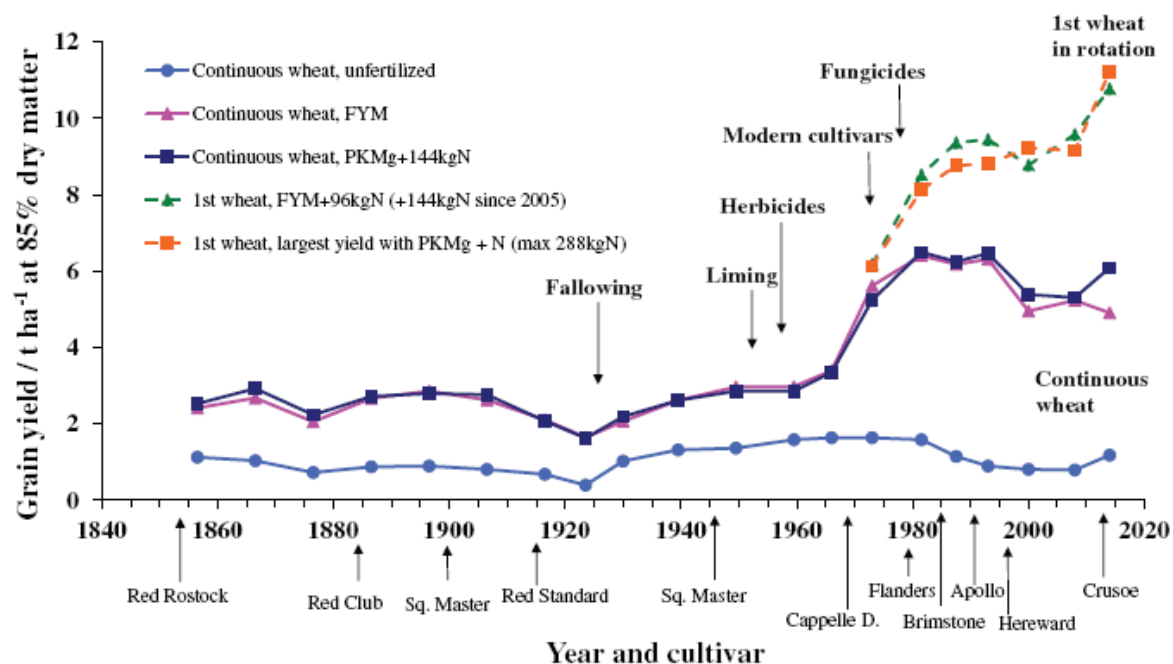
“The first farmer was the first man. And all historic nobility rests on the possession and use of land”

Ralph Waldo Emerson

The importance of long-term experiments in agriculture: their management to ensure continued crop production and soil fertility; the Rothamsted experience

A. E. JOHNSTON & P. R. POULTON

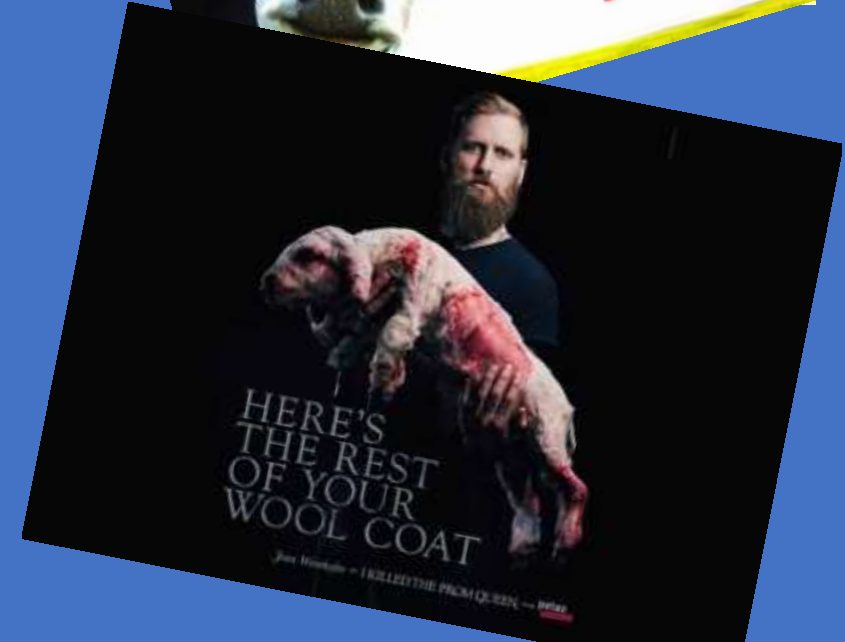
Sustainable Agriculture Sciences Department, Rothamsted Research, West Common, Harpenden, AL5 2JQ, UK








***Farming is a job where
you work 80 hr/wk
for below minimum
wage to feed someone
that thinks you're trying
to poison them!***





INTERNET TOUGH GUY

Because it's easy to be a 6 foot 4 Olympic powerlifter and streetfighting god,



*“People have never cared more
nor known less
about how their food is produced”
-Jack Bobo*

This is really important, because we have a massive challenge facing us



Three parts to this

- # 1. How do people form their opinions?

- ## 2. Consumer trust

- ### 3. Digital age



Opinion

Opinion

Opinion

Opinion

Opinion



Standard setting

PSYCHOLOGY

Prevalence-induced concept change in human judgment

David E. Levari¹, Daniel T. Gilbert^{1*}, Timothy D. Wilson², Beau Sievers³, David M. Amodio⁴, Thalia Wheatley³

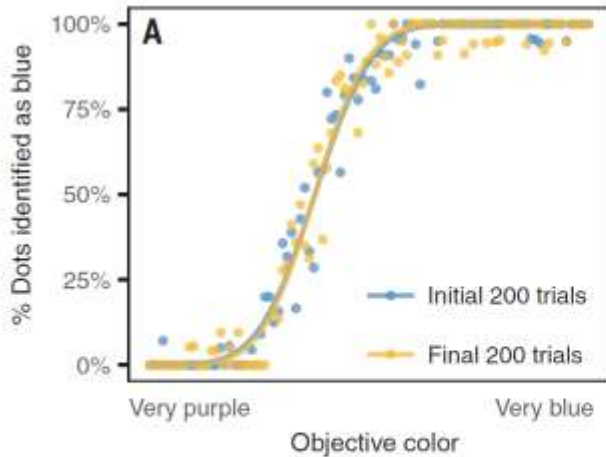


Fig. 1. Results for Study 1. (A) shows the stable prevalence condition, and (B) shows the decreasing prevalence condition. The x axes show the dot's objective color, and the y axes show the percentage of trials on which participants identified that dot as blue.



Standard setting

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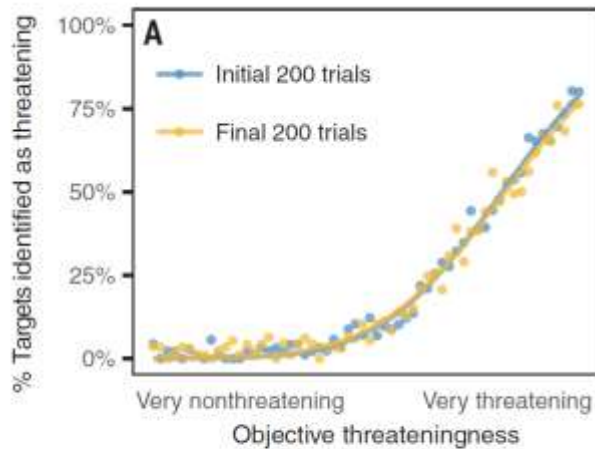


Fig. 2. Results for Study 6. (A) shows the stable prevalence condition, and (B) shows the decreasing prevalence condition. The x axes show the target's objective threateningness (as determined by human raters), and the y axes show the percentage of trials on which participants identified that target as a threat.



Standard setting

PSYCHOLOGY

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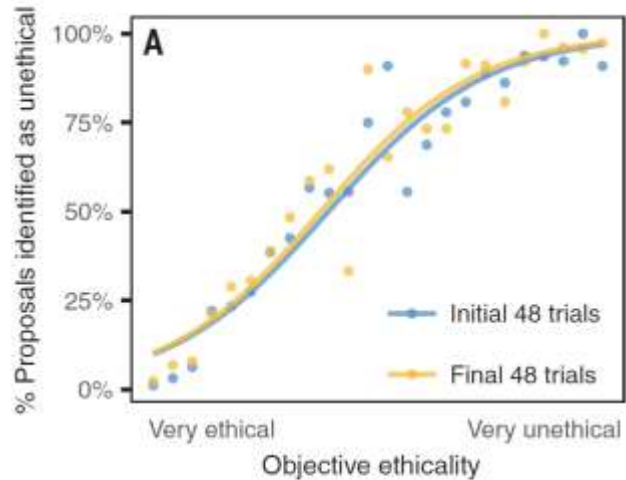


Fig. 3. Results for Study 7. (A) shows the stable prevalence condition, and (B) shows the decreasing prevalence condition. The x axes show the proposal's objective ethicality (as determined by raters), and the y axes show the percentage of trials on which participants rejected the proposal.



What constitutes evidence in a post-science world

PNAS | July 11, 2017 | vol. 114 | no. 28 | 7313–7318

Emotion shapes the diffusion of moralized content in social networks

William J. Brady^a, Julian A. Wills^a, John T. Jost^{a,b}, Joshua A. Tucker^{b,c}, and Jay J. Van Bavel^{a,1}

^aDepartment of Psychology, New York University, New York, NY 10003; ^bDepartment of Politics, New York University, New York, NY 10012; and ^cDepartment of Russian and Slavic Studies, New York University, New York, NY 10012

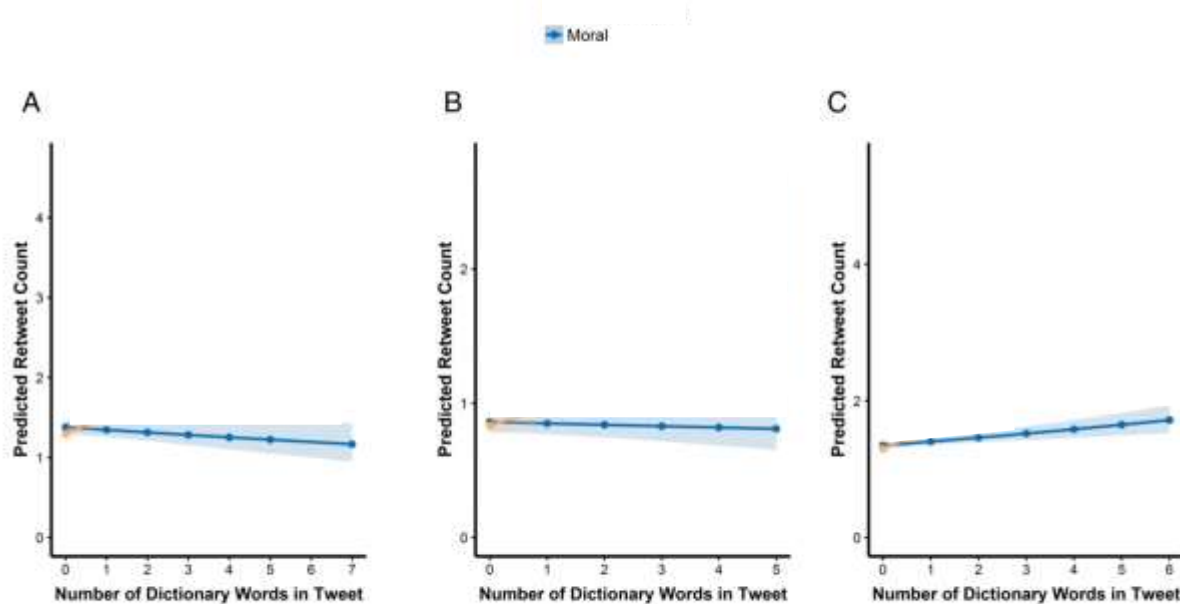
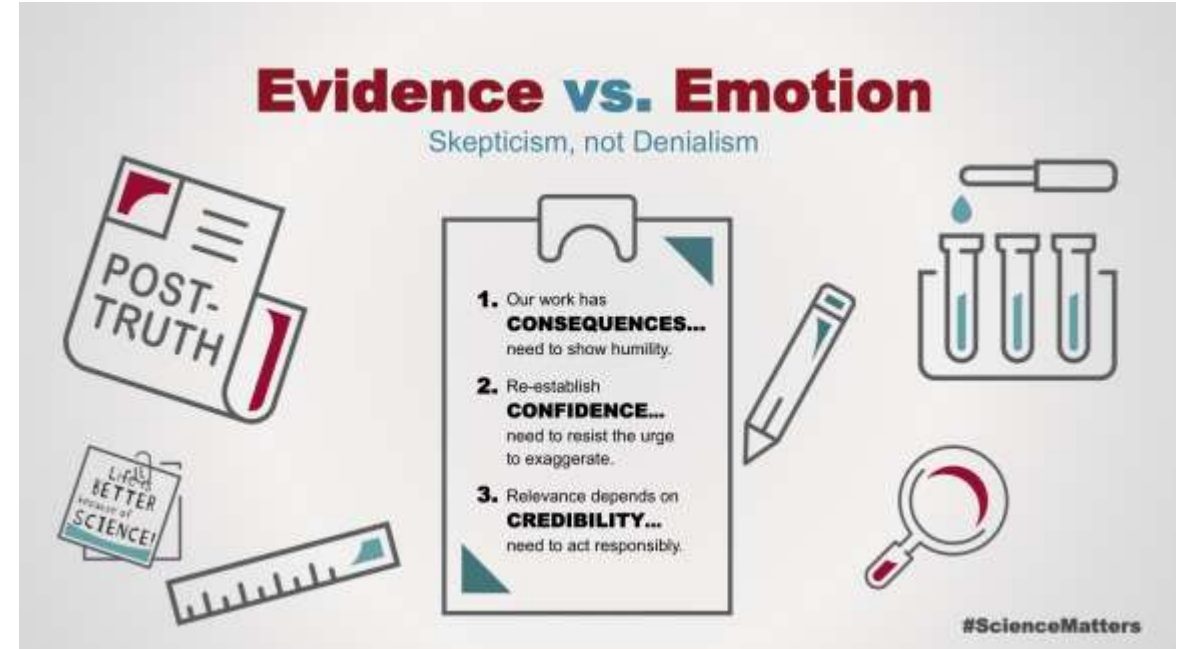


Fig. 1. Moral-emotional language predicts the greatest number of retweets. The graph depicts the number of retweets, at the mean level of continuous and effects-coded covariates, predicted for a given tweet as a function of moral and moral-emotional language present in the tweet. Bands reflect 95% CIs. An increase in moral-emotional language predicted large increases in retweet counts in the domain of (A) gun control, (B) same-sex marriage, and (C) climate change after adjusting for the effects of distinctly moral and distinctly emotional language and covariates.





Meat in the post-truth era: Mass media discourses on health and disease in the attention economy

Frédéric Leroy ^{a,*}, Malaika Brengman ^b, Wouter Ryckbosch ^c, Peter Scholliers ^d

Search ▾

International
edition ▾

The Guardian

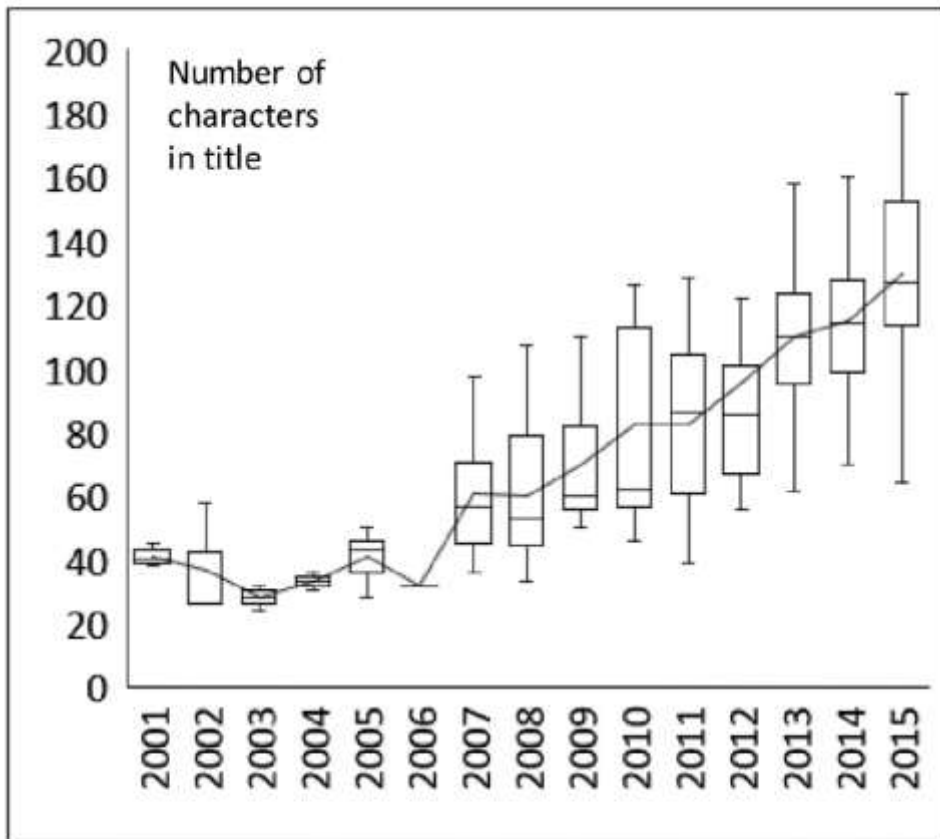


Fig. 5. Increasing sensationalism as reflected in the number of characters counted within the titles of those news items that directly refer to meat (products) or abstention thereof (vegetarianism or veganism), represented per year. For a full overview of these titles see [Supplemental Material \(Table S1\)](#).

Opinion Psychology

The media exaggerates negative news.
This distortion has consequences

Steven Pinker

“Magazine covers warn us of coming anarchies, plagues, epidemics, and so many ‘crises’ (farm, health, retirement, welfare, energy, deficit) that copywriters have had to escalate to the redundant “serious crisis.”

Confirmation bias

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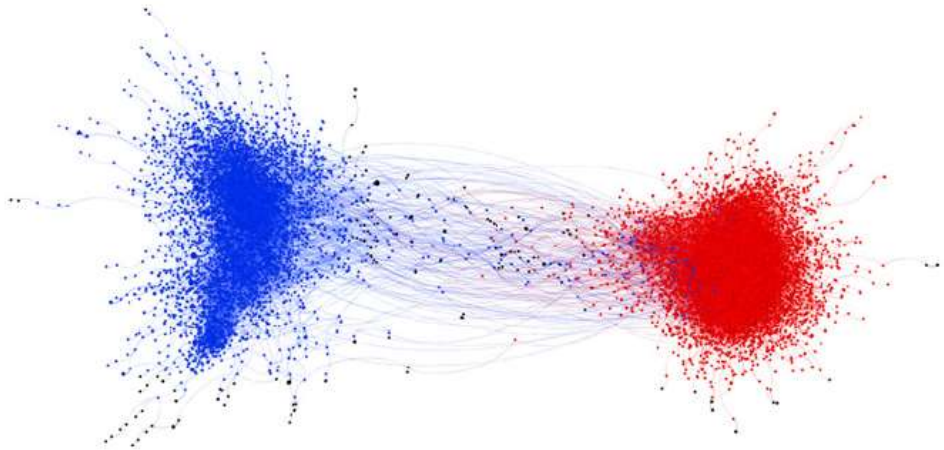


Fig. 3. Network graph of moral contagion shaded by political ideology. The graph represents a depiction of messages containing moral and emotional language, and their retweet activity, across all political topics (gun control, same-sex marriage, climate change). Nodes represent a user who sent a message, and edges (lines) represent a user retweeting another user. The two large communities were shaded based on the mean ideology of each respective community (blue represents a liberal mean, red represents a conservative mean).



"Those who seek justice
must make consumer
choices that diminish
cruel exploitation."



**MUMMY. I SPAT IT OUT
I PROMISE NEVER TO
EAT MEAT AGAIN
DO YOU STILL LOVE ME**

"No moral code encourages selfishness, cruelty,
or exploitation"

sister species

women,
animals,
AND social
justice

EDITED BY
lisa kemmerer

FOREWORD BY
carol j. adams



Go Vegan

lisakemmerer.com



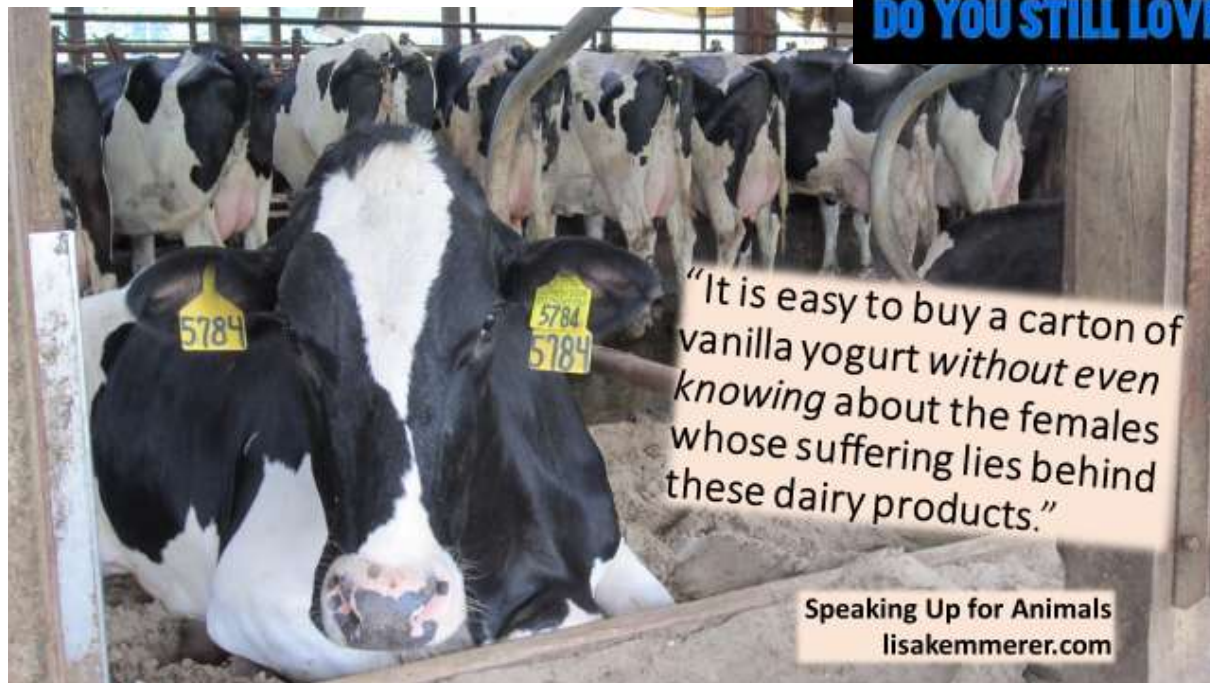
got autism?

Studies have shown a link
between cow's milk and autism.

find out more at GoVeg.com

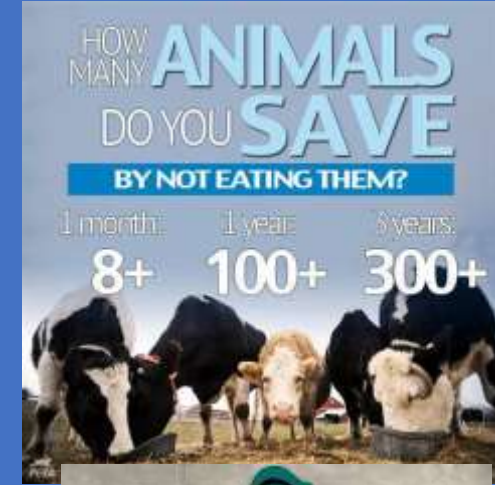
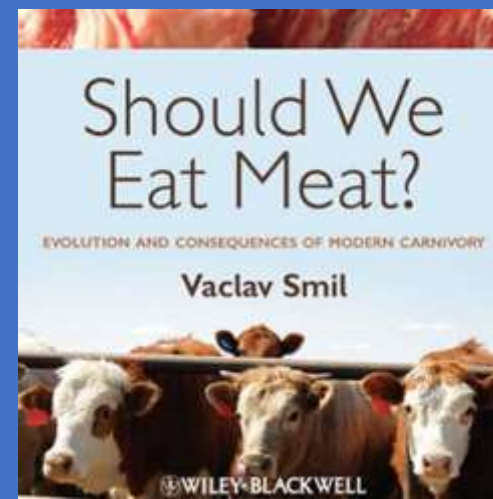
"It is easy to buy a carton of
vanilla yogurt without even
knowing about the females
whose suffering lies behind
these dairy products."

Speaking Up for Animals
lisakemmerer.com





The digital age!



“information that is not objective and is used primarily to influence an audience and further an agenda, often by presenting facts selectively to encourage a particular synthesis or perception”



Behistun inscription (c 500 BC)







FAKE NEWS







The digital era

- Propaganda is the same;
- Medium is more pervasive;
- We use the same media!



T R U S T

Does NZ really have a science denial problem?

3 Dec, 2017 10:43am

🕒 4 minutes to read



The Prime Minister's chief science advisor, Sir Peter Gluckman, has been giving talks overseas and published discussion papers about the "post-truth" issue. Photo / File

- Anti GM
- Anti 1080
- Anti fluoride
- Anti chloride
- Anti vax

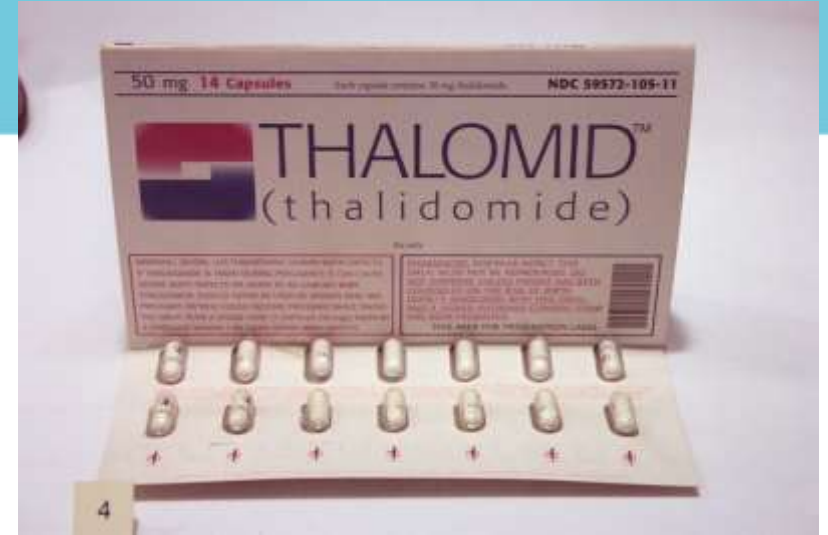
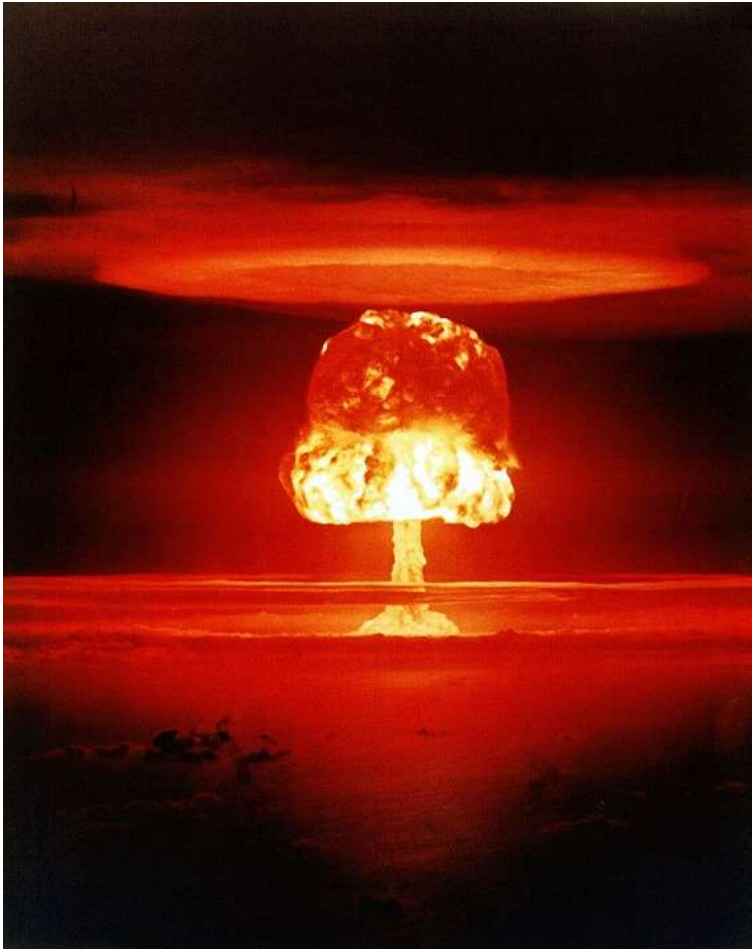
An advertisement for a liver detox supplement. On the left is a red illustration of a human liver. Below it is a white arrow pointing up to the liver, with the text "This is your liver. It helps your body get rid of toxins". On the right is a green bottle of "WILL ARDIE'S COLON CLEANSE & LIVER DETOX" supplement. Below it is a white arrow pointing up to the bottle, with the text "This is a 'detox' supplement. It helps your wallet get rid of cash." At the bottom, a black box with white text says "Save your cash. If your liver isn't working, you need a hospital."

What do Kiwi's think about science?

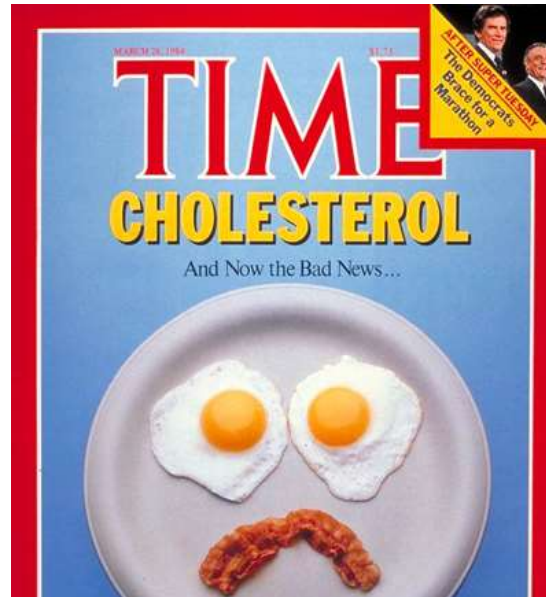
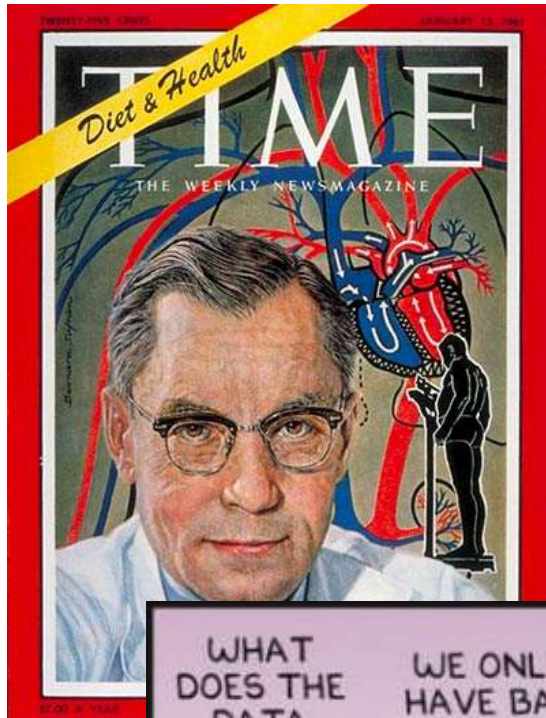
- 90% - important subject to study;
- 83% - worthwhile career to pursue;
- 59% - science important in their daily lives;
- 42% - too little information about science;
- 35% - too specialised to understand;
- 51% - too much conflicting information;
- **62% - scientists need to listen to what ordinary people think!**

Nielson survey, 2014; n = 3,000

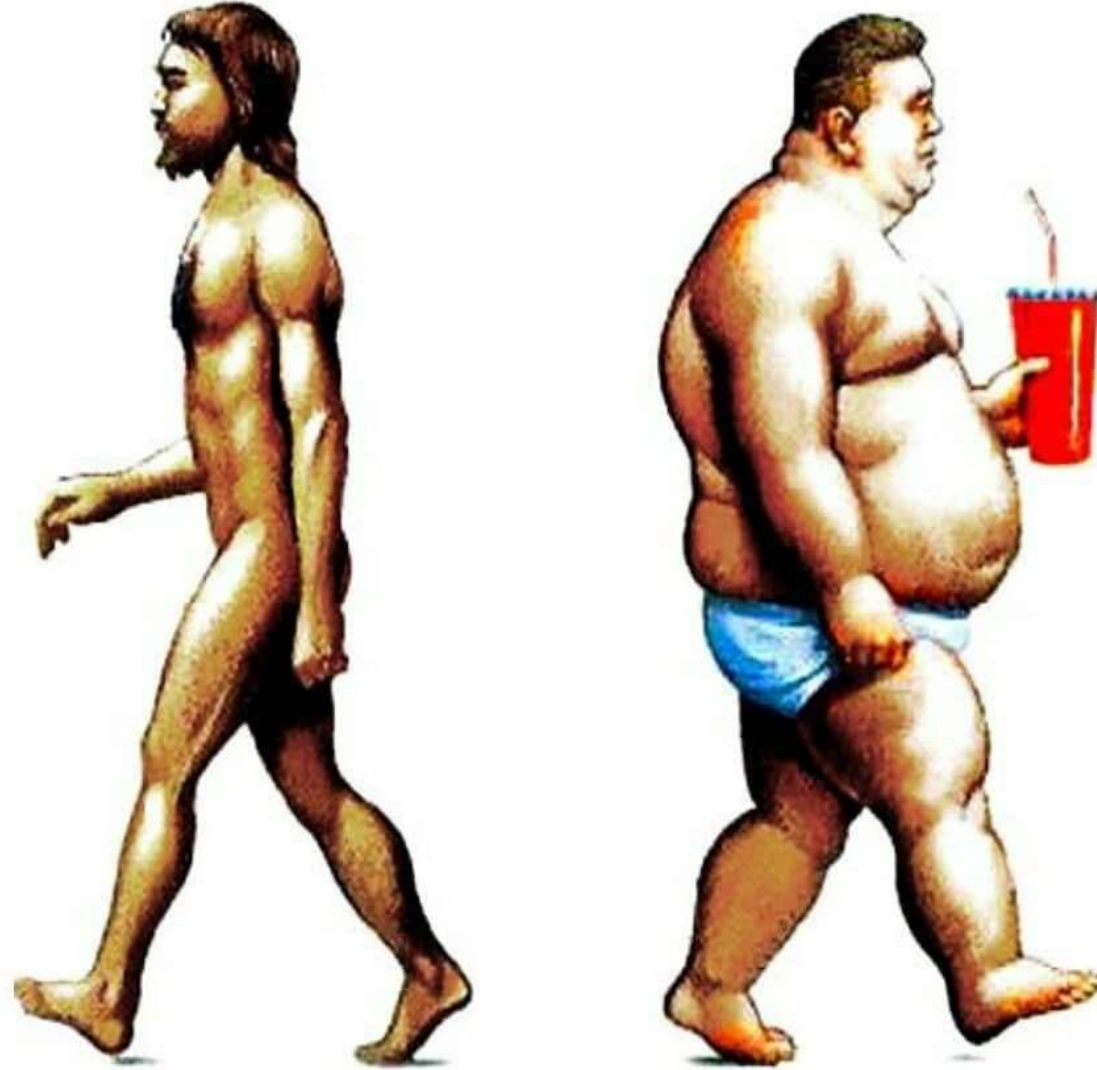
Why don't they trust us?



How do I know who to believe?



CARNIVORE & CARBIVORE



Scientists as part of the problem

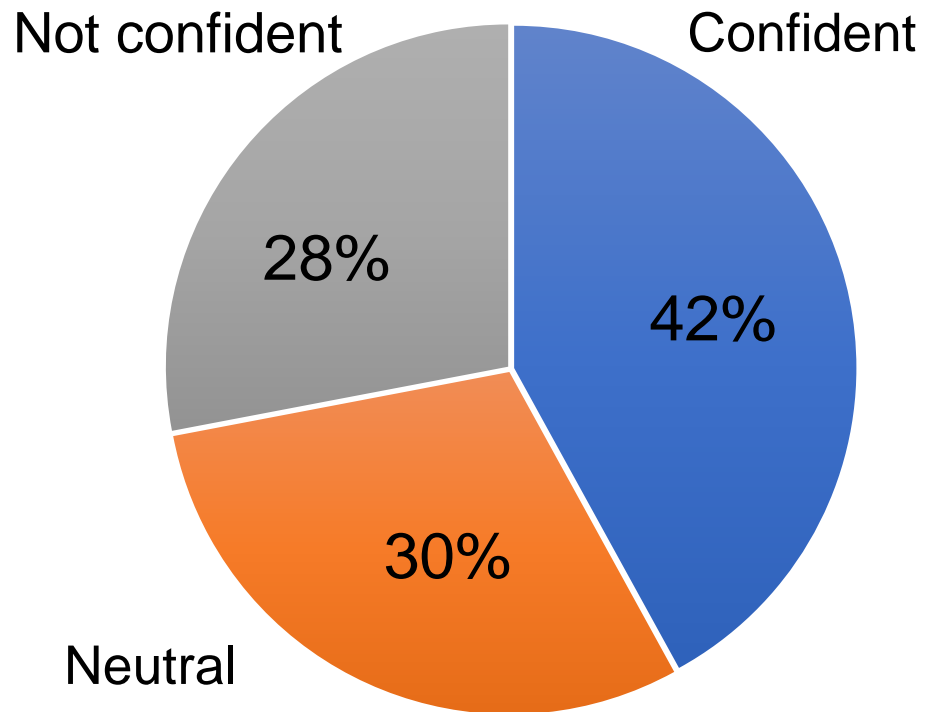
“Should we force science down the throats of those that have no taste for it?

Is it our duty to drag them kicking and screaming into the twenty-first century?

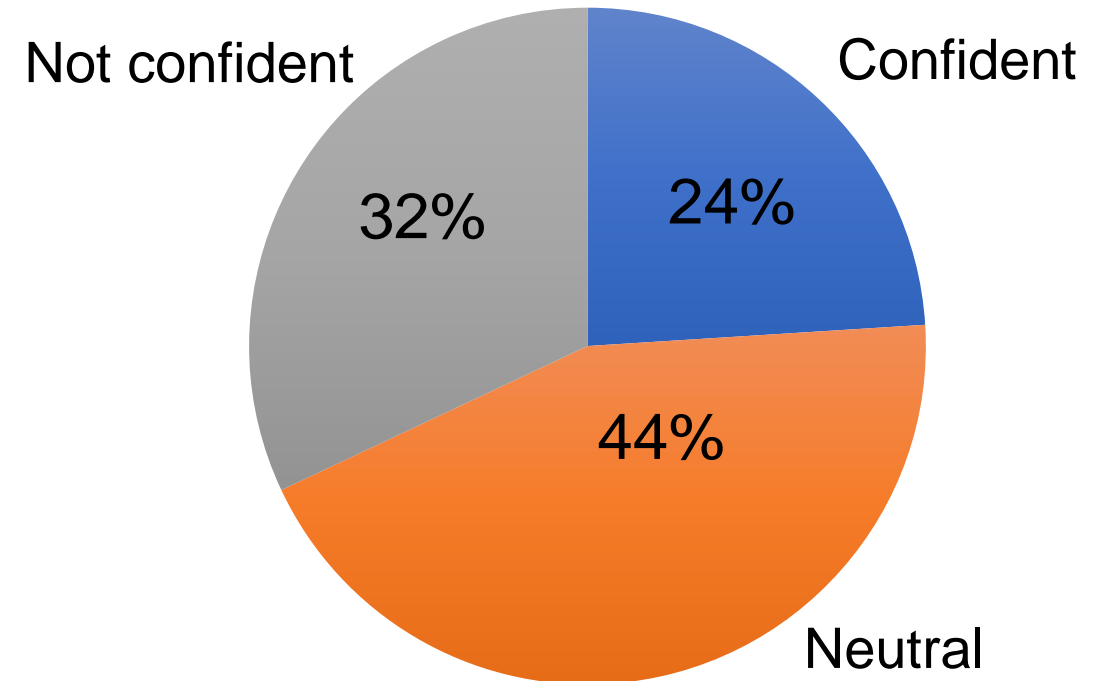
I am afraid that it is.” - Sir George Porter

How confident are you that dairy cattle have a good life?

BEFORE



AFTER

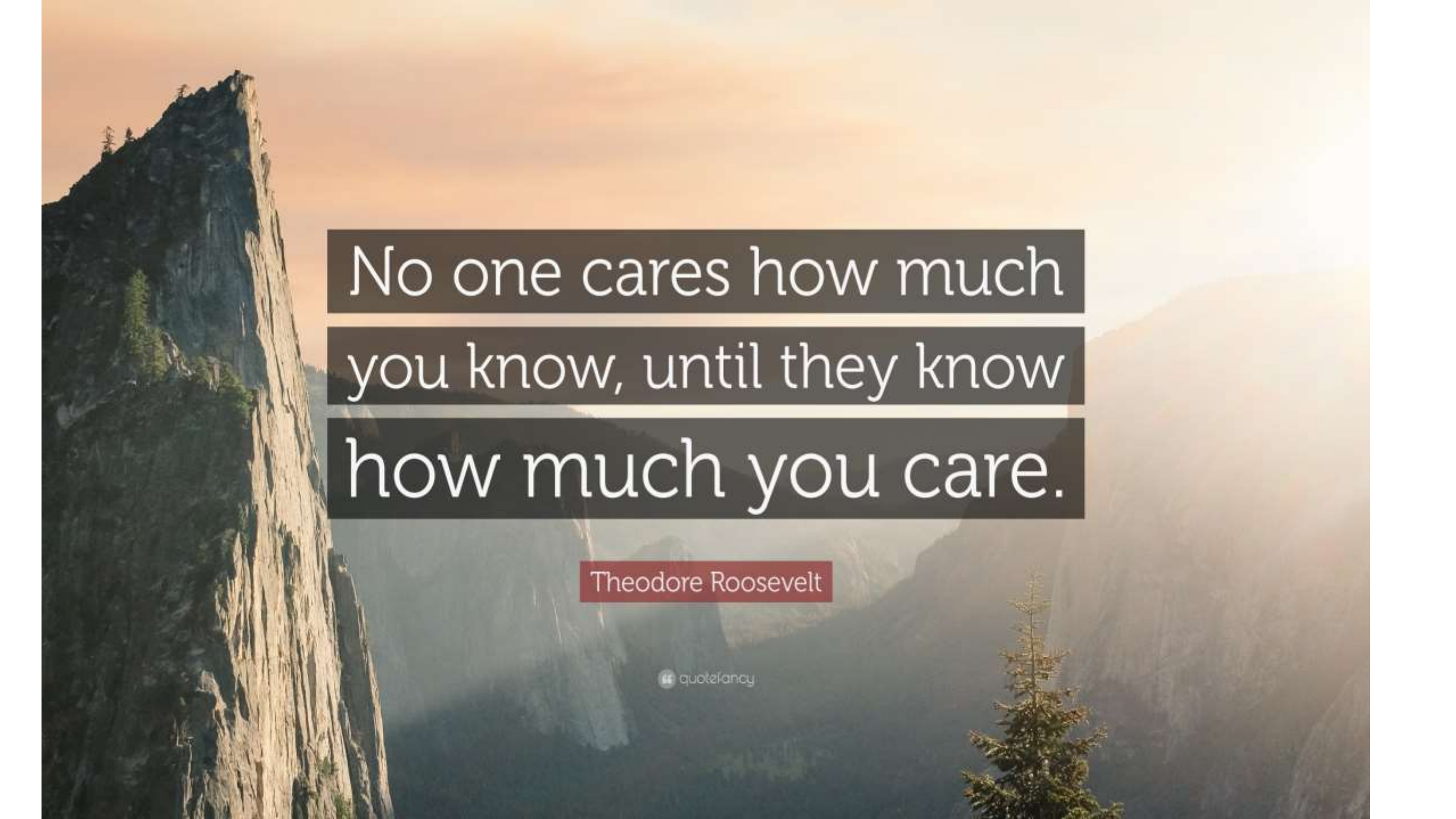




TRUST ME

**I'M A
SCIENTIST**





No one cares how much
you know, until they know
how much you care.

Theodore Roosevelt

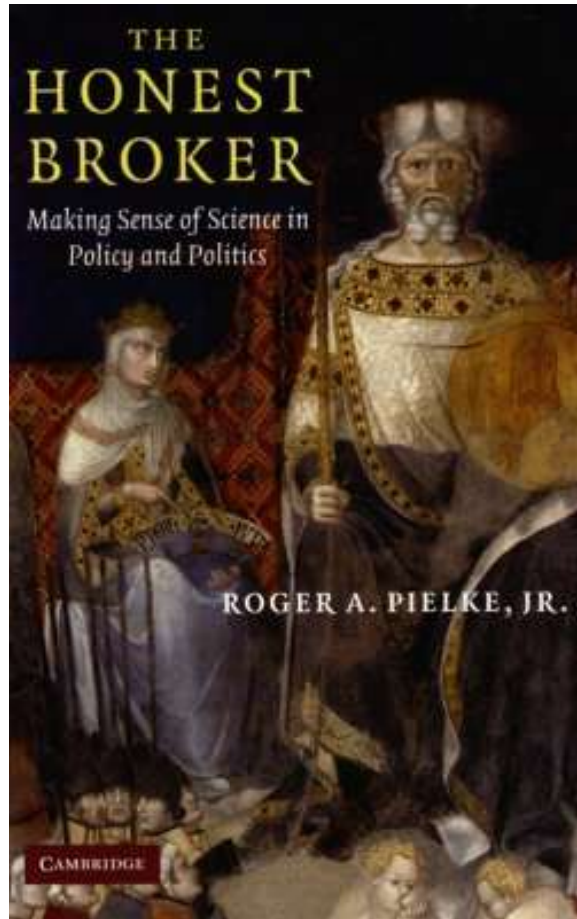
EXCLUSIVE

EXCLUSIVE

GOOD NEWS!

T

Scientists as part of the solution



“I cannot give any scientist of any age better advice than this: the intensity of the conviction that a hypothesis is true has no bearing on whether it is true or not!”

- Peter Medewar

Scientists as part of the solution

- We must be more humble!
- The consumers concerns are valid
(even if YOU think they aren't)
- We must empathise;
- We must be genuine;

TRUST

is a fragile thing.

Easy to break, Easy to lose
and one of the hardest things to
ever get back.


A person wearing a red and blue plaid shirt and a dark blue apron is holding a large wooden crate filled with fresh produce. The crate contains a variety of items including corn cobs, green beans, yellow cherry tomatoes, red bell peppers, sweet potatoes, purple onions, and apples. The person is standing in a field with rows of plants in the background.

**People are buying the Process
Not the Product!**

We have an “emotional” process to sell!

- We produce the highest quality **wholesome** foods;
- A trusted food safety system;
- Almost all landed fish species are sustainably harvested;
- ‘free range’ animals producing low C footprint nutritious food;
- High quality timber for building;
- A biosecurity system, second to no one.





“....every person dreams of finding an enchanted place with beautiful mountains and breathtaking coastlines, clear lakes and amazing wildlife, but most people give up on it because they've never been to New Zealand”

-Bill Clinton

But, we must genuinely engage consumer concerns!

- Fishing bycatch & biodiversity;
- Animal welfare;
- Sustainable waterways;
- Climate change;
- Herbicides, pesticides, etc.



And, recognise that expectations will continue to change

Summary

- Propaganda has been pervasive for millennia;
- We have lost consumer trust;
 - By not listening to their concerns with respect;
 - By not showing empathy;
- 'Educating' the consumer is not a solution;
- We must tell our 'good news' stories;
- We must engage, be humble & empathetic;
- We must acknowledge the validity of their concerns;



Thank you

Contact me:



john.roche@mpi.govt.nz

Follow me:



Down to Earth Advice Ltd

Thought for the Day



@down2earth_john

“Rest satisfied with doing well, and leave others to talk of you as they please” — Pythagoras

Thank you