



The Impact of Social Sciences  
and Humanities on Society

14-16 October 2020, Ottawa

12.30 – 13.45pm

## Science Impact on Policy

*Pearl Dykstra (Chair) – Group of Chief Scientific Advisors,  
European Commission*

*Jeff Kinder – Institute on Governance*

*Mehrdad Hariri – Canadian Science Policy Centre*



European Commission's Group of

Chief Scientific Advisors

## Science-for-policy advice in the European Union

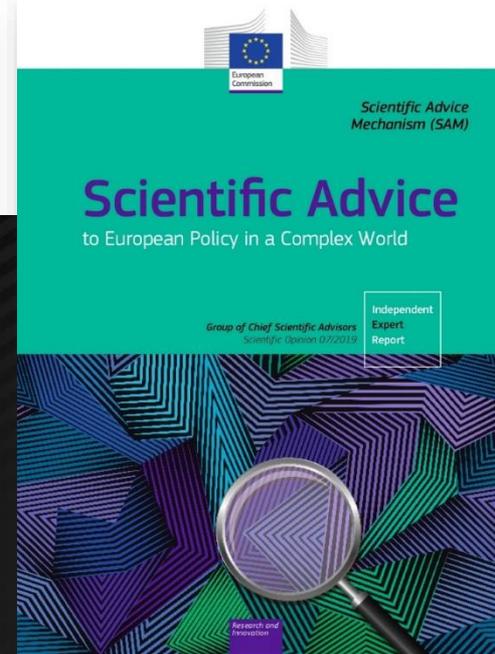
**Pearl Dykstra**



#SAMGroup\_EU

*Session on "Science impact on policy"  
AESEIS 2020 conference  
Online, hosted from Ottawa*

Research and  
Innovation



## Background

EU policies address highly complex societal issues  
Scientific evidence which is called upon

- Often equally complex
- Typically characterized by uncertainty

Role of scientific advice: reliable guide through complexity and uncertainty

- How to further strengthen scientific evidence and advice in Commission policymaking

We base our work on a set of fundamental principles

- High-quality science is the bedrock of good scientific advice
- Scientific advisors need to demonstrate their trustworthiness as a prerequisite for doing their work well
- Scientific advice needs to be a transparent and impartial process
- There has to be a clear mandate to ensure that science is separate from politics

Three sets of recommendations





## Recommendation 1: Engage early and regularly

- Clarify boundaries between science, scientific advice, and politics
- Define together the questions for scientific advice

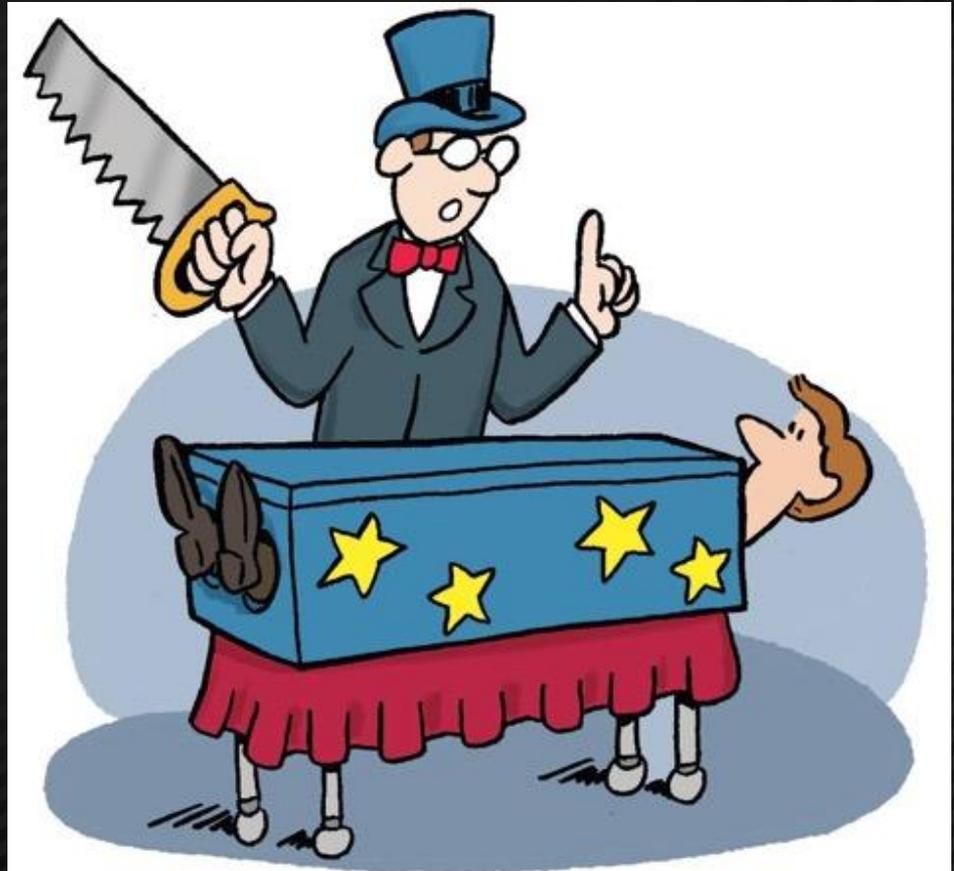


## Recommendation 2: Ensure the quality of the scientific evidence

- Use the full scope of good science
- Ensure rigorous synthesis of scientific evidence
- Ensure rigour in expert consultation
- Refine the approach to conflicts of interest

## Recommendation 3: Analyse, assess and communicate uncertainties

- Technical
- Methodological
- Epistemic
- Societal



*"Before we begin, a word of caution regarding results..."*



## Recommendation 3: Analyse, assess and communicate uncertainties

- Use the most suitable uncertainty analysis approaches
- Communicate uncertainties and diverging scientific views
- Explain the path from evidence to advice



See the *Scientific Opinion* for examples of practical tools

- Deliberative methods to define questions
- Evidence synthesis methods
- Uncertainty assessments
- Etc



*AESIS Network – Impact of SSH Conference  
“Science Impact on Policy”*

*Integration of Science, Policy  
and Society: A Deliberative  
Inquiry Approach*

Jeff Kinder, PhD  
October 16, 2020



Institute on  
Governance

LEADING EXPERTISE

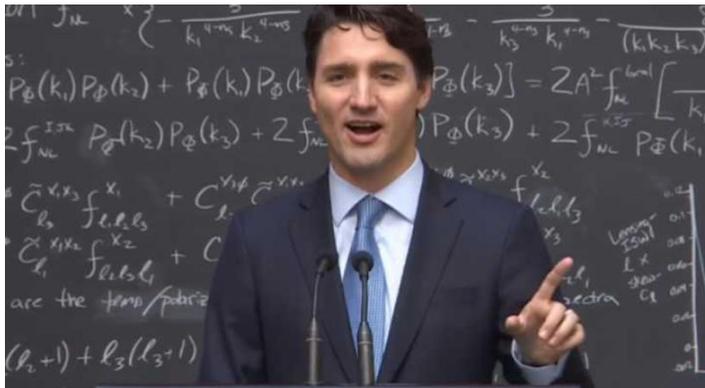
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EXPERTISE DE POINTE

# Science and Policy Integration

**“I think the path for us to take is to trust science, to believe that innovation and discovery are good for us and to make decisions based on data and evidence.”**

**-- Dr. Julie Payette, Governor-General**

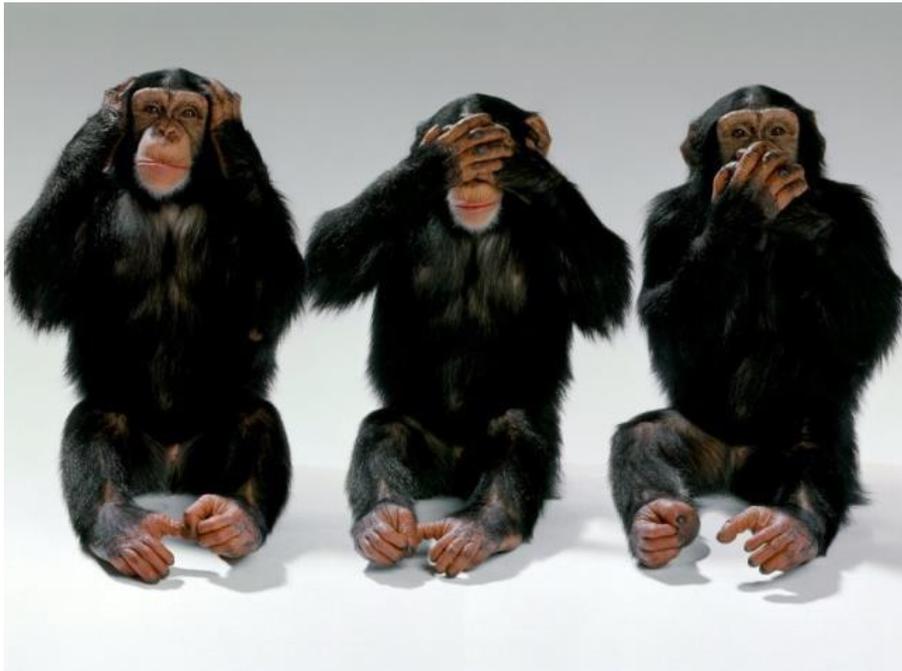


**“...We are a government that believes in science – and that good scientific knowledge should inform decision-making.”**

**-- Prime Minister Justin Trudeau**



# Science and Policy Integration



“There is nothing a government hates more than to be well informed; for it makes the process of arriving at decisions much more complicated and difficult.”

-- *John Maynard Keynes*



## A science / policy encounter

- A man in a hot-air balloon gets lost and descends to ask for directions. The balloonist hovers over a woman on the ground and asks where he is.
- The woman shouts back, “You are at 45 degrees, 25 minutes, 29 seconds north, and 75 degrees, 42 minutes, 20 seconds west. I am standing at 100 metres above sea level, so you must be at about 120 metres.”
- The man in the balloon replies, “You must be a **scientist**. I ask you a simple question, you provide me too much information and I’m still lost!”
- Source: Adapted from Canadian Centre for Management Development (2002). *Creating Common Purpose: The Integration of Science and Policy in Canada's Public Service.*  
The woman calls back, “You must be a **policy analyst**. You came out of nowhere with your questions, I give you the most accurate and precise answer I can, you’re still lost, and you blame me!”

# Two cultures

## SCIENCE

## POLICY

often very long	<b>Time horizon</b>	often very short
seeks precision	<b>Language</b>	seeks flexibility
scientific jargon	<b>Lexicon</b>	policy jargon
tolerant	<b>Uncertainty</b>	discomfort
peers	<b>Audience</b>	public
horizontal	<b>Accountability</b>	vertical
specialists	<b>Practitioners</b>	generalists
usually open	<b>Transparency</b>	often closed
Distributed	<b>Location</b>	“Ottawa”



C.P. Snow

Integration of science, policy and Society: A deliberative inquiry approach

# “Standard Model” of the Science / Policy Interface

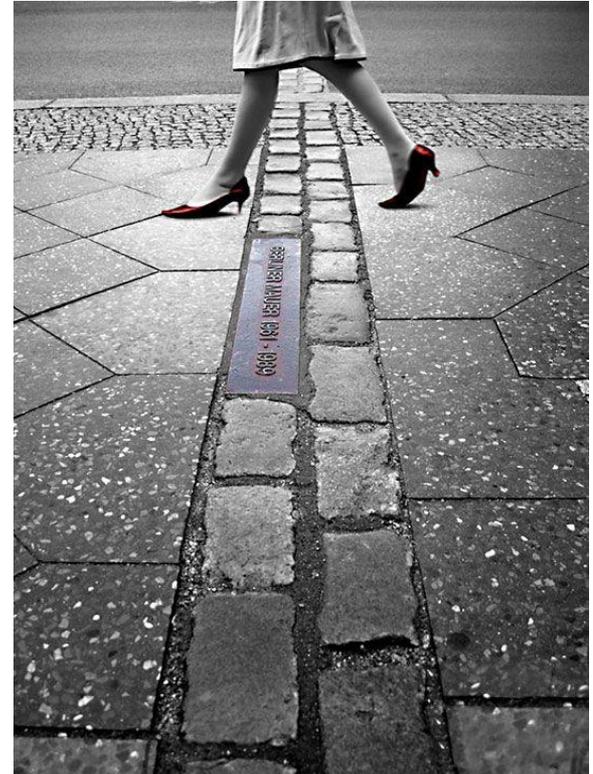


Integration of science, policy and Society: A deliberative inquiry approach

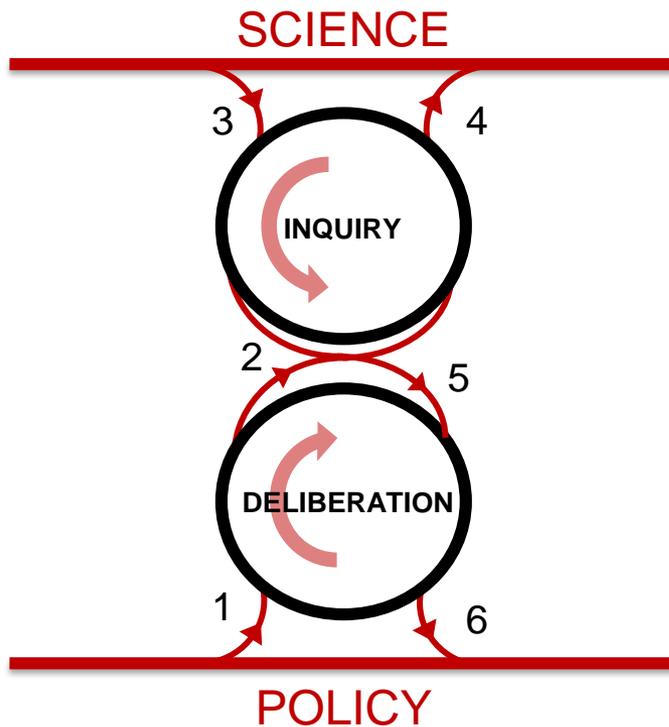
# We need a different model

What we need are more knowledge brokers with a foot in both camps.

The **Deliberative Inquiry** model, developed by Graham Orpwood, draws on the tradition of Aristotle's concepts of Theory and Practice, and John Dewey's logic of inquiry.



# A Deliberative Inquiry Approach



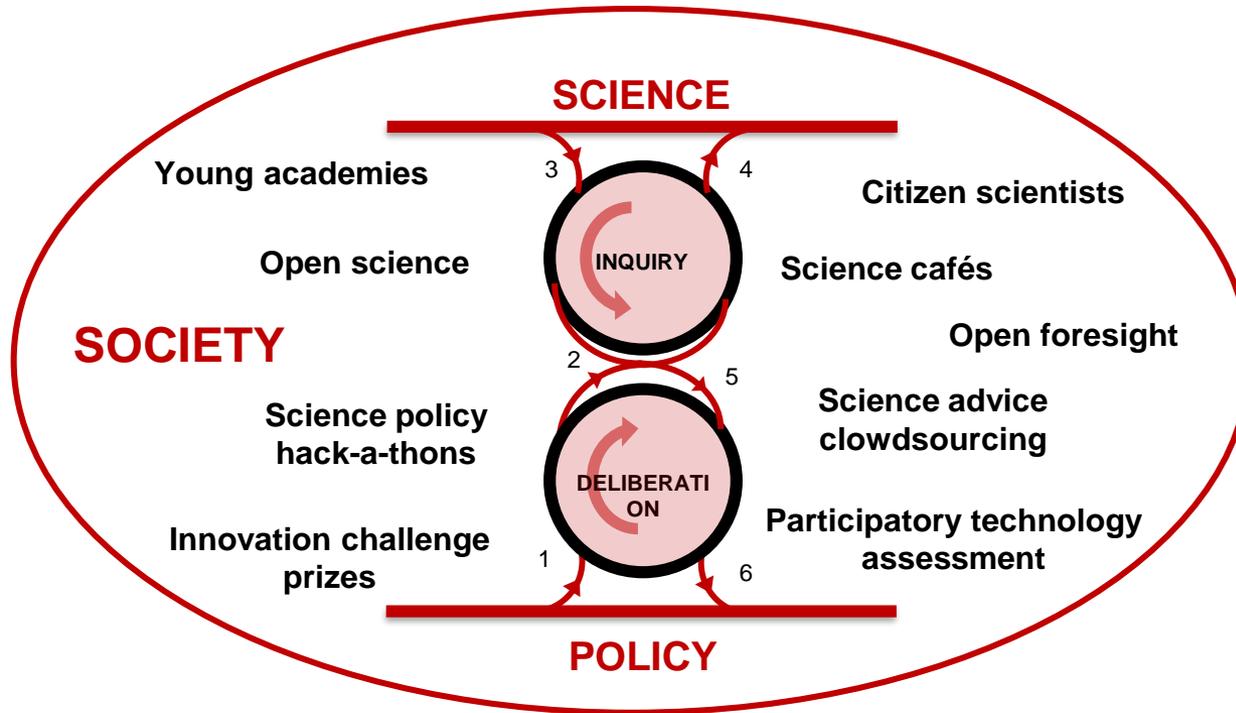
**The model is represented as two cycles representing inquiry and deliberation, linked so that both turn together in a coordinated and mutually supportive way.**

**The numbered elements do not necessarily represent a linear sequence; aspects of each element can take place at any time through the process.**

Source: Adapted from Graham Orpwood, "Deliberative Inquiry: The Method of the Science Education Study," in Jeff Kinder and Paul Dufour, eds., *A Lantern on the Bow: A History of the Science Council of Canada and its Contributions to the Science and Innovation Policy Debate* (Invenire, 2018).

# 18

## Open Science Advice





Policy

Science

**THANK  
YOU**  
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EXPERTISE DE POINTE

# **Impact of Social Sciences and Humanities Conference**

*Mehrdad Hariri*

*CEO & President*

*Canadian Science Policy Centre*

*Oct. 16, 2020*

# Outside perspective

- The importance of SSH
- SSH for policy making
- Mechanisms of SSH in policy making

# SOCIAL DISRUPTION WITH TECHNOLOGY

QUESTIONING THE WORD ITSELF. "DO IT BETTER, CHEAPER"



## WHAT WOULD YOU DISRUPT?







# Pandemic disruption







# The Economist

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US-China relations in crisis

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The dash to cash

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Ethiopia's hidden war

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How virus-testing works

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MARCH 21ST–27TH 2020



### Threat perception



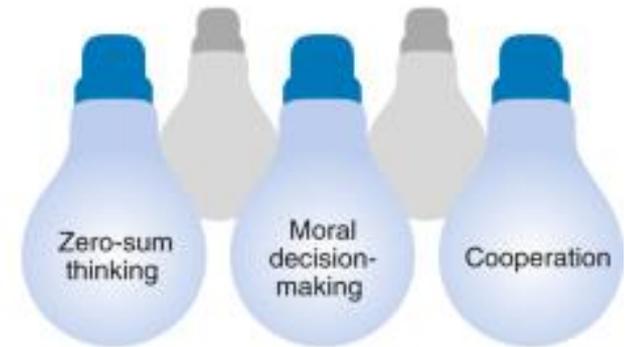
- Threat
- Emotion and risk perception
- Prejudice and discrimination
- Disaster and panic

### Leadership

- Trust and compliance
- Identity leadership
- Ingroup elevation



### Individual and collective interests



### Science communication



### Social Context



Social norms



Social inequality



Culture



Political polarization

### Stress and coping

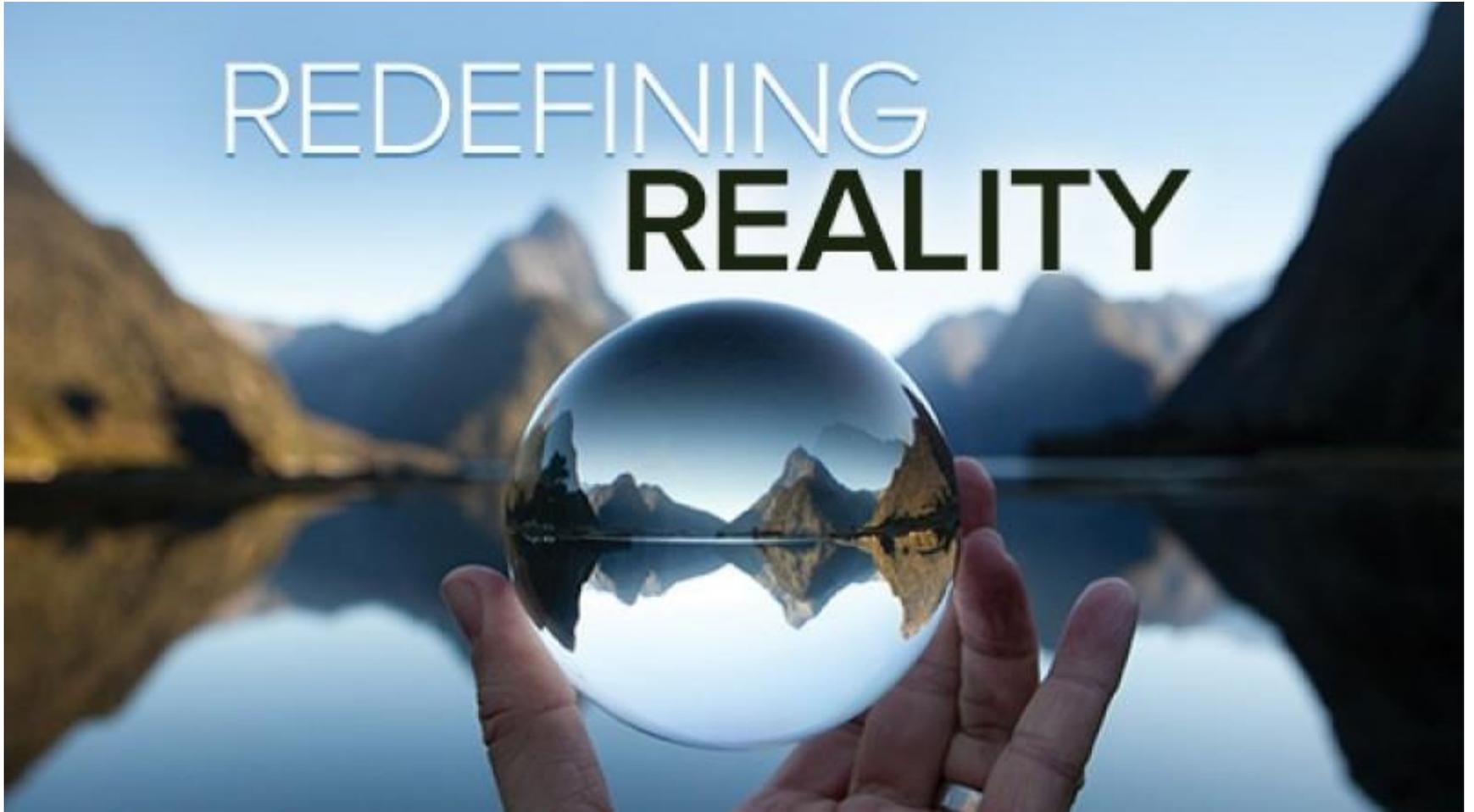


Using social and behavioural science to support COVID-19 pandemic response

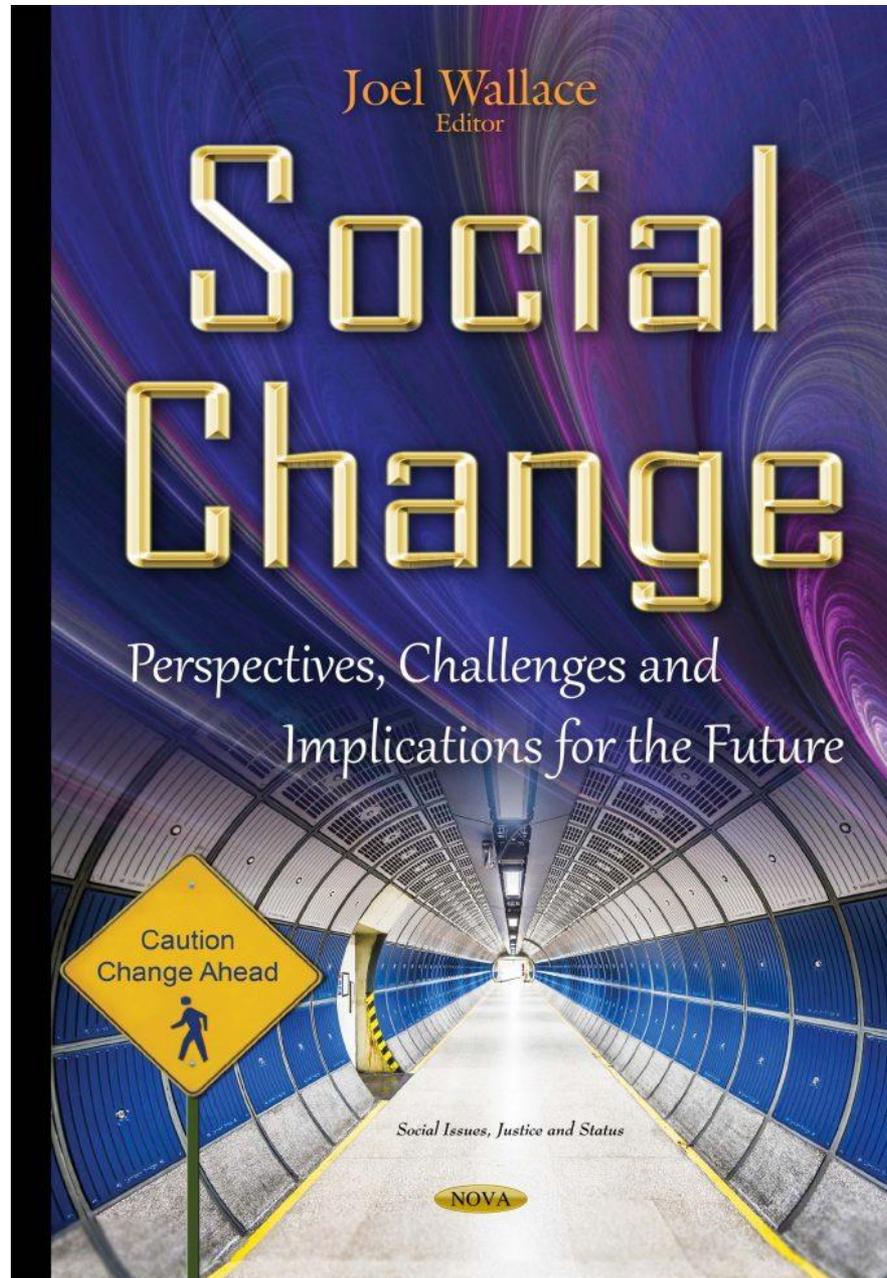
• Jay J. Van Bavel, Katherine Baicker, [...]

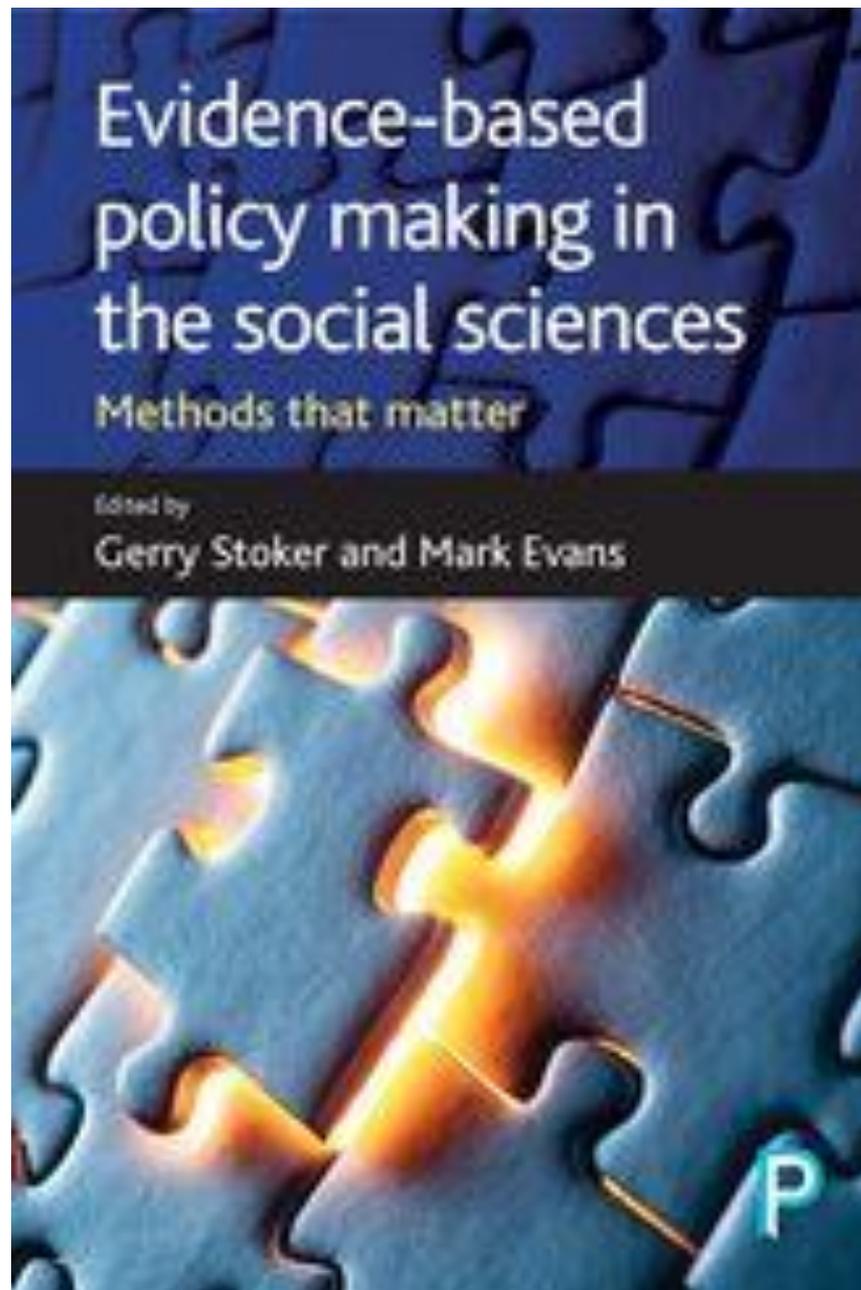
[Nature Human Behaviour](#)

# REDEFINING **REALITY**









# SSH in Evidence based decision making:

- 1) SSH as evidence, (all issues are multidisciplinary)
- 2) SSH as the backbone and the context



# Mechanisms of SSH in policy making



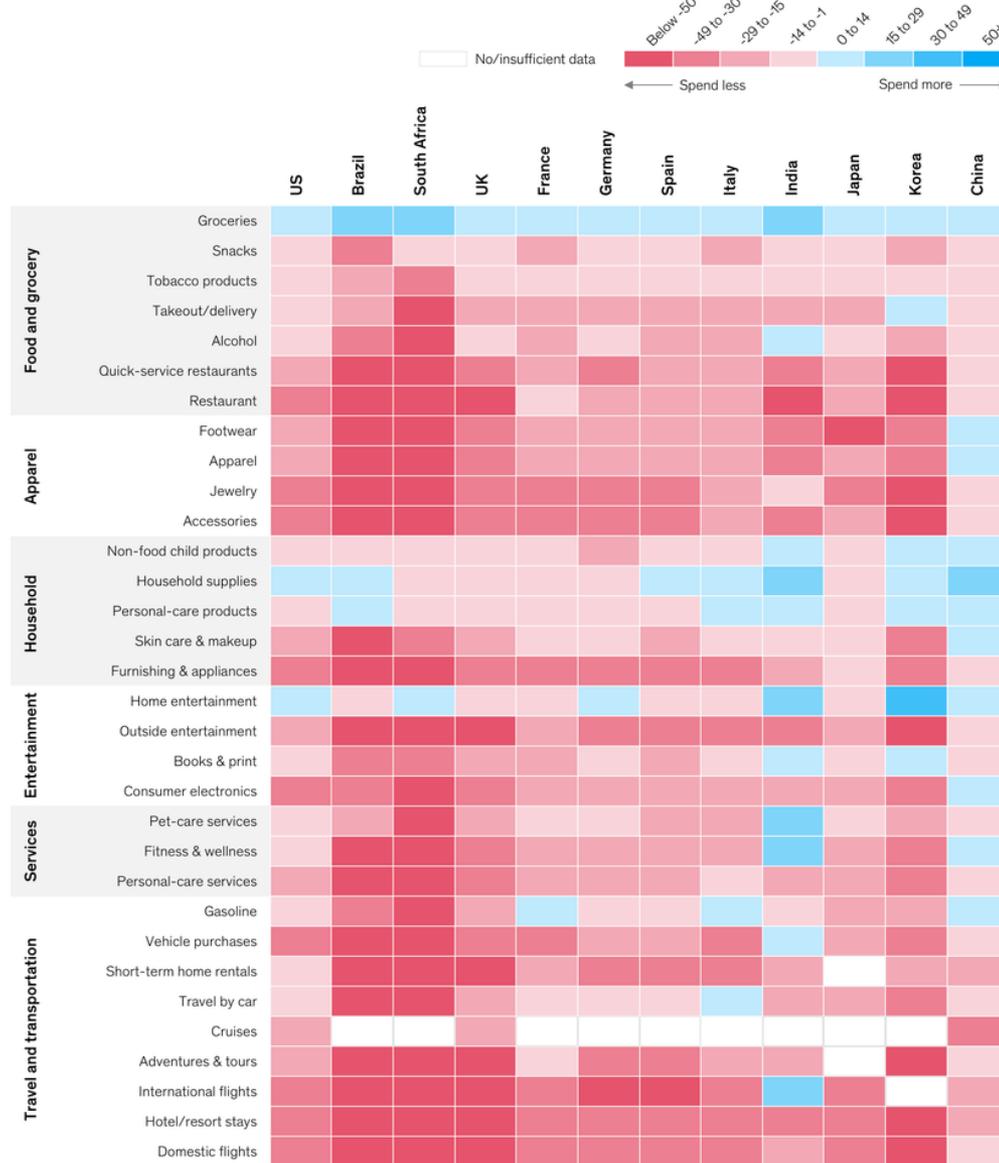
# Something must change!



## Global consumers anticipate pulling back on spending across categories.

Expected spending per category over the next two weeks compared to usual<sup>1</sup>

Net intent %<sup>2</sup>



<sup>1</sup>Q: "Over the next two weeks, do you expect that you will spend more, about the same, or less money on these categories than usual?"

<sup>2</sup>Net intent is calculated by subtracting the percent of respondents stating they expect to decrease spending from the percent of respondents stating they expect to increase spending.

Source: McKinsey & Company COVID-19 Consumer Pulse surveys, conducted globally between March 15 and June 21, 2020. Source of data for South Africa and Brazil was from McKinsey & Company, COVID-19 Consumer Pulse surveys, conducted between May 15 and May 25, 2020.

# Challenges of informing policy

- Mechanisms of interaction of Knowledge producers and Policy Makers
- Receptivity from the two sides
- Translation of the knowledge into policy





# Questions!

