Test the World Polity Theory hypothesis that science-talk is everywhere

Construct a grounded analytic of when and where science talk erupts

Classify the type of authority that science holds in political talk
background
one research theme on “governing complexity”
environment, mobility, religion, ict, media, interdependent policy-making, intersection, tensions

new social research programme
the way through complexity?
Science-based policy

A solid, science-based framework that balances both risks and benefits in policy-making decisions is what the EU needs.

Building a science-based policy framework that balances risks and benefits

Reinforce a science-based approach to policy-making:
Europe needs to enhance the interaction between science and policy-making by: Providing a formal role to the Chief Scientific Adviser (CSA) for the EU institutions to review the use of scientific evidence in risk management legislation, regulation or administrative decisions, and require further scientific assessment where appropriate;

- Supporting the EU CSA with a network of Scientific Advisers in all Commission Services and in all Member States;
- Creating a more inclusive model for scientific assessment that relies on full use of scientific evidence and expertise in risk evaluation and decision-making, including input from academia, the public and the private sector (industry scientists);
- Enhancing public understanding of science through improved education and communication.
All across society
theories on expansion of science

- modernity
  - science provides functional answers to pressing questions … universally

- scientists
  - epistemic community serving elite interest groups in national polities

- coercion
  - countries are forced to adopt science-bases by IGOs, etc.
• World polity theory argues otherwise to account for all the evidence:
  • there is no coercion, nor does science always help or suit
  • science is externally legitimated
  • institutions and practices expand isomorphically

external environment
• World culture
  • practices and institutions of science have expanded throughout the world in isomorphic manner

• Authority is not a property of scientist, but of the wider society that confers and endorses this authority
  • the authority can best be characterized as cultural
  • legitimating society is now more globally spread than ever before
  • universities are key nodes
• How is the cultural authority of science reflected in actual national decision-making?
  • After all ... nobody forces politicians to use the word “science” in every speech
  • They use it ... because it works to convince others!
    • Does it? Where is the evidence?
• What precisely does “cultural” authority mean, anyway?

... and then some
We elaborate, through the lens of epistemic governance, how this authority works

- an analytic, rather than a theory

We analyze references to "science" in parliamentary debates over 20 years in seven countries, in 10 different policy sectors

We focus on
- ample references to "science in the abstract"
- sparse contests around the usage of science
• The perspective spotlights governance that functions by working upon people’s conceptions of what the world is, who we are in that world, and what is necessary or desirable to do
• Parliamentary talk reflects socio-cultural premises speakers expect others will find convincing
• By authority we refer not to dominating position, but to a culturally legitimated source of expertise
• Bottom-up view on global dynamics rather than top-down:
  • Focus on the actors’ perspective
• A stratified random sample of 840 parliamentary debates
  • From 1994 to 2013
  • Australia, Canada, Finland, Trinidad & Tobago, Uganda, UK, USA
  • 10 sectors (civic, consumer, crime, education, environment, fiscal, foreign & security, health, science and technology, social policy)
• We extracted all paragraphs that mention "science".
• Paragraphs (n=846) were coded with a "questionnaire" comprising eight questions.
• Qualitative discourse analysis focused on conflict around usage of science (n=82), and the use of science in the abstract (n=341)
science is everywhere
- Particular sciences often referred to: 50% of all mentions
  - But very rarely in financial and foreign policy debates
    - (contra WPT)
- Organizations are rarely mentioned: 20%
  - (contra WPT)
- Budgetary proposals are occasionally correlated: 23%
- Modernization and progress mentioned often: 33%
  - But not uniformly in particular sectors
    - (contra WPT)
  - Most strong correlations of science-talk with modernity occurs when science is spoken about in the abstract

some results across sectors/ countries

6
• By "contests" we mean conflict about (1) what science means; (2) whether science is appropriate at all in a given case; (3) whether science has been applied appropriately in the case.
• Our main finding is that such contests are relatively uncommon
  • 9.7% of paragraphs include at least a minor conflict.
• Almost all contests are of 3rd type – mostly they are about the credibility of scientific results:
  “The only evidence one can cite for using smokeless tobacco to quit is inadequate. It's not based on science, and I'm sure it will be a tremendous boon to the smokeless tobacco industry.” (United States, Family Smoking Prevention and Tobacco Control Act, 2009, p. 9633).
• When a politician invokes science in any parliament anywhere ... there is never any conflict on that usage ... ever!

• Opponents are left with no recourse but to switch to another, openly moral domain

the most striking result
• Of course, there are several examples where other politicians are accused of being against science – thus taking immoral actions by violating the normative authority of science.

“There are some people in this building who argue that science is not absolute. For instance, some people have argued in the course of the climate change debate that the science is not absolute, and therefore we will not really know who was right and who was wrong until it happens or does not happen. The science is not absolute on smoking and lung cancer either; yet we believe, because the scientists tell us so, that there is a relationship between lung cancer and cigarettes” (Australia, 2011, Tobacco Plain Packaging Bill)
another striking result

- Science as an abstract, undefined term is used everywhere, in every policy sector, by all politicians!
  - Biggest proportion of any category: 53%
- It’s usage further guarantees no conflict or debate
- Also ... organizations are rarely mentioned in connection with science
- Abstraction correlated with discourse of progress/ modernization
1. An object to be fostered/protected for **modernizing**:

- “Countries with strong science and technology have registered rapid economic growth … science is at the heart of development” (Uganda, National Agri Research Bill, 2005)

2. An object to be **regulated** because of potential dangers:

- “We shall all be very proud that, following the tragedies that have occurred, we have found a way of restoring public confidence, not only in the practice of taking tissues but in science and medicine generally” (United Kingdom, Human Tissue Bill, 2004)

3. A basis for making a **particular** decision

- “The decisions that have been presented to us by this bill have nothing to do with whether science is good or science is bad, but whether it passes the ideological litmus test of the republican leadership” (United States, Omnibus Civilian Science Act, 1995)

**an abstract category**
“Strictly speaking, there is, I confess, no such thing as ‘modern science’. There are only particular sciences, all in a state of rapid change, and sometimes inconsistent with one another”

C.S. Lewis, *Funeral of a Great Myth*
“The most obvious moral authorities are those that almost never were recognized because there was hardly any contest around them”

The primary characteristics of a **moral authority**:

- Activation in all cases where a “rule” is violated
- Taking the form of social sanctions
- Reflecting autonomy of action, or desirability rather than imposition
- Lacking substantial contestation
Science-talk in parliaments

Science as an abstract, self-evident category

Everywhere over 20 years

Barely any contests

Sweeping moral authority
• Moral authorities often masquerade as ontological authorities
• A discursive approach to institutionalism zooming in on actual political talk reveals what works and what doesn’t
  • Similarities are striking!
• Mile-high views of macro-similarities and isomorphism hide the micro-struggles and discourses of daily political life
  • But … micro leads to the macro: there’s no disjunction
  • Epistemic governance framework links the two through a meso-phenomenology
• Back in the realm of structures of perception

theoretical implications
governing complexity?
thank you for your attention!
imagination
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