INTERNATIONAL APPROACHES TO RISK

(UNDERSTANDING RISK FRAMEWORKS FOR EMERGING TECHNOLOGIES)

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PALO ALTO, CA, MARCH 13, 2014

CROSS-NATIONAL VARIATION IN RISK GOVERNANCE: A STANDARD (U.S.) NARRATIVE

Europe was less risk averse on chemicals and cancer in 1970s, but has been more risk averse on GMOs. Why?

Conventional explanations:

- Europeans are "behind us"; never had the debates of the 1970s.
- It was "mad cow" disease.
- It's European protectionism.
- It's public ignorance of science.
- It's the media; scientists should learn to communicate.

INTELLECTUAL PROBLEM: ASYMMETRICAL -- TAKES US POSITION AS "NATURAL"

Challenge: How *should* we explain different national approaches to risk governance?

COMPARATIVE POLITICS OF BIOTECHNOLOGY

Persistent differences in framing issues of shared concern:

- Genetically modified crops and foods
  - product, process, or program
- Abortion
  - Individual right or pragmatic settlement among values
- Assisted reproduction
  - natural mothers or “unnatural kinds”
- Stem cells
  - form of life or entity outside “life”
- Synthetic biology
  - responsible innovation or irresponsible “democratization”
- Organization of bioethics
  - political calculus or rational principles
- Intellectual property
  - ethical choice or market transaction

TWO DISCOURSES OF RISK ANALYSIS

Dominant Discourse	Insights from Regulatory Practice
Risk assessment (RA) should be separate from risk management (RM).	Judgment enters into both RA and RM; there can be no clear separation.
RA should not include, economic, social, and political concerns.	RA occurs within particular frames which reflect social and political values and can differ across cultures.
RA can and should be science-based.	RA is limited by uncertainty and ignorance.
There is a clear boundary between science and politics; there exist pre-established criteria by which we can judge whether an analysis is science-based.	The boundary between science and policy is not given in advance; criteria are established by negotiation and convention.

A NEW TAXONOMY OF RISK

Conventional (linear) account

- Probability x magnitude of harm
- Hazard + exposure
- Impacts
- Characterization and communication

Socially embedded (recursive) account

- Risks arise *within* and *from* social practices
- Risks are framed by culture
- Risks are perceived in social and historical contexts
- Risk governance is a branch of politics, hence reflective of political philosophies and public values

COROLLARIES FOR INTERNATIONAL RISK GOVERNANCE

Process matters

Specifically, it matters how knowledge (of risk) is generated and put to use in public decisions

Nations differ significantly in purposes and strategies for

- Producing public knowledge (claims)
- Establishing the reliability of expert judgment
- Resolving policy-relevant knowledge disputes
- Involving lay publics in public reasoning

THE "REVISED STANDARD" ON CROSS-NATIONAL DIFFERENCES

National governments differ:

- In how they imagine their publics to be served by S&T policies (needy, sick, ignorant, irrational, autonomous)
- In whether they want to accept risks or take precautions
- In their institutionalized modes of using evidence and public reasoning
- In how they allocate responsibility for possible harms

National publics also differ

- In their needs, perceptions, risk assessments, and rationalities
- n their expectations about the state and how it should care for their needs

National Constructions of Expert Legitimacy

	United States	United Kingdom	Germany
Bodies of knowledge	Formal ("sound") science	Empirical common knowledge	Collectively reasoned knowledge
Embodied experts	Technically most qualified experts	Experienced "safe hands"	Authorized institutional representatives
Advisory bodies	Pluralistic, interested, but fairly balanced (*stakeholder*)	Members capable of discerning the public good (*civil service)*	Representative and inclusive of all relevant views (*public sphere*)

Virtuous Reason: Normative Structures of Expertise

	Nature of Objectivity	Normative Commitments	Administrative Practices
Bodies of knowledge (United States)	View from nowhere (transcendental)	• Open access to information • Transparency • Public comment and criticism	• Freedom of Information • Public comment • Legal challenge and review
Embodied experts (United Kingdom)	View from everywhere (empirical, observational)	• Issue-specific experience • Dedication to the public good • Balanced judgment	• Nominations from the public • Principles of public life • Conflict of interest rules
Advisory bodies (Germany)	View from everywhere (reasoned)	• Inclusion of all relevant voices • Willingness to accommodate reasons of others	• Representation of relevant institutional voices • Appointment of substitute members

ANALYSIS OF GLOBAL CHANGE

Weaknesses:

Difficulties in conducting scientific discussions within a Kommission that included some elected parliamentarians with little expertise on the subject.

Agreeing on specific resolutions was difficult due to political disagreements between members of different political parties.

Experts selected by the factions of Parliament were not nominated by scientific bodies but directly appointed by a political party, which could have some significant ramifications in terms of the credibility and legitimacy of the process.

Are we naturalizing our "normal"

WHAT IS TO BE LEARNED?

Risk governance is not about epistemic issues only, or about "getting the science right" *before* moving to normative decisions

Questions about national divergences in risk governance reflect differences in philosophies of government

- Not one model called "democracy" but many democracies

Those differences are institutional and constitutional, and hence "political" all the way down

- There is no apolitical domain of "risk science" (*contra* 1983 *Red Book*)

Value of comparison is comparison of values

- Not mainly about learning "best practices": but about increasing the range of our attentiveness and sense of moral possibility