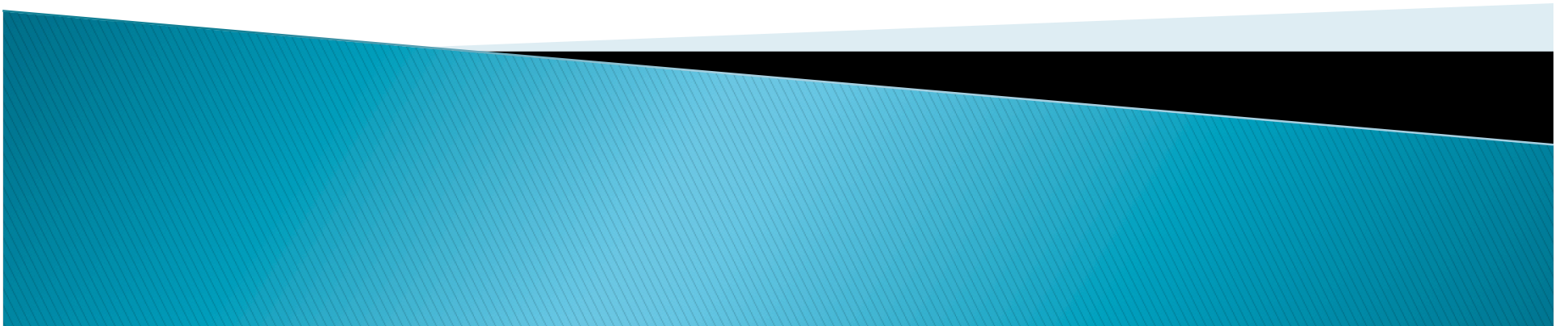


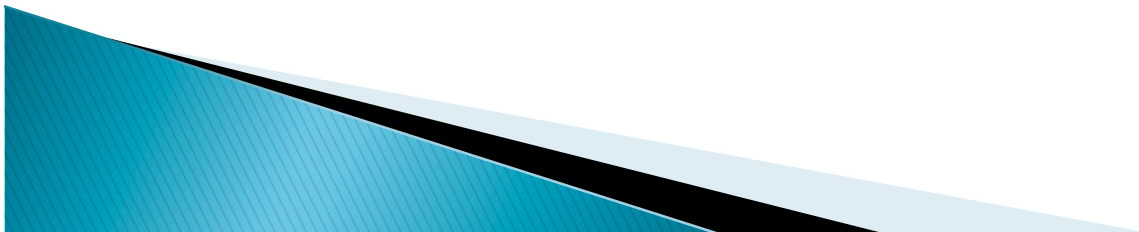
# Science and Public Policy: Bridging the Gap

Linse N. Anderson  
CMMAP/Political Science  
Advisor: Dr. Michele Betsill



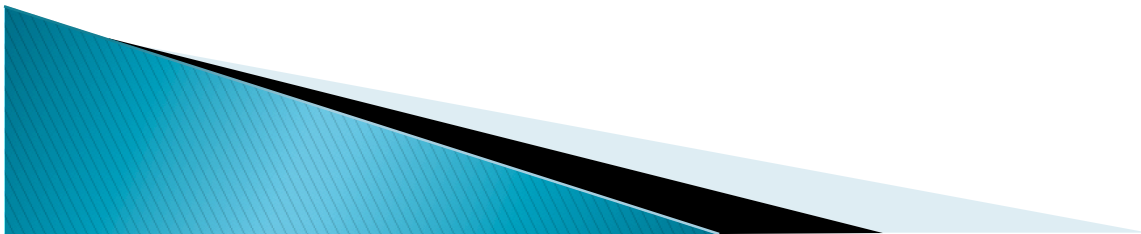
# About myself...

- ▶ Hometown – Detroit
- ▶ Undergraduate
  - UT Knoxville – ???
  - Oakland University (MI) – Philosophy
- ▶ Masters
  - Western Michigan University – Philosophy
  - U Wyoming – IS/ENR
- ▶ PhD
  - CSU – Political Science



# Summer project

- ▶ What do we know from the literature about the science – public policy interface?
  - ▶ Different ways to conceptualize the relationship
  - ▶ Complicating factors
  - ▶ Implications for scientists



# Policy, Politics, and Science

- ▶ Policy

- A commitment to a particular course of action

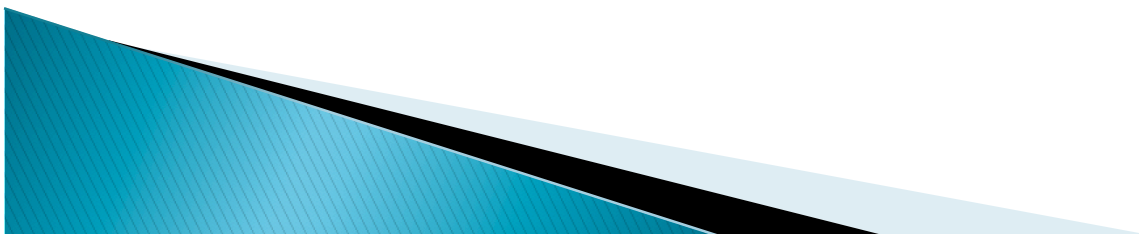
- ▶ Politics

- “who gets what, when, and how”

Harold Lasswell, 1958:96

- ▶ Science

- Systematic pursuit of knowledge



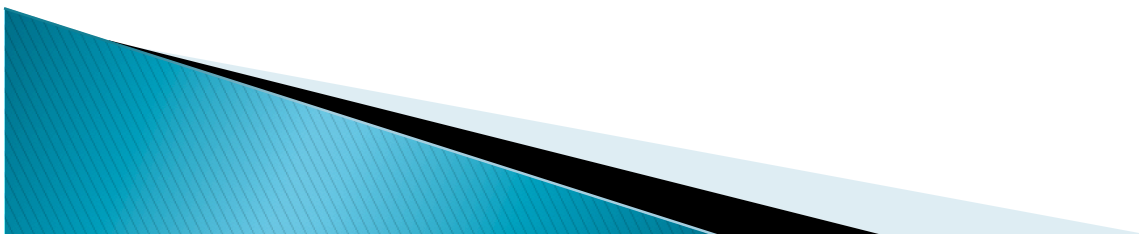
# Approaches to the problem

## ▶ Linear Model



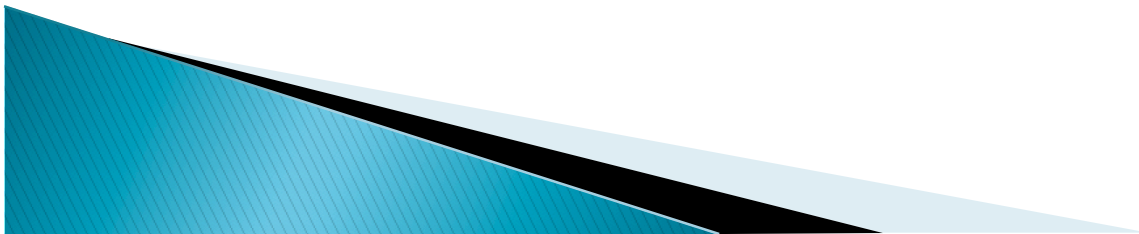
## ▶ Design factors

- Structure of interactions
- Incorporation and dissemination of information and knowledge from and to stakeholders



# Approaches to the problem

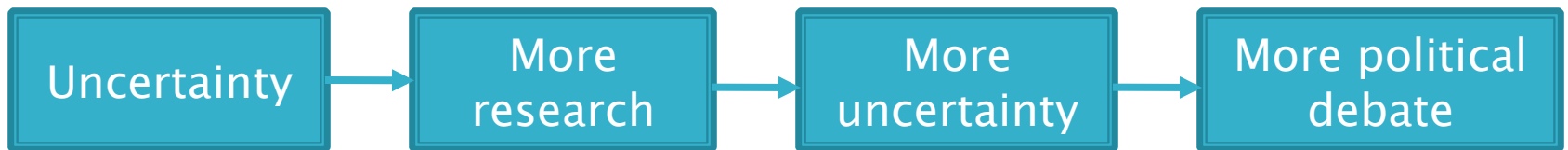
- ▶ **Context**
  - Issue saliency
  - Political context
- ▶ **Cognitive factors**
  - State of scientific knowledge
  - Degree of consensus
- ▶ **Social processes**
  - Construction and use of scientific information



# Complicating factors

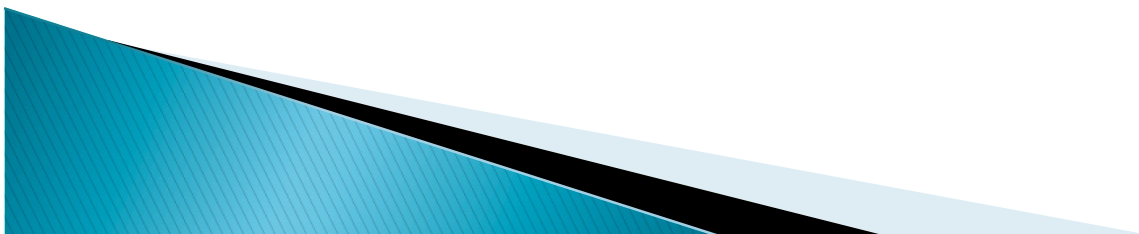
## ▶ Uncertainty

- Misunderstanding of scientific uncertainty
- Conflation of scientific and political uncertainty
- A dodge to making difficult political decisions



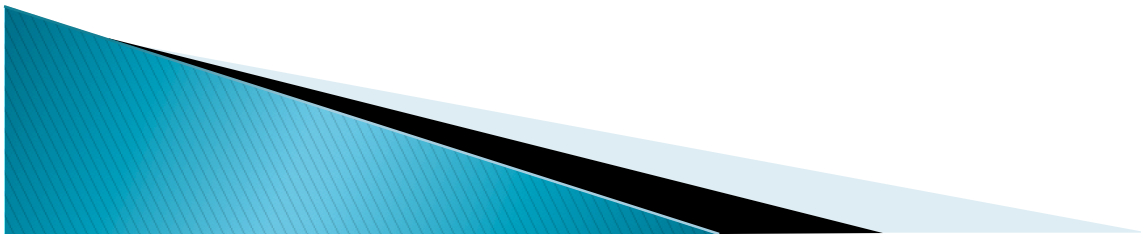
## ▶ Politicization of science

- Science used by competing parties
- Scientists may contribute



# Complicating factors

- ▶ Institutional framework
  - Need a healthy policy process
  - Political process that frames questions
- ▶ Values
  - Cannot be addressed by science
  - Must fully articulate values through a political process

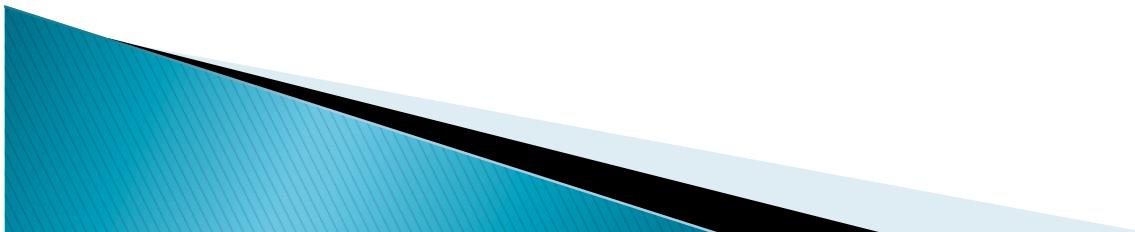




# Implications for scientists

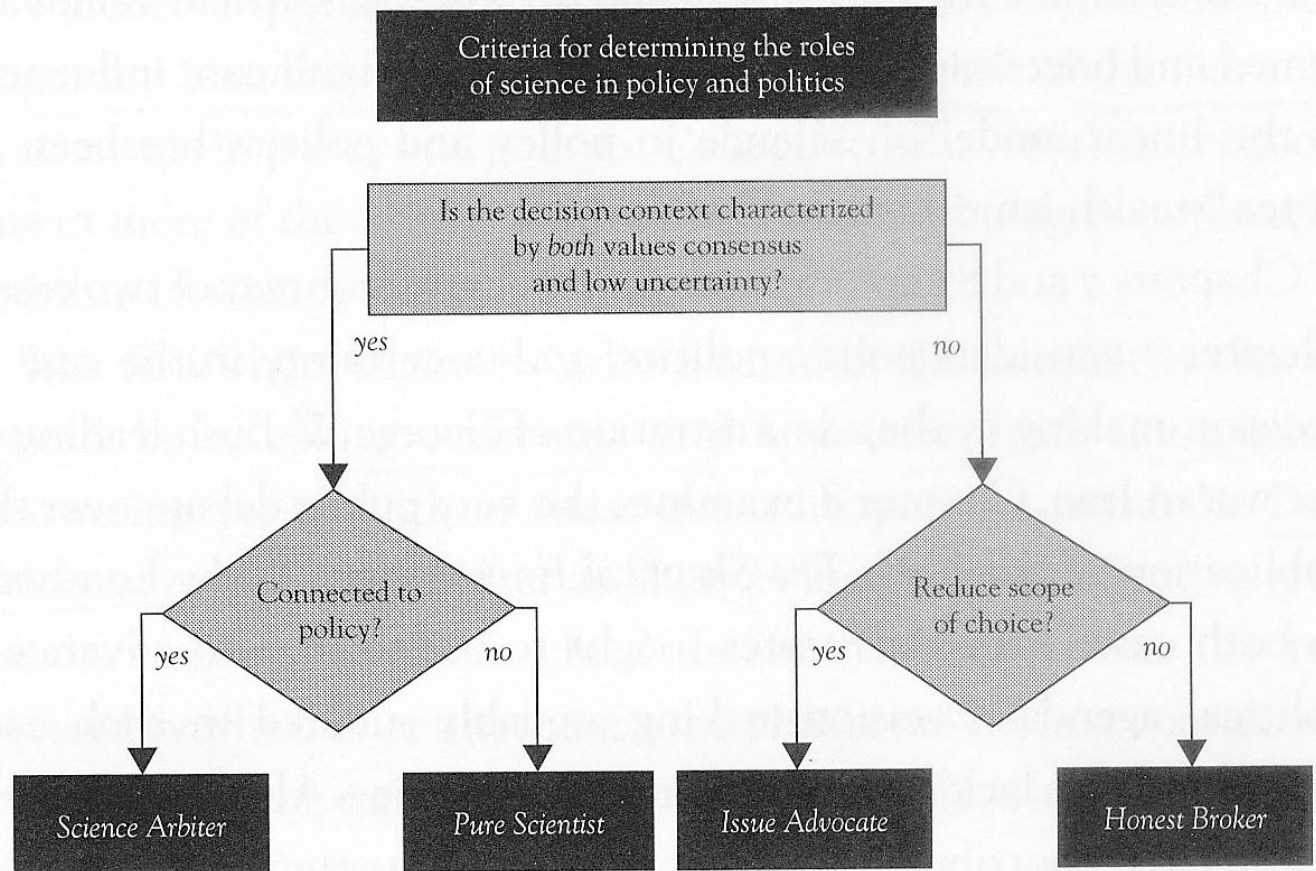
Research is inspired by		Considerations of Use?	
		No	Yes
Quest for fundamental understanding?	Yes	Pure basic Research (Bohr)	Use-inspired basic research (Pasteur)
	No		Pure applied research (Edison)

Stokes 2007:74



# Implications for scientists

- ▶ Role is shaped by characteristics of the issue

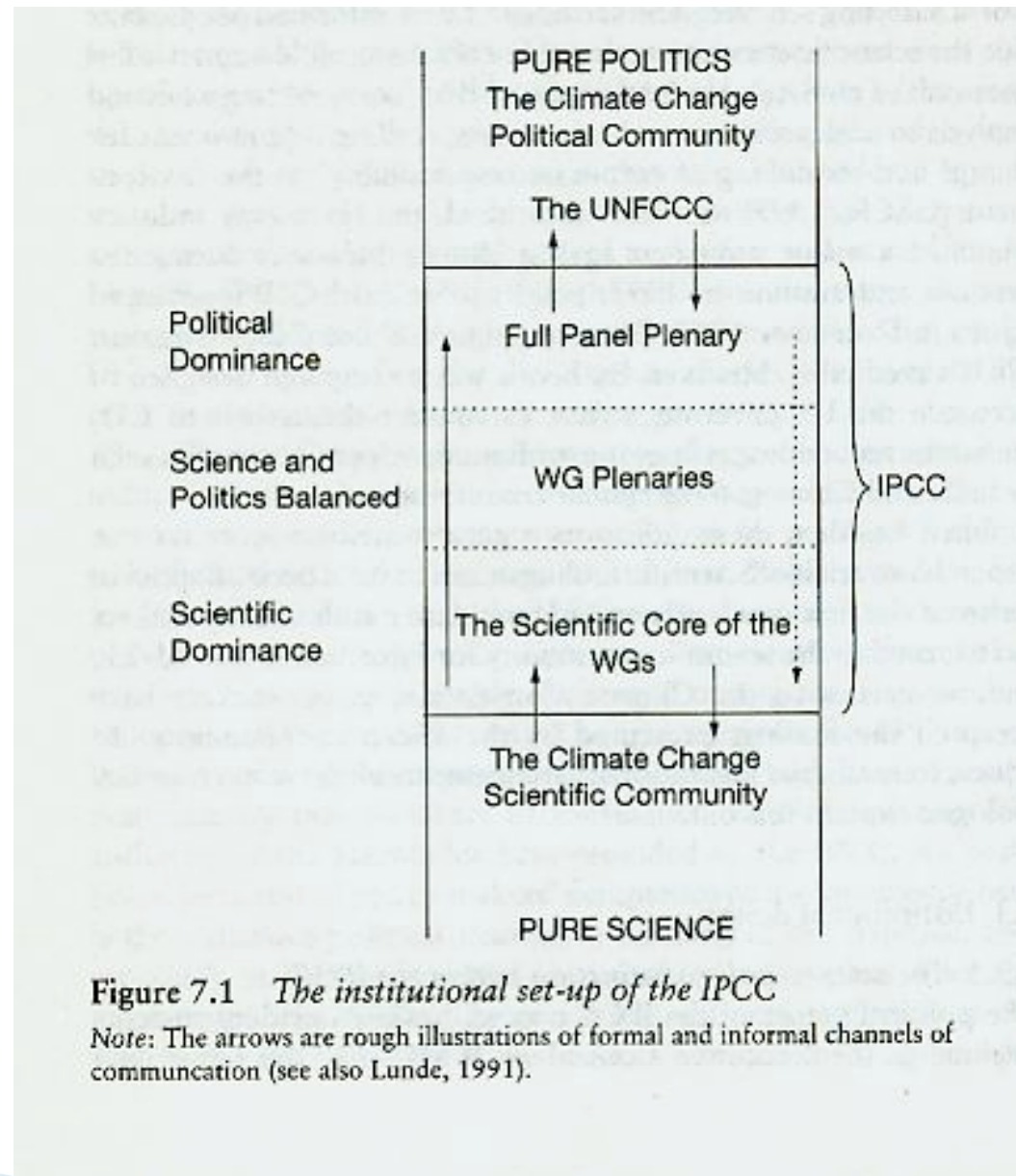


# Implications for scientists

- ▶ Formal assessments
  - “Formal efforts to assemble selected knowledge with a view toward making it publicly available in a form intended to be useful for decision making”  
Mitchell et al. 2006:3
- ▶ Investigate questions of policymakers
- ▶ Enumerate plausible consequences of our actions/inactions and monitor the effects of our choices



# IPCC



Andresen et al.

# Thank you!

- ▶ Forthcoming paper will be available
- ▶ Readings, references, questions please contact [linse.anderson@colostate.edu](mailto:linse.anderson@colostate.edu)

