## How to Analyze Environmental Issues to Promote Dialogue, Reconciliation, and Better Solutions

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Photo: Steven Chase, U.S. Fish and Wildlife Service

## Workshop Schedule

- The nature and range of beliefs (20 min).
- Creation care beliefs inventory (20 min).
- Discussion of a policy meeting "role play" (20 min).

#### Imagine a town meeting on water use ...



#### Many different stakeholders ...

# Argument

## Why?

## Framework to understand each other?

## How to Really Understand What Is Good Environmental Stewardship

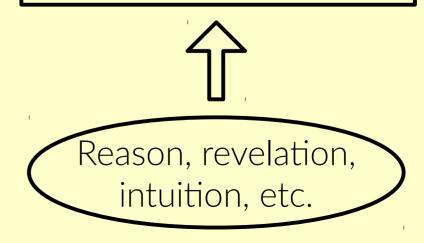
#### Criteria for Evaluation:

- Importance
- Goals
- Practice

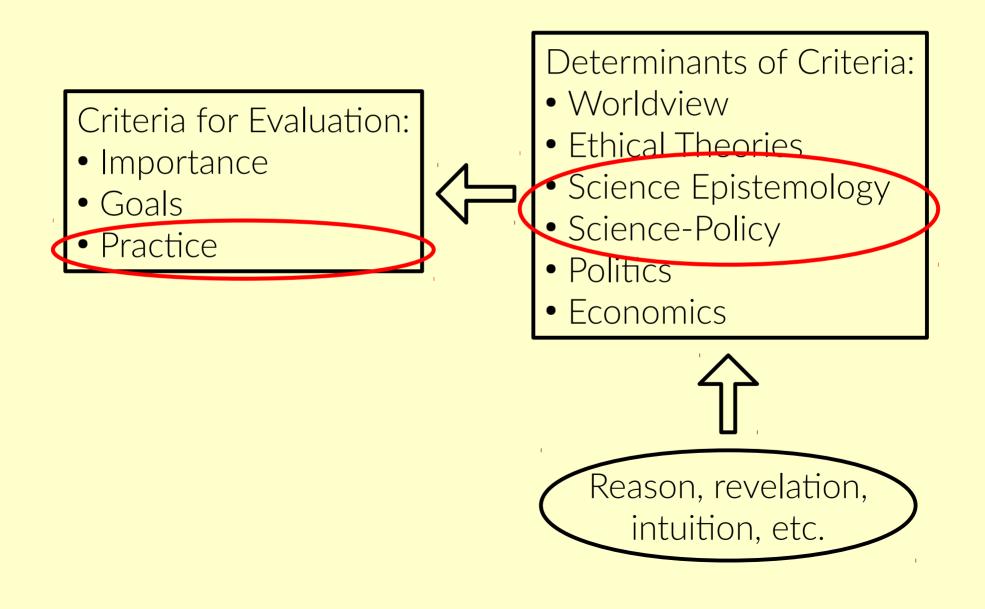


Determinants of Criteria:

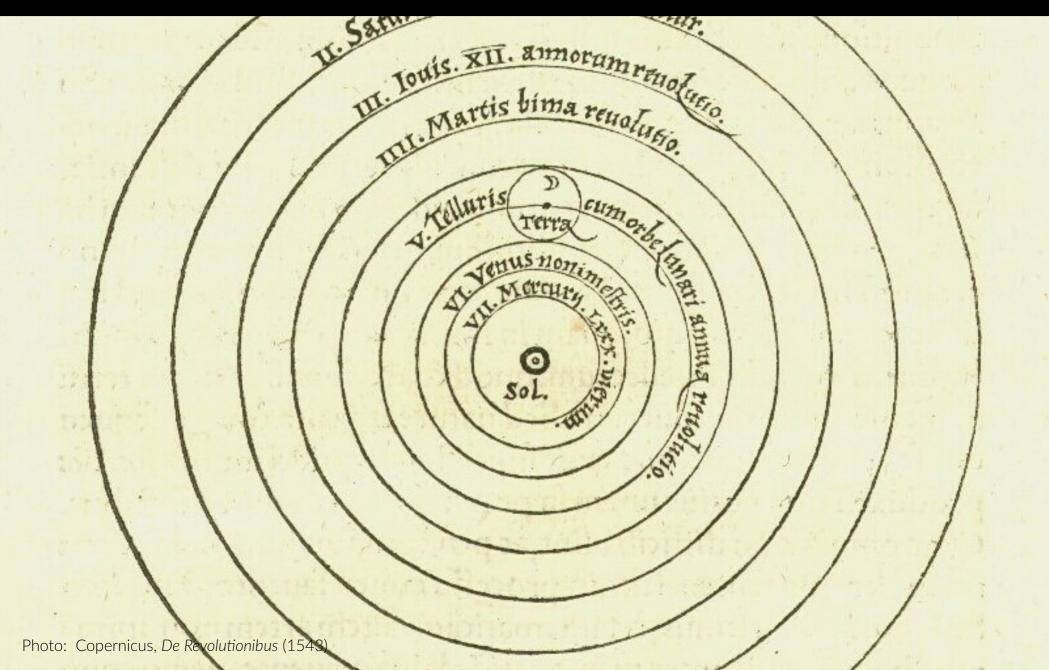
- Worldview
- Ethical Theories
- Science Epistemology
- Science-Policy
- Politics
- Economics



## How to Really Understand What Is Good Environmental Stewardship



#### Understanding the Nature and Range of Views on What Is Science



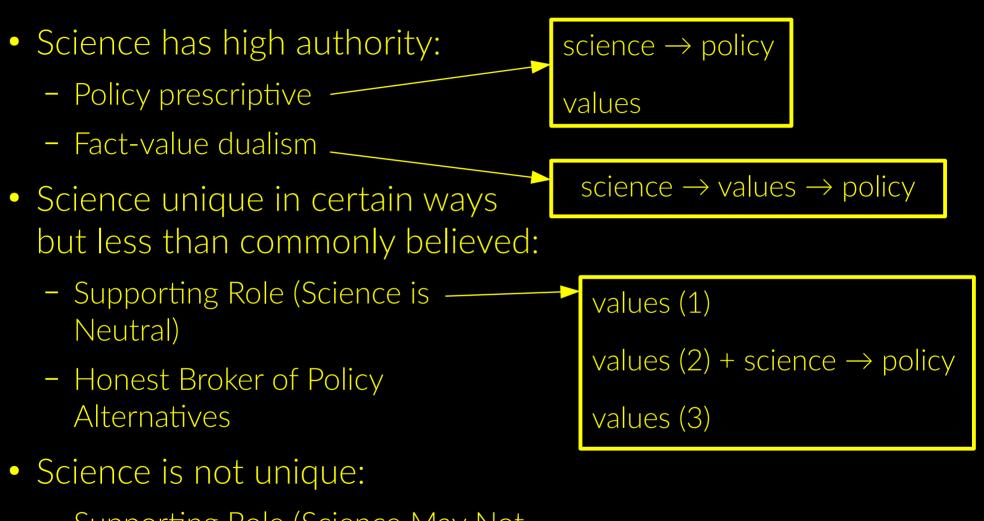
- How does science know?
- What authority does scientific knowledge have?

- Science as hypothesis testing:
  - Hypothesis  $\rightarrow$  Test  $\rightarrow$  Confirmed?  $\rightarrow$  Retest
  - Truth is additive. High authority.
- Science works by falsification: Negative results can nullify consensus.
- Social constructionism: Science as practitioners following rules.

#### Understanding the Nature and Range of Science-Policy Models

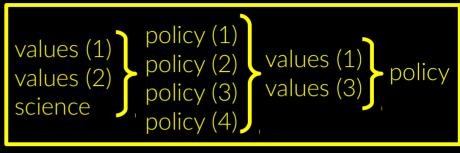


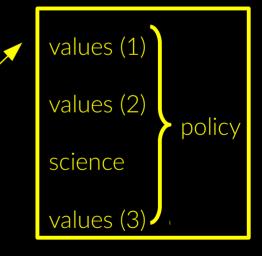
- How connect science to policy?
- Is connection related to authority of science?
- Do some models lead to "better" solutions?



 Supporting Role (Science May Not Be Neutral)

- Science has high authority:
  - Policy prescriptive
  - Fact-value dualism
- Science unique in certain ways but less than commonly believed:
  - Supporting Role (Science is Neutral)
  - Honest Broker of Policy ´ Alternatives (Pielke 2007)
- Science is not unique:
  - Supporting Role (Science May Not Be Neutral)



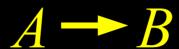


## Understanding the Nature and Range of Practices



#### • Is there more than one solution?

- What kinds of solutions exist?
- Why might we prematurely narrow solutions?



Action or activity

Undesirable consequence

- Do nothing
- Eliminate A:  $X \rightarrow B$
- Isolate the harmful effects:  $A \rightarrow \zeta$

More extreme weather, pestilence, etc.

Greenhouse effect, etc.

R

- Do nothing
- Decrease CO<sub>2</sub> emissions: Renewable energy sources, increase conservation, air capture, etc.

 $CO_2$  emission

- Disrupt connection between CO<sub>2</sub> emissions and harms:
  Orbiting parasol at Lagrange point between Sun and Earth.
- Avoid harms: Stricter zoning in floodplains, higher sea walls, etc.

How This Structure Can Help Support Dialogue

- Identify assumptions.
  Find common ground.
- Don't prematurely restrict range of responses to consider.
- Social stability → better solutions.

#### Determinants of Criteria:

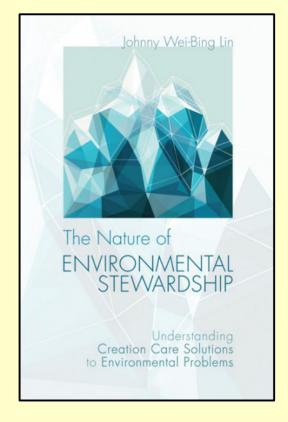
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## Getting a Handle on the Breadth of Complex Motivations

The Nature of Environmental Stewardship: Understanding Creation Care Solutions to Environmental Problems (Pickwick Publications, 2016)

#### http://nature.johnny-lin.com

- Sample chapter on website
- Amazon: Print, Kindle



## Creation Care Beliefs Inventory

http://johnny-lin.com/nature/inv/

- What are your beliefs?
- Find someone who has different beliefs. Share why you believe as you do.
- As a large group:
  - Did you find someone with different beliefs?
  - Reactions as they shared? Why?
  - How respond to each other's beliefs?

### Policy Meeting "Role Play" Discussion

Discuss in small groups then as a large group:

- What perspectives will various parties have in the unreached people groups God has called you to?
- How can we structure a session to fruitfully engage this range of perspectives?
- What mechanisms can result in dialogue and more stable solutions?

## Alternative Structures

- Collaboration (Daniel Kemmis):
  - Start with stakeholder lived knowledge.
  - Agreement on what do we need to know we don't already know?
  - Ask science to tell us that.
- Sea-level rise planning in the Town of Nags Head, SC:
  - Lead with shared values, not science.
  - Synthesize group knowledge of all participants.
  - Science related to their situation.
  - https://ams.confex.com/ams/98Annual/webprogram/Paper336 874.html