



Boundary Organizations: Navigating Between Worlds

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First... what do we know about boundaries?

- What types of boundaries can you think of ?
- Why do we have boundaries? What role do they serve?
- How are boundaries crossed or bridged? What enables the crossing of boundaries?

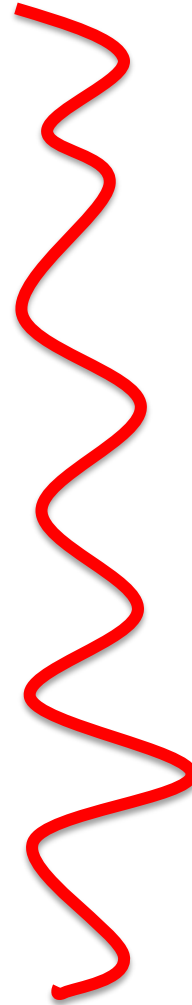
Boundaries between science and society



Image:
<http://undsci.berkeley.edu/article/philosophy>



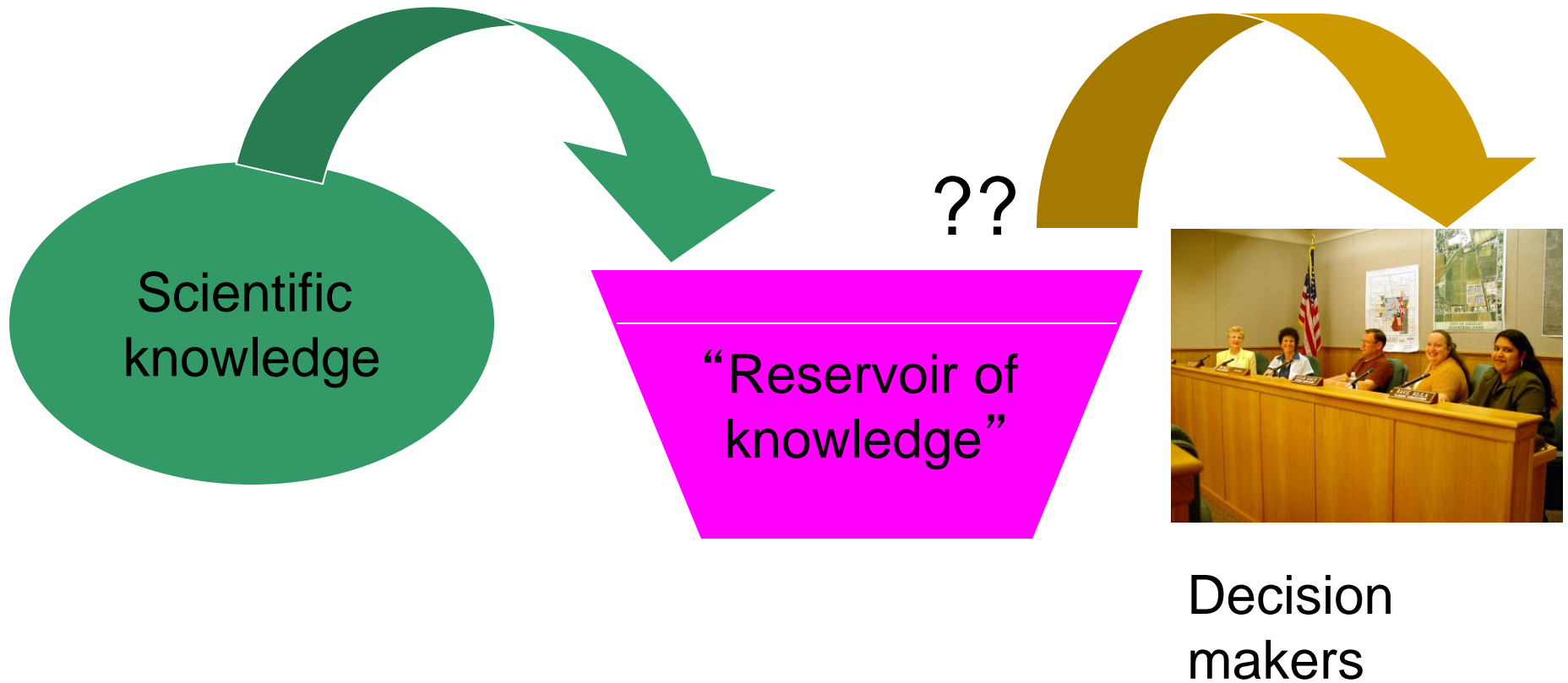
Boundaries between science and society



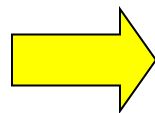
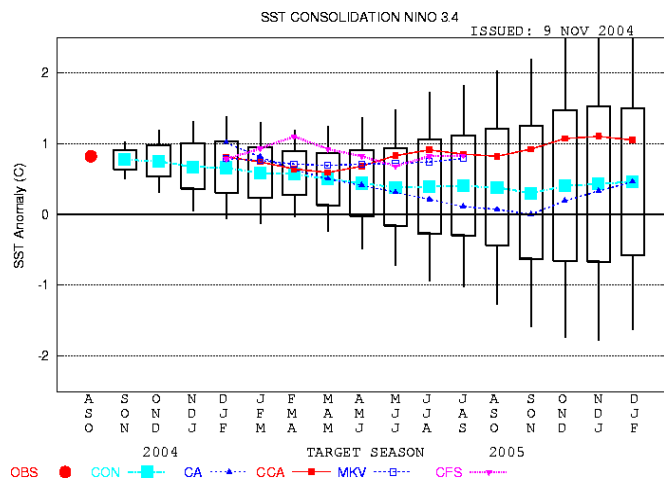
What are some mechanisms we use to maintain boundaries in science?



A problem with science boundaries



The result: Information is often not as useful as it could be!



Not as useful as expected to farmers, water managers and so on because of a variety of reasons:

- Information provided often not what was most needed
 - Lack of regional specificity, scale mismatch
 - Inaccessible presentation, poor communication
 - Not presented with accompanying info. more important to decision-maker, such as market and policy information
 - Decision-makers incapable of responding to information--institutional constraints
 - Lack of trust in information
 - Uneven delivery to affected constituents
- And so on

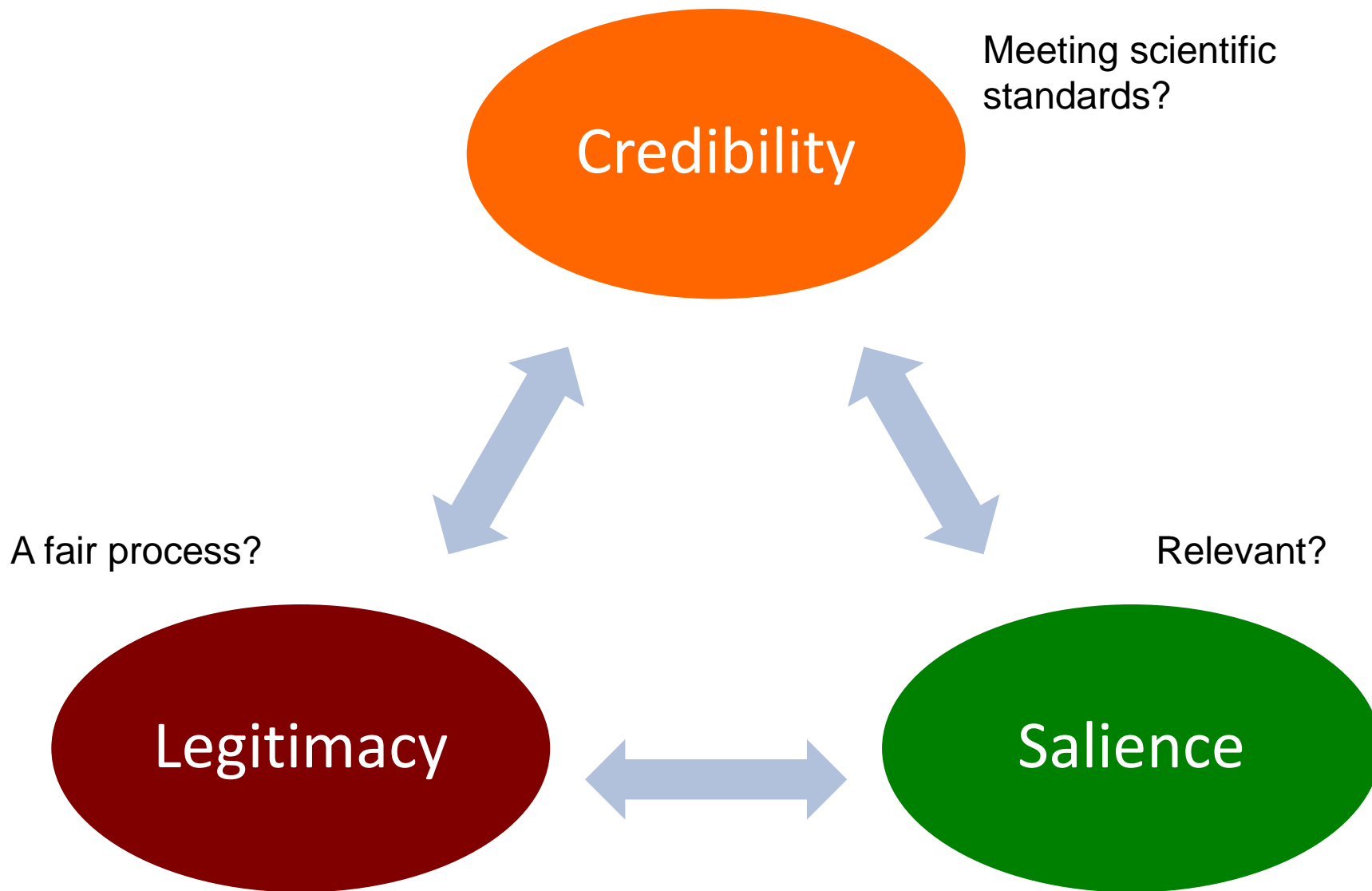
Reviewed in Dilling and Lemos 2011

The Cash et al. framework for Knowledge to Action

“efforts to connect knowledge to action are effective only if they are sufficiently **salient**, **credible**, AND **legitimate** with multiple audiences simultaneously”

Cash et al. 2002



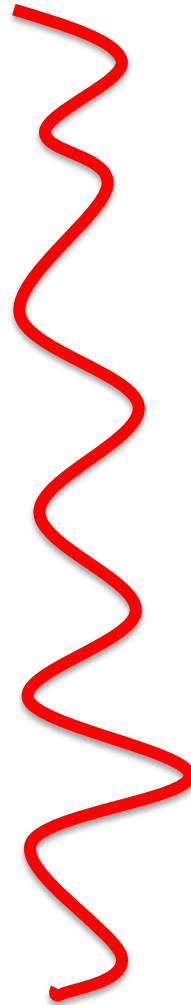


The importance of each element--
credibility, salience and legitimacy--
will vary depending on the actor and
his or her perspective!



Managing the boundary

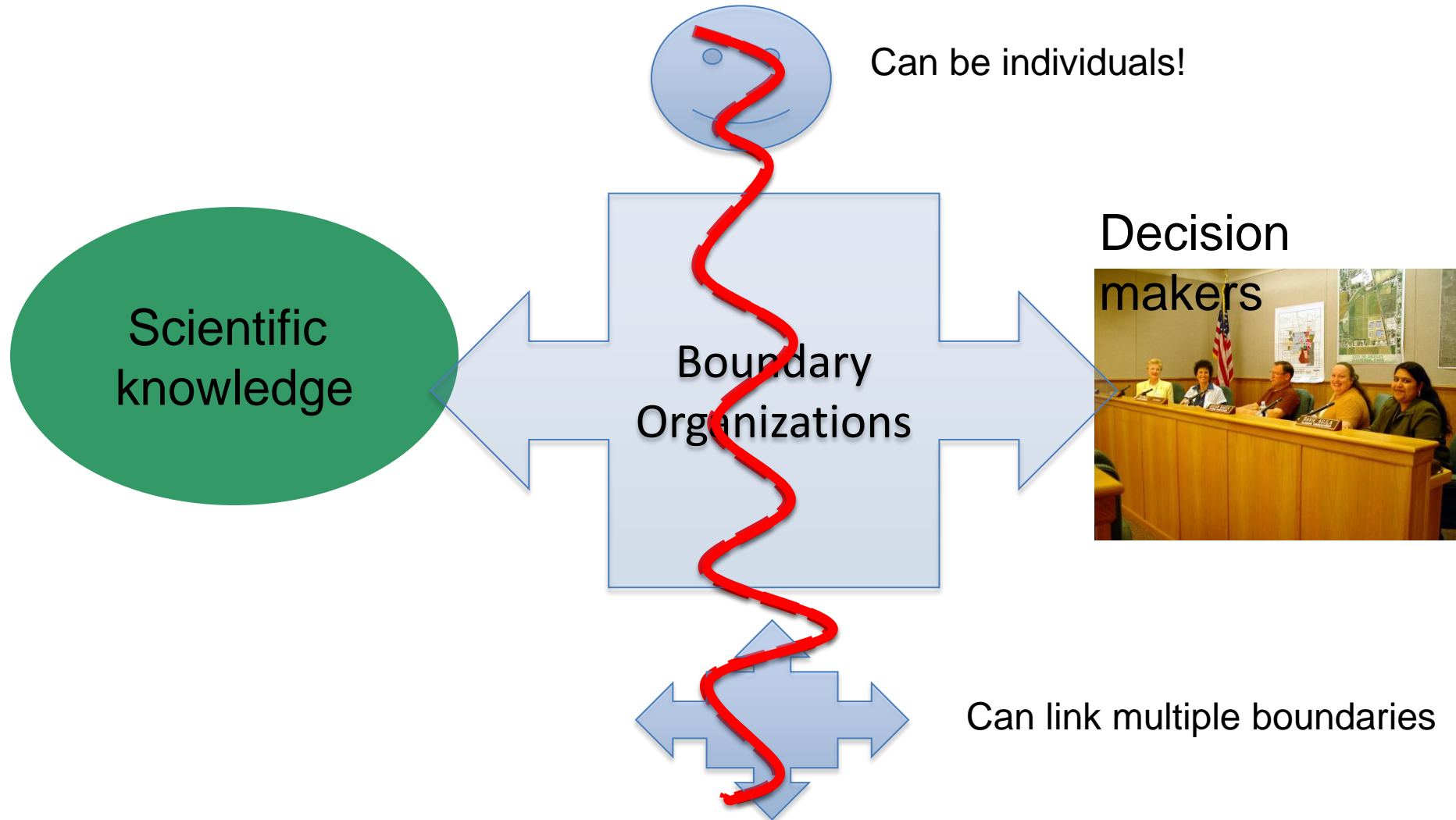
Scientific
knowledge



Decision
makers



Managing the boundary: Boundary Organizations



Example: Western Water Assessment RISA

Mission:

WWA conducts innovative research and engagement aimed at effectively and efficiently incorporating knowledge into decision making, in order to advance the ability of regional and national entities to manage climate impacts.



- Established in 1999 at University of Colorado-Boulder
- Serves stakeholders in Colorado, Wyoming, and Utah
- Gained particular credibility during focusing event of 2002 drought
- 20+ researchers with expertise in hydrology, climate modeling, policy, and law
- Mission of helping provide decision support information to assist decision makers grappling with impacts of climate variability and change





Principles of boundary organizations

Effective boundary work involves:

1. Creating salient, credible, and legitimate information simultaneously for multiple audiences;
2. Links knowledge and action
3. Bridges boundaries
4. Establish participation from both sides of a boundary, engaging multiple actors across boundaries
5. Coordinating complementary expertises and conceptual frameworks
6. Negotiates between boundaries (e.g., science and policy, across nations, between different knowledges)
7. Establishes dual accountability across the boundary
8. Uses “boundary objects”, which are items that sit between two different social worlds, but can serve as a focal point for common understanding. Examples of "boundary objects": hydrologic, fisheries, climate models, assessment reports.
9. Actively mediate to establish win-win outcomes, reducing the potential tradeoffs and conflicts between increasing salience, credibility, or legitimacy.
10. Translating across boundaries.

Drawn from Cash et al. 2002 Salience, Credibility, Legitimacy and Boundaries: Linking Research, Assessment and Decision Making. Available at: http://ssrn.com/abstract_id=372280



Thank you!

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- Questions and Discussion