

Interests and Incentives in Government Peer Review

**Richard B. Belzer, PhD
President
Regulatory Checkbook
Washington, DC
RegulatoryCheckbook.org
202.898.2050**

Why Are There Problems in Government Peer Review?

- Performs as expected given interests of people, institutions and issues involved
- Improving performance requires clarity about
 - What do we expect peer review to accomplish?
 - Are we so convinced of these objectives that we are willing to commit ex ante to peer review outcomes?
 - Can we design a system with incentives that are compatible with objectives and process commitment?

Sources of Problems

- Ownership
- Objectives
- Selection Issues
- Procedures
- Compensation
- Interests
 - conflict vs. coincidence
 - Reviewers
- Accountability

Ownership

Scholarly Setting

- Reviewee
 - Graduate student applicant
 - Scholar applicant
- Owner
 - Reviewee? Chairman?
 - Grantor or editor
- EIPs
 - Reviewee's competitors
 - No participation

Government Setting

- Reviewee
 - Agency/Client
- Owner
 - Agency/Client
- EIPs
 - Policy targets
 - Token participation

Objectives

Scholarly Setting

- Supervisory
 - Determine threshold competence
- Peer
 - Does this work deserve to be funded?
 - Does this work deserve to be published?

Government Setting

- Is the product correct?
- Does the product meet owner/client needs?
 - Correct enough to guide policy- and decision-making?
 - Correct enough to support preferred policies and decisions?

How Owner/Clients Can Interfere: Auto Mechanics Example

- Mechanic says I need major engine work
- I am not expert on cars
- Hire peer review panel: 10 best mechanics
 - “Science” charge: Is my mechanic right?
 - “Policy” charge: Should I fix or sell?
- All mechanics have views on fix or sell
 - They are liberal with advice
 - May be easier to answer policy charge
 - Consensus on policy charge says nothing about science

Selection Issues

Scholarly Setting

- Supervisory
 - Owner selects
 - Owner ≠ reviewer
- Peer
 - Owner selects
 - Owner ≠ reviewer

Government Setting

- Supervisory
 - Not applicable
 - BRAC model
- Peer
 - Owner selects
 - Owner = reviewee = client

Procedures

Scholarly Setting

- Process management
 - Owner control
- Communication
 - None if anonymous
 - Otherwise informal
- Group Dynamics
 - Chair domination
 - None if anonymous
- Iteration
 - Owner \neq reviewee
 - \therefore COI not likely

Government Setting

- Process management
 - Owner control
- Communication
 - Scripted
 - Deferential
- Group Dynamics
 - Depends on chair
 - Highly idiosyncratic
- Iteration
 - Owner = reviewer = client
 - \therefore COI likely

Compensation

Scholarly Setting

- Financial: none
- Intellectual: possible
- Prestige: minimal
- Other: chits earned with grantor, editor

Government Setting

- Financial: nominal
- Intellectual: significant
- Prestige: substantial
- Other: agency access, policy role

Repeated Transactions

Markets

- Build relationships
- Reduce uncertainty
- Enforce contracts
- Reduce strategic behavior

One-time transactions

- Weddings, used cars, aluminum siding, funerals

Peer Review

- Build relationships
- Reduce uncertainty
- Better grantsmanship
- Increase strategic behavior

One-time transactions

- Juries

Conflict of Interest: Origins

- Abuse of official powers to benefit personal financial interests
- Difficult or impossible to observe
- Perceived COI used as proxy
 - Easy to observe
 - COI is defined in the eye of the beholder
 - Poorly correlated with real COI
- Perceived COI becomes real COI

Conflict of Interest: Application I

Real

- Use of nonscientific criteria to evaluate science
- Exclude nonscientists, lobbyists, activists
- Verify absence of COI by quality of product

Perceived

- For-profit financial interest in decisions based on document
- Exclude scientists with perceived COI
- Assume absence of COI by conformity with process

Conflict of Interest: Application II

Perceived COI

- For-profit financial interest in decisions based on document
- Exclude scientists with perceived COI
- Assume absence of COI by conformity with process

Consequences

- Non-profit financial interests okay; they dominate
- Less perceived COI
- More real COI
- Process displaces substance

Coincidence of Interest

- More troubling than perceived COI
 - Financial
 - Reviewer-agency funding undermines independence
 - Intellectual
 - Conformity undermines scientific rigor
 - Reviewer dominance
 - Policy
 - Conformity undermines policy-analytic rigor

Accountability

- Owner/client Interest
 - Information or affirmation is critical question
- Reviewer Interest
 - Avoid embarrassment (confine to specialty)
 - Get along with others, satisfy the client
 - Achieve both by consensus reporting
 - Group products reduce workload, dilute responsibility

Why Government Peer Review Causes Cognitive Dissonance

- Mismatched capacities and responsibilities
 - Scientist → stakeholder
 - Science → policy
- Desirable polar cases
 - Stakeholders do policy
 - Scientists do science
- Undesirable polar cases
 - Stakeholders do science
 - Scientists do policy

*"Pure
Science"*

Scientists

~~**Scientists
Doing
Policy**~~

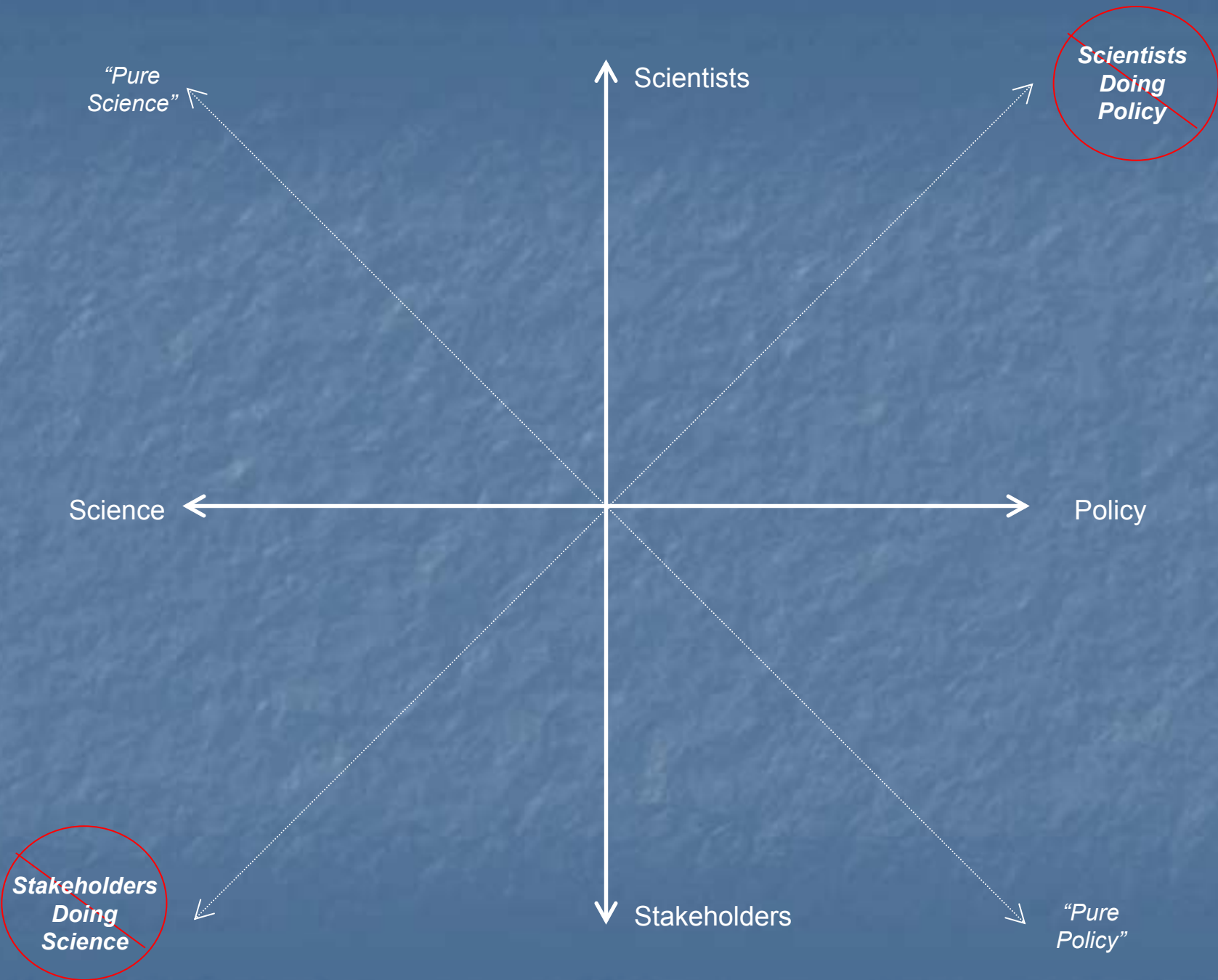
Science

Policy

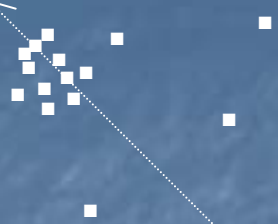
~~**Stakeholders
Doing
Science**~~

Stakeholders

*"Pure
Policy"*



"Pure Science"



Thesis Supervision

Scientists

~~Scientists
Doing
Policy~~

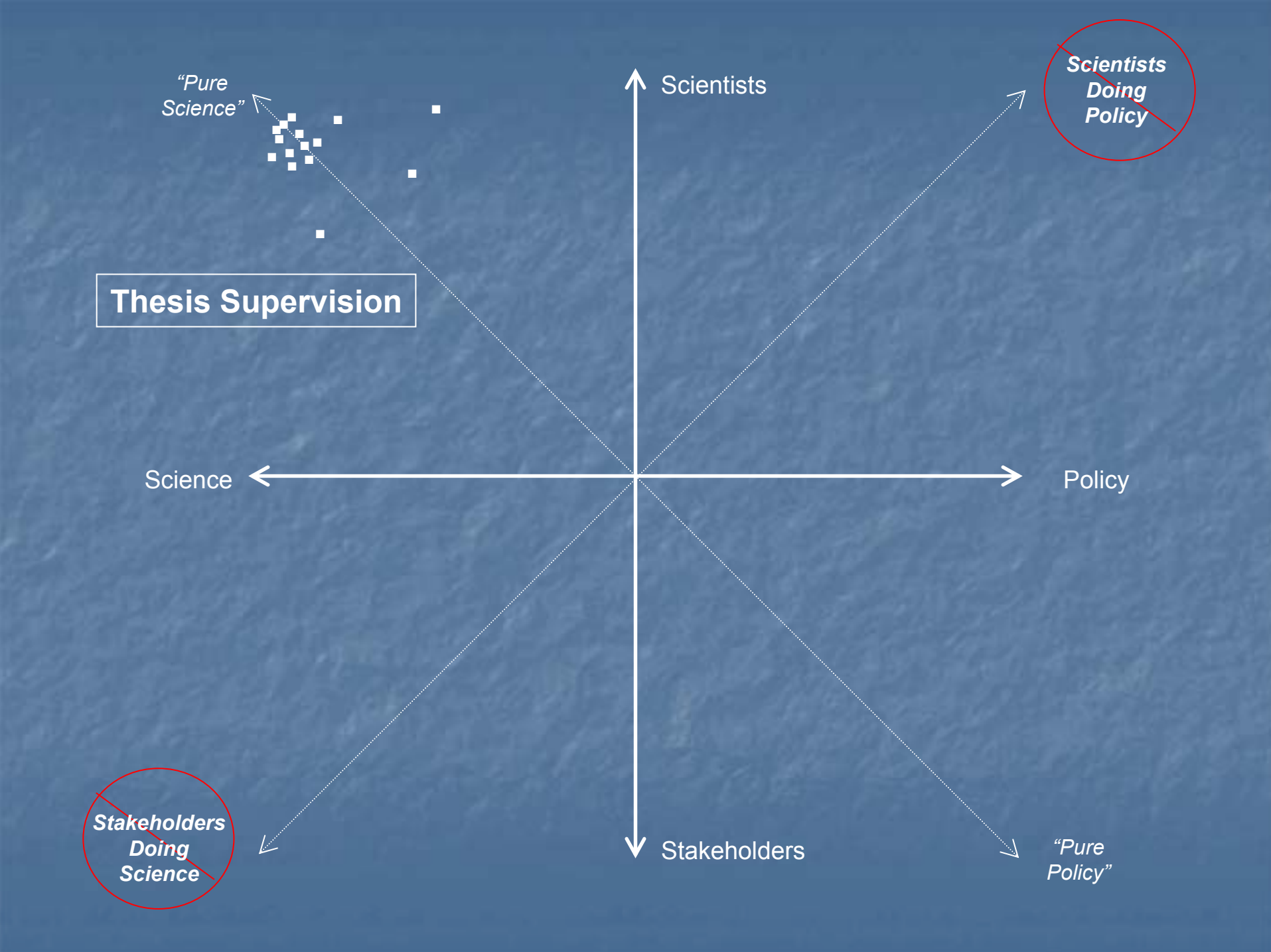
Science

Policy

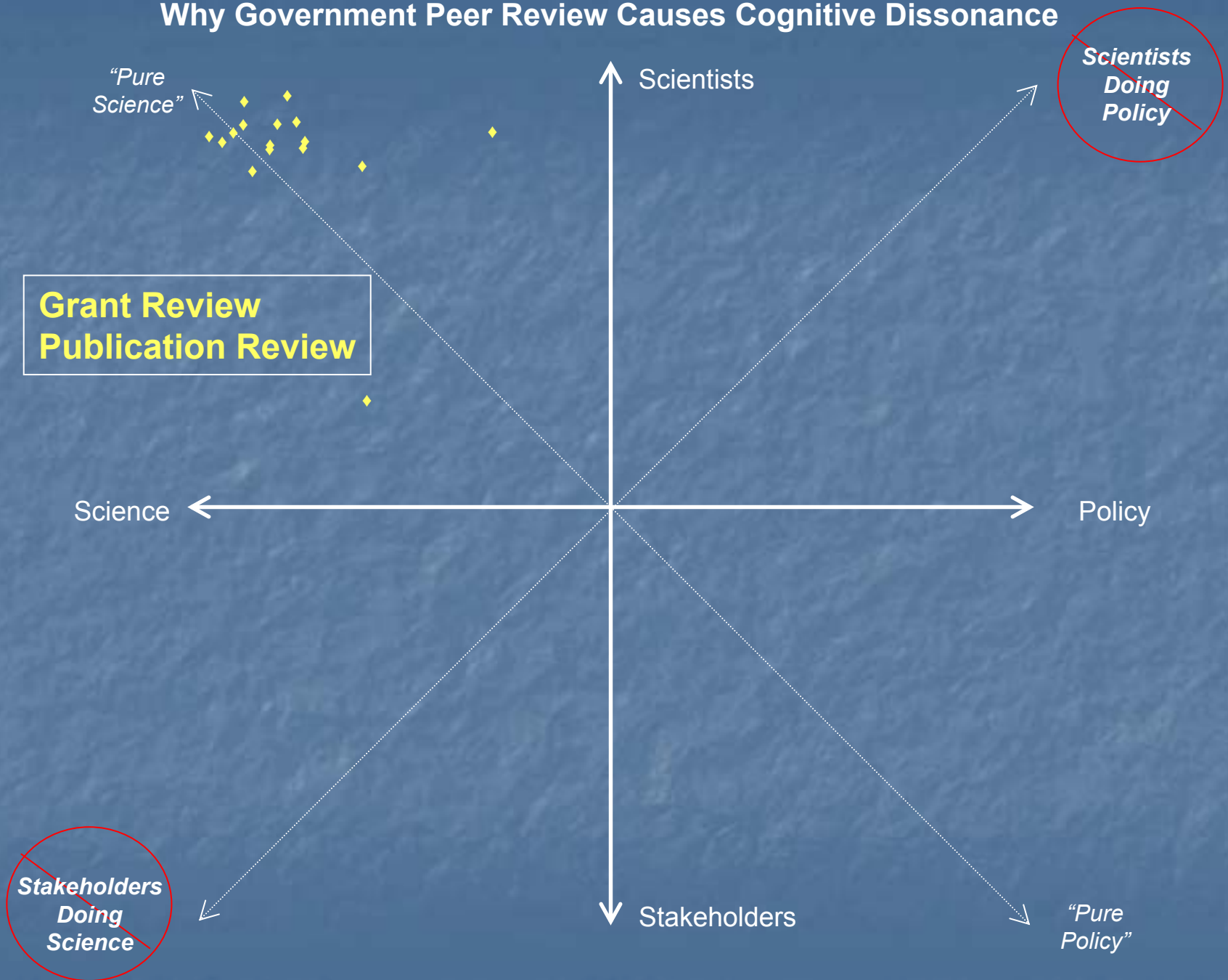
~~Stakeholders
Doing
Science~~

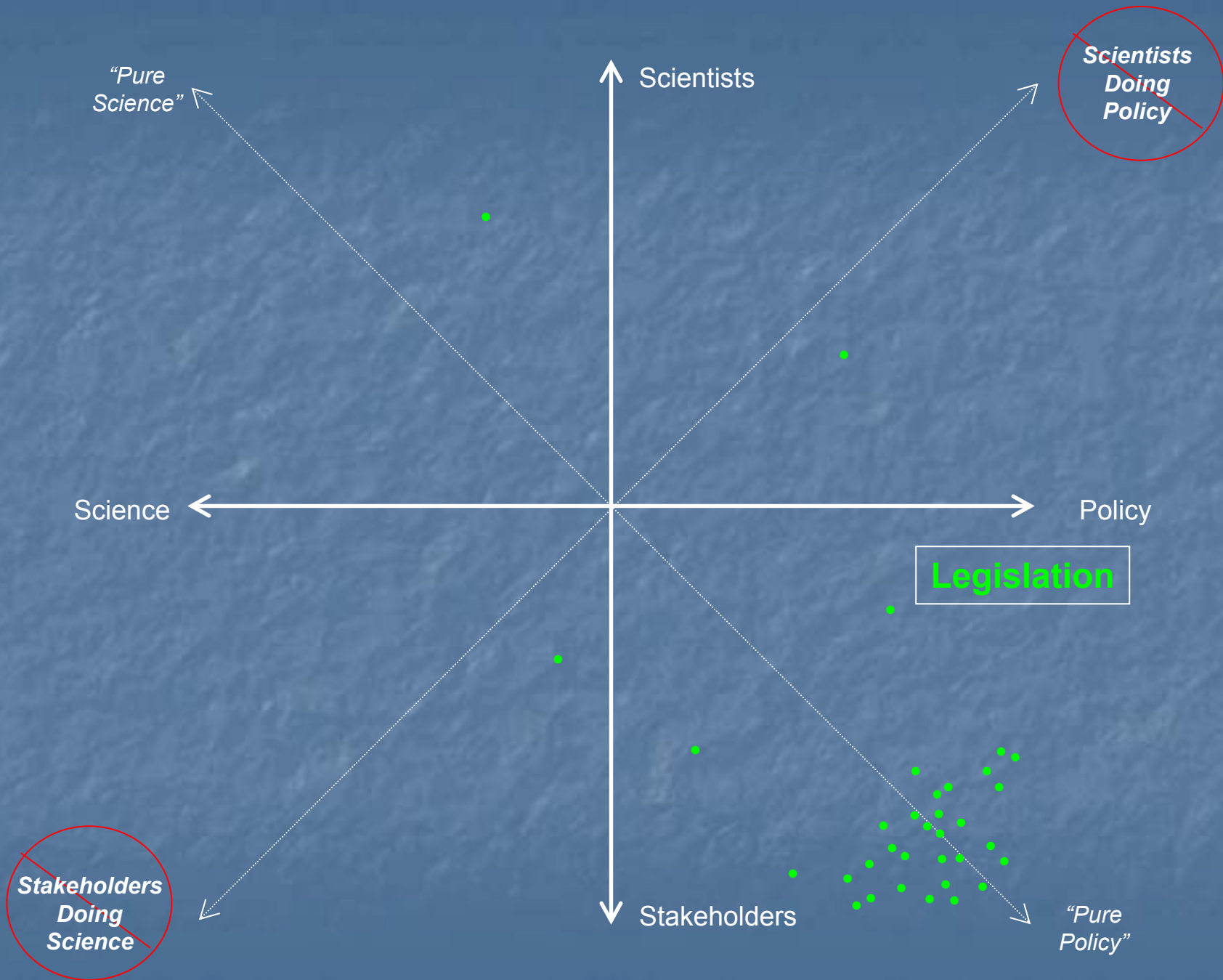
Stakeholders

"Pure Policy"



Why Government Peer Review Causes Cognitive Dissonance





"Pure Science"

Scientists

~~Scientists Doing Policy~~

Science

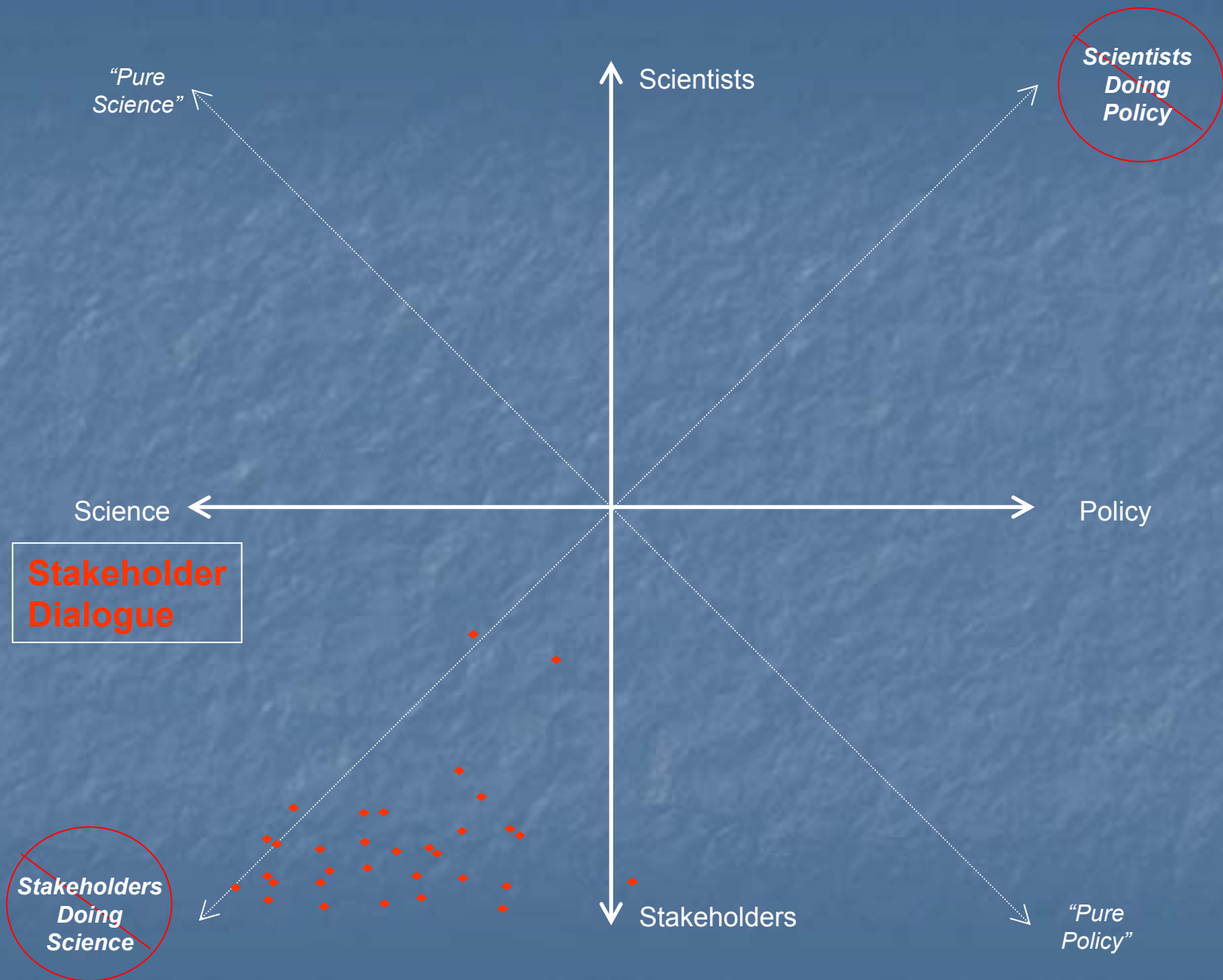
Policy

Legislation

~~Stakeholders Doing Science~~

Stakeholders

"Pure Policy"



"Pure Science"

Scientists

~~Scientists
Doing
Policy~~

Peer
Review

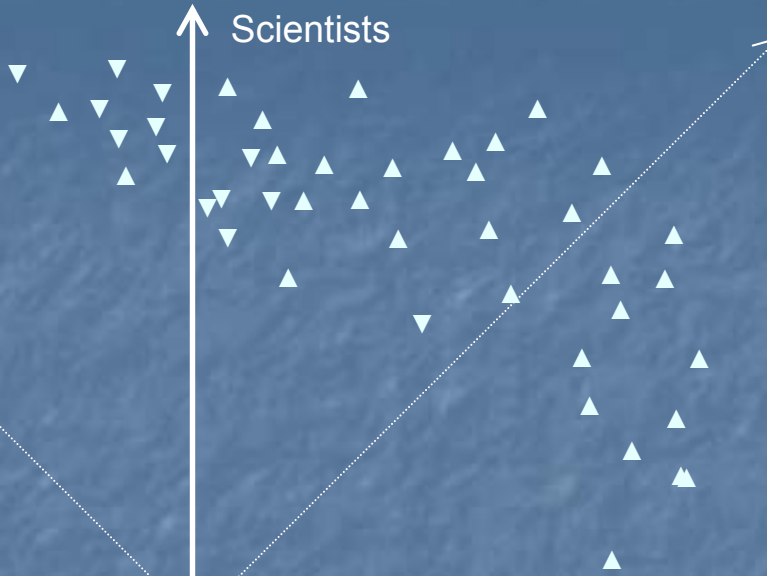
Science

Policy

~~Stakeholders
Doing
Science~~

Stakeholders

"Pure Policy"



"Pure Science"

Scientists

~~Scientists
Doing
Policy~~

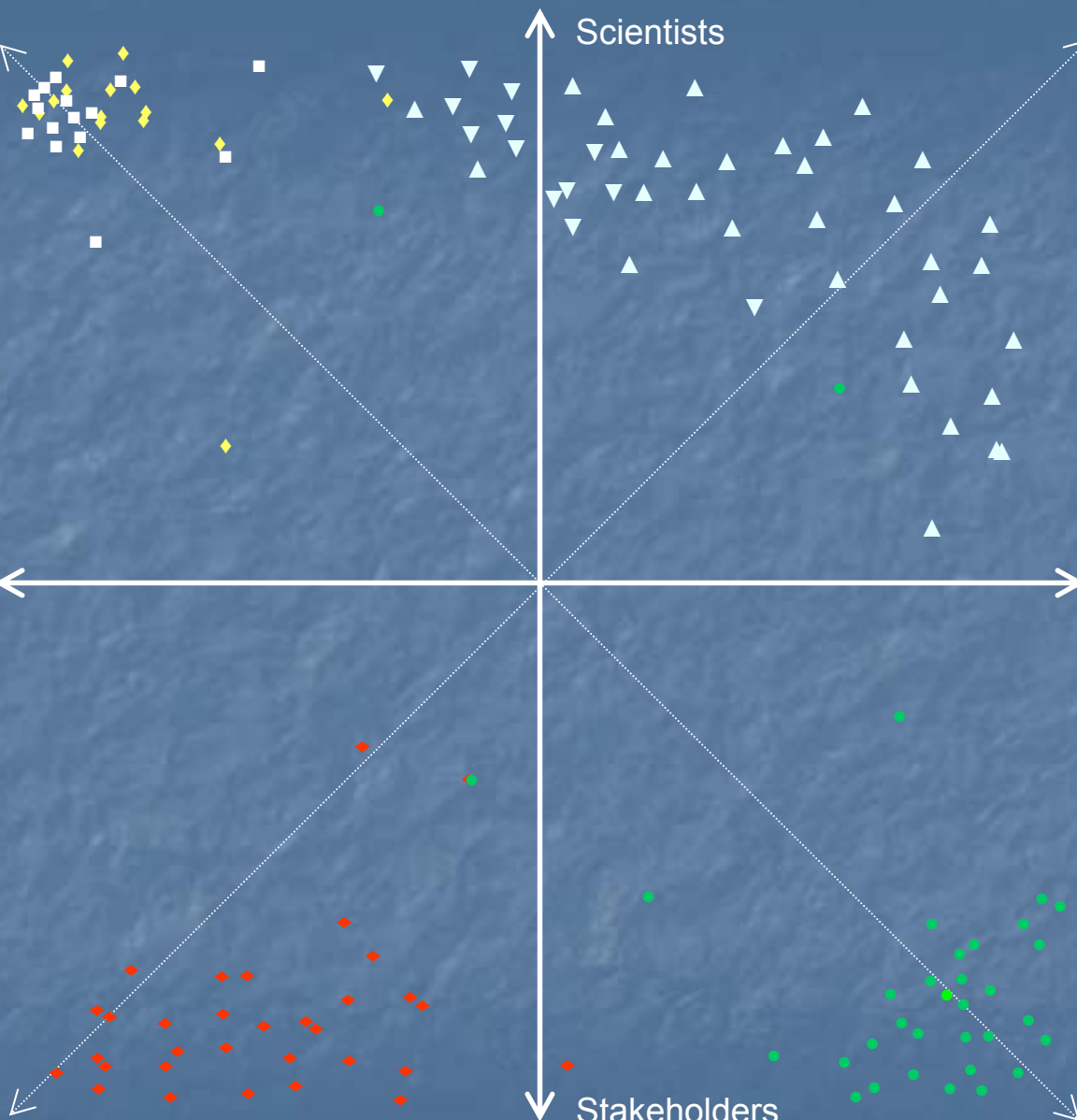
Science

Policy

~~Stakeholders
Doing
Science~~

Stakeholders

"Pure Policy"



The Perfect Peer Reviewer

- Can't be influenced by interests, outcomes or unexpected events
- The rules are set out in advance
- Sticks to the rules
- Despised but essential
 - Don't know what they will decide
 - Can't play the game without them



Norman Rockwell's "Tough Call"

Dodgers' vs. Pirates, Ebbets Field. *Saturday Evening Post* cover
April 23, 1949.

Interests and Incentives in Government Peer Review

**Richard B. Belzer, PhD
President
Regulatory Checkbook
Washington, DC
RegulatoryCheckbook.org
202.898.2050**

Standard Process Remedies

- External
- Independent
- Select based on expertise
- Disclose potential COIs
 - Private/public financial
 - Technical/policy views
- Open
- Rigorous
- Low standard
- Ownership problems
- Stakeholder balance
- Drunk-and-lamppost problem
 - Private financial only
 - Coincident views
- Token public participation
- Rigor ≠ weight of tome

Alternative Remedies: I

- Ownership: Separate from reviewee
 - Government council (e.g., OSTP)
 - External auditor
- Objectives: Distinguish science from policy
 - Reserve peer review for science
 - Limit scope of review to fundamental science questions
 - Agencies: don't ask
 - Reviewers: don't cooperate

Alternative Remedies: II

- Selection Issues: Separate from reviewee
 - Build reviewer pool, select panelists by lottery
 - Larger the pool, lower the risks
- Procedures: Incentive-compatibility
 - Open process to views other than reviewee's
 - Deter artificial consensus via final-offer arbitration
 - Obtain accountability via individual, majority/minority reports
- Managing interests: Role-based, not status-based
 - Expert can be a peer in one setting but a stakeholder in another
 - Defines roles before choosing reviewers



Norman Rockwell's "Tough Call"

Dodgers' vs. Pirates, Ebbets Field. *Saturday Evening Post* cover
April 23, 1949.