

Charting the Incentives for Science/Policy Integration

Marc Saner Director, Institute for Science, Society and Policy (ISSP) [issp@northwestern.edu](http://issp.northwestern.edu) www.issp.northwestern.edu

The basic problem at the science/policy interface:

- Decisions = facts + values
- Culture = facts vs. values

The basic driver: Multiple Facets of the Science/Policy Interface (cf. C.P. Snow's "Two Cultures")

Science	Policy
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Concepts & Foundations

Understanding the world	Managing the world
"Is" (facts) - Description	"Is" combined with "ought" (values) - Prescription
Reductionism	Holism
Truth and reproducibility	Rigorousness and practicality
Uncertainty is a fact of life	Deciding "Yes" or "No" is the goal

Methods & Perspectives

Problem oriented	Service oriented
Clientele diffuse, diverse or not present	Clientele specific, immediate, and insistent
Investigation	Justification
Experiment and observation	Dialogue and judgment
Inquiry and discovery	Imagination and mission
Precision and selection towards the truth	Reconciliation of viewpoints and compromise
Replication asserts independence from context	Context-specific, situational solutions desired
"Know what and how"	"Know why and whether"
Risk: "right answer, but wrong question"	Risk: "unsupported answer to the right question"
Absolutism in the concept of truth	Absolutism in ethical concepts
Inequality is a scientific aspiration	Equality is moral goal
Sharing within a worldwide network	Focus on domestic interests
Very open to external expertise	External input is evaluated as "an agenda"
Long-term focus or open-ended	Time horizons are often fixed (e.g., next election)
Resources are shared, transparent	Resource needs can often be defined
Failure and risk accepted	Failure and risk intolerable

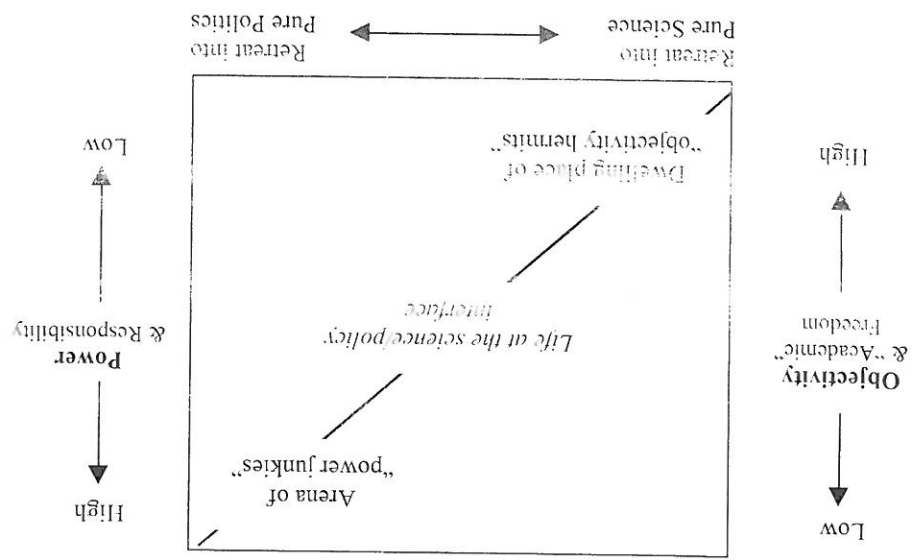
Toward Ignorance & Mutual Arrogance

Scientists, engineers ... are first segregated in universities from ... lawyers, historians, philosophers	Use socio-economic and political jargon
Use technical terminology and jargon	Use socio-economic and political jargon
Praise innovation	Are weary of innovation
Often underestimate	Often overestimate
the complexity of policy-making	the precision of science

Science	Degrative term: "lab coats, techies" Favourite statements about the other side: "They should learn some science and statistics" "They ignore the hard evidence" "Over there, they don't appreciate our value"
Policy	Degrative term: "policy wonks" Favourite statements about the other side: "They should learn about the process and context" "They think they are the high priests of truth" "Over there, they always want more resources"

... and then thrown back together in the workplace ...

- The basic risk:
- **Scientists: Retreat** into the world of pure science (the dwelling place of "objectivity hermits"): Kick: "Academic" freedom (as far as government work permits it), the pursuit of truth, and the participation in a world-wide community of science.
 - **Safety Bonus:** Protection from politics and the "horrors of metaphysics;"
 - **Healthy Condition:** "The division of labour in government makes sense;"
 - **Borderline Condition:** "Many more managers should be scientists and policy should be made by using the scientific method;"
 - **Pathological Condition:** "I don't care anymore what the wonks do;"
 - **Policy Makers: Retreat** into the world of pure politics (the arena of "power junkies"): Kick: The proximity to both power and important issues here and now.
 - **Safety Bonus:** Protection from the complexity of technical knowledge and the "horrors of mathematics;"
 - **Healthy Condition:** "The division of labour in government makes sense;"
 - **Borderline Condition:** "Scientists are incapable of explaining anything clearly;"
 - **Pathological Condition:** "I am not going to listen to little technicians;"



Your task: What are the incentives for living at the science/policy interface?