

# The Democratic Control of the Scientific Control of Politics

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## 1 Overview

I will argue for the combination of two theses that are each frequently defended but are apparently at odds:

1. **The democratic control of science** – the aims and activities of science should be subject to public scrutiny and oversight via democratic processes.
2. **The scientific control of policy or technocracy** – political processes should be problem-solving pursuits subject to the methods and results of science and technology.

I propose that we can make sense of this combination by treating science and politics as parallel and mutually involving processes.

I will sketch a framework for such an understanding science and politics.

## 2 Why democratize science?

There are many arguments for and many different meanings of “democratizing science.”

Nobody in this discussion means that we should simply replace evidence with votes.

I will emphasize two ways that we can show the need for democratizing science: based on the social status and role of science and based on the role of values in science.

First, a conflict arises when according any institution a high degree of *both* social *authority* and social *autonomy*. (Douglas)

Social authority is a feature of public institutions; in democratic societies, the legitimacy of that authority depends *inter alia* on that institution being democratically representative, authorized, and accountable.

Social autonomy is a feature of private pursuits, traditions, or ideologies, so long as they do not cause harm to non-members or the public interest.

**Matters of public interest** arise as groups of people are impacted by the consequences of activities in which they do not participate, recognize those effects, and articulate them as such. The impacted group we might call a **public**. (Dewey)

Purely private concerns only affect those who are direct parties to the activity.

The attempt to combine authority and autonomy in our treatment of science creates a serious conflict; those who respond to that conflict (e.g., Feyerabend, SSK) frequently challenge the *authority* of science.

Challenging the authority of science amounts to weakening or denying the existence of expertise in politics.

Instead of questioning the authority of science, we should question the autonomy of science (Douglas), and start to recognize its democratic obligations

Challenging the autonomy of science amounts to requiring that science be responsive to and guided by public interests, rejecting the linear model of expertise and the strict dichotomy between science and policy.

A second approach is a result of the **value-ladenness of science** long defended by feminist philosophers of science, among others, i.e., the idea that social, ethical, political values necessarily play a role in scientific activity.

Values can enter in to any number of stages of scientific inquiry: choice and characterization of problem, methodology, data characterization, proposal of hypotheses and explanations, testing and confirmation, application, or dissemination.

Various theorists have given accounts of the way values work in each stage. (E.g., Neurath, Rudner, Longino, Kourany, Douglas.)

If it is true that values play a necessary role in practice of science (even if we disagree on precisely *where*), then to the degree that the science has consequences for the public interest, those interests ought to be represented in those value-judgments.

**Question:** if values are present in science, *whose values* should they be? (Douglas)

**Answer:** If the science bears on a matter of public interest, then the answer should be that the values should be democratic.

## 3 The scientific control of politics

Public opinion doesn't work for contemporary political problems; the problems are too technical; many current policy proposals are too complex for the public / non-experts to meaningfully evaluate.

From issues of climate and environmental science to medicine and healthcare to economic and monetary policy, a number of prominent and powerful politicians show themselves to be incompetent to deal with the issues.

Some have gone so far to argue that the reaction of the public and the behavior of politicians on these issues constitute a *failure of democracy*.

Even problems that *seem* non-technical require technical expertise. Many political debates turn on questions of what will *work*, i.e., the most effective resolution of a problem.

But whether some policy will work is not merely determined by social values, nor is it well-tracked by layperson opinion. Evidence must be gathered and evaluated.

Often what is necessary in political problem-solving is the kind of expertise and inquiry that has proven effective in the sciences – but applied to a different subject matter.

Policy should be directed by expert at solving political problems.

#### 4 Putting the two together

These claims are apparently incompatible:

1. Science should be controlled democratically—guided by the public interest.
2. Policy should be decided by expertise and scientific inquiry, not layperson opinion (i.e., not democratically).

The tension arises when our interpretation of (1) is guided by our ordinary conception of politics and (2) by a traditional conception of science.

Further, there are many objections to technocracy that have made it seem an unpalatable response to the problems in §3.

The two can be coherently combined by thinking a little differently about the nature of both science and democracy, a view I will call *democratic technocracy*.

Democratic technocracy regards the *central* process of politics as *inquiry*, in precisely the same sense of ‘inquiry’ as the central process in science and technology, governed by the same sorts of methods and norms.

On the other hand, the norms governing science include *not only* considerations of evidence and reasoning, but also democratic and ethical obligations. (§2)

We can bring out the parallels between science, technology, ethics, and political action by thinking about *inquiry* much as John Dewey did, as an experimental problem-solving process, beginning with a state of perplexity and concluding with a judgment that resolves that perplexity.

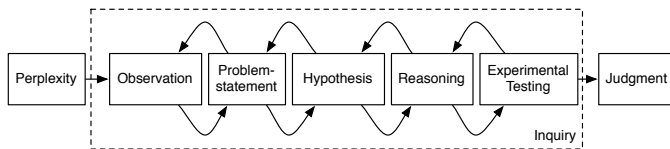


Figure 1: The Pattern of Inquiry according to Dewey. This pattern applies as much to policy as to science, and perhaps to value-judgment.

The same pattern can apply to research in physics, to medical diagnosis, or to deciding on a climate policy.

Inquiry of any kind becomes democratized in two ways:

- (i) by allowing public input of value-judgments or situated knowledge into its different stages (e.g. the analytic-deliberative method of *Understanding Risk*)
- (ii) by the inquirers themselves acting as representatives of the public interest.

In the policy case, the *perplexity* that spurs the inquiry is a *public* quandary, as opposed to a merely private issue. Policy-making is a response to problems that are a *matter of public interest*.

In the case of democratized political inquiry, perplexities of fact may arise that require scientific inquiry *de novo*. The political context frames the inquiry, and the inquiry is instrumental to and guided by that framing.

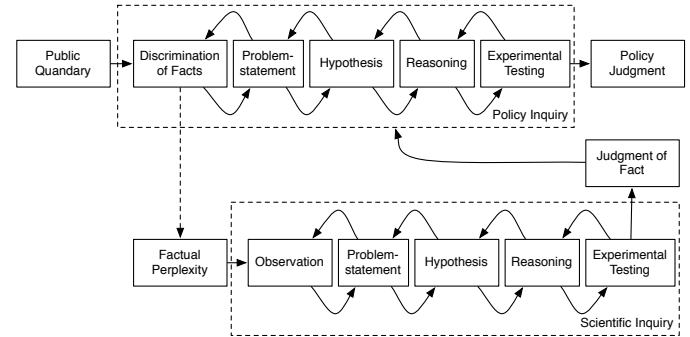


Figure 2: Policy inquiry spurring scientific inquiry *de novo*.

In this model we can see that science and policy-making are both mutually involving and parallel processes.

The model avoids the problems with bare technocracy, because it is guided by the public interest at every stage.

#### 5 Conclusions

We need to think about the jobs of scientists and policy-makers as overlapping.

Policy-makers are (or ought to be) a kind of technical expert.

Scientists have responsibilities as representatives of the public (Mark Brown).

Science should be thought of as a public trust / public institution.

Policy should be thought of as an experimental, cooperative inquiry (Dewey).

We need to think about policy interventions not just in the emergency measures but in the long view.

#### Selected References

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