

## **Science and Democracy: Another Barrier**

Intervention following the presentation by Katie Gibbs on at the CACOR luncheon meeting on April 15, 2015.

### **Tenet of democracy**

That transparent, evidence-based decision making is a fundamental tenet of democracy and that governments, particularly federal governments, are reducing their capacity to engage in science and inhibiting the publication of the findings of government scientists are positions to which one can readily agree.

### **Another barrier**

The point of my intervention was to suggest that the way science is institutionalized in Canada and abroad is itself as much of a barrier to evidence-based policy and an informed public as governments' actions to suppress science.

### **Issues**

Science relies mainly on the publication of peer-reviewed papers in professional journals for communication to policy makers and the general public alike. This communications channel is problematic for several reasons:

- The language of science is sufficiently arcane that none but specialists and those who are mathematically literate in the field can comprehend it.
- The cost of obtaining a scientific paper, at \$25 to \$50 per paper, is exorbitant for all but those whose institutions subscribe to learned journals.
- The peer-review process has been compromised: unpaid reviewers do not have the time to devote to thorough reviews, and peer groups

in specialized disciplines engage in back-scratching.

- Science, in both governments and universities, has been tainted by corporate interests with the result that one cannot have confidence in the findings without knowledge of who is funding the research.

### **Reduction/Synthesis**

Science, as it has been institutionalized in institutions of higher learning, is overwhelmingly reductionist. The field of inquiry is focused on increasingly narrow slices of the domain to be explained. In the search for universal and timeless laws, these slices are removed from the context of space and time.

If this science is to be made relevant for problem solving, it needs to be synthesized and put in the context of the here and now. The methods of synthesis are unlike the methods for analysis. Since academia places little value on synthesis, there are few people who can bridge the gap between science and policy analysis.

The private ownership of the intellectual property that arises from scientific inquiry is problematic. Since a great deal of research is publicly funded it is only fitting that the research so funded should contribute to the public good.

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