

Session title: **Scientific Rationality and Policy-Making: Making Their Marriage Work**

When? Friday, February 19, 2010: 10:30 AM-12:00 PM
Where? Room 7B (San Diego Convention Center)

Addressing Authority: Complex Causality and the Path from Social Science to Policy

Robert Solow , Massachusetts Institute of Technology, Cambridge, MA

One of the differences between the social sciences and most natural sciences is the unavailability of controlled experiments as a device for testing hypotheses. The empirical basis for the social sciences consists almost entirely of observations of the past, almost always made for some extra-scientific purpose. Inevitably, alternative explanations of the same facts can coexist for a long time. If they are policy-relevant, controversy about policy recommendations can also persist. In the past three decades there has been a systematic effort to conduct experimental tests of social programs, though not usually of scientific hypotheses. The problems connected with self-selection are avoided by random assignment of members of the eligible population to experimental and control groups. The experimental group is exposed to the program being tested; controls are exposed to whatever society offers generally. Both groups must be followed for a long time--five years at a minimum, though longer is better--and relevant differences measured. Such experiments have made it possible to detect nice-sounding policies that have no statistically significant effect in practice. It is a common finding that, even when a social program turns out to have a statistically significant effect, the effect is discouragingly small. Why is this? The most likely reason is that the social policies that anyone will pay to test in this expensive way are aimed at serious and complex social pathologies. They have multiple interacting causes. Even a well-designed remedial policy will affect only a few of the underlying causal pathways. The effects, while real, are not dramatic. Is anything to be done about this? Obviously it is important to invent better causal models and design sharper experimental tests. It may be more immediately important to teach the political process that even small gains against complex social problems are valuable, and that dramatic "solutions" are, except in rare circumstances, simply not available.

Values, Preferences, and the Marriage of Scientific Rationality and Policy-Making
Myrsini Zorba , Greek National Book Organization, Athens, NY, Greece

Positing sets of values and preferences is at the heart of our economic edifice, both in terms of studying it as well as in the sense of acting within it, through policymaking. These values/preferences (whose provenance is rarely technological) and their evolution are often given short shrift, partly because they are hard to model, and partly because one needs a wider, multidisciplinary approach to approach the issue. Ideally it would involve, and even spearhead a reuniting of the divergent intellectual cultures C.P. Snow identified half-a century ago. In any case it would call for taking heads-on the challenge of understanding values/preferences evolution, and the way outcomes are ordered on the basis of sets of changing values/preferences, which ultimately may impact the very evolution of values/preferences.

Growth-Driving Science and Technology as a Deus-Ex-Machina for Policymaking
David Ulph , University of St Andrews, St. Andrews, United Kingdom

Science and technology (S/T) is perhaps the only remaining unbounded factor, whose advances can transform our lives. It is to S/T that people look for solutions to tough problems -e.g. regarding health, sustainability, economic growth, etc. These solutions however may simply postpone facing profound tradeoffs, which involve choices beyond the purview of S/T. Indeed, advances in S/T were hyped as the creators of a New Economy since the nineties. The invocation of the ability of S/T to permanently accelerate productivity growth was used to justify the huge credit expansion of recent years, and quell concerns about a series of bubbles in recent years. To what extent is this deus-ex-machina view of S/T applicable? Does it help or hurt the marriage of scientific rationality and policy? Ultimately does it help or hurt S/T itself? How can the underlying tradeoffs be illuminated in a way that would benefit the rational pursuit of knowledge and its rapport with policymaking?