The Economics of Influence

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Abstract

The economics profession has fallen into the habit of telling a limited "economics of control" policy story in their teaching of economics. It is a useful story for many purposes, but it leaves out important elements of policy. This paper briefly goes through the history of how the profession got to its current policy story and argues that a newly developed complexity theory offers a richer policy story—one in which the government and market coevolve and the role of government policy is to positively influence that evolution, not to control the system. It concludes with a discussion some of the implications that accepting the economics of influence approach to policy would have for the story economists tell about policy.

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The Economics of Influence

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We economists tell stories embedded in models, and currently our policy story discussion follows directly from our models. The story we tell in both microeconomics and macroeconomics is the "economics of control" story—it is a story of how the market works reasonably well, but not perfectly due to externalities, public goods and market imperfections. But not to fear. The government is there to see that the market works right—to offset externalities, to provide public goods, and to correct for market imperfections. This policy story is told on many different levels, in higher and higher degrees of formality, but the basic story is the same—you have government; you have the market, and you have a goal—to achieve the outcome that a "perfect market" would achieve. The role of government is to correct for market failure; if there were no market failure there were be no role for government policy. This story is made more palatable to those concerned about large government by adding government failure to it. Government failure occurs when government does not play the role that economist's have assumed it should play—because of political and informational limitations prevent it from doing so.

The macro policy story is similar, but unconnected with the micro policy story. In the macro story, at the aggregate level, for some unspecified reason, the market does not work perfectly in establishing the ideal level of output so we need government monetary and fiscal policy to correct the macro market failure.

In both these policy stories the market is assumed to exist, the government is assumed to exist, and the control problem is seen as a technical problem, which is to be understood through economist's formal models. The story makes economic policy a mathematical field—the better knowledge one has of control theory models, the better policy guidance one can give. Thus, the models given in principles of economics course are simple algebraic and graphical ones, then in intermediate courses students move to calculus models, then in graduate courses students move to dynamic stochastic optimal control models, which are continually being extended into richer, more technical, models by the cutting edge of economics.

The aspect of the story I focus on in this paper is the direct connection between models and policy implicit in economist's story. In the standard economic story to understand the policy problems facing society you must understand the technical models, and the path to better policy is better models. This paper, which summarizes the argument in Colander and Kupers (2014), calls that connection into question, and advocates a different policy story—what I call a complexity policy story. It is a story in which the economy is seen as a complex evolving system that is beyond full mathematical modeling and control. It is a polycentric system that one might well expect to be chaotic, but which, through the bottom-up development of coordinating institutions, such as formalized markets, NGOs, and government, turns out to be non-chaotic and semi-stable.

This alternative framing of the policy problem facing society leads one to a quite different conception of the role of markets and government. It is a policy story in which control is impossible. At most one hopes that policy has a positive influence, and the goal of government policy is positive influence and coordination, not control. Institutions are necessary for the market to exist; they embody the incentives that guide people, and are set up, from the bottom up by people. Policy is not directed at controlling people, but rather positively influencing them to set up institutions that are most in line with society's desires. It is a policy story of institutional nuance that current formal mathematical models do not capture.

A Brief History

The control story to economic policy was not always the story economists told. It developed in the 1930s as economists moved from a Marshallian methodology, which was steeped in a classical methodological approach that had a quite different policy story, to a Walrasian policy story which blended policy into the model in a much more direct way than did the classical methodological approach. The classical methodological approach saw economic policy discussions as being a subpart of a broader social policy discussion; economic theory and models were concerned with only one part of social welfare—material welfare, and the implications of economic models, while an important input into policy, was not definitive in terms of what policy one would advocate.

That classical approach was far less mathematical and dependent on models—mathematics was a tool for getting the abstract reasoning straight, and the results of models had no direct implications about policy. As I discuss in Colander, (2011) that tradition started back with Nassau Senior, who makes it clear that economist's models have no direct role in policy. He writes:

> (An economist's) conclusions, whatever be their generality and their truth, do not authorize him in adding a single syllable of advice. That privilege belongs to the writer or statesman who has considered all the causes which may promote or impede the general welfare of those whom he addresses, not to the theorist who has considered only one, though among the most important of those causes. The business of a Political Economist is neither to recommend nor to dissuade, but to state general principles, which it is fatal to neglect, but neither advisable, nor perhaps practicable, to use as the sole, or even the principle, guides in the actual conduct of affairs. (Senior 1836: 2-3)

In this Classical methodology, models were tools that provided indirect insight into policy, not direct insight. They required a skilled applied economist with "vigilant observation" to be useful in policy. So a key element of the classical policy story was that policy's domain was a separate branch of economics from economic theory. They called it the art of economics. (J.N Keynes, 1891). Economic artists were needed to integrate theoretical insights from formal models with other insights, and that integration required an intricate consumer's understanding of the model, reasoned judgments about limitations imposed by a model's assumptions—judgments that had to be informed by institutional knowledge, ethical considerations, and other non-economic factors. Policy required broadly trained economists whose expertise went far beyond economic modeling, rather than a narrowly trained technical economists.

That methodological tradition was lost in the 1930s when the Walrasian economic model focused on a formal specification of general equilibrium spread throughout the economics profession. While both the Walrasian and Marshallian branches of economics are often classified as neoclassical, they each had a quite different in the policy story. The Marshallian approach was very classical in its methodology—seeing economic models as useful tools, not as direct guides to policy, whereas the Walrasian approach saw a direct connection between formal models and policy.

Probably, in terms of pedagogy, the biggest step away from that classical approach to policy came with Abba Lerner's *Economic of Control,* (1944) which, as I describe elsewhere, (Colander, 2005) became the frame for the textbook policy story in both micro and macro. The pedagogical beauty of Lerner's formulation was that it was so clear cut and unnuanced. It separated out micro and macro policy discussions, but framed each in an optimal control theory framework with the government being the controller, guiding a market with imperfections captured in the models. The goal of policy was to maximize the social welfare function subject to various constraints. The allure of Lerner's formulation was that it was highly teachable; it conveyed an enormous amount of understanding within relatively simple models, which could be expanded on in more technical models.

Lerner's formulation was used in graduate training in the 1940s, and what made it so important was that it became the rough template for Samuelson's policy story in his *Principles of Economics* (1948), which became the template for almost all principles texts that followed. After Samuelson textbook's presentation the story of economic policy taught to economics students changed from a nuanced one that had ethical, political and social issues embedded in it to a seemingly scientific one in which policy followed directly from the model. As economists brought up on that new Lernerian story replaced those who had been brought up on the far more nuanced classical story, the economics of control approach to policy became entrenched into economist's policy discussion.

In the economics of control story, government control was absolutely necessary, as Lerner made clear in his "missing steering wheel" metaphor. Economist's underlying model serves as a map for the economy; the applied policy problem is to get a workable steering wheel on the economic car, a reasonable driver, and decent linkages. They should design policy, or policy rules, to steer the economy--to get the car to follow the map given by theory.

There are many limitations and problems with this story, as there will be with any policy story, but economists had a ready answer for those problems that students pointed out. As Duncan Foley (2000) nicely points out, when students noted that the control models were inadequate, they were told to be patient—in higher level courses, or at the cutting edge of economic theory, the problems with the models will be corrected for; eventually we will have the model that tells us what to do. The problem is that the students just don't know enough math. So the answer that economics follow is to learn more math to make the model better fit the reality.

The Rise of Complexity Theory

Institutionalists, Austrian economists and heterodox economists more generally, have argued against the mainstream policy story, mostly unsuccessfully. Usually they face the argument that is presented to students—you just don't know enough math. Recently, however, a group of cutting edge mathematical economists, whom I will call complexity economists, have come to the conclusion that mathematical models alone are not going to provide any policy answers. The social system is too complex for the modeling approach to policy embodied in the economists' policy story. Complexity theory leads to a different policy story.

The complexity policy story begins with the vision of the social system as a complex evolving system, where all elements of the social system, including government, coevolve. This means that the system is continually in the process of reorganizing itself, undermining attempts to control it. It is shaped by the collective actions of agents within the system, but no agent has control. At best any agent, or institution comprising a collection of agents, such as NGOs or various levels of government, has a measure of influence. To gain insight into this complex social system, the complexity story uses the tools of complexity science—fractal analysis, evolutionary game theory, non-linear dynamic models, and agent based models, to study the topography of policy. These are highly mathematical models, often more mathematical than the standard models, but they are used in policy analysis in a different way than models are used in the standard policy story.

That difference is captures in a metaphor that I recently used in a Congressional Hearing about economic modeling. (Colander, 2010). The metaphor begins with the old joke about the economist searching for his lost keys under a lamppost. A congressman walks by. Recognizing that the economist is a potential voter, he stops to help. After searching a while without luck he asks the economist where he lost his keys. The economist points far off into the dark abyss. The Congressman asks, incredulously, "Then why the heck are you searching here?" To which the economist responds—"This is where the light is."

I pointed out that critics of economists like this joke because it nicely captures economic theorists' tendency to be, what critics consider overly mathematical and technical in their research. Searching where the light is for policy answers (letting available analytic technology guide one's technical research), on the surface, is clearly a stupid strategy; the obvious place to search is where you lost the keys.

But in the complexity story that is the wrong lesson to take from this joke. I would argue that for theoretical work, the "searching where the light is" strategy is far from stupid. The reason is that the subject matter of social science is highly complex—arguably far more complex than the subject matter of most natural sciences. It is as if the social science policy keys are lost in the equivalent of almost total darkness, and you have no idea where in the darkness you lost them. In such a situation, where else but in the light can you reasonably search in a scientific way?

What is stupid, however, is if the economist thinks he is going to find the keys under the lamppost. Searching where the light is only makes good sense if the goal of the search is not to find the keys, but rather to understand the topography of the illuminated land, and how that lighted topography relates to the topography in the dark where the keys are lost. In the long run, such knowledge is extraordinarily helpful in the practical search for the keys out in the dark, but it is only helpful where the topography that the people find when they search in the dark matches the topography of the lighted area being studied.

The policy search is a search in the dark, where one thinks one has lost the keys, and it is that part of economics that is missing in modern economics training. This policy search requires a practical sense of real-world institutions, a comprehensive knowledge of past literature, familiarity with history, and a well-tuned sense of nuance. While this search requires a knowledge of what the cutting edge scientific research is telling researchers about illuminated topography, the knowledge required is a consumer's knowledge of that research, not a producer's knowledge.

Implications of the Economics of Influence Approach

With that background, let me conclude with a brief summary of some of the implications of the alternative policy story I am advocating.

- **Models are simply tools.** They are stepping stones for thinking about policy—not guides to policy. To move from models to policy one needs a deep understanding of institutions, ethical foundations and political structures.
- **Markets and government coevolve.** The market is not seen as the primitive—the primitive is chaos—markets arise spontaneously, but only work when they are embedded in institutions and supported by governmental institutions. Thus, the market is not prior to the system and not natural more or less natural than government. An economic force is a natural force that is always operative—a market force is an economic force that the society has chosen to allow to operate. A major policy issue whether to allow markets to operate on not.
- **There are more problems with markets than market failures.** There are also failures of market outcomes —where the market is doing everything it is supposed to but we don't like the result. One must develop ones normative goals and embed them in the model before one can say anything about policy.
- **Social welfare depends on much more than economic welfare.** Standard policy discussions focus almost completely on economic effects of policy. Complexity policy recognizes that economic issues blend with other, and does not attempt to move from economic theory to policy without taking those other issues into account.
- **There is no well specified social welfare function to maximize.** Assuming a social welfare function assumes away much of the policy problem. The government is not maximizing or

controlling anything. It is a means through which individuals can work toward coordination their various views on social goals.

- **Ethical Values must enter into policy discussions.** One cannot get a "should" from an "is" and to talk reasonably about policy, one must spell out one's ethical and moral judgments. The economics of influence moves ethical considerations directly into the policy discussion.
- **Model assumptions should not guide policy discussions.** The economics of control model restricts policy discussions to fit the model. The economics of influence approach lets educated common sense guide the policy discussion and develops models to fit the situation at hand, regardless of whether it fits existing models. For example, it does not assume tastes and preferences are fixed if empirical evidence shows that they are shaped by society.
- **Social goals can be achieved indirectly from the bottom up, not only from the top down**. Within the standard approach, policy is often thought of as getting incentives right. In the economics of influence approach, policy can be designed to encourage the development of institutions that express people's social, rather than just, materialistic nature.

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