

Six core assumptions for a new conceptual framework for economics

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Introduction

This paper offers an outline for the construction of a theory of economic behavior under uncertainty which incorporates the practice of agents in their twofold role as *decision-makers* and *lobbyists*. Two scenarios (complexity and uncertainty) and the behavior under uncertainty of three different types of economic agencies (agents, theorists and philosophers) are analyzed. But although ontological issues are at the bottom of our analysis, how the world really is matters less to agents' decisions than do the *beliefs* these agents hold about reality. The perceived facts (the prevailing ontology) are more relevant for understanding the *results* of their decisions than their decisions themselves. Therefore, in order to model agents' behavior it is important to clarify their *beliefs* about both the world they inhabit and the knowledge they have about it. Their behavior will be different if they believe the world is complex or uncertain. If they believe the former and behave rationally, they will seek to use the best available information and to enlarge it as much as possible, in order to improve their decisions. If they believe that the world is uncertain, however, what would be rational is to intervene a posteriori on the original decisions for the purpose of validating them. Agents who believe in the uncertain nature of the world are moved to become lobbyists and this contributes to generate open-ended and intervenible economic processes.

If the purpose of economic theory is to model the behavior of subjects that know (or think they know) they suffer uncertainty, economic models should assume that agents behave consistently both with respect to their set of preferences and expectations (which is the usual requirement) *and regarding their epistemological and ontological beliefs*. Agents should be represented behaving consistently with respect to *all* their beliefs.

In turn, if the *theorists* believe, like agents, that the scenario is uncertain, they should also behave consistently with this belief and their theoretical practice would have to take into account the special nature of economic processes under uncertainty. In particular, they should pay attention to the lobbying practice of agents and to those conditions that enable open-ended and intervenible processes.

However, conventional theoretical practice is not concerned with uncertain scenarios. Conventional economics chooses to represent *imaginary* worlds (which Sugden designated as "parallel" worlds, which belong to the "model world", as opposed to the real world), governed by regularities or invariant conditions. This practice does not necessarily reveal inconsistency, but shows that its subject is the realm of economic representations, not the real realm of economies.

This paper also contributes to a better understanding of standard epistemology and philosophy of economics. Mainstream philosophy of economics focuses on economic representations (in particular, models) and assumes a *naturalized* view of science. This approach takes as granted the ontology and epistemology incorporated in standard models

and explains why one of the main philosophical goals of mainstream philosophy of economics is to display the rationale of theoretical economics (an exercise that is usually referred as “recovering the practice” of economic theory)¹. If the philosophers’ object of thought were real economic processes, then they should critically examine the usual ontological and epistemological assumptions of mainstream modeling practice and be engaged in developing alternative assumptions for that practice consistent with the presence of uncertainty and with the acceptance of its existence by agents and theorists.

1. Complexity and radical uncertainty

We say that a scenario is complex when all the relevant causal factors that determine the behavior of a phenomenon are present, but agents only know (and combine) *some* of them. Under radical uncertainty, instead, the forthcoming results of the agents’ current decisions will be also determined by the values that some economic variables will adopt in the future. In an uncertain scenario these future values are unknown because they do not yet exist (actually in the present they are *in principle unknowable*).

Traditional methodology has agreed that our knowledge is uncertain, in the sense (somewhat different from the one just mentioned) that we can never be sure of the true-value of statements that say something about the world. It is interesting to note that this limitation (our inability to recognize the truth of an empirical or factual statement, even if it is in fact true) is present even in the weakest scenario (complexity) and even for those factors about which we do have information. Radical uncertainty is much more intractable than its methodological counterpart and is ultimately ontological in nature. How could agents know for certain events that do not exist yet? If the kind of uncertainty related to traditional methodology is unavoidable, it is more so in the case of radical uncertainty, which comes from the ontological nature of the economic world.

2. Economic agents. How can they behave rationally under uncertainty?

To start, a terminology clarification is advisable. We call individuals (basically consumers and producers) as well as firms (both small and mega-corporations) *economic agents*. Agents usually face an uncertain scenario of the ontological type. One wonders, then, how they deal with radical uncertainty. According to Keynes (1937), agents manage to face radical uncertainty using a strategy that he called practical theory about the future (PTF), which consists in the following basic rules:

(1) We assume that the present is a much more serviceable guide to the future than a candid examination of past experience would show it to have been hitherto. In other words we largely ignore the prospect of future changes about whose actual character we know nothing.

(2) We assume that the existing state of opinion as expressed in prices and the character of existing output is based on a correct summing up of future prospects, so that we can accept it as such unless and until something new and relevant comes into the picture.

(3) “Knowing that our individual judgment is worthless, we endeavour to fall back on the judgment of the rest of the world which is perhaps better informed. That is, we

¹ See Caldwell (1994).

endeavor to conform with the behaviour of the majority or the average. The psychology of a society of individuals each of whom is endeavouring to copy the others lead to what we may strictly term a conventional judgment” (Keynes, 1937, p. 214).

Keynes warned that this strategy, consisting of pretending we know what we do not (and cannot) know, is normally useful but it is, in fact, ungrounded and the convictions it instill are circumstantial and volatile. In fact, the situation that encourages agents to relay confidently on these assumptions can suddenly change, prompting the abandonment of PTF.

“The practice of calmness and immobility, of certainty and security, suddenly breaks down. New fears and hopes will, without warning, take charge of human conduct. The forces of disillusion may suddenly impose a new conventional basis of valuation. All these pretty, polite techniques, made for a well-panelled board room and a nicely regulated market, are liable to collapse. At all times the vague panic fears, and equally vague and unreasoned hopes are not really lulled, and lie but a little way below the surface” (Keynes, 1937, p. 215).

Davidson (2003) has drawn attention to an instrument that can be considered as an enlargement of PTF: contracts. A contract establishes a certain regularity that provides predictability about side issues concerning decision-making, such as the terms and forms of payment. Thanks to contracts many important details concerning transactions are known (there is no uncertainty about this matter), which induces agents to apply PTF without further reserve.

It should be noted, however, that both strategies (PTF and contracts) seem to be better suited for a complex context than for an uncertain one. PTF is inconsistent with the ontological and epistemic beliefs we attribute to agents. The first two techniques directly deny uncertainty. The third presents a somewhat different difficulty. Assumed that agents believe that the world is complex, they can consistently imitate other agents because they may believe that others have the information that they haven't. Agents may believe this because they also believe that the information is available (they have not collected it but others could have it). But if agents believe the world is uncertain, they are also committed to believe that others cannot possibly currently have the relevant information that is needed to know what decision will get the best results in the future.

Thus, contracts only contribute to “reduce” (not to eliminate) uncertainty (which strictly speaking is not removable). Because, first, the (future) values of most economic variables are not set by contract. And secondly, what ensures that contracts will be honored? Why would I be right or have a “calculable risk” for these future events? It seems that regarding contracts there arises a second-order type of uncertainty. Of course it might be eliminated in the usual way: strengthening the PTF using the additional assumption that the conditions guaranteeing the performance of contracts today will survive in the future. But how could this belief be consistent with the belief that genuine uncertainty prevails and that future events are largely determined by events that are going to occur in the future? Think of the 2007-2008 crisis. What happens with contracts when the payment chain breaks? Crises are not exceptional, they are recurrent. And when they break out many previous contracts and agreements are violated.

In short, both approaches (PTF and contracts) are inconsistent with the assumption that at their heart agents know that the state (value) of future economic variables is presently unknowable. Ultimately, we are all Socratic in the sense that we know we do not know that.² However, as long as they can, agents behave in a way that reveals their true beliefs and somehow restores consistency. When they are strong enough to affect the market they do not restrict themselves to making decisions and then sit down to await the outcome of their original actions. Rather they become actively involved in enforcing the outcome that is most convenient to them. I designate this role as *lobbying*. Agents, in addition to being decision-makers, can also be lobbyists. Assuming an active role is their way of restoring the apparent inconsistency aforementioned: agents take decisions assuming PTF and negotiating contracts, but a posteriori of that decision they strive to influence the course of economic phenomena in order to guarantee that their original decision will finally be successful.

Note that if agents did not believe that economic issues develop in a context of radical uncertainty, they would not intervene continuously once their decisions are taken (they would not need to do that, because the result of their current decisions would be recognizable *ex-ante*). This is the difference between the model world and the real world. Model-world agents have (by hypothesis) all the knowledge they need to “go fishing” after their decisions has been taken. The real world is another matter. In fact, agents get involved with the processes all the time to enforce the success of their previous decisions. A vision able to give meaning to this practice is needed. That is, what is required is a theory of economic action that takes into account the agents’ *lobbyist* role. Lobbying should be included in the agenda of theoretical economics.

3. Two roles for economic agents

I have already explained the difference between complex and uncertain worlds, and highlighted the importance of agents’ beliefs about how the world is and of the knowledge they can possibly have about it have for decision making. Now it is time to consider in more detail two different roles agents play in the economic process: **decision-makers** and **lobbyists**

Individuals or firms may take economic decisions (behaving as decision-makers), or may influence economic performance in a broader sense with the purpose of enforcing the success of their decisions. In this second role they behave as lobbyists. The category of lobbyists includes the government, media of communication, corporations, unions, political parties and any individual or groups of individuals that are strong enough to influence the course of economic events. They may try to influence the expectations of other agents or the relevant economic context (promoting changes into the legislation, new regulations and institutions, etc).

The distinction between decision-makers and lobbyists refers exclusively to two different roles that the very same agents can play. One way to visualize this difference is to base it on two stages of economic processes: the time before and after decision-making.

² “For Keynes, as well as for Soros, the belief that intelligent people “know” that they cannot know the future is an essential element in understanding the operation of our economic world. For decisions that involved potential large spending outflows or possible large income inflows that span a significant length of time, people “know” that they do not know what the future will be” (Davidson, 2012)

t0 (PTF - contracts) t1 (Lobbying)
..... D

Between t0 and t1, agents consider the available alternatives given the information they have, and finally take a decision D. Although decision-makers believe that the world is uncertain they manage to face the situation using PTF.³ All agents behave in this way in ordinary circumstances. But look what happens then. Many have no choice but to sit down once they have made a decision and wait to find out what outcome the market will provide for them. But many agents have another option: they can actively intervene in the market after t1, trying to shape the course of economic processes in a way that favors their interests. Lobbyists have behaved as simple decision-makers prior to t1 (i.e., they have naively used PTF), but because they believe that the world is uncertain and have the ability to intervene and help to generate the consequences they want to see realized, they take an active participation on the market after t1. Lobbyists may be characterized by three main features:

1. Knowledge (beliefs). They believe that the social world is uncertain, that agents decide on the basis of expectations that may be influenced in various ways, using a wide range of information that goes beyond purely economic factors, that institutions and regulations can be made and unmade, etc.
2. Consistency. They have a consistent set of beliefs and behave consistently with respect to them.
3. Lobbying capacity. Due to the size of their capital or their privileged access to positions of power, they have the ability to intervene effectively on the decisions of other agents, either directly (suggesting to them what to expect), or indirectly (modifying or helping to create the economically relevant context).

Like agents, lobbyists suffer uncertainty too. They are unsure about whether their extra-economic activities (as lobbyists) will allow them to get in the future the results expected in the present. They do not know whether their intervention will be successful given that there are also other lobbyists intervening in order to push the process along lines that are not beneficial for them. Nonetheless they do have some useful knowledge, which encourages them to keep trying to influence the process. For instance, they know what measures (bills, regulations, decision-makers' reactions) will be beneficial for them and the sort of participation that will contribute to enforce those measures and reactions.

Keynes outlined a purely passive way to deal with uncertainty. Davidson's suggestion that contracts may offer additional help to deal with uncertainty has a similar spirit: contracts enter in the picture as a preexisting factor in decision-making, helping to make it possible (providing more confidence in the expected result). Here I have suggested a strategy to deal with uncertainty that goes the other way around. Agents who are aware that their decisions (and their results) face genuine uncertainty try to influence the course of events so as to reach their preferred result. When they have the power they become lobbyists, and get involved in shaping the economic process because they are aware that their further actions, those which occur *after* the decision has been taken, are the ones that will be most decisive for the final results. If there is any rationality in economic action under conditions of radical uncertainty it should be found in the agents' involvement in shaping economic processes.

³ According to Keynes, such techniques allow us "to behave in a manner which saves our faces as rational, economic men" (Keynes, 2002, 114).

4. Theoretical practice under uncertainty

So far we have only referred to agents in their twofold role of *decision makers* and *lobbyists*. Outside the market process but interested in figuring out its workings and building models are theorists, who have to make their own decisions about how to depict the relevant agents, what beliefs and expectations to ascribe to them and how to characterize the economic processes in which agents get involved.⁴

Describing agents' behavior, I assumed that they were aware they were facing an uncertain context. With more reason, theorists should be conscious of the prevalence of this critical feature. One might expect that their theoretical practice, being consistent with their ontological and epistemological beliefs, should incorporate agents facing an uncertain context. However, from the very beginning, the construction of economic theory as a scientific discipline deliberately assumed a sharp break with this feature of real economies. Mill, Menger, Walras and many other classical economists have stated explicitly from the very beginning that the results of economic science are dissociated from their applications. Lucas has been even more explicit about this issue and has claimed that denying uncertainty is a necessary condition for economics to be scientific (Lucas, 1981).⁵ As a result, theoretical economic practice has not taken uncertain scenarios as objects of reflection, but has proceeded to make up imaginary worlds where regularities governed by calculable risk can be found, and has focused on the examination of the properties of these representations.

A common way to get models that exclude uncertainty is to adopt what Davidson called the ergodic axiom, which allows using past data for assigning probabilities to future phenomena. This axiom is particularly suitable for theoretical practice based upon some kinds of imaginary worlds. It presupposes a set of ontological and epistemological assumptions that underlie conventional theoretical practice in economics. It is illuminating to see this set of assumptions as a sophisticated version of PTF, which allows a scientific treatment of economic phenomena.⁶ Particularly, it allows economists to deal with uncertainty in their theoretical practice. Adapting Keynes' words we will call this set of beliefs Scientific Theory about the Future (STF). Its main presuppositions are:

- 1) Specific economies "contain" laws, mechanisms or some kind of regularities. They are invariant (stable) features of the economic processes that lie below the surface of economic phenomena.

⁴ Though theorists qua theorists do not actively participate in the economic processes their theoretical contributions also play an influential role in shaping agents' expectations and hence upon the conformation of the resulting economic phenomena. For this reason they may be considered a particular type of players. Some of them may be lobbyists as long as they represent some particular economic interests, but probably most economists do not intend to perform this role.

⁵ "[This hypothesis] will most likely be useful in situations in which the probabilities of interest concern a fairly well defined recurrent event, situations of 'risk' [where] behavior may be explainable in terms of economic theory ... In cases of uncertainty, economic reasoning will be of no value ... Insofar as business cycles can be viewed as repeated instances of essentially similar events, it will be reasonable to treat agents as reacting to cyclical changes as 'risk', or to assume their expectations are rational, that they have fairly stable arrangements for collecting and processing information, and that they utilize this information in forecasting the future in a stable way, free of systemic and easily correctable biases." [Lucas 1981:224] *Studies in Business-Cycle Theory*.

⁶ "Paul Samuelson [1969] has written that if economists hope to move economics from "the realm of history" into "the realm of science" they must impose the "ergodic hypothesis" on their theory. In other words Nobel Prize Winner Paul Samuelson has made the ergodic axiom the *sine qua non* for the scientific method in economics. Lucas and Sargent [1981] have also claimed the principle behind the ergodic axiom is the only scientific method of doing economics" (Davidson, 2012, p. 59).

2) The role of theoretical practice (or one of its fundamental roles) is to discover these invariants.

3) This invariant knowledge refers to the future and is obtainable ex-ante (mainly by models).

To these ontological and epistemological assumptions conventional economics usually adds a practical one:

4) Without having the invariant knowledge mentioned in (2) and (3) it is not legitimate to recommend economic policies.

Those theorists who share this set of beliefs model no uncertain contexts and try to describe the behavior of a mechanism that generates a stable process from the interplay of agents, regardless of their deliberate attempts (as lobbyists) to interfere with the “natural” course of events. From this perspective it is natural to stress that the role of social or economic theory is to investigate the unwanted (and unexpected) consequences of agents’ decisions. And it is also clear why those theorists need not consider incorporating lobbyists to their approach. The only case in which the lobbyists’ role is taken into account concerns the participation of the State, which is usually incorporated in combination with the view that its interventions will yield unintended (unwanted) consequences.

Summing up, conventional theoretical practice has not considered those central features that characterize economies as uncertain systems. Rather it has proceeded in two steps: a) creating imaginary worlds governed by regularities or invariant parameters that do not have a counterpart in real economies; b) exploring the workings of these imaginary worlds. I suggest that such theoretical practice has developed in an inward-looking way (focusing more on its own product than paying attention to economic phenomena as they occur in specific concrete economies). Conventional economics has created its own object of study. Substituting the examination of imaginary worlds for the analysis of real economies saves theorists from falling into inconsistencies: their belief in the uncertain nature of current economic processes is not inconsistent with their belief that within the model-world regular knowledge of “future” events is possible (where “future” refers to logical, not historical, time).

5. Alternative theoretical practice

If theoretical models assume uncertainty, however, and assume that agents have epistemic and ontological beliefs consistent with this state of affairs, the proper way to approach the course of economic phenomena should be very different. Particularly in place of mechanisms or economic regularities that keep running independently of agents’ expectations, the decisive role of lobbyists within open-ended processes based on expectations should be incorporated into the analysis. Such an alternative approach to economics could be based on the following set of assumptions which focuses on the lobbyist role of agents and the special kind of practical knowledge and skills they need. Choosing this approach means abandoning the pretense of scientific status desired by Lucas, which is obtainable at the price of assuming TCF. I suggest that the following assumptions could be the philosophical core of a new conceptual framework for economics:

1) There are economic processes based on expectations and characterized by radical uncertainty. Agents involved in such processes act in two different ways (as decision-makers or as lobbyists)

2) Ex-ante knowledge of invariant sequences of events is generally not possible (because there are few if any sequences of this kind); more importantly, such knowledge is unnecessary as support and justification for the implementation of economic policies.

3) The role of theoretical practice is to identify the many feasible “branches” of a “tree of plausible outcomes” as well as the restrictions that each sequence of events faces.

4) It is not known (and it is not possible to know) ex-ante what “branches” of the tree (what sequences of feasible alternative events) will prevail. Science cannot help us with this.

5) Other types of knowledge (common and practical knowledge as well as practical skills) are crucial for shaping those processes. It is a sort of know-how knowledge, closer to management and administration than to scientific economics.

6) Although – as was shown in point (3) – theoretical practice has an important role to play in shaping processes, what is crucial in this endeavor is another practice, which we denote as lobbyist (interventional) practice (LP). As mentioned above, LP is performed by a wide range of economic players (mostly different kinds of interest groups who are able to operate in the relevant context and on agents’ expectations).

A theoretical practice compatible with all these assumptions and that also incorporates uncertainty, new key players – as lobbyists – and new forms of rationality, knowledge and skills will be a huge contribution for an understanding of economic processes.

6. Philosophy of economics

A theory of economic action should consider the distinctive features of economic processes under uncertainty and explain the pervasive role of lobbyists along these processes. Are mainstream philosophers of economics not interested in recovering *this* practice? The fact that they do not even try to do it is an indication that they are stuck in a philosophical conceptual framework, conditioned by the untenable assumptions of CTF. Most of the current philosophy of economics is actually a philosophy of economic representations. It does not deal with economic processes but with their usual oversimplified representations (conventional economic models) which, as we have seen, leaves out of consideration the very crucial features of these processes.

Arguably conventional economic theory and mainstream philosophy of economics share their object of analysis: the world of models; but approach it with different interests, which ultimately are complementary. Theorists have constructed imaginary worlds with the purpose of examining their properties. Philosophers seek ways to provide epistemic legitimacy to this practice. They seek to develop arguments to show in what sense such models would be able to contribute to the discovery of causal connections, in what sense they could explain and predict, and how the knowledge obtained there could be profitably used in concrete applications to market economies. Naturally, it is an arduous task, which contradicts the wisdom of those who pioneered in pondering economic theory and warned that no applications could be expected from such intellectual exercises.

If an alternative theoretical practice in economics which deals with relevant problems of real economic processes is feasible, the same may be expected from the Philosophy of Economics. A relevant philosophy of economics can be developed along two interrelated lines. First it may approach features of real economies, like uncertainty, lobbyists practice and

the kinds of expertise and skills involved in the shaping of economic processes. Second, even though in the philosophy of science the target usually must be disciplinary representations, an alternative philosophy of economic representations is possible. Specifically, one that critically examines the usual ontological and epistemological assumptions of mainstream modeling practice, and develops the basics of alternative assumptions that are consistent with the presence of uncertainty and the recognition of its existence as due to agents and actors. This paper is an attempt to call attention to the convenience of proceeding along both these lines.

Conclusions

An outline for the construction of a theory of economic behavior under uncertainty, that incorporates the practice of agents as lobbyists and examines the special way in which they might behave rationally, has been proposed. It has been argued that conventional economic theory does not deal with uncertain scenarios but takes as its subject of analysis invariant regularities governing imaginary worlds. Economic theory as well as conventional philosophy of economics which provides its epistemic support and legitimization, deals with (fictional) representations and not with real economic processes.

The above considerations help explain why no significant concrete results come from the application of conventional economic models. In particular, it helps to understand why a successful applied economic science has not been established so far. It also explains the limitations of mainstream philosophy of economics to justify the epistemic relevance of conventional economic models. Our analysis has also positive suggestions. It shows that both a theoretical economic practice as well as a philosophical reflection upon it, different than the usual ones, are imaginable and it points out some issues and assumptions that should be incorporated into the analysis. Our approach encourages philosophers to pay more attention to theoretical treatments of intervenible open-ended processes based on expectations as well as to agents' lobbyist practices and the kind of abilities needed to successfully influence the processes in order to obtain the desired results. These brief notes, I hope, offer an outline of a new Non mainstream philosophy of economics.

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