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Favereau, Olivier

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New Institutional Economics versus Economics of Conventions: The Difference between Bounded Rationality and... Bounded Rationality

By Olivier Favereau

Université de Paris X – Nanterre, <u>favereau@u-paris10.fr</u>

In this small note, I will discuss three points comparing research programs of New Institutional Economics (NIE) and Economics of Conventions (EC).

- The research program of New Institutional Economics is quite close to that of the younger Economics of Conventions indeed both are grounded on a common rejection of the mainstream model of substantive rationality, under the heading of bounded rationality. Even more, they share the same fundamental postulate about the world faced by economic agents: unforeseen contingencies are the lot of human condition, and so incomplete contracts are the rule, complete contracts are the exception, rather than the other way round in mainstream economics. Nevertheless, NIE and EC lead to quite different economic styles of economic research, within the same institutionalist tradition, and may promote even contradictory economic policies. Why?
- All the differences may be shown to proceed from a different use of the Simon's hypothesis of bounded rationality: whereas Willamson's project aims at discovering how economic agents manage to deal with the most negative consequences of the fundamental problem (deemed as unsolvable), the conventionalist project wishes to offer a solution to the fundamental problem, by tackling it at its core (instead of counteracting its negative consequences). By examining the whole set of differences and investigating more closely their source, we are led to distinguish two models of bounded rationality: the first (NIE) is only calculative, the second (EC) is also interpretive. Once again, the EC project appears as more inclusive than the NIE one: a provocative but uninteresting observation, except if we can go further by using the comparison between NIE and EC to understand what lies behind or beneath the distinction of two models of bounded rationality.

We can throw some light on this question by putting together two strands of analysis, one inside EC, the other inside NIE. EC has stressed the idea that individual rationality in a game against nature cannot be the same as individual rationality in interactions with other individuals, for moral, methodological and technical reasons – and indeed it is a major criticism against mainstream use of optimization. This conventionalist impossibility theorem concerns bounded rationality, no less than unbounded rationality. And that may be the key to the distinction between the two models of bounded rationality. What gives weight to this conjecture can be found in Williamson's program, at his beginning: in 1975, he introduced the concept of "atmosphere" to grasp the fact that sometimes the exchange relation itself becomes an object of value. Unfortunately, "atmosphere" has been forgotten in all posterior works (with the important exception of a suggestive comment in 1996). I will argue that the solution to the incompleteness problem, in EC, may be considered as an extrapolation of Williamson's views, i.e. as a projection of "atmosphere" onto a space of intersubjective representations. Would Williamson have stuck to his initial consideration of "atmosphere", he would have gone much farther from his calculative conception of bounded rationality, and adopted an interpretive conception, which is at the heart of EC. And he would have developed a quite different style of research about law and economics.

A silly conclusion would be that NIE is wrong. The right one is rather to ask NIE researchers to ask themselves that question: in the problem you are studying, are you sure that "atmosphere" is negligible?

So Close, So Far...

To begin with, let us quote Williamson about the general features of NIE:

"...The New Institutional Economics (NIE)

- holds that institutions matter and are susceptible to analysis;
- is different from but not hostile to orthodoxy;
- is an interdisciplinary combination of law, economics and organization, in which economics is the first among equals" (Williamson 1996: 3).

The same could be said roughly about the "economics of conventions" (EC), a research program in social science, appeared with a special issue of *Revue économique* in 1989, with some second-order differences

- EC defines itself as a branch of institutionalist tradition, even if it started by an in depth investigation of the most informal institutions: conventions, and indeed it did not initially put to the fore the notion of institution but that was the case, too, of the first Williamson: there is no entry for "institution" in the index of *Markets and Hierarchies*(1975), whereas, ten years after, "institutions" became a prominent word with *the economic institutions of capitalism*.
- EC is much more rooted than NIE in an internal criticism of the new mainstream economics (incentives, contracts and game theory) and spends much space and time, dwelling upon its logical limits. Nevertheless, EC is often formulated by reference to the two pillars of economic orthodoxy (rationality and coordination), with the prospect of offering a more general view of both. In that sense, it is not radically hostile to orthodoxy: it aims at transforming its language, not at replacing it.
- EC proceeds from a cooperation between economists and sociologists, but in a spirit at variance with the posterior "economic sociology", since the objective of the cooperation was simultaneously (although it was not so clear initially) to transform economic thinking, and to promote a pragmatic sociology. The connection with law is now quite strong, but at the very beginning, at least philosophy of law was present, through the problem of interpreting the blanks of formal rules (especially contracts).

So at this level of general features this is a first kind of similarity between NIE and EC (we provisionally put aside the obvious facts that EC is much younger than NIE, and considerably less familiar in the English speaking academic world). That is not so surprising, since both claim to belong to the institutionalist tradition. Now we have to go deeper.

There is a second kind of similarity, at the level of assumptions. NIE and EC share no less than 5 key assumptions:

Bounded rationality

The criticism of mainstream substantive rationality by Herbert Simon is an essential source of inspiration for both currents. There is explicit reference to the concept of bounded rationality, most notably with the correlative assumption that usually economic agents could not write complete contracts, not because it would be too expensive but because in most ordinary cases (especially in labour contracts) there will be unexpected contingencies. People could not have a complete view of the future – for bad (failure, etc.) and good (innovations, etc.) reasons.

Law and economics

Economics should be interested in all the questions covered by law, at least for the simple reason that it's as absurd to think about the economic world without law as it is without money. Initially EC was more inclined to work about money and labour, and NIE about business (and labour, indeed) but that changed afterwards. A paradigmatic example of their common attention to law is given by the fact that both will quote court decisions as analytical arguments (something mainstream law & economics will never do).

Market vs firm

The opposition between market and firm is a founding stone for both programs (and, to say the truth, for many other programs): it introduces the fundamental idea that the market is not the only means of coordination, even in the framework of methodological individualism. Economic agents live in a world with many more means of coordination than the old-fashioned neo-classical economic theory used to think.

Variety of contracts

A consequence of the previous point is that the space of contractual arrangements is enormously enlarged: first there are as many families of contracts as there are types of means of coordination; second, within each type, we will encounter a plurality of contractual tools. And the task of economics is to give account of the economic meaning of this plurality, and of the logic of choice between all these options. It's clear that a new era of cooperation

between economics and law is in front of us. It's an argument shared by NIE (indeed introduced by it) and EC.

Institutions are submitted to a test of efficiency

Institutions are no longer exogenous, and they are plural. Therefore it exists inevitably some kind of comparison/competition between them. Economic agents, when they have recourse to institutions, are always simultaneously exercising their critical mind upon them. And the first question is that of efficiency: does it work correctly? It's an extraordinary extension of the field of economic theory, because we have the same extraordinary extension of the space of economic choices by economic agents.

But those *similar* key assumptions are used to derive rather different conclusions, because they motivate a quite *different* style of research (Favereau and Lazega 2002).

- **1.** Rationality consists in computation (of costs and benefits) for NIE, whereas for EC (cf also Favereau 2005) it consists *also* and most importantly in interpretation (of relations and quality).
- **2.** Law and economics is actually an economic analysis of law for NIE, whereas EC develops a legal analysis of economics.
- **3.** Market failure opens the way to organizations (and organizational failure restricts it) for NIE, which supposes that market comes first, whereas for EC it is rather the firms which builds markets, but, true, within an economy of private ownership (which supposes that the possibility of market comes first, and this possibility is implemented by firms). Moreover EC do not share the view of a "supermarket" of means of coordination (of "governance structures"), where the choice is driven by a simple criterion of transaction cost minimization.
- **4.** The variety of contracts result from variations in the degree of asset specificity (with a complementary role for price and safeguards) for NIE whereas for EC it results also and most importantly from differences about quality (different degrees of quality within an order of quality, and different orders of quality), with a complementary role for quantity and duration.
- **5.** There is a fundamental trade-off between efficiency and equity, for NIE, which suggests that institutions are faced to two independent criteria and implies that problems of

efficiency and problems of equity, with respect to institutions, can be studied separately, whereas for EC, there is some overlap between questions of efficiency and equity, so that, within that area, there is a monotonic relationship between these two criteria. More generally that implies that efficiency and equity are somehow intertwined, in no simple way – so we should not study them independently.

One Fundamental Problem, Two Answers?

The fundamental problem is simple to formulate, if not to solve. We renounce the assumption of unbounded rationality (optimization), because it relies upon an axiom of a fixed, stable and known list of states of nature. And inversely we adhere to the assumption of bounded rationality because we know that there will probably be unexpected, and even unexpectable, states of nature. So the question becomes: how do economic agents supposed to be "intendedly rational but only limitedly so" deal with the problem of (the risk of) unforeseen contingencies?

Williamson's answer is well-known: economic agents do not know what the future will be, but they know that they do not know what the future will be: they are sure they will have to deal with (bad or good) surprises. So they should prepare for anything. They devise, in advance, institutional frameworks to be used in case of execution problems during the contractual life: a system of rules actionable when surprises arrive. Williamson qualifies them as "governance structures": "an institutional matrix in which the integrity of a transaction is decided. In the commercial sector, three discrete structural governance alternatives are commonly recognized: classical market, hybrid contracting, hierarchy" (Williamson 1996: 378). Then Williamson shows that the most important causal factor, driving the minimization of transaction costs, is the degree of asset specificity. A high degree makes the hierarchy more efficient than the market which is better for minimal degrees, the hybrid representing an intermediate case.

This model appears as useful to predict the choice of a type of governance structure; but at this level of generality, it does not say much about the choice of one precise form, inside a type. More embarrassing is the fact that this model is unhelpful to give advice to an economic agent Mr X as to the option of contracting with Mr Y or Mr Z, once the governance structure has been determined: can Mr X trust Mr Y or Mr Z? How should he write the contractual details

of the agreed governance structure? The theory is silent upon these questions.

Quite different is the road followed by EC. Why do intelligent (and not altruistic) people accept to sign an incomplete contract? The hint to find a solution is that since incomplete contracts are signed every day, in the actual world, the solution may be so simple that it is easily overlooked by sophisticated theoreticians. By borrowing from basic elements of communication theory and of formal logic, it becomes possible to sketch a pragmatic solution. People, through their discussions between one another, build (or not) a scheme of a satisfactory relationship, with its main properties. If they succeed in building such a scheme, they will agree to enter some sort of contractual relationship (that is tautological), and, (that is no longer tautological), they will compare the successive events (of which many are unexpected) with that scheme, in order to decide whether they keep on the relationship ("loyalty"), or they break it ("exit") – or they express their discontent through "voice" (cf Hirschman). This scheme is an intersubjective entity, something like a social representation, with many of the features of a "convention": a rule, rather vague, and constraining, although not enforceable through a public authority. The normative component of the scheme includes efficiency considerations but obviously too equity considerations. Justice, as a guiding value, recovers its place (lost during the New Welfare Economics of the 1930s) into the realm of economic coordination.

So EC offers a tentative general solution to the problem of incompleteness. It may explain why Mr X signs a contract with Mr Z and not with Mr Y, but it does not say anything precise, at this stage, on the type of contractual framework. Thus EC makes a sharp contrast with NIE, the objective of which is rather to offset the negative consequences of the mistrust generated by the problem of incompleteness. Williamson's model does not depend on any hypothesis to solve the general problem. With an ecumenical point of view, we must admit that EC and NIE could be considered as complimentary, at least with respect to the sole problem of incompleteness.

But of course, the EC program, in a second step, can draw more precise deductions from its general solution: for instance, let us consider the option "market versus firm". It is studied by Williamson by making the degree of asset specificity vary. For EC, the essential point is that relationships are valued in a very different way on the market and in the firm. The firm needs lasting relationships, and the

market is easy with spot relationships. Therefore the only possible collective order on a market comes from the emergence of quality conventions, stabilizing the expectations of both consumers and producers. A firm needs a much higher level of cooperation to be efficient – with two strange new properties: it's collective efficiency which is required at the end, and that excludes ... the exclusion of equity, to the sole benefit of efficiency. Then the collective order will be of another type, more dynamic than a quality convention: something like a successful organizational learning.

Let us have a retrospective glance at the semantics of EC: "quality", "justice", "relationship", "cooperation", "collective" —all these notions are akin to an *interpretive* model of rationality, and foreign to a purely *computational* one (for details cf Favereau 2005). Ultimately, the divergence points at the conception of homo economicus: though he is subject to the same assumption of bounded rationality, in NIE he is condemned to seek his own interest "with guile"; in EC, he is free to choose his level of identity: personal, social, human (for details cf Turner 1987).

To conclude: the divergence between NIE and EC seems to become very large indeed, if we look at the following table, summarizing the key concepts of the two research programs; and the heart of the divergence seems to be located in the model of bounded rationality used: (only) calculative, for NIE; interpretive (which subsumes calculative) for EC.

New Institutional Economics	Economics of Conventions
Transaction Costs	Conventions
Governance Structure	Collective learning
Asset specificity	Quality conventions
Efficiency	Justification (efficiency + equity)
Opportunism	Self categorization & social identity

Can we go further, by investigating more closely what lies behind, or beneath, the distinction between those two models of bounded rationality? The fact that the younger program looks not only close to, but also more comprehensive than, the older one breeds the hope of a positive answer. We are not at all in the trivial case of two rival theories, delivering conflicting messages. EC and NIE come from the same source, even if each benefit from distinct secondary affluents.

Two Answers, Or One?

First let us quote quasi exhaustively the two brief (but exceptionally insightful) developments Williamson devoted to the concept of "atmosphere", in 1975 and in 1996, starting from the more recent one, which sounds like a repentance.

"A colleague noted that the economics of atmosphere plays a larger role in *Markets and Hierarchies* (Williamson 1975) than in *The economic institutions of capitalism* (Williamson, 1985) and asked about the de-emphasis. I replied that I thought atmosphere at least as important to an understanding of economic organization in 1985 as I had in 1975. Not having made more headway, however, I had little to add.

One of the lessons of the economics of atmosphere is that calculativeness can be taken to dysfunctional extremes. That can show up within governance structures as well as between them. The employment relation is one such context.

(...) If functional separability does not imply attitudinal separability, then piecemeal calculativeness can easily be dysfunctional. (...) The neglect of such interaction effects is encouraged by piecemeal calculativeness, which is to say by an insensitivity to atmosphere" (Williamson 1996: 270, 271).

"The standard economic model (...) assumes that individuals regard transactions in a strictly neutral, instrumental manner. However, it may be more accurate, and sometimes even essential, to regard the exchange process itself as an object of value. Concern for atmosphere tends to raise such systems issue; supplying a *satisfying exchange relation* is made part of the economic problem, broadly construed [the italics are within the text].

Alternative modes of organization sometimes differ in non-trivial atmospheric respects. Distinctions between calculative and quasi-moral 'involvements' are relevant. Market exchange tends predominantly to encourage calculative relations (...).

Internal organization, by contrast, is often better able to make allowances for quasimoral involvements among the parties. The sociological phenomenon of reciprocity is an example (Gouldner 1968).

Recognition that (...) [exchange] relations themselves are valued, requires that organizational effectiveness be viewed more broadly than the usual efficiency calculus would dictate (...).efficiency and a sense of well-being (that includes, but transcends, equity) are intrinsically (non separably) joined (...).

1. A full discussion of atmosphere and its ramifications raises a wider set of sociopolitical issues than can be addressed here. Suffice it to observe that (...) atmosphere is reserved for those transactions for which attitudinal spillovers are thought to be especially strong" (Williamson 1975: 38-39).

Now my conjecture: these ideas could find their full extension in EC program, and then give us the key to the distinction between the two models of bounded rationality. Thus, the strange mix of points of high agreements/disagreements which divides EC and NIE within the institutionalist tradition could be understood as the produce of two distinct strategies of research, logically and epistemologically connected.

There is obviously a close similarity between "atmosphere" (which implies that the exchange relationship itself becomes an object of value) and the "scheme of a satisfactory relationship", promoted by EC to solve the fundamental problem. Most remarkably, when Williamson begins to draw the potential consequences of the introduction of "atmosphere", the strongest oppositions between EC and NIE begin to fade away:

- **2.** Efficiency and equity become intertwined (cf conclusion /5/ above p. 24)
- **3.** Rationality becomes less "calculative", and must take account of "quasi-moral involvements": this is a decisive step towards a more general view of rationality, adding interpretive capacities to the calculative ones (cf conclusion /1/ above p. 24).
- **4.** The end of "attitudinal separability" (generating possible "attitudinal spillovers") means that this time, Williamson is groping after an explanation of the reasons why Mr X signs such and such contract with Mr Y, that is searching

for a general solution of the fundamental problem, contrary to his preferred strategy of finding a procedural device to counteract the destructive consequences of incompleteness (cf pp. 24-5).

5. A graph which I did not reproduce (1975, p. 40) shows "atmosphere" as a meta-judgment synthetizing and embracing all the features of the contractual framework (opportunism, small numbers, uncertainty, complexity, etc.). It suggests a provocative reading: forget "atmosphere" – you get NIE as it is; stress "atmosphere" until it "raises a wider set of sociopolitical issues than can be addressed (...) [in NIE as it is]" – you get EC!

That reading would be somehow deceptive: for EC there is more at stake than a simple academic debate about the empirical (un)importance of "atmosphere". The real question to be addressed is: should we, as economists, keep on assuming the model of bounded rationality is formally the same, whether it is applied to choices against nature or to interactions with others – as it is with mainstream substantive rationality (cf Mariotti 1985; Favereau 2004)?

For EC, the answer is: no.

Olivier Favereau is Professor of Economics at the University of Paris X- Nanterre, and founder of the doctoral school "Economie, organisations, société". He is one of founders of the new branch of Institutional Economics known as French economics of conventions. His work deals with conventions and institutions, labor markets and organizations. He is an author of the programmatic introduction (with Jean-Pierre Dupuy, François Eymard-Duvernay, André Orlean, Robert Salais, Laurent Thevenot) Marchés Internes, Marchés Externes, Revue Economique, Special Issue l'Economie des Conventions, 1989, March, 141-145; Theory of Information: From Bounded Rationality to Interpretative Reason, In: Petit P. (ed.), Economics and Information, 2001, 93-120; Règles et conventions: l'approche économique, In: Hervé Dumez, Jean-Baptiste Suquet (éds.), Les jeux de la règle: une approche interdisciplinaire, 2009, 65-92. With E. Lazega he co-edited Conventions and structures in economic organization: markets, networks and hierarchies (Cheltenham: Edward Elgar, 2002).

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