Economic Analysis of Institutions: 'Definition by Effect'

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It is odd to think that there is a word for something which,
strictly speaking, does not exist, namely, "rest".
Max Born, *The Restless Universe*

Introduction

In his 1962 *Ordo* paper Lachmann develops the idea that institutional incoherence leads to economic problems such as high inflation. Without adding more detail, I wish to point out only that he considered institutions as real, and able to cause various economic effects. In this respect he differs from recent economic analysis of institutions that often treat institutions as effects or outcomes of rational choice, suggesting that institutions are mere epiphenomena of rational choice, having little or no independent causal influence on economic performance (see Glaeser et al. 2004).

While here at the University of the Witwatersrand Lachmann created an environment where staff and senior students were encouraged to explore the philosophical underpinnings of economics. From Karl Mittermaier, who was very close to Lachmann and who was my teacher at Wits, I have inherited an interest in the distinction between philosophical realism and nominalism, which I now seek to deploy in a novel critique of the economic analysis of institutions. The novelty consists in generalising to institutions a question that has become fiercely debated amongst legal scholars in the US, namely the *in rem* character – or its absence - of property rights; *in rem* (from classical Greek philosophy, associated especially with Aristotle) suggesting that 'property' is more than just its effects, i.e. more than just the of the rights which property bestows.

What I shall argue here is that whether we treat institutions as a cause or an effect is closely linked to how institutions are defined, employing the distinction between *definition by cause* and *definition by effect*. In Aristotelian[1] tradition I will say that things can be defined either by their effect or by their cause (leaving aside for the time being an explanation of Aristotle's four fold meaning of 'cause'). In an economic analysis, various institutions such as 'the firm', 'property', 'the law', are defined by their effects, resulting in a very superficial understanding of the institutions (leaving out their *in rem* character) and a correspondingly superficial understanding of the economic issues.

[1] Actually Aristotle distinguished between at least three types of definitions, relying respectively on the three divisions i) genus and difference, ii) cause and effect, iii) 'in itself' and 'of another'

Example: Firm as a nexus of contracts

To help illustrate what I mean by 'definition by effect', I will discuss in some detail a number of examples: 'firm' defined as nexus of contracts, 'property' defined as a bundle of rights, 'institution' defined as constraint, 'addiction' as increase in use. I will make reference to many other examples, e.g. 'norms' as tools of manipulation, 'virtue' as a by-product of utility maximisation, 'law' as a substitute for markets, marriage as a contract etc.

In the new institutional theory, *the firm* is often defined as a nexus of contracts. And I want to portray that definition as a 'definition by effect'. To define is never an easy task, but it is especially difficult for things that are not tangible, say "the firm" (not to mention "institutions"), and so it is not surprising to see attempts at definition using more tangible and concrete terms or things. There is an advantage to recasting firms in terms of contracts; contracts (if they are worth the paper they are written on) are expressed in precise and distinct terms and conditions, leaving little over to ambiguity, and so hopefully achieve certainty for the contracting parties. The term *contract* is a lot less fuzzy than *firm*. An employment contract may specify a monthly salary, number of leave days, etc. and a supply contract will specify prices, quantities, delivery dates and terms of payment.

The terms of the contract, are so to say, their own definition; the contract is resolved into the various terms and conditions of the contract, and likewise the firm is the sum of these various terms and conditions found in the contracts. One could say that defining the firm in terms of its contracts, is like breaking up the whole into its parts. But it begs the question; is the firm just the sum of its parts, viz the contracts, or is the whole more than its parts. I am sure that the proponents of the *nexus of* contract theory, would hold that the firm is no more than the sum of the contracts, for anything else would be an admittance that the definition is inadequate. The upshot is that calling a firm a nexus of contracts has the obvious and desired effect, from the orthodox perspective, that the firm does not really exist. What exists are various contracts, written or unwritten.

So, to put it very starkly, one can ask the question as follows: Are contracts the cause of the firm (is the firm the effect of contracts)? Or alternatively, and inversely, is the nexus of contracts the effect of the firm? I shall come back to this Socratic question.[2]

Let me take an easier, more tangible example, hoping to explain the importance of the cause/effect question. Assume I ask a child to tell me what a dog is, and she points at one sitting nearby, saying "this is a dog!". That would be defining by example. In the absence of a nearby dog, she might say that that a dog is an animal, at which point I point out the cat is also an animal. Thus pressed, the child might exclaim that a dog is an animal that barks. Now, that is an example of defining by effect. It is a somewhat unsatisfactory definition; I have a dog that no one has ever heard bark. "Barking" is a property of a dog, but not an essential property. It is not the barking that makes a dog a dog. It is a dog not <u>because</u> it barks, but if it barks, it barks because it is a dog. Barking is the effect of being a dog, so defining a dog as an animal that barks is an example of definition by effect. I suggest that the relationship between firms and contracts is analogous to the relationship of dog and barking; contract are the effect of firms not the other way round.

The fountainhead of contract theory is Hobbes' *Leviathan*, where he argues against the Aristotle's view of man as a social animal, of society as something natural, instead asserting that in the state of

[2] Anyone with some acquaintance with classical Greek philosophy will recognise in my formulation its ancestry in the Socratic question. In Plato's Euthyphro, Socrates asks the title character "Is the pious loved by the gods because it is pious, or is it pious because it is loved? "2

nature "the life of man [is], solitary, poore, nasty, brutish, and short" and society is something artificial, the result of human reason attempting to avoid this consequence of the state of nature. Men willingly enter a social contract, ceding some of their freedoms to the sovereign in order to obtain peace. So he is arguing that society exists because of the social contract. That is, according to Hobbes, society is brought about by a contract, viz society is the effect of a contract.

And so Hobbes defines society or the common wealth in terms of mutual covenants:

> *Common-wealth; which (to define it,) is "One Person, of whose Acts a great Multitude, by mutuall Covenants one with another, have made themselves every one the Author, to the end he may use the strength and means of them all, as he shall think expedient, for their Peace and Common Defence."*[3]

Definitions by effect prove to be weak because eventually they come to assume what they set out to prove. In the case of Hobbes' argument it should be remembered that we need language in order to create a contract, and earlier he made the point that language is entirely conventional, but being conventional it needs a society to have conventions in the first place (see Leo Strauss), viz. Hobbes presupposes what he sets out to prove. There are many properties society, and the contractual aspect may be one of them, but reducing society to that one property, gives us a blunt instrument.

Example: Property as a bundle of rights

If we grasp Aristotle's point that we first come to know effects before causes, then we are not surprised that in law and economics, and in the economic analysis of property, we first define property by its effects. In that literature property is defined as a bundle of rights, a strategy similar to declaring the firm as a nexus of contracts. *Rights*, while not as concrete as *contract*, are still more tangible than the more fuzzy 'property'. This definition is popular not only amongst economists but also amongst legal scholars. And evidently I will ask the Socratic question: Are rights the effect or cause of property? Do we have certain rights because something is our property, or is something our property, because we have certain rights? Since I am of the view that rights are the results of property (not the other way round), I also argue the definition of property as a bundle of rights is a definition by effect. One could also say it is definition of property by its property – excuse the pun – for it is a property of property to bestow rights.

If you are a bit uncertain about cause and effect of this example, then think of human rights, such as the right to life, to bodily integrity, etc.[4] They are *human* rights, we have those rights because we are humans. It is not the case that because we are accorded the rights, that we are human. According human rights to cattle still does not make them human. What comes first; the right or the thing?

Defining property as bundle of rights becomes useful in economic analysis when each stick of the bundle is modelled as a decision point. This is illustrated by Barzel's notion of many different margins of adjustment along which the owner of a property can make maximising decisions, each margin corresponding to a specific stick in the bundle of rights. If a fast food store owner is confronted with a higher minimum wage[5] for his staff, the restaurateur can compensate for that by reducing on free meals or drinks for the staff, longer working hours, increasing the prices of the meals on offer, etc. To dismiss workers is just one of those margins along which the owner can make maximising adjustments.

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[3] Hobbes, Thomas. Leviathan (p. 82) . Kindle Edition.

[4] "the person's right to his own body, his personal liberty, is a property right in his own person as well as a "human right." (Mises Institute, 2007)

[5] See Card and Krueger

Reducing property to bundle of rights is a strategy to break property into its components, coupled with the assertion that the whole is no bigger than its parts. That is, once dissolved into the various sticks in the bundle, there is nothing no left over. This is much the argument Alchian and Demsetz make when they say they see not much difference between a firm and markets. The firm "has no power of fiat, no authority, no disciplinary *action* any different in the slightest degree from ordinary market contracting between any two people." In fact they go further, writing that the common view is a *delusion*, believing that firms have "power to settle issues by fiat, by authority, or by disciplinary action superior to that available in the conventional market.

Their position reminds one Max Born's popular-science 1935 book *The Restless Universe* where he muses "it is odd to think that there is a word for something which, strictly speaking, does not exist, namely, " rest" [6]. Born continues using *rest* throughout the book, just as in the economic analysis of the firm we continue using 'firm', knowing that it does not really exist.

So while *bundle of rights* is a very general or universal expression, we can pose the Socratic question with regard to specific sticks in the bundle. For instance Alchian and Demsetz define ownership of the classical firm as the "entire bundle of rights: 1) to be a residual claimant; 2) to observe input behaviour; 3) to be the central party com- mon to all contracts with inputs; 4) to alter the membership of the team; and 5) to sell these rights" (p 783)

Amongst that bundle of rights, to be residual claimant, is pivotal, as it is this particular stick, that makes the classical owner operated firm an efficient institution. "Explicit in our explanation of the capitalist firm is the assumption that the cost of managing the team's inputs by a central monitor, who disciplines himself because he is a residual claimant, is low relative to the cost of metering the marginal outputs of team members. If_ p 785 - 6

And so our question with regard to the universal *bundle of rights* becomes more concrete when we ask if the owner is the owner because he is the residual claimant, or is he the residual claimant because he is the owner, that is, the bundle of rights including the right to claim the residual, is what defines the classical firm. That is a wondrous thing, and it follows from the idea that the firm is not really something real, after all, while you can name firms, it is not something you can really touch, and if it is not something real, then that which prompts us to use the term *firm* must be something more real such as the actions decisions and rights of the classical firm owner

Demsetz and Alchian are very explicit stating that it is the bundle of rights that define ownership, but what if an imposter manages to set himself up as in a way that he claims the residual and exercises the other four rights. According to their definition, that would make the imposter the owner, but we know better.

Legal scholars in the US are at loggerheads over whether property is just a bundle of rights, or if there is more to it. And so, in opposition to 'property as a bundle of right' Henry Smith and others argue the case for 'property as the law of things'[7], using the classical Greek expression *in rem* (in the thing) – property *in rem* – to signify that property does not just define the duties and rights individuals have vis a vis one another, but that property is a right "in the thing". "It is the mediation of a thing that helps give property its in rem character" (Smith, 19xx, p. 1961). "But if legal realism and its progeny insisted on anything, it was that property is not about things." Smith

[6] Born, *The Restless Universe*, 1.
[7] Smith "property as the Law of Things"

John R Commons, who was an early adopter of Hohfeld's view that property is a bundle of rights, recommended it for emphasising transactions as the unit of analysis, leading to a "Jurisprudence which concerns itself with both the rights, duties and liberties of Property and the powers and responsibilities of Sovereignty, which, again, are relations of man to man." P4 LFC. This relation of man to man, he contrasted with the relation of man to nature, the older approach of both economics and jurisprudence. "One is use-value, the relation of man to nature. The other is exchange-value, the relation of man to man." P 25, LFC

Whether one adopts the bundle of rights view of property or the in rem view has implications for the economic analysis of property. Transaction costs For Merrill and Smith the regime of property rights accounts for transaction costs. That is property rights is the cause of transaction costs, whereas for the law and economics movement it is the transaction costs that accounts for property rights. So in terms of Demsetz theory of property rights transaction costs it is the relative marginal benefits and marginal costs of guarding against the common pool problem that determines whether private property or common pool property that will be adopted. And the important implication of Demsetz's view is that that it is not an ideological or cultural view that … , but that it is a mere issue of efficiency. If you like efficiency is presupposed … efficiency considerations cause .

That is why in the literature the opponents to this definition of the firm talk about *in rem* coming from the Greek in the thing, suggesting that there is a thing called firm, something that is still there so to say, even after you have stripped it of all its contracts. Face and smile.

Other Examples listed

There are plenty of examples of 'definition by effect'

1. Institutions are constraints
2. Norms are tools of manipulation used to dress up self interst in a more presentable garb´ Elster 1989,
3. : Marriage is a species of contract p 267 Cohen 1987 (see also Posner)
4. Mill Bentham (Warke) virtue is a byproduct utility max
5. Theft is a transaction involuntary Witmann
6. Property rights are the cost minimising: that is just to allow for a laissez faire attitude. Really no distinction between private and common property
7. Tort law is the same as property law, applied when transaction cost are high
8. Sanctions for what is not permitted are really prices for what is permitted
9. "The main purpose of language is to facilitate trade" Lazear Now I don't know how serious he is in making such a stamen, but it sure allows us to focus our thinking on the matter. Most would think that because we have language, we can trade, whereas Lazear suggests that in order to trade we have developed language, that language is like money, is really just a currency

In each case we remove the *in rem* character of the thing defined. Norms are nothing real, for it is just a label applied to self-interested behaviour aimed at manipulating others. Virtue is nothing real, for it is just utility maximising behaviour labelled in a way to shine a positive light on it. Tort law does not deal with acts wrongful in themselves (despite the etymology of *tort* coming from the Latin *wrong* and still used in the French as *wrong*), for it is just legal rules relied upon when transaction costs are high. A sanctions is not a punishment for inherently wrong acts, jsust a price to convey information about what actions society does not approve of. And lastly language is nothing inherent to the human condition, for language is just a tool, like money, to facilitate trade, trading being more fundamental to the human condition than is language.

It is odd to think that there is a word for something which, strictly speaking, does not exist, namely, " rest".

De Gustibus addiction is the effect of inelastic demand curve

Defining by effect is common practice not only with regard to institutions, but is generally the case for rational choice models, often leading to an inversion of conventional cause and effect understanding. A case in point is the paper by Becker and Stigler[8], *De gustibus non est disputantum*, where they argue that economics should explain any behaviour without recourse to tastes, fashions, habits, etc. Instead "the economist continues to search for differences in prices or incomes to explain any differences or changes in behaviour" p.76. That is, only quantifiable things – literally variables – should be used to account for behaviour. Any phenomena will thus be interpreted as the effect of such changes in prices, incomes or capital. Not surprising, then, that they define addiction simply by its effect: "addiction to heroin - a growth in use with exposure". To say addiction is growth in use, does not tell us what addiction is; many things can account for a growth in use. It is just a definition by effect. In our conventional understanding, growth in use is the effect of addiction.

Having thus defined addiction, they arrive at the stunning conclusion that "addiction is the result of an inelastic demand for heroin, not, as commonly argued, the cause of an inelastic demand." And with what they call a positive addiction, such as to music, "the addiction again is the result, not the cause, of the particular elasticity. " p 81. Cause and effect has been inverted.

Ponder this: "the particular elasticity causes the addiction", rather than 'addiction accounts for an inelastic demand'. This is a strange thing because addiction, certainly to those who suffer it, is something real, whereas *elasticity* is a mathematical or technical concept, and it is not clear how the concept can *cause* - in the ordinary sense of the word - addiction. The difficulty is resolved if one recognises that Becker and Stigler employ *addiction* also as a technical concept, not as a real thing that individuals suffer from. And so, when Becker and Stigler distinguish between a negative and a positive addiction (i.e. addiction to classical music, perhaps usually referred to as 'propensity' or 'predilection'), they do so not in terms of what the addiction does to the body, instead the criteria to distinguish between them is the value of the elasticity of demand, viz. "if it were not clear whether the addiction were harmful or beneficial, the elasticity of demand could be used to distinguish between them". The distinction between positive addiction (predilection) and negative addiction is a mere classification not according to how it affects the body, but classification in terms of magnitude along a scale: distinction not in kind but in degree. Ideally, I suppose, the scientific approach would have no place for words such as *predilection, addiction,* habit, nor for Adam Smith's favourite *propensity*.

We can use Henry Smith's terminology here, suggesting that there is no *in rem* feature to addiction. Just as economic analysis resolves property into a bundle of rights, and firms into contracts, so Becker and Stigler resolve addiction into differences in relative prices, incomes and human capital. Having eliminated the *in rem* character of addiction, Becker and Stigler keep remains simply as a word, inviting us to paraphrase Born, *viz* 'It is odd to think that there is a word for something which, strictly speaking, does not exist, namely, "addiction"'. These are all species of Descartes project according to which reason should deal only in clear and distinct ideas. Prices, incomes, rights and contracts are more clear and distinct than addiction, firms and property.

[8] Stigler and Becker, "De Gustibus Non Est Disputandum."

Lazear may think that this is cutting edge economic theory, and perhaps it is, but it consists of theoretical moves as old as pre-Socratic philosophy, echoing the materialism of Empedocles, who thought that things differ one from another not by what they are made of, but by the relative proportioning of what they are made of. We may no longer believe in Empedocles's four elements (water, air, fire, earth), but like him we treat words as mere labels. So Empedocles held that there is no birth and no death, all there is are different proportioning of elements, and then by convention we label things as either 'life' or 'death'

> *More will I tell thee too : there is no birth Of all things mortal, nor end in ruinous death; But mingling only and interchange of mixed There is, and birth is but its name with men. But when in man, wild beast, or bird, or bush, These elements commingle and arrive The realms of light, the thoughtless deem it "birth" ; When they dispart, 'tis "doom of death;" and though Not this the Law, I too assent to use.*

A modern update of Empedocles's position can be found in Addy Pross' *What is Life? How Chemistry becomes Biology*, where he argues "Every living cell is effectively a highly organized factory, which, like any manmade factory, is connected to an energy source and power generator that facilitates its operation." The simple tool developed in this essay would hold that Pross has not really answered his question, for all he has done is describe its effects. The chemical processes described occur because there is life. It is not the other way around. Pross, like Empedocles long before him denies the *in rem* character of life, treating it instead just as a word we continue to use for no good reason other than that it is convention.

> To be continued:
>
> If we take life, addiction, property as a mere label devoid of an *in* rem charcchter then we take any definition of these in the manner that Mill took any definition: "definition is always a definition of words, not of things".
>
> A sleight of hand occurs once we take such a definition of words and then pretend that they are about things after all. For this is what Becker and Stigler want us to take from their paper; addiction is caused by changes in quantifiable things, literally variables.

Empirical Analysis of Institutions

This sleight of hand is also employed in the empirical analysis of institutions. Glaeser et al (2004) ask 'Do Institutions Cause Economics Growth', answering in the negative, it being policy choices and investment in human capital that cause economic growth. They argue against the near "intellectual consensus that the political institutions of limited government cause economic growth". Putting the consensus view on its head, Glaeser et al find that the results of regression analysis, suggest "(a) human capital is a more basic source of growth than are the institutions, (b) poor countries get out of poverty through good policies, often pursued by dictators, and (c) subsequently improve their political institutions." For ease of reference they refer to the consensus view as the 'institutional view', and their preferred view as the 'development view'

Crucially, both the 'institutional view' and the 'development view' adopt similar definitions of institutions, for instance that of Douglas North, viz. "a set of rules, compliance procedures, and moral and ethical behavioral norms designed to constrain the behavior of individuals in the interests of maximizing the wealth or utility of principals" (pp. 201-202). For both the institutional view and the development view, institutions are essentially constraints. While institutions may well constrain our

individual behaviour, I would consider constraints as effects of institutions, along with other effects, such as the effect of enabling some of our various courses of action.

I assume one of the reasons why this definition of institutions is popular especially in quantitative studies, is precisely because 'constraints' are more quantifiable than institutions, and constraints fit nicely into constrained maximisation models of rational behaviour.

Both arguments are cogent, the one arguing that institutions have an effect on economic development, and the other arguing that the institutions are themselves the outcome of such economic development and the growth in human capital related to it. The two sides are in agreement regarding the measurement, disagreeing effectively on the interpretation of the data. Both, by defining institutions by their effects, and measuring these effect, obviously means that we are not measuring the institutions per se, only their effects. And that is the major part of the problem. Institutions per se cannot be measured. If they cannot be measured then someone of a materialist inclination would say that they are not real anyway. Glaeser et al would lean to that position. As would most proponents mentioned above: obesity is not real, justice is just efficiency, marriage is just a contarct, firms are nothing but a nexus of contracts, property is a bundle of rights. Into the mix we could throw Freud's idea that love is just lust, and lust is just chemical processes.

To be continued

- Glaeser at al deeper agenda not so much whether institutions cause growth or not but institutions don't matter, it is all in choice "countries largely as choices of leaders" trump and Obamacare?
- Like time, we do not actually measure time, I guess we cannot measure time. What we measure is either the rotation of the earth around its axis, or what atomic clocks measure[9]

Importance of Definition

There is little common theoretical ground between those, on the one hand, like Lachmann, Veblen and others who think that the institutional structure of a country accounts for economic success or failure, and those, on the other hand, like Posner, Demsetz, Alchian, Becker and many others, who regard institutions as the mere epiphenomenon of rational choice. Mittermaier used to teach that institutions function in economic analysis either as something to help us explain (*explanans*) or something to be explained (*explanandum*). The institutional view treats institutions as an *explanans* and the development view, but also the law and economics view, the neo-classical view treats institutions as an *explanandum*, viz. the economic analysis of institutions. To use the distinction Lachmann taught us, the former view leans towards realism and the latter towards nominalism.

I have discussed 'definition by effect', hoping it will clarify further the ramifications of a nominalist position. Defining things by their effect is natural for us to do, given that effects are closer to the senses than causes (pace Aristotle). The difference between the nominalist and the realist is that for

[9] " it uses the microwave signal that electrons in atoms emit when they change energy levels" Wikipedia

the nominalist *institution, property, firms, addiction, law, virtue, norms,* and *rest* are all just labels not referring to anything real; there is no *in rem* character associated with those labels.

To be continued:

- The distinction between human and humankind, effects only or something beyond effects.

There is a more general distinction that is relevant here, more general than the distinction between nominalism and realism is, and that is distinction between the confused and the distinct. By confused Aristotle did not mean muddled or wrong, rather he had in mind the opposite of distinct, arguing that our knowledge goes from the less distinct to the more distinct.

This is in direct opposition to Descartes rules of thought, one of which was that we should start with that which is indubitable and also clear and distinct.

to be continued

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