

A CRITICAL LOOK ON CRITICAL REALISM

Agustina Borella* (CIECE-FCE-UBA)

agustinamborella@hotmail.com

Tony Lawson, founder of The Social Ontology Group and The Realist Workshop of Cambridge, has proposed critical realism to reorient economics.

The transformation of the social world, that Lawson tries, emerges from the adherence to critical realism, this is, from taking the transcendental realism of Roy Bhaskar to the social realm.

With the purpose of deepening the criticisms to this movement, we will specify what is critical realism and which are the philosophical assumptions of the mainstream according to this author.

We will set out the critics around: a) the notion of mainstream economics, b) the possibilities of economics based in social ontology, c) the realism of economic models and d) the notions of isolation and abstraction.

1. What is critical realism

In order to specify what critical realism is, we will distinguish scientific, empirical and transcendental realism.

According to Lawson realism holds the existence of some kind of entity. He affirms that attending scientific realism the objects of investigation of science exist mainly independently from its research.

“Now the conception of realism I want to argue for is closely and explicitly bound up with *ontology* or “metaphysics”, i.e. with enquiry into the nature of *being*, of *existence*, including the nature, constitution and structure of the objects of study”. Lawson (1997, p.15) The italics are from the original.

“In identifying my project as realist I am first and foremost wanting to indicate a *conscious* and *sustained* orientation towards examining, and formulating *explicit* positions concerning, the nature and structure of social reality, as well as investigating the nature and grounds of ontological

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(and other) presuppositions of prominent or otherwise significant or interesting contributions”.

Lawson (1999a, p. 271)

He adds that empirical realism understands that reality consists of objects of experience or impression that constitute atomistic events. According to transcendental realism the world is composed not only by events or state of affairs and our experiences or impressions, but also by structures, powers, mechanisms and tendencies underlying that exist, and govern or facilitate the events (Lawson, 1994). Attending this realism three domains of reality exist: empirical (of experience and impressions), actual (of the events themselves or state of affairs plus the empirical) and the real (of the structures, powers, mechanisms and tendencies, added to the previous).

In accordance with Lawson’s critical realism, in social phenomena underlie mechanisms or causal powers and science ought to “illuminate” those mechanisms.

Lawson adheres to realism because he thinks that this orientation can facilitate a more relevant economics. Critical realism is constituted by transcendental realism in the context of the social realm (Marqués, 2003).

Bhaskar’s transcendental realism, that influences Lawson, opposes to the new realism or the empirical realism. Critical realism conceives the social world as structured, differentiated and changing. According to this position we can understand the social world only if we identify the structures that generate the events. This is possible by the theoretical and practical work of the social sciences (Bhaskar, 1989).

For Lawson critical realism is not the way in which economists think about their discipline, but it is the way in which they should think about economics.

In this conception of the social world the power of the complex things depend on their structures. The objects that make up the world are structured in the sense of irreducible to events of experience, and intransitive in the sense that they exist and act independently of their identification.

“The conception I am proposing to defend is of a world composed in part of complex things (including systems and complexly structured situations) which, by virtue of their *structures*, possess certain *powers* – potentials, capacities, or abilities to act in certain ways and/or to facilitate various activities and developments”. Lawson (1997, p. 21) The italics are from the original.

1.a. Social reality

For Lawson the social realm is constituted by those phenomena that exist depending on human activity as intentional. Lawson (2001, p. 173) states “What is first of all the social realm? It is typically defined as that domain of all phenomena whose existence depends at least in part on intentional human agency”.

Social reality is a dynamic and complex net, formed by human action, the structures and the context of action, that interrelate and are in constant flux.

“The conception of the social world to be sustained is of a network of continually reproduced inter-dependencies. That is, social reality is conceived as intrinsically dynamic and complexly structured, consisting in human agency, structures and contexts of action, none of which are given or fixed, and where each presupposes each other without being reducible to, identifiable with, or explicable completely in terms of, any other”. Lawson (1997, p. 159)

The social structure as rules, positions and relations is a precondition for intentional action. The structure cannot be considered fixed.

“Social reality is an emergent realm dependent upon, though irreducible to, inherently transformative human agency, and consisting of stuff that is intrinsically dynamic, i.e. everywhere a process, highly internally related and often relatively enduring, amongst much else”. Lawson (2003, p. 44)

The powers that things have are in virtue of their structure. Investigating their structure we can know their powers. The structures act through their mechanisms. Lawson (1997, p. 21) says “A *mechanism* is basically a way of acting or working of a structured thing”. These mechanisms are formed by causal powers that act like mechanisms that determine the phenomena. And he adds (1997, p. 21) “Structured things, then, possess causal powers which, when triggered or released, act as generative mechanisms to determine the actual phenomena of the world”.

Lawson characterizes the social realm in the following way:

a. *internally related.*

“A social system can be recognised as a structured process of interaction; an institution, as already noted, as a social system/structure that is relatively enduring and perceived as such; a collectivity as an internally related set of social positions along with their occupants, and so forth”. Lawson (2003, p. 58)

The social realm is what it is, in virtue of the relationship in which each one places himself respect to the others.

Lawson distinguishes internal and external relations. Two objects are externally related if neither of them is what it is because of his relation to the other. For example, bread and butter, coffee and milk, among others. And they are internally related if they are what they are in virtue of their relation with the other. For example, owner and tenant, teacher and student, employer and employee (Lawson, 1997).

A distinctive characteristic of the social world is the omnipresence of internal relations that make up what he calls organic wholes.

b. holistic

c. open

“Now I take the social realm to be that domain of phenomena whose existence depends at least in part on us (a realm which, I take it, includes [but I suspect is not exhausted by] Popper’s world 3). And according to the conception I defend social reality is (found to be) in a fundamental sense *open* (...)” Lawson (2002, pp. 2-3)

According to Lawson many economists share the intuition that human agents have the real capacity to choose. This implies that if the capacity is real, then, men could have always acted differently. This assumes that the world is open and that the events do not occur necessarily. As this, the intentionality of the agents is related to the knowledge they possess.

“Now if choice is real any agent could always have done otherwise, each agent could always have acted differently than he or she in fact did. Clearly, a necessary condition for this is that the world, social as well as natural, is open in the sense that events really could have been different. Put differently, if under conditions x an agent chose in fact to do y , it is the case that this same agent could really instead have done not y . Choice to repeat presupposes that the world is open and actual events need not have been. But the possibility of choice not only presupposes that events could have been different. It also entails that agents have some conception of what they are doing and wanting to achieve in their activity. That is, if choice is real then human actions must be intentional under some description. Intentionality in turn is bound up with knowledgeability”.
Lawson (1994, p. 269)

The social structure can only be present in an open world. (Lawson, 1994). Lawson distinguishes closed and open systems. A closed system is the one in which constant conjunctions of events are

presented. The author understands that in deductivism underlies a conception of the social world as a closed system, and because of this he rejects it. The aim of science is not to make predictions of events, but to identify those structures, mechanisms, causal powers that underlie phenomena, to enable to reorient economics and transform the social world, essentially open. These mechanisms are identifiable by the method of explanation by contrastives and abductive reasoning. By this method a causal explanation of the mechanisms underlying phenomena is intended (Lawson, 2009c). Although how we arrive to a specific cause of a certain phenomenon is, in this author, problematic.

d. structured.

Lawson points out that behind the events and states of affairs that form social reality there are structures, powers, mechanisms and tendencies that make them possible.

“However, it is a further feature of the conception I defend that social reality is (found to be) not only open in the manner described but also *structured*. That is, it comprises not only actualities such as actual events and states of affairs (some of which we may directly experience) but also deeper structures, powers, mechanisms, and tendencies, etc., which produce, facilitate, or otherwise condition these actualities”. Lawson (2002, p. 3)

According to the structure certain powers, that are actualized by mechanisms, are possessed.¹ The powers and the structure are kept even when they are not exercised.

“Consider and aspirin. In virtue of its intrinsic chemical structure it has certain powers, most obviously to relieve a headache (or pain in general). Or consider a bicycle. Because of its physical structure it facilitates rides. Now the powers of aspirins, bicycles, and anything else, can exist unexercised; the aspirin may remain in the bottle, the bicycle in the garden shed. When powers are exercised they work by way of mechanisms or processes”. Lawson (2001, p. 172)

e. processual

The nature itself of the social realm is the process. Change is intrinsic to the way of being of social reality.

“Rather social items such as markets and political systems must be understood as processes, as reproduced structures of interaction, with change recognized not as an external happening, the

¹ Even though mechanisms, tendencies and powers have a fundamental role in Lawson’s social ontology, it is necessary to point out that along his work, these terms do not appear sufficiently explained. In many opportunities he highlights the central role they play, though he uses these terms as if they were primitive.

result of an external or exogenous stock, but as an integral part of what the system or object in question is". Lawson (1994, p. 279)

The characterization of the social realm typical of the social ontology of Tony Lawson establishes restrictions to the possibilities of isolation in the social realm, and is key in the evaluation that this author makes of the mainstream economic theory.

2. The philosophical assumptions of the mainstream

Lawson criticizes the philosophical assumptions of the mainstream, deductivism and empirical realism (Marqués, 2004).

2.a. Deductivism:

Regarding **deductivism**, what he criticizes is the conception of law on which depends the deductivist explanation. For Lawson this conception of law is formulated in terms of constant conjunctions of events or states of affairs. They are laws that connect results at the level of events. They express regularities of the form "whenever the event x , then the event y ". The theories that are constructed with this conception of law are what Lawson calls deductivism.

"By deductivism I simply mean the collection of theories (of science, explanation, scientific progress, and so forth) that is erected upon the event regularity conception of laws in conjunction with the just noted principle of theory assessment". Lawson (1997, p. 17)

Such constant regularities of events, expressed in those laws, refer to systems in which those constant conjunctions of events emerge, this is, to closed systems. To apply deductivism a closed system is necessary.

2.b. Empirical realism:

As we have shown, according to the empirical realism, that he rejects, only events and individuals that register them by the senses exist, and the laws express constant conjunctions of events. It considers positivism as the knowledge that consists in sensations or impressions. The relation of these with instrumentalism appears. Here economic theories are useful or efficient, but not true or false. Lawson (2001, p. 158) explains "I understand by instrumentalism the thesis that theories are to be interpreted merely as practical tools or instruments for some purpose other than causal

explanation". According to Lawson the realist is busy explaining the world. And he adds (Idem, p. 167) "(...) a scientific realism, asserts that there are ultimate objects of scientific investigation, and that these exist for the most part quite independent of, or at least prior to, our investigation of them". The typical characterization of the mainstream in Tony Lawson, that assumes deductivism and empirical realism, makes it impossible that by its models we may access the social world, according to the social ontology of critical realism.

The problem about the ontology present in Lawson, it is not adhering or not to the presence of causal mechanisms operating behind the phenomena, since it is not necessary to be a critical realist to support this. Beyond the transfactuality of the mechanisms that is not restrictive of Lawson's realism, the difficulty is in the characterization of social reality, and its stratification. To this, social ontology is added as prescriptive, which makes difficult the possibilities to access the social realm, without adhering to this ontology.

"Lawson is clearly engaged in *prescriptive metaphysics*; he wants economists to change the way they think about necessity and being. According to Lawson, there is a right ontological approach (critical realism), and a wrong ontological approach (empirical realism), and he wants to convince economists to move from the latter to the former". Hands (2001, p. 328)

3. Criticism to critical realism:

3.a. The notion of mainstream economics

Different criticisms have emerged in relation to what Lawson understands by mainstream. To begin with, a more accurate description of what the mainstream is seems to be asked for.

Vromen disagrees with the idea that the mainstream economic theory assumes an ontology of closed worlds of isolated atoms (Vromen, 2009).

Davis points out that the object of Lawson's criticism is diffuse (Davis, 2009). He understands that the mainstream theory is more heterogeneous than what Lawson explains. Regarding the two fundamental criteria that he uses to distinguish what he calls mainstream: 1) the insistence on formalistic methods 2) the presupposed ontology, in some cases he seems to refer only to the second, which is the most relevant. In other opportunities he maintains the two of them. The first criterion is rather epistemological, even though he sustains that he does not do epistemology.

Lawson opposes to the insistence in the use of the methods of mathematical modelling, that understands as essential to mainstream economic theory. Although he sustains (in opposition to what is attributed to him by his critics) that he does not reject mathematics.

“My argument is not all and anti-mathematics one; and it never has been. I have only ever criticised the way (certain) mathematical methods tend to be used in modern economics. Indeed it is precisely the belief that mathematics ought not to be applied without due care and consideration, coupled with a conviction that in modern economics it too often is so, that explains the direction of much of my writing. If you like, my concern is that much of economic modelling appears somewhat analogous to a violin being used as a drumstick. To suggest that this may be “bad practice” is in no way to devalue the violin, or to deny it a place in the orchestra”. Lawson (2009a, 228, note 12) The italics are from the original.

According to Lawson the methods of mathematics used by economists are tools. But he understands that the conditions under which these tools are useful do not occur frequently in the social world. As we have pointed out, he criticizes the insistence in the use of the methods of formalistic modelling; although he does not reject them, he does not specify which would be those occasions in which those methods would be useful.

As to which is the state of the mainstream, there are also difficulties (Hodgson, 2009). Lawson points out that the state of the mainstream is “unhealthy”, and to the question “which is the illness of the mainstream?”, he answers, “deductivism”. From the latter he infers a way of understanding reality, different to the one underlying critical realism.

Lawson adds that the situation of mainstream economics is sad and unfortunate. However, Deichsel sustains that on the evaluation that Lawson makes of modern economics, that he takes as a point of departure of his ontological proposal for reorienting economics, there is no agreement (Deichsel, 2011).

“First, although there are many economists who agree with Lawson that there is something badly wrong with mainstream economic theorising and practice, there are others with very divergent beliefs in this regard. Many believe that orthodox economics is doing perfectly well and has shown itself to be highly successful _both in its general predictions and as an explanatory guide to policymakers”. Hodge (2007, p. 23)

3.b. The possibilities of economics founded in social ontology

According to Lawson the ontological investigations convey methodological implications. The most important ontological difference in this sense is the existence of transfactuals.

“A transfactual statement is not a counterfactual, i.e. it does not express what *would* happen if the conditions were different. Rather it refers to something that *is* going on, that is having an effect, even if the actual (possibly observable) outcome is jointly co-determined by (possibly numerous) other influences”. Lawson (1999b, p. 5)

Hausman points out two reasons at Bhaskar and Lawson’s criteria to accept transfactuals (Hausman, 1999a):

1. Without them it is not possible to theorize in open systems.
2. The knowledge of transfactuals allows to explain and provides a guide for politics when there are no regularities available.

Hausman rejects these two reasons because he indicates that just as the *ceteris paribus* assertions do not tell what will happen when other things do not remain the same, the transfactuals do not tell what will happen in open systems. In his opinion there is nothing that can be done with transfactuals that cannot be done with counterfactuals, except convince themselves mistakenly that the knowledge of non-empirical activity allows to explain and do politics without knowing anything about real results. It is a critic about the explanatory value of the transfactuals.

The transfactuals have a central role in Lawson’s critical realism. The distinctive is, to Hausman’s criterion, the thesis of transfactuality of mechanisms, that apart from being real, they are always active (once triggered) under the phenomena (Hausman, 1999b).

The defence of transfactuals allows the laws to be applied when in open systems appear counterexamples or when the *ceteris paribus* conditions do not occur. According to transcendental realism the law is true if it describes correctly the operation of a generative mechanism and the mechanism is really operating in that instant (Bhaskar, 1978).

Hausman points out two problems around transfactuals:

1. How do you justify the operation? Because the mechanisms can belong to the essence of the thing, and because of that you can suppose that it is maintained from one context to another.
2. To suppose that “x tends to do y”, given that there can be other operating mechanisms that intervene (Hausman, 1999b).

However, is it possible to know which particular mechanism is operating here and now? If economics cannot predict in Lawson’s discretion, facing these difficulties, it could not explain in a strong sense, either, (this is, know which particular mechanisms is acting in a determined place and time) so, what is left is a “how possible explanation”, but this is also done by the mainstream.

How is it possible to explain in a strong sense? Lawson’s proposal implies that I know which is the mechanism, that if it were functioning, it would make these events happen. But, in general, there is

more than one mechanism, and mechanisms that overlap, how can we distinguish which mechanism is operating? If we cannot answer this, is it possible to explain?

According to Bhaskar transfactuals can explain what occurs in open systems. For this he proposes a procedure that consists in:

1. Break down the causal components of the phenomenon.
2. Describe the cause and the effect in terms of the theoretical knowledge of one of the relevant mechanisms.
3. Identify the possible causes.
4. Eliminate the alternative causes (Hausman 1999b).

As a result of this procedure the transfactual knowledge of the mechanism allows to explain the phenomenon.

3.c. Realism of economic models.²

As regards the unrealistic assumptions of economic models that “turn them” false, Hodgson (2009, pp. 175-188) holds that it is not about constructing more complicated or realistic models. From more complicated or realistic models can emerge similar results. This is, more complex models are not a guarantee of better results. Even though Lawson agrees on reality being complex, he disagrees with that because of that we ought to construct simple models. Lawson attacks the idea that from the complexity of the world, you can infer that our analysis should distort reality knowingly (Hirsch-DesRoches, 2009).

Given the complexity of social reality, models are not isomorphic, this is, they are inevitably distortions. This implies an important difficulty to obtain true models.

Hodgson understands that even though Lawson’s position and the mainstream’s are opposite, both have assumptions. Mainstream economists assume that models are sufficient to represent the world, and interpretation can be left aside. Lawson assumes, in turn, that models suppose a way of understanding the nature of reality. Hodgson holds that the assumptions of both (positions) are false. Hodgson (2009, p. 182) adds that no mainstream economist would deny that the world is open, and (would not sustain) that any formal model would suppose that other causal mechanisms that have been omitted in the model, do not exist.

² Note that curiously Lawson says he has not taken part in the debate realism-anti-instrumentalism of philosophy of science, in which the debate on realism of economic models of the philosophy of economics can be located, nor in the debate realism-anti-realism of metaphysics, and nevertheless he makes contributions to both debates.

Lawson understands that the comprehension of social reality is independent of the construction of models, and that modellers are uncomfortable with the mathematical formalistic models because they are unrealistic.

“Obviously, modellers are uncomfortable with the charge of irrelevance, so attempts will be made to render models as realistic as possible, real insight will be tagged on wherever feasible. But as I say, I believe the real insights are typically independent of, and indeed achieved prior to, the construction of the mathematical model”. Lawson (2009a, 229, note 20)

The deductive formalistic mathematics of the mainstream economic theory assumes, according to this author, an ontology of closed systems of isolated atoms. Given the nature of the social world, the method of theoretical idealization typical of the isolation can not provide insight of social reality (Lawson, 2011).

The unrealistic mainstream theories consist of explanations of isolated atoms, this is, entities that have independent and invariable effects whatever the context is. The ontology of isolated atoms implicit in deductive mathematic models is, according to Lawson, inconsistent with the way social reality is.

“This blind faith in the appropriateness of always using mathematical-deductivist methods is a problem just because the implicit ontology of isolated atoms, that such methods presuppose, is inconsistent with the way social reality is found to be. For it is easy enough to show (via philosophical-ontological analysis) that social reality is open structured, processual, highly internally related, characterised by meaning, value and so on”. Lawson (2009b, p. 167)

Hodgson believes that for Lawson “more realism” means “more richness or complexity” of the models. But Lawson does not hold what is attributed to him. For him, more realism means incorporating the mechanisms that “we know” work in reality. Lawson’s criticism to the increasing complexity of the econometric models illustrates this point.

Deichsel also questions thinking that an economics that describes better, in detail the social world is going to be better than the mainstream theory. The more detailed description may not be a useful base to theorize.

“Second, for the sake of Lawson’s argument let us accept that an economics that depicts the inherent dynamics and openness of social systems fits better into the totality of our current beliefs than the mainstream mechanistic picture. This fit is surely not an absurd standard for “realism” in economics. But is it a helpful normative guideline to improve this fit? I have my doubts. Also at the

methodological level more realism may not be helpful, because the increased detail of research based on “social ontology” is not likely to be a useful basis for theorising, because the emerging picture is too “messy” for that. While a deterministic picture of humans as rational agents may be false, it can be fruitfully so”. Deichsel (2011, p. 14)

More realism does not imply models that correspond with reality, as the correspondent notion of truth. They are models that fit not as detailed correspondence, but models that adequate to the ontological conditions of the social world, according to the social ontology of Lawson’s critical realism. Such models would be realistic ones within the framework of critical realism.

His engagement with social ontology is decisive for his position towards the use of mainstream economic models, according to the characterization that this author makes of the mentioned economic theory.

3.d. The notions of isolation and abstraction.

Abstraction allows, at Lawson’s discretion, to investigate closed and open systems. To abstract implies focusing on certain aspects of something and leaving aside others:

“I interpret abstraction, here as always, according to its traditional meaning of focusing on certain aspects of something to the (momentary) neglect of others. It is a process of focusing on some feature(s) of something(s) while others remain in the background”. Lawson (2009a, pp. 203-204)

Also through abstraction possible causal mechanisms that may cause those phenomena are selected (Hodge, 2007).

In Lawson isolation is made by abstraction, that does not necessarily imply idealization. To abstract is not to idealize. Even though to isolate implies to abstract, to abstract does not necessarily imply to idealize. Lawson does not accept isolation since it implies idealization and omission.

His defence of critical realism is not supported in the use of isolations by false idealizations. The place of isolation is connected to the relation of Lawson with the mainstream economics, to reorient economics, moving it away from simplified, idealized models, that have nothing to do with social reality.

His ontology is very important to show his rejection of isolation. Social entities are totalities, in accordance with this, isolation is not viable, because this would imply a split.

“Clearly abstraction, but not theoretical isolation, will be relevant wherever the whole is not just the mechanical sum of parts. Composers, surgeons, artists as well as social theorists deal with internally related wholes. As such abstraction, not theoretical isolation, will be the appropriate method of analysis”. Lawson (2009a, p. 205)

To abstract is to identify a set of aspects that are essential to the phenomenon. But it does not consist in pointing out which of those aspects is more general (Lawson, 1997).

To abstract it is not to make closures either. This is according to the notion of abstraction that we have explained and agreeing that a closure is a system that sustains an event regularity.

“Clearly, abstraction can be applied to all types of systems, to those that support strict event regularities, to those that support partial ones and equally to those seemingly not supporting any. It can be applied to matters that are real or fictitious. If I talk only about the horn (or white colour, or the horn of a billy goat-beard or lion’s tail, or cloven hoofs) of a unicorn, I am abstracting in the context of discussing a fiction. To say of the social system, or of any specific part of it, that it is fundamentally open is to abstract. To suggest that abstraction presupposes closure is simply to misunderstand one or other or both of the two terms”. Lawson (2009a, p. 207)

There exists a relation between to abstract and to model, as far as modelling is concerned you leave aside the rest of the world.

“Economies are “modelled” as closed in the sense that the rest of the world does not exist, uncertainty is all but banished, as are becomings, and “begoings”, mortalities and (systematic) mistakes, conflicts and crisis, internal relations and transformations. In the name of abstraction all features of social reality that prove inconvenient to deductivist modes of reasoning are ultimately assumed away”. Lawson (1997, p. 235)

Hodgson (2009, pp. 175-188) criticizes Lawson that in his proposal there is a vague distinction between isolation and abstraction.

Hodgson points out that Lawson realizes that there are no theories without a certain degree of abstraction, given that it is impossible to consider all elements at the same time. But if abstraction is necessary, and it implies a limitation of what is going to be considered, to exclude additional forces, etc., this also implies the assumption of a close system.

However, Lawson maintains that to abstract and to isolate are different. To abstract is to focus in certain aspects of something leaving aside, momentarily, others. Focusing on some characteristics of

something, while others are left “in the back”. To isolate is to treat those aspects that are not focused as if they did not exist.

“To abstract is to focus on aspects of something whilst *not* assuming the non-existence, or non-impact, of features not focused explicitly upon (that are abstracted from). To isolate theoretically is precisely to treat those aspects not focused upon as non-existent, or at least as sealed off, as having no systematic influence”. Lawson (2009a, p. 204)

Lawson sustains that it is different to leave aside something momentarily than to treat it as if it did not exist, as it is done when isolating. Abstraction is, according to Lawson, indispensable to science. Its aim is to individualize a component or an aspect of something concrete to understand it better (Lawson, 1997).

The process of abstraction allows us to illuminate social reality, essentially open.

Abstraction, in Lawson’s criteria, does not imply closure, given the definition of abstraction indicated, and the consideration of what we understand for closure: a system that holds a regularity of event.

“It is true that I argue that regularities (real or imaginary) of the form “whenever event (or state of affairs) x then event (or state of affairs) y” (or stochastic near equivalents) are a necessary condition if formalistic deductivist methods of the sort economists seek are to be utilised. Systems in which these regularities occur I refer to as closed”. Lawson (2009a, p. 194)

Abstraction can be applied to every kind of systems, those that hold strict events regularities, partial ones, or none. It can be applied to real or fictitious questions.

Abstraction is relevant when the whole is not the mechanic sum of its parts, as in Lawson’s proposal. He explains that even if these methods are different, they are not alternatives. The complexity of the world makes abstraction to be always involved. The method of isolating, by contrast, has conditions that are very restricted under which it is useful or relevant.

A theoretical isolation is a thought experiment. It is the process of imagining what will occur if a physical isolation could be reached.

To explain how the social world is, is not about isolating. There is a pre-eminence of the ontological over the theoretical. It makes no sense for Lawson to separate what in reality cannot be separated. Even though reality is complex, the method proposed by this author is not to simplify it through isolations, but to abstract.

The models reached by isolations do not adjust to social world.

Lawson thinks that Hodgson's aim is to persuade that the methods Lawson defends, specially abstraction, have the same problems of the mainstream. Hodgson holds that formal methods can be more useful than what Lawson considers.

"I think Hodgson's goal is to persuade that the sorts of methods that I advocate (and more especially abstraction) face essentially the same problems as those confronting the mainstream. In other words, Hodgson seems to be working on two fronts. On the one hand he wishes to suggest that the formalistic methods can be more useful than I allow. On the other hand he wishes to convey the impression that any alternative methods that I have advocated share any difficulties that can be associated with formalism". Lawson (2009a, p. 202)

For an explanation to be successful it is necessary to maintain the distinction between abstraction and isolation.

Facing Lawson's criticism that the distinction between to isolate and to abstract is insufficiently precise, Lawson intends to show that both methods are irreducible between themselves.

4. Conclusion

In this work we have tried to show the main difficulties that emerge around Tony Lawson's critical realism. In order to do this we explained what is critical realism and which are the philosophical assumptions of the mainstream economic theory according to this author.

We pointed out the critical aspects related to the notion of mainstream economics; the possibilities of an economics founded in social ontology; on the realism of economic models; and the notions of isolation and abstraction.

In the former, there are difficulties to define mainstream economic theory and distinguish if Tony Lawson makes an adequate characterization of it and of the state of modern economics.

On the possibilities of an economics founded in social ontology, it was posed that there exists certain disagreement on that the ontological proposal of Lawson may allow to make a better explanation of the social world. (Especially if there is disagreement around the state of mainstream economics)

On the realism of models, what this author "claims" is not exactly more complex models, but models that are capable of capturing the mechanisms that operate behind the events and in this way transform the social world.

It is still necessary to specify a bit more what are transfactuals, and in particular the notion of mechanisms, central in his social ontology. Especially, if what is expected is that illuminating those mechanisms, we will be able to reorient economics.

As regards the difference between abstraction and isolation, he clearly distinguishes them because he attributes to those concepts different ontologies. Isolation requires empirical realism opposite to Lawson's critical realism. Isolation far from bringing us closer to the social world, it moves us away from it, and stops us from explaining it and transforming it.

Finally, it is necessary to adhere to critical realism and manage to reorient economics and transform reality, to adhere to his social ontology and apply to the social world transcendental realism. Without this look to the social realm, economics will go on in the sad, unfortunate and unhealthy state that Lawson diagnoses.

However, if Lawson's ontology is not shared, what room is left for the dialogue with the mainstream economic theory's proposal?

Is there room left for modelling and that modelling does not imply a commitment with an ontology of closed systems? Does modelling imply necessarily an ontological commitment? Is it not possible that modelling is only a tool that we use to understand something of an essentially open world? Which is the concrete economic theory for open systems alternative to mainstream economic theory? Is it possible to do economics without adhering to Lawson's prescriptive ontology? Is Lawson really pluralist? Does a possibility of meeting between Lawson's heterodoxy and mainstream orthodoxy exist?

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