Вестник Томского государственного университета
Философия. Социология. Политология. 2020. № 55

СОЦИАЛЬНАЯ ФИЛОСОФИЯ И ФИЛОСОФСКАЯ АНТРОПОЛОГИЯ

УДК: 165.62
DOI: 10.17223/1998863X/55/5

I.F. Mikhailov[1]

SOCIAL ONTOLOGY: TIME TO COMPUTE

Discussions on the alleged methodological specificity of social knowledge are fueled to not the least extent by a kind of retarded position of the latter against technological advancements of natural and information science based on exact methods and formal or quantitative languages. It is more or less obvious that applicability of exact scientific methods to social disciplines is highly dependent on a chosen conception of social reality, i. e., on social ontology. In the article, the author critically approaches the ontological views of Tony Lawson and proposes a computational view on social ontology that is supposed to eliminate some internal contradictions of Lawson's realist conception.
Keywords: *social ontology, Tony Lawson, computation.*

1. Introduction

The dispute on whether any kind social knowledge (SK) must comply with methodological requirements of natural science (NS) is a long-run story. It is obvious that, technologically and in a utilitarian respect, NS is far ahead. The question is whether it is a matter of methodological perfection thereof, in which case SK must find its way to using the proper methods of scientific inquiry. Or, as many enthusiasts claim, SK has merits of its own and its appropriate methods are to stem from a somewhat better understanding of its specific subject-matter.

In order to demonstrate the validity of the first view, one has to present social reality as ready to be put under formal and mathematical analysis; this enterprise has been tried so far with variable success. Meanwhile, for the second approach to be accepted, one has to show how we may know anything about a specific entity prior and independently of having a particular method of obtaining knowledge. Usually, adepts of the second view stick to working out various doctrines allowing for some intuitive penetration into the core of things.

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[1] **Автор:** И.Ф. Михайлов.

Название статьи: Социальная онтология: время вычислений.

Аннотация. Дискуссии о предполагаемой методологической специфике социального знания не в последней степени вызваны в каком-то смысле его отстающей позицией по отношению к технологическим достижениям естествознания и информатики, которые основаны на точных методах, а также на формальных или количественных языках. Более или менее очевидно, что применимость точных научных методов к социальным дисциплинам сильно зависит от выбранной концепции социальной реальности, т.е. от социальной онтологии. В статье я критически оцениваю онтологическую позицию Тони Лоусона и предлагаю вычислительный подход к социальной онтологии, который должен устранить некоторые внутренние противоречия реалистической концепции Лоусона.

Ключевые слова: социальная онтология, Тони Лоусон, вычисления.

Overall, this is the old Kantian dilemma: whether an object may be shown to us only being shaped by our way of looking at it and, thus, inheriting the properties of the projection, or, conversely, our way of looking is determined by the nature of the object, which is somehow manifested in this or that way. Both stances have their weak points. It is a natural question then if there is a third option. In search of the answer, let us look into discussions around the conception of social ontology proposed by Tony Lawson and the Cambridge project [1–4], as it is, presumably, one of the most prominent proposals founded by arguments taken from the strict and professional philosophy of science.

Setting the point in the 'method vs. object' discussion, Edward Fullbrook, one of Lawson's commenters, states that Lawson's ontological approach, as it were, corrects the distortion introduced by J.S. Mill and early economists, who preferred NS as a source for a method in SK. As he puts it,

Adopting this approach to methodology means that instead of being led by ontological enquiry, one defines a priori the ontology to fit the method. Nothing could be more against the procedures and mindset that have dominated the natural sciences from Copernicus on. <...> In real science an ontology, however imperfect, decides the method, not the opposite. The birth of classical mechanics is a paragon case. Rather than pretend that the mechanical universe had properties isomorphic to an existing mathematics, Newton invented one, calculus, which did [4. P. 4].

In other words, why push SK with its definitely different ontology to fit the alien methods, if NS itself has worked these methods out in accordance with its own proprietary ontology, and not the other way around? It is a strong point, as far as I am concerned, unless we examine Newton's ontology against its historical and cultural contexts. First, Newton's natural philosophy was getting shape having substantivalism vs. Cambridge Neo-Platonism disputes in the background [5], where this or that conception of God's spacial nature played an important role, or in discussion with Descartes' (meta)physics, whence he borrowed the idea of true and immutable natures [6]. These circumstances allow for assuming that his ontology, at least for an important part, was not derived from seeing the nature as it is, but rather from specific philosophical, religious or other cultural commitments of his time. And, second, the concept of a physical body that moves rectilinearly with zero acceleration unless it is affected by a force is no less far from laymen's intuitions and everyday experience than the priority of method over object from the actual scientific practice, according to Fullbrook. And third, no one of us, including Isaac Newton, is in a position to observe the 'mechanical universe' as such other than within the frame of this or that mechanics. We need some universal principles and laws to see the world as a unified medium for their implementation, a *universe* in a proper sense. In their absence, we are left with fractured and heterogenic 'realities', struggling, *e.g.*, with the task of incorporating the social world into a physical one.

But Lawson openly sides with 'object over method' doctrine in application to SK, particularly to economics. At the same time, he argues in various publications that his approach "is thoroughly naturalistic <...>. It also serves to ground a social science that can be scientific in the sense of natural science" [2. P. 345].

I am going to critically approach two of Lawson's principal positions. They may be presented as the following:

• Epistemologically, human practices are privileged with the respect of getting to the core of reality, as their general properties are (probably) those of reality.

• In social research, practices are the source of proper and accurate scientific ontological concepts.

2. What Is Ontology?

It is always an ambitious enterprise to explain to traditionalists what ontology is beyond some philosophical, or even metaphysical, antiques, and why modern science may need it. The most obvious way to do this is to explicate it in terms of presuppositions. If your theory says that electrons manifest properties of particles in certain experimental situations and those of waves in the other, then it presupposes that your reality consists (at least) of particle-like and wave-like objects, and electrons as true existents must be subsumed by either of the classes. Here is where ontology stops, and theory proper starts with claims on which particular class this particular existent subsumes. The philosophy of ontology[1] starts with the question of whether the truth of the assertion entails the truth of its presupposition. A realist would claim that it certainly does. Lawson hits this road quite decisively: "As long as we are in possession of theories widely regarded as reliable, whose content can serve as premises for ontological analysis, there is reason to suppose that the presuppositions uncovered can relate to a reality beyond conceptions" [1. P. 27].

This statement is vulnerable in more than one respect. First, and maybe the least essential, objection emerges against this 'widely regarded' unsustainable claim that, having been taken by others, has previously been reciprocated by Lawson himself with 'by whom?'. But what is more important is the issue with the soundness of this deduction from presuppositions of reliable theories to the composition of the ultimate reality. Reliability of a theory as a necessary condition for it to be a source for ontology is stated unequivocally: "Reliability of entry points is the key here" [Ibid.].

The Ptolemaeus astronomy was quite reliable for the sake of navigation. The caloric theory proved to be reliable for Sadi Carnot who pictured the ideal schemas of thermodynamic processes, the schemas are viable so far. If the history of science teaches us any lessons, they are about the general unreliability of reckless scientific realism.

Lawson correctly labels ontological assumptions of a theory as 'presuppositions'. Those differ from entailments in that a presupposition is implied by both a statement and its negation. If we, for instance, had a 'reliable' theory stating that caloric (or phlogiston, or whatever) is completely absorbed by a gas whatever volume the latter occupies, its ontological presupposition would be that caloric is there. But, in this case, as in any other, a contradicting theory saying that there may be a certain unabsorbed residue of caloric in certain volumes/masses would have to be considered unreliable by perforce. But they both would point out one and the same 'ultimate reality'. Of course, this situation is consistent with our formal rules, but still then – what is the point of singling out the reliability of a theory as a reason for its being a source of ontological revelations?

Another philosophical issue is if ontology is research or investigation of the same kind as theory. Lawson believes that "the branch of study concerned with

[1] Some prefer to call it 'metaontology' [7–9].

what is or what exists, that investigates the natures of particular existents, is reasonably distinguished as scientific ontology. <...> Clearly, so understood scientific ontology, if irreducible to, is often carried out within science itself" [1. P. 20].

I cannot interpret this definition as anything but stating that scientific ontology either is reduced to the science itself or is part of a scientific investigation. Here Lawson mixes up two importantly differentiated things: the study of what really inhabits the investigated area and the study of what may be accepted as an object of a particular science. In the first case, the resulting propositions of the study may be true or false, while, in the second, they may turn out (and, in most cases, really are, as far as I can tell) purely conventional. Propositions of the first kind belong to a scientific theory, while propositions about possible objects of a study constitute an ontology of a particular science. In the latter case, one asks if a certain type of an object is appropriate for a particular scientific endeavor. In the former one, one empirically determines if this type is populated with any real-world instances. Epistemologically, these propositions are as different as can be. If ontology were a kind of a 'theory' on its own, then philosophy experiencing in building ontologies for about 2,500 years could compete with science directly. But, in fact, if contingently invented ontologies have any *raison d'être*, it consists in their waiting to be engaged in the mission of interpretation of properly theoretical and/or factual propositions.

3. How Can Social Reality Be Picked Out by an Ontology?

Lawson then points out one of the principal (if not the most principal) distinctions of the social reality from the natural one:

Indeed, when eventually the social realm is examined, it will be observed that it is more often the insights of lay theorising that inform the theories of economists rather than the other way around; it is lay theorising and understanding that constrain economists to posit certain real-world categories / entities such as markets, money, firms, institutions, technology, etc. [Ibid. P. 27].

From this abstract one can infer that social science differs from natural one in that it is informed by lay theories in what concerns their ontologies, while in natural science it is the other way around. If this is really the case, there may be two alternative – or, even complimentary – explications thereof. One is that social science has not met the scientific standards yet, because it is still dependent on laymen's intuitions, while natural science has managed to avoid this dependency and to rise above our everyday prejudices. The other is that the ways of contacting reality in the two cases are quite different by themselves: nature reveals itself in our sensations, while society is present only through the 'theories' we have concerning our collectivity.

And, again, missing or omitting the epistemological specificity of any ontologies as compared to theories proper may lead to the incorrect belief here that the social reality is adequately revealed in lay theories, which are nothing but our everyday concepts describing ongoing human intercourse around us. But do either laymen's ontologies, or scientific ones, discover any truths about any ultimate reality? Or do they just propose this or that arbitrary schematic view on possible states of affairs, whose views, being complemented with theories in the proper sense of the word, either work or fail in explaining facts? And, if so, it is only a matter of some abductive probable inference to conclude that, if a theory works, then its added ontology reveals some fragment of the Kantian thing-in-itself.

Lawson obviously takes the realist stance, which he attempts to ground further. To this end, he introduces human practices, including those of scientific research, to be a leverage for penetration into the very core of things. He concentrates on how scientific experiments in artificially insulated circumstances may produce regular event sequences:

Let a system or scenario in which an event regularity is produced, or occurs, be described as closed; a domain of reality that comprises more than one ontological level (e.g., that does not consist only of events) be described as structured; and let any components of a system which can be insulated from (the effects of) others be described as separable [1. P. 28].

If these preconditions result in producing regular events, and, moreover, in triggering the same regularities within natural circumstances, this means, according to Lawson, that the reality itself "is characterised by such general properties as structure, causality, separability and openness, and so on" [Ibid.].

Much like propositions in Wittgenstein's *Tractatus*, the course of experimentations, according to Lawson, says something of the world with its immediate results, but also manifests (*'shows'*) the world's intrinsic features with its own normative premises. But pay attention to his "Let a system <...> be described as <...>". Actually, he concludes from one of the possible general descriptions of an experimental situation to some categorical attributes of reality: if *A*, *B* and *C* characterize an experimental situation, and the latter produces trains of events that prove to be reproducible in the 'real' world, then *A*, *B* and *C* are also immanent attributes of the world. But, as we notice, while *A*, *B* and *C* in an experiment are obvious and arbitrarily invoked, the *A*-, *B*- and *C-ness* of the world by itself is far from being obvious and must be philosophically unveiled, *i.e.*, ascribed thereto. The said inference may be either necessary or abductive and, therefore, probable. Compare: if an ape is hairy and uses a stick to reach for a banana, then a human using a stick to the same end is hairy too. And if the deduced human's hairiness is not evident in observation, then it is part of their hidden ontological essence – a step typical for Ancient Greek thinkers.

Lawson further states that, while concepts of natural science are usually new and strange to our everyday thinking, those of social science are known prior to the research. And this, according to him, is because "the social phenomena, unlike those of the non-social realm, emerge through human interaction and, qua social phenomena, depend on us, including our conceptions, for their continuing existence" [Ibid. P. 31].

Thus, like in the case of the widely discussed 'folk psychology', we may speak about a kind of 'folk sociology' here which, by definition, underlies the real entities of our social being. For Lawson, if our interactions are determined by our lay social concepts, then the latter conceive the ultimate social reality under question. Once we adopt this view, a single minor question remains: why do we need all this ontological 'investigation', when all the social thing-in-itself lies open to our mundane sight? If our lay concepts are enough to do some proper social science over them, then all the problems of social ontologies are resolved. But, on the other hand, this very folk-sociological approach of many social thinkers may be the reason why "<n>ot only do the social sciences appear to be largely explanatorily unsuccessful, even by their own standards, but also they constitute a veritable cauldron of claims and counterclaims devoid of anything approaching consensus, and so are seemingly quite unable to provide potential entry points for ontological reasoning" [1. P. 30].

There are reasons to suspect that the comparative success of natural sciences stems to a great extent from the underlying counter-intuitive ontologies that counter our everyday intuitions not because we have 'discovered' them by means of some 'research', but because someone very prominent decided that, for all those maths to work, we need some simpler and better defined 'objects' than those we used to see around. And, if social students had put less trust into folk sociology but had gone in for invention of some alternative sets of objects, a perfect match might have once been achieved between a social ontology in a proper sense and an effective formalized theory.

Lawson himself recognizes that lay theory concepts are hardly a reliable source for any scientifically justified ontology, and, therefore, the problem with social-scientific ontologies "is that much social theorising around these categories is found to be unreliable, and certainly contested. As a result it is difficult to find social–scientific claims or theories that can safely be treated as providing suitable premises for the ontological elaboration" [Ibid. P. 31].

But, in the absence of any truth-check criteria for such theoretical foundations, 'difficult' may well mean 'impossible'. Again, Lawson sees 'ontology', all in all, as one of scientific research tasks: you may try the world on how things behave, or you can do the same to find out what things there are. That is why the mutual dependency of 'theories' and 'ontologies', in his view, looks rather linear: the ones imply or ground the others. Holding up to this concept, we have to see certain ontologies as 'true', while regarding as 'false' those differing therefrom, at least, in one and the same respect. But, as it has been shown, the history of natural science provides evidence that counters this view, and even more so does the present day of social science. For, if all ontologies were implied by corresponding theories, any proven falsehood of an ontology would have necessarily, by *modus tollens*, destroyed its grounding theory. But it was not the case neither with ether, nor with caloric or phlogiston: the respective mathematics, like, say, Maxwell's equations, proved to be generally independent of their theorists' ontological commitments, and explanatory capacities of rival ontologically differing theories often proved to be equal (see, *e. g*., [10–14] for a more detailed analysis)[1]. Therefore, at least, some ontologies are not implied by the theories they underlie*, i.e.*, one cannot speak of a general rule here.

Of course, in particular circumstances particular ontologies are induced by previous successful theories, even in other research realms, by common myths and shared everyday experience, by aesthetic analogies, even by esoteric doctrines a researcher personally roots for. But, generally, an ontology is not deduced from, but rather offered to a theory in order to serve as its model of interpretation. Their match may be lucky or not, but neither case provides any reason for ascribing truth or falsehood to an ontology.

[1] In this context, it is interesting to note that departure from the caloric ontology of one of Lavoisier's disciples, a Russian chemist A.N. Scherer, had partly philosophical reasons, *i. e.*, Kant's arguments against imponderables from *Metaphysische Anfangsgründe der Naturwissenschaft* [15].

4. How Can We Steer to the Proper Social Ontology?

After this methodological introduction, Lawson posits an elementary unit of social ontology as he sees it. This, in his view, is a *social practice* that he defines as "a way of proceeding that (implicitly) bears the status of being (collectively) accepted within a community" [1. P. 34]. Ibidem, he clarifies that social practices are "accepted or acknowledged or recognised or observed ways of doing things (the term 'accepted' is utilised as a generic term – without implying there is necessarily approval), which guide the practices that individuals follow throughout a specific community" [Ibid.].

May we suppose that 'a way of doing things' is akin to an algorithm? Like 'if you want *x*, then do the steps *a, b, c,* and if *d* occurs, then do *e*, otherwise do *f*'. Certainly, social practices may be determined not only by the choice of possible actions, but also by some aesthetics, like a dress uniform. But choosing an appropriate suit may as well be presented as a logical gate in an algorithm.

And here we have some complications with this view on social objectivity. An ontology makes sense if it comes down to some elementary entities[1] of a certain reality that cannot be presented as complex ones. An algorithm, or, as Lawson puts it, 'a way of doing things', may not be so presented as we need 'things' to be named and described in order to identify an algorithm they are referred by. The essence of things processed by social algorithms (or *practices*, in Lawson's terms) may be assumed as what distinguishes social algorithms from what we would familiarly call *natural*[2] ones. But let us examine the difference.

If I go fishing using only my own handmade tools, my way of doing things is determined by their physical properties. But what is *physical* in this case? This term just stands for the idea that I don't have to mind, say, manufacturers' brands of rods and hooks or if I paid for the fishing license. I just use productive features of things as they are *outside* of society. At the same time, if I *have* to mind some 'non-physical' properties of things, those turn out to be specific tokens recognized according to their certain physical properties all the same – like a form and color of a logo, or a paper with some ink on it. The principal difference of those things is not their own 'nature' but *the way they are processed*. In one case, a beard on a man's face or his shaven cheeks mean nothing but his preferences in style and personal care. But, in the other, this or that option thereof may reveal his confessional affiliation. Respectively, people meeting this man either generally ignore the presence or absence of his beard, or, on the contrary, make important decisions on engaging in a certain intercourse with him. A beard remains 'physical' as it has always been, and it is the algorithm that changes.

Therefore, we need to find out what determines the difference in these kinds of algorithms. To put it simply, if we process a paper with ink as a fisher's license, we must keep in mind a certain institution that issues such licenses. If we regard a man's beard as a token of his affiliation, we most probably remember of a stable group of people who normally use a beard as an identification. Overall, in order to be able to execute algorithms of this kind, one must (1) possess some cognitive capabilities – like those of memory, distinction and categorization – and (2) be involved in lasting relations with those alike.

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[1] *Atoms* or *individuals*, which, in Greek and Latin respectively, mean entities further undividable.

[2] Although society, I believe, is part of evolving nature.

And now we are in a position to approach the proper composition of social ontology. It has been stated above that the research of social reality must reach the ultimate entities that cannot be disassembled without losing their gist. The most common candidates thereto used to be persons or their relations. But, in both cases, we need some amendment to make these entities social, as a person may drop out of a social structure, and an interpersonal relation may come out to be a biological, not a social, one (as in cases of instant sex or cannibalism). I believe that in search of social atoms we have to turn to constituting parts of algorithms (or Lawson's 'practices') as such, as we have established that it is them who keep the secret of the social.

The first thing that must be affirmed here is that *algorithmic processes are computational ones by definition*. It is a contested view, but I think I have strong arguments in its favor.

There is a general consensus that what computation is is properly revealed in Alan Turing's famous article of 1936 [16], in which he described an ideal processing device later named *Turing Machine* (TM). In short, a computation, as described there, is a process, every step of which is determined by (1) incoming data, (2) a current state of TM, and (3) a rule appropriate for certain (1) and (2) that is applied to save, delete or change (1) and to proceed to the next step. It was later proven that TM adequately describes any process pretending to be computational[1].

But the issue with the common reception of this idea stems from the fact that Turing's concept appeared in the context of the mathematical discussion on computable functions. Hence the major belief (purely psychological, in my view) that computation is, perforce, what is accomplished by conscious agents (say, mathematicians) with the aim of finding a proper value of a function. While in fact, as I have conceived it, Turing's overall idea (maybe not even fully realized by himself) was the following: if a human (a 'computer', in his terms) executes a sequence of operations that may be as well executed *by a machine*, then it is computation. By default, a computation presupposes an algorithm (a set of rules in TM). But if you have an algorithm, you can anyway set up a machine[2] to execute it.

But, of course, the definition of computation as of some action potentially performed by a machine is not sufficient. One may argue that if somebody digs a ditch – and this is a sequence of operations that can be executed by a machine – then this labor must be called computation according to my definition, which is strongly counter-intuitive. And this objection is fair. But imagine that the digger is in an environment where s / he can stumble upon either an Egyptian mummy, or an unexploded war bomb, or a pirates' treasure. S/he can proceed uniformly in any of those cases, but the result will hardly be satisfying. For the digger to act 'smarter', s / he needs a set of 'if – then – else' rules, which is nothing but a simple instance of algorithm: case A – call archeologists, case B – call sappers, case C – call the police, neither one of the above – keep digging. If the digger is human, then what s / he does according to an algorithm like that is computing in the proper sense. But, as far as I can tell, nowadays machines can implement similar and even far

[1] Though even this statement is disputed these days by weakening the intensional of 'computation'. I happened to add to this discussion in [17] and [18].

[2] To be precise, by 'machine' I mean a deterministic machine in Turing's sense, as a non-deterministic machine whose every next step is not univocally fixed by data and a current state, demands involvement of a human operator (a 'computer').

more complicated algorithms, including visual recognition, categorization, statistical learning, and many more. Both a human and a machine compute while passing through a chain of alternatives. Then, *computation is the activity of a machine capable of regular alteration of its behavior in compliance with varying incoming data*.

When we compute, we act like / as machines.

It is important to note that computations have been pictured here so far as linear (or serial) trains of actions. But, as we know now, owing to some new technologies, computations may be shaped in parallel, executing comparatively simple algorithms over a set of interconnected processors (say, neurons), thus producing a complicated emergent outcome. And what I call 'social computations' has very similar architecture.

The second point of my ontological analysis concerns elementary units of 'social practices' conceived as computations. As long as it has been established earlier that social atoms have to be entities that cannot be disassembled any further without ceasing to be social in some decisive respect, and both persons and their relations do not fit the precondition, we need to look closer at the structure of social algorithms. Computer scientists know that algorithms are composed of some typical elementary operations juxtaposed in various combinations. They are usually called 'computational primitives', which are supposed to serve as building blocks of more complicated algorithms. This leads us to the idea of identifying similar primitives in social computations that I will briefly call *social primitives*. Identifying them implies a real art of recreating the real structure of social algorithms, which is somewhat akin to the so-called 'reverse engineering', *i.e.*, recreating the genuine design of an actual working device by guessing the logic of its creators.

Concerning society, it may occur a huge research project, the course of which cannot even be foreseen in a small article like this. But I can try to imagine what social primitives might be like. If we speak about a network structure that is a medium for parallel distributed processing, then algorithms are executed at the level of particular neurons (agents), while an emergent outcome happens at the level of the whole of the network. Then, inherent capacities of agents capable to process streams of data within the network might be:

- 'friend / foe' distinction
- 'allowed / forbidden' distinction
- 'approved / condemned' distinction
- 'senior / vassal' distinction
- 'learn meaning of a sign' capacity

and so on[1]. It is important to note that, when it comes to a scientific theory in a proper sense, any philosophical attempts to produce a discursive definition like 'condemnation is...' or 'meaning of a sign is...' are of little use. All the primitives must be defined purely functionally: what happens in the network when something is condemned, when the meaning of a sign is learned, *etc*. It is obvious to me that this kind of methodology is the only way to obtain really reliable social science free of poorly grounded incommensurable 'claims', which Lawson mentions more than once as one of the major flaws of this science nowadays.

[1] This list is only an instant sketch of a possible social ontology, not the one that I propose and promote.

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Igor F. Mikhailov, Institute of Philosophy of the Russian Academy of Sciences (Moscow, Russian Federation).

E-mail: ifmikhailov@gmail.com

Vestnik Tomskogo gosudarstvennogo universiteta. Filosofiya. Sotsiologiya. Politologiya – Tomsk State University Journal of Philosophy, Sociology and Political Science. 2020. 55. pp. 37–46.

DOI: 10.17223/1998863X/55/5

SOCIAL ONTOLOGY: TIME TO COMPUTE

Keywords: social ontology; Tony Lawson; computation.

The article is an attempt to contribute both to the discussion on methodological peculiarities of social knowledge and to the somewhat older 'method over object' discussion. The study proceeds from the assumption that formal and exact methods are the main clue to technological advancements of natural and information science. If so, then we either find a way to provide for their application to social subject-matters or stay with social science's 'own ground' being content with its specific methods inferred from the specificity of its object. In order to closely examine the problem with all its possible implications, the author approaches Tony Lawson's prominent concept of social ontology. Lawson's

school starting point is an assumption contrary to the author's: there is no point in transferring natural methods to social knowledge as they have been worked out by natural science in compliance with a definite conception of nature, that is, with its own natural ontology. The author briefly counters that view with some facts from the history of science showing that the ontology of classical physics was shaping mainly under metaphysical and religious considerations rather than in observations and experiments. Moreover, to infer an ontology of a mechanical universe, one has to already master this or that mechanics. Siding then with Lawson, the author proposes to explicate ontology in terms of presuppositions that underlie properly theoretical statements. So, the philosophical question is whether the truth of a claim entails the truth of its presuppositions. Lawson answers it by affirmation saying that presuppositions of a 'reliable' theory are a proper source for a 'true' ontology. The problem here is that both a reliable theory and the one that directly contradicts it presuppose the same ontology. The author concludes this section with the concept of ontology as a set of statements on which typical objects are appropriate for a particular theory, which statements cannot, therefore, be assessed as true or false. Then the author approaches Lawson's claim that a proper social ontology may be derived from lay theories and social practices. He shows that lay theories are no better than scientific ones in proving the underlying ontologies by a simple fact of their 'reliability'. As for social practices, the author shows that a conclusion from their properties to the properties of reality may be only abductive and, therefore, probable. Further, he proposes to replace Lawson's 'social practices' that he construes as 'ways of doing things' with the concept of algorithms that is more precise in this respect. The author deduces that social algorithms are computational by nature, as computation, in his opinion, is the activity of a machine capable of regular alteration of its behavior in compliance with varying incoming data. Thus, the author sees nature as capable of building algorithmic machines, starting from living cells and ending with ourselves and our societies. Beyond the scope of this article remains the author's consideration that being a machine does not exclude what philosophers call 'free will'. You only need a right combination of algorithms. Then the author proceeds to the idea of 'social primitives.' If social behavior is computational by nature, then social science has to identify some individual (literally, from Latin 'undividable') algorithmic operations, combinations of which form the social reality. And, as far as the computational architecture of society is parallel and distributed, those primitives must be implemented at the level of particular actors as their embedded behavioral patterns. Functional dependencies studied by a so conceived social science tie algorithms executed at the level of particular nodes with an emergent outcome at the level of the whole network.