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**STRUCTURALISM IN SOCIAL SCIENCE: OBSOLETE OR PROMISING?**

**Abstract:** *The approach of structuralism came to philosophy from social science. It was also in social science where, in 1950–1970s, in the form of the French structuralism, the approach gained its widest recognition. Since then, however, the approach fell out of favour in social science. Recently, structuralism is gaining currency in the philosophy of mathematics. After ascertaining that the two structuralisms indeed share a common core, the question stands whether general structuralism could not find its way back into social science. The nature of the major objections raised against French structuralism – concerning its alleged ahistoricism, methodological holism and universalism – are reconsidered. While admittedly grounded as far as French structuralism is concerned, these objections do not affect general structuralism as such. The fate of French structuralism thus does not seem to preclude the return of general structuralism into social science, rather, it provides some hints where the difficulties may lie.*

**Keywords:** *structuralism; social ontology; methodology of economics; philosophy of social science; philosophy of mathematics*

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**Strukturalismus ve společenských vědách: zastaralý nebo perspektivní?**

**Abstrakt:** *Strukturalismus přišel do filosofie ze společenských věd. Byly to také společenské vědy kde, v letech 1950–1970 v podobě Francouzského strukturalismu, získal strukturalismus nejširší uznání. Od té doby však jeho popularita ve společenských vědách opadla. V nedávné době však začal strukturalismus nabývat na popularitě ve filosofii matematiky. Ukazuje se, že tyto dvě formy strukturalismu mají na obecné úrovni mnoho společného. Otázkou pak je, zda neexistuje možnost, aby se obecně chápaný strukturalismus navrátil do společenských věd. Hlavní námitky proti Francouzskému strukturalismu – jeho ahistorismus, metodologický holismus a universalismus – jsou opětovně uváženy. Ačkoliv jsou námitky relevantní, pokud jde o Francouzský strukturalismus, nejedná se o námitky proti obecnému strukturalismu jako takovému. Osud Francouzského strukturalismu se tak nezdá být překážkou pro případný návrat obecného strukturalismu do společenských věd, spíše poskytuje postřehy, kde by se mohly vyskytnout největší obtíže.*

**Klíčová slova:** *strukturalismus; společenská ontologie; metodologie ekonomie; filosofie společenských věd; filosofie matematiky*

## **Introduction**

The aim of the present paper is to reconsider the possibilities of structuralism in social science. Although structuralism entered philosophy via social science, and enjoyed considerable popularity in social science in the form of French structuralism, it has fallen out of favour in social science several decades ago. On the other hand, during the last three decades, structuralism is steadily gaining currency in the philosophy of mathematics. In view of this recent developments, and after ascertaining that these two structuralisms indeed share a common general core, it seems desirable to re-evaluate the fate of social science structuralism. Its adoption in the philosophy of mathematics has shown that structuralism represents something much more general than what its French version might have indicated. I claim that this more general form of structuralism stays unaffected by the major forms of criticism levelled at the French structuralism, leaving the door open for a possible return of structuralism into social science.

The structure of the argument is as follows: after introducing mathematical structuralism, I shall ask whether the French structuralism shares any common features with the former; confirming that both approaches share the same general fundamentals, with the key concept of structure being treated almost identically in each of them, I proceed to the main objections against French structuralism – its alleged ahistoricism, methodological holism and universalism; showing their common root in the ways French structuralism applied structural ways of thinking into social science, and granting them well founded as far as French structuralism is concerned, I contend the more general form of structuralism is not being affected by these objections; I conclude that the fate of French structuralism does not preclude social science from following the lead of the philosophy of mathematics in returning a more general structuralism back into its confines.

## **Structuralism: Mathematical and Social**

Although some distinctly structuralist ideas were already expressed by the two famous late 19<sup>th</sup> – early 20<sup>th</sup> century proponents of axiomatic method

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in mathematics, Richard Dedekind and David Hilbert,<sup>1</sup> it was only in the last quarter of 20<sup>th</sup> century with the philosophers such as Michael Resnik, Stewart Shapiro and Geoffrey Hellman that the approach of structuralism established itself strongly within the field of philosophy of mathematics.<sup>2</sup> Though the last three being probably the most active proponents of mathematical structuralism, during the last four decades it was literally dozens of other philosophers of mathematics who, in one way or another, associated themselves with the approach – Steve Awodey, Jessica Carter, Elaine Landry, Saunders Mac Lane, Colin McLarty, Charles Parsons, Erich Reck among others.<sup>3</sup>

The main idea behind mathematical structuralism is that mathematical theories describe and study structural properties (structures, patterns, structural possibilities) instead of distinct mathematical objects. The subject of mathematics is the whole structured systems (structures), which fit together neatly through completely determined network of structural relations. Any possible internal properties of the objects of a mathematical

<sup>1</sup> Erich H. Reck, “Dedekind’s Structuralism: An Interpretation and Partial Defense,” *Synthese* 137, no. 3 (2003): 369–419; Saunders Mac Lane, “Structure in Mathematics,” *Philosophia Mathematica* 4, no. 2 (1996): 174–83, 176; Stewart Shapiro, “Mathematical Structuralism,” in *The Internet Encyclopedia of Philosophy*, accessed November 14, 2016, <http://www.iep.utm.edu/>.

<sup>2</sup> Cf., e.g., Michael D. Resnik, *Mathematics as a Science of Patterns* (Oxford: Clarendon Press, 1997); Stewart Shapiro, *Philosophy of Mathematics: Structure and Ontology* (Oxford: Oxford University Press, 1997); Stewart Shapiro, *Thinking about Mathematics: The Philosophy of Mathematics* (Oxford: Oxford University Press, 2000); Geoffrey Hellman, “Structuralism Without Structures,” *Philosophia Mathematica* 4, no. 2 (1996): 100–123; Geoffrey Hellman, “Three Varieties of Mathematical Structuralism,” *Philosophia Mathematica* 9, no. 2 (2001): 184–211.

<sup>3</sup> Steve Awodey, “Structure in Mathematics and Logic: A Categorical Perspective,” *Philosophia Mathematica* 4, no. 3 (1996): 209–37; Steve Awodey, “Structuralism, Invariance, and Univalence,” *Philosophia Mathematica* 22, no. 1 (2013): 1–11; Jessica Carter, “Individuation of Objects – A Problem for Structuralism?,” *Synthese* 143, no. 3 (2005): 291–307; Jessica Carter, “Structure in Mathematics as a Philosophy of Mathematical Practice,” *Synthese* 163, no. 2 (2007): 119–31; Elaine Landry and Jean-Pierre Marquis, “Categories in Context: Historical, Foundational, and Philosophical,” *Philosophia Mathematica* 13, no. 1 (2005): 1–43; Elaine Landry, “How to Be a Structuralist All the Way Down,” *Synthese* 179, no. 3 (2009): 435–54; Mac Lane, “Structure in Mathematics”; Colin McLarty, “Numbers Can Be Just What They Have To,” *Noûs* 27, no. 4 (1993): 487–98; Colin McLarty, “Exploring Categorical Structuralism,” *Philosophia Mathematica* 12, no. 1 (2004): 37–53; Charles Parsons, “The Structuralist View of Mathematical Objects,” *Synthese* 84, no. 3 (1990): 303–46; Erich H. Reck and Michael P. Price, “Structures and Structuralism in Contemporary Philosophy of Mathematics,” *Synthese* 125, no. 3 (2000): 341–83; Reck, “Dedekind’s Structuralism.”

theory are strictly irrelevant vis-à-vis the mathematical theory in question. The objects are internally empty, as it were, all their relevant properties defined via their external relations to other objects of the same theory; objects thus being mere positions, empty “gaps” within the studied patterns, as Resnik puts it.<sup>4</sup>

In any axiomatically given mathematical theory the basic concepts are defined in a “roundabout,” implicit way, via stating their mutual relations. The concepts thus have no predetermined meaning, they feature in the axioms as mere tokens, their meaning being determined simultaneously through their mutual relations specified by the axioms. Thus in the axiomatic (Euclidean) geometry, for instance, the primitive concepts of points, lines and their mutual incidence (“belonging at,” “touching”) are only specified by the axioms binding them in a specific way together – say by declaring that for any two points there exists a line in incidence to both of them, or that for any two lines there exists at most one point in incidence to each of them, and so on. This to work properly, the labels used to denote the theoretical concept have to be freed of any possible previous content – using invented artificial names would, perhaps, have been more advisable. An axiomatically given mathematical theory forms a structure determined by the relations among its concepts as fixed by the theory axioms. It is in this context that Hilbert says: “it is surely obvious that every theory is only a scaffolding or schema of concepts together with their necessary relations to one another, and that the basic elements can be thought of in any way one likes. If in speaking of my points, I think of some system of things, e.g., the system love, law, chimneysweep [...] and then assume all my axioms as relations between these things, then my propositions, e.g., Pythagoras’ theorem, are also valid for these things.”<sup>5</sup>

Due to the widespread use of the axiomatic method throughout modern mathematics, it is rarely contested at present that the objective of mathematics is to study the structural features of the systems given by the axiomatic relations. From this point of view, anyone seriously reflecting on the business of mathematics can hardly fail to endorse one of the several structur-

<sup>4</sup> Resnik, *Mathematics as a Science of Patterns*, 199–203.

<sup>5</sup> From a Hilbert’s letter to Frege, December 29, 1899, quoted from Stewart Shapiro, “Categories, Structures, and the Frege-Hilbert Controversy: The Status of Meta-Mathematics,” *Philosophia Mathematica* 13, no. 1 (2005): 61–77, 66.

alist positions, which are currently being debated among the structuralist philosophers of mathematics.<sup>6</sup>

For some, it is the language of the theory of categories, a recent undertaking in highly abstract modern (algebraical) mathematics, with its empty objects having all their properties given strictly by the networks of their external relations in the form of morphisms (“arrows”), which represents the best example of the structuralist practice in present mathematics.<sup>7</sup> In this context, the interests of structuralist philosophers of mathematics overlap with those of some leading practicing mathematicians, such as Steve Awodey, or one of the founding fathers of category theory, the late Saunders Mac Lane.

In contrast to the growing popularity of mathematical structuralism and its topicality for the present developments in abstract mathematics, the fate of structuralism in social science looks rather dim. Structuralism in social science is closely connected with how structuralism is understood in philosophy in general. For philosophers, structuralism usually simply means the 1950s–1970s, dominantly French, intellectual movement which arose out of de Saussure’s structural linguistics, and which applied structural way of thinking into areas such as literary studies (Roland Barthes), Marxism (Louis Althusser), and Freudian psychoanalysis (Jacques Lacan).<sup>8</sup> However, it is the work of the leading figure of French structuralism, “the generally acknowledged founder of modern structuralism,”<sup>9</sup> as well as its

<sup>6</sup> For a general overview of various positions of mathematical structuralism cf. Leon Horsten, “Philosophy of Mathematics,” in *Stanford Encyclopedia of Philosophy*, accessed September 17, 2018, <https://plato.stanford.edu/entries/philosophy-mathematics/>; Shapiro, “Mathematical Structuralism.”

<sup>7</sup> Cf., e.g., Awodey, “Structure in Mathematics and Logic,” Steve Awodey, “An Answer to Hellman’s Question: ‘Does Category Theory Provide a Framework for Mathematical Structuralism?’,” *Philosophia Mathematica* 12, no. 1 (2004): 54–64.

<sup>8</sup> Cf. Christopher Norris, “Structuralism,” in *The Oxford Companion to Philosophy*, ed. Ted Honderich (Oxford: Oxford University Press, 2005), 898; Jonathan Culler, “Structuralism,” in *Concise Routledge Encyclopedia of Philosophy* (London: Routledge, 2001), 865–66; Richard Kearney, “Structuralism,” in *The Concise Encyclopedia of Western Philosophy*, eds. Jonathan Rée and J. O. Urmson (Oxon: Routledge, 2005), 371–73; David Allison, “Structuralism,” in *The Cambridge Dictionary of Philosophy*, ed. Rober Audi (Cambridge: Cambridge University Press, 1999), 882–84; Theodore R. Schatzki, “Structuralism in Social Science,” in *Concise Routledge Encyclopedia of Philosophy* (London: Routledge, 2001), 867; Adrian Johnston, “Jacques Lacan,” in *Stanford Encyclopedia of Philosophy*, accessed September 17, 2018, <https://plato.stanford.edu/entries/lacan/>.

<sup>9</sup> Allison, “Structuralism,” 883.

“most single-minded and unwavering exponent,”<sup>10</sup> social anthropologist Claude Lévi-Strauss, which is most pertinent to the topic of the present paper; and it will be, accordingly, Lévi-Strauss’ two key works: *Structural Anthropology* and *The Savage Mind*, to which we shall pay detailed attention later on.

While structuralism, as traditionally understood, both originated and found its most fruitful applications in social science and humanities, it also went out of vogue there around 1970s.<sup>11</sup> At present, the heyday of structuralism – in social science as well as in philosophy in general – seems to be long over.<sup>12</sup>

We have, on the one hand, structuralism in the philosophy of mathematics as a rather recent undertaking – a promising approach that is steadily gaining currency,<sup>13</sup> and, on the other hand, structuralism in social science and in philosophy in general, which was popular several decades earlier, but which seems irrevocably out of favour at present. Structuralism, then, does at the same time seem both obsolete – in philosophy and in social science – as well as promising – in the philosophy of mathematics (and, arguably, in philosophy of physics, too).<sup>14</sup> This naturally leads to the question whether we are not, in fact, facing two distinct approaches that, by some sort of irrelevant coincidence, share the same label, while being of quite separate nature. We shall examine the question presently.

Comparing the present mathematical structuralism with the “original” structuralism of de Saussure’s linguistics, the one which served as an in-

<sup>10</sup> Olivia Harris, “Lévi-Strauss, Claude (1908–),” in *Concise Routledge Encyclopedia of Philosophy* (London: Routledge, 2001), 484.

<sup>11</sup> Norris, “Structuralism,” 898; Allison, “Structuralism,” 882; Kearney, “Structuralism,” 372.

<sup>12</sup> If we care to browse the *New Palgrave Dictionary of Economics* for the entry on structuralism, we learn that “in modern economics, structuralism is mostly associated with the United Nations Economic Commission for Latin America and the Caribbean, whose work merged into a coherent school of thought in the late 1950s.” It was under the presidency of Raúl Prebisch. Cf. Stephanie Blankenburg, José Gabriel Palma and Fiona Tregenna, “structuralism,” in *The New Palgrave Dictionary of Economics*, eds. Steven N. Durlauf and Lawrence E. Blume (Basingstoke: Macmillan Publishers, 2008), 70.

<sup>13</sup> Incidentally, origins of structuralism in Physics are also quite recent, being also dated into 1970s (Heinz-Juergen Schmidt, “Structuralism in Physics,” in *Stanford Encyclopedia of Philosophy*, accessed September 17, 2018, <https://plato.stanford.edu/entries/physics-structuralism/>), and this approach is apparently, too, gaining momentum – mainly in the form of structural realism of John Worrall, James Ladyman and others (cf., e.g., James Ladyman, “Structural Realism,” in *Oxford Bibliographies*, accessed February 2, 2019, <http://www.oxfordbibliographies.com/view/document/obo-9780195396577/obo-9780195396577-0154.xml>).

<sup>14</sup> See previous footnote.

spiration for French structuralism, one learns that, despite mathematical structuralism claiming quite different origins, the general features of the respective approaches are, actually, almost identical. The unifying aspect behind both versions of structuralism being that it is not the elements or objects what matters most, but rather the structures and patterns they are parts of; it is the external relations among the elements, rather than their internal nature, which is most relevant, perhaps even constitutive of the elements themselves. It is the form, rather than matter; the whole, rather than the individual, what is of main interest for any structuralist, from de Saussure right up to present mathematical structuralists.

To quote but few examples from de Saussure's *Course in General Linguistics*: "a borrowed word no longer counts as borrowed as soon as it is studied in the context of a system. Then it exists only in virtue of its relations and oppositions to words associated with it, just like any indigenous word."<sup>15</sup> "A language is a system of which all the parts can and must be considered as synchronically interdependent."<sup>16</sup> "The mechanism of a language turns entirely on identities and differences. [...] Let us examine the problem of identity in linguistics in the light of some non-linguistic examples. [...] If a street is demolished and then rebuilt, we say it is the same street, although there may be physically little, or nothing left of the old one. How is it that a street can be reconstructed entirely and still be the same? Because it is not a purely material structure. It has other characteristics which are independent of its bricks and mortar; for example, its situation in relation to other streets."<sup>17</sup> "[Linguistic] values remain entirely a matter of internal relations [...] the system as a whole is the starting point, from which it becomes possible, by a process of analysis, to identify its constituent elements. [...] A language is a system in which all the elements fit together, and in which the value of any one element depends on the simultaneous coexistence of all the others. [...] The content of a word is determined in the final analysis not by what it contains but by what exists outside it. As an element in system, the word has not only a meaning but also – above all – a value. [...] Concepts [are] defined not positively, in terms of their content, but negatively by contrast with other items in the same system."<sup>18</sup>

<sup>15</sup> Ferdinand de Saussure, *Course in General Linguistics* (London: Bloomsbury, 2015), 25.

<sup>16</sup> *Ibid.*, 100.

<sup>17</sup> *Ibid.*, 128.

<sup>18</sup> *Ibid.*, 133–37.

De Saussure thus does not differ from the present mathematical structuralist in insisting that the meaning and relevance of any given entity is strictly given by its position within a structure, by its relations to other entities within the same structure;<sup>19</sup> De Saussure, indeed, thought of a language as “an interlocking system in which every element is what it is by virtue of its relations to everything else,”<sup>20</sup> and the present mathematical structuralist might use exactly the same words to describe any mathematical system.

On this general level, French structuralists stayed true to the ideas of de Saussure. If for them “our world consists not of things but of relations”<sup>21</sup>; if they maintain a “primacy of relations over entities”<sup>22</sup>; if they claim that “[in] all the phenomena of the human world [...] observable, apparent separate elements are rightly understood only when seen as positions in a structure or a system of relations”<sup>23</sup>; their understanding of structures seems quite in accord with that of the mathematical structuralist.

To quote directly from Claude Lévi-Strauss: “structure consists of a model meeting with several requirements. First, the structure exhibits the characteristics of a system. It is made up of several elements, none of which can undergo a change without effecting changes in all the other elements. Second, for any given model there should be a possibility of ordering a series of transformations resulting in a group of models of the same type. Third, the above properties make it possible to predict how the model will react if one or more of its elements are submitted to certain modifications,”<sup>24</sup> “structures are models, the formal properties of which can be compared independently of their elements.”<sup>25</sup> Denoting empirical structures as “patterns,” Lévi-Strauss explains that certain “patterns [...] project models [...] since each pattern can be expressed in terms of strict relations between

<sup>19</sup> Cf. also Allison, “Structuralism,” 883; Culler, “Structuralism,” 866; Joseph Margolis, “Structuralism in Literary Theory,” in *Concise Routledge Encyclopedia of Philosophy* (London: Routledge, 2001), 866–67; David Holdcroft, “Structuralism in Linguistics,” in *Concise Routledge Encyclopedia of Philosophy* (London: Routledge, 2001), 866.

<sup>20</sup> Anthony Quinton, “Continental Philosophy,” in *The Oxford Companion to Philosophy*, ed. Ted Honderich (Oxford: Oxford University Press, 2005), 172.

<sup>21</sup> Culler, “Structuralism,” 866.

<sup>22</sup> Claire Jacobson, “Translator’s Preface,” in Lévi-Strauss, *Structural Anthropology* (Harmondsworth: Penguin Books, 1972), x.

<sup>23</sup> Margolis, “Structuralism in Literary Theory,” 866–67.

<sup>24</sup> Claude Lévi-Strauss, *Structural Anthropology* (Harmondsworth: Penguin Books, 1977), 279.

<sup>25</sup> *Ibid.*, 284.

its parts and since these relations have no content apart from the pattern itself.”<sup>26</sup>

What is more, Lévi-Strauss’ constant references to mathematics<sup>27</sup> leave one in wonder whether it is, in fact, not the very structures of mathematics what he had in mind when describing the “social structure”; whether, in a word, the structures of social science and the structures of mathematics do not actually coincide to form a single domain of structures as such, the object of all the sciences, natural and social alike.

As we can see, the concept of the structure is understood much the same in mathematical structuralism and in French structuralism. If the observation that social reality is structured was all the structuralism in social science amounted to, I doubt it could ever have aroused any significant opposition. However, it is the actual location of the structures within social reality what the application of structuralism into social science consists in. To better understand the history of structuralism in social science, we have to be aware of the ways French structuralists searched for structures in social reality, to recognize in which domains they presupposed them to prevail.

As we shall see, it was indeed these specific aspects of French structuralism which drew subsequent criticism, not their general concept of structure and their emphasis to utilize it in social science. If this is established, the main argument of the paper is concluded. Mind you, we are not trying to vindicate French structuralism. Our main purpose only is to show that no final blow against the application of a general form of structuralism into social science was ever delivered, meaning the doors are open for anyone willing to give it a try in the future. Nevertheless, precisely for the purposes of its possible future utilisation in social science, it is instrumental to get acquainted with the limitations of the application of structural approach into social science by French structuralists.

The main objections raised against French structuralism concerned its alleged ahistoricism, too extreme holism and universalism. We show them being specific to the particular use of general structuralism by the French structuralists in their social ontology. Moreover, they will all be traced to a common root within the French structuralists’ social ontology. In any case, they do not concern the application of structuralist approach into social science in general, only the particular specimen of French structuralism.

<sup>26</sup> Claude Lévi-Strauss, *The Savage Mind* (London: Weidenfeld and Nicolson, 1976), 36.

<sup>27</sup> Cf., e.g., Lévi-Strauss, *Structural Anthropology*, 280f, 283, 297, 298f.

## The Limitations the French Structuralism

To appreciate the objections against alleged ahistoricism, too extreme holism and universalism of the French structuralism, it is necessary to get acquainted with the general outline of the Lévi-Strauss' scientific project. Faced by the enormous diversity of kinship rules, myths and social phenomena in general, Lévi-Strauss' purpose was to look for some organizing principle to identify the common and immutable behind this apparent disarray, "to arrive at invariants beyond the empirical diversity of human societies."<sup>28</sup> This tallies closely with Lévi-Strauss' general view of science: "scientific explanation is always the discovery of an 'arrangement'."<sup>29</sup> Using the distinction between the contingent and the necessary (reminiscent of the Aristotelian accidental and essential), he equated *event* with the first and *structure* with the second. It was the necessary in the form of a structure what any science was trying to uncover behind the empirical data in the form of events.<sup>30</sup>

We thus have a reformulation of Lévi-Strauss' general scientific structuralism: any science is a search for structures underlying (causing, explaining) the empirical data. All we have to do to understand the main gist of the principal objections against French structuralism is to recount how Lévi-Strauss applied this general dictum to his beloved science of social anthropology. And a very stringent application it was indeed. So much so that Lévi-Strauss actually attempted to explain all of the domain of social by a single, albeit a very general, immutable and universal structure.

Before going into details, let us pause to reconsider the nature of the objections against French structuralism as well as the main argument of the present paper. First, if French structuralism is, for one reason or another, associated with the vision of explaining everything social – across cultures and across history – by the means of a single common structure, it is justly recognized as ahistorical and universalistic; and since the structure is immutable and unchangeable by human agency, it is also justly recognized as methodologically holistic (or "antihumanistic"). However, notice that since none of these arguments actually depend on the common explanatory principle being a structure, these are, in fact, not objections against structuralism as such! What is being criticized is the particular way structuralism was being applied into social ontology by the French structuralists.

<sup>28</sup> Lévi-Strauss, *The Savage Mind*, 247.

<sup>29</sup> *Ibid.*, 12.

<sup>30</sup> *Ibid.*, 20–25.

Now, the reason for this supposed single structure behind “all things human” is connected with the idea of a “general humanity.”<sup>31</sup> Lévi-Strauss presumes some common general unconscious “code key” is operating inside every human being, and it is structuring their individual behaviour and the social reality alike. This being the fundamental feature of the specific implementation of general structuralism into French structuralists’ social ontology, a longer quotation to this effect from Lévi-Strauss is in order:

If, as we believe to be the case, unconscious activity of the mind consists in imposing forms upon content, and if these forms are fundamentally the same for all minds – ancient and modern, primitive and civilized (as the study of the symbolic function, expressed in language, so strikingly indicates) – it is necessary and sufficient to grasp the unconscious structure underlying each institution and each custom, in order to obtain a principle of interpretation valid for other institutions and customs, provided of course that the analysis is carried far enough.<sup>32</sup>

The reason why all societies share a common general structure is thus that all people share, albeit unconsciously, some structuring features in their minds, and via their operations imprint common patterns on their social environment. The central features of French Structuralist’s social ontology can thus be summed up as follows: the basic underlying social structure lies in the unconscious areas of human “psyche and brain” and it is through this that an order of common type is imposed upon “thought and praxis.”<sup>33</sup> This “deep” structure defined by rules of which we are not consciously aware, and which assert themselves via our actions is analogical to the (unconscious) language structure of structural linguistics.<sup>34,35</sup>

<sup>31</sup> Ibid., 247.

<sup>32</sup> Lévi-Strauss, *Structural Anthropology*, 21.

<sup>33</sup> Lévi-Strauss, *The Savage Mind*, 262–64.

<sup>34</sup> Ibid., 30, 252; Lévi-Strauss, *Structural Anthropology*, 18, 332.

<sup>35</sup> Cf. also secondary sources recounting structuralism and its criticisms from various angles: Albert Doja, “The Shoulders of Our Giants: Claude Lévi-Strauss and His Legacy in Current Anthropology,” *Social Science Information* 45, no. 1 (2006): 79–107; Bernard Dionysius Geoghegan, “From Information Theory to French Theory: Jakobson, Lévi-Strauss, and the Cybernetic Apparatus,” *Critical Inquiry* 38, no. 12 (2011): 96–126; Michael E. Harkin, “Lévi-Strauss and History,” in *The Cambridge Companion to Lévi-Strauss*, ed. Boris Wiseman (Cambridge: Cambridge University Press, 2009), 39–58; Thomas C. Heller, “Structuralism and Critique,” *Stanford Law Review* 36, no. 1/2 (1984): 127–98; Allan Megill, “Foucault, Structuralism, and the Ends of History,” *Journal of Modern History* 51, no. 3 (1979): 451–503.

Lévi-Strauss allows for institutional differences among cultures corresponding to different “systems of representation,” yet these must, obviously, belong among systems of representation technically possible by our shared deep unconscious mental structures; and it is the study of these fixed, underlying structures what is, for Lévi-Strauss, the ultimate goal of social anthropology.<sup>36</sup> The aim of structural analysis is to reduce cultural differences to underlying *invariants*.<sup>37</sup>

Acknowledging that the main thrust of French structuralism really was via observation of various products of mind (especially seen in their mutual relations) to search for the deepest common structures of human mind, we should first ask ourselves in what sense it is a criticism instead of a plain description of a fact. To use the jargon of computer programmers: why call it a bug and not a feature? The reason is that such a framework puts limits on French structuralists’ social ontology and thus represents a criticism of French structuralism understood as an approach in social science. Simply put: the social ontology presupposed by the Lévi-Strauss’ scientific project does not tally well with the dominant contemporary views of social ontology. Let us make it clearer by a more detailed look at the ahistoricism and the (extreme) methodological holism – we shall discuss why they conflict with present day social ontology, what were the probable reasons for Lévi-Strauss (and de Saussure) endorsing them, and how does it bear on any possible future application of general structuralism into social science.

As far as ahistoricisms is concerned, French structuralism is justly being associated with the so called “synchronic standpoint.”<sup>38</sup> This term, coined already by de Saussure, refers to the “static aspects” of the science in hand (linguistics in his case), to the study of a structured system as fixed at a given moment in time, and it is contrasted to the “diachronic,” “dynamic,” evolutionary point of view.<sup>39</sup> Indeed, it already was de Saussure who stressed, perhaps even overstressed, the synchronic point over the diachronic one, part of the reason being that he mainly was arguing against historicist approach, prevalent in linguistics of his period.<sup>40</sup> Similarly, Lévi-Strauss was arguing for the relevance of social anthropology in the context of history

<sup>36</sup> Lévi-Strauss, *Structural Anthropology*, 16, 23.

<sup>37</sup> *Ibid.*, 295.

<sup>38</sup> Cf. Norris, “Structuralism,” 898; Brian Epstein, “Social Ontology,” in *Stanford Encyclopedia of Philosophy*, accessed September 17, 2018, <https://plato.stanford.edu/entries/social-ontology/>, 2.2.

<sup>39</sup> De Saussure, *Course in General Linguistics*, 95.

<sup>40</sup> Allison, “Structuralism,” 882.

enjoying much higher prestige then.<sup>41</sup> This giving some possible “tactical reasons” for stressing “synchronic” at the cost of “diachronic,” there were also some deeper reasons for this preference, as we shall see later on. First, let us consider in what sense is “synchronic” at odds with current social ontology, and discuss why it is not connected with structuralism in general.

“Synchronic” approach of French structuralism is ahistoric in the sense of lacking the temporal dimension. Ahistoricism, in social science especially, is quite a strong claim. In its most extreme, it amounts to asserting a fixed and unchangeable social reality. This clashes with the intuition of development and of human capabilities to influence the future. If social science structuralism had to be tied up with ahistoricism, there is no mystery why it should lose many of its supporters. But it does not have to.

There are, to begin with, no obvious simple reasons why the general structuralist approach could not be applied to the temporal structures (of development and evolution) to the same extent it is being applied to the “logical” (or spatial) structures of the “static” systems. The time dimension seems to allow for structuring to no lesser degree than the spatial or “logical” dimension. Actually, although putting his emphasis on the synchronic structure, de Saussure was well aware of the overall static-and-dynamic structure of language. His beautiful example of the stem of a plant, which represents the overall structure, and which, on its consecutive horizontal cuts, shows the synchronic structures at respective time moments, with the diachronic structures (associated, for instance, with a certain word form and its historical development) being shown on the vertical cuts,<sup>42</sup> still remains a most powerful metaphor to be utilized when thinking about synchronic-and-diachronic overall structures.

Any causal sequence of events, any process exhibiting regularity represent examples of a temporal structure. Patterns can be temporal no less than they are spatial. We are used to classify regularities of both spatial and temporal sort. In fact, being spatio-temporal beings, we always experience and classify both these types of patterns together, simultaneously, as aspects of some static-and-dynamic overall structure. Only that we sometimes choose to accent the temporal aspects more, and sometimes the spatial ones. That is all.

Why did, then, Lévi-Strauss insisted on limiting his approach to the static view? His ideas on how to apply structuralist approach to social sci-

<sup>41</sup> Lévi-Strauss, *The Savage Mind*, 257.

<sup>42</sup> De Saussure, *Course in General Linguistics*, Part One, 3.4., 101–2.

ence Lévi-Strauss presented most systematically in the chapters XV and XVI of his *Structural Anthropology*. In there, Lévi-Strauss explicitly addresses the question of time-structures and explains his reasons for the preference of “synchronic” approach in social anthropology. He expounds his position using his concepts of “mechanical models” and “statistical models,” the first being defined as “having elements on the same scale as the phenomena they depict” while the latter are those which do not possess this property.<sup>43</sup>

By way of example, Lévi-Strauss explains the distinction on two models of suicide: a deterministic model of individual suicide based on the individual’s character traits, their personal history and situation is an example of a “mechanical model,” and a stochastic model based on the suicide rate observations in a given society is an example of a “statistical model.”<sup>44</sup> Although some sort of “micro” versus “macro” is suggesting itself here, if my reading is correct, it is the difference between the “mechanical” as strictly regular and structurally exactly isomorphic with the phenomena studied versus “statistical” as not exhibiting a strict structural correspondence with the empirical phenomena which Lévi-Strauss wants to point out here. And it is the same distinction, between a strict, fixed structure underlying various social phenomena versus not a completely regular structure expected behind their evolution, which seems to be behind the Lévi-Strauss’ preference for synchronic approach in social anthropology.

In general, Lévi-Strauss believed social anthropology to be concerned with “mechanical models” while history and sociology making use of “statistical models;”<sup>45</sup> for Lévi-Strauss, “evolution [...] is not relevant on the level of mechanical models.”<sup>46</sup> Possibly, though, the distinction was more of a difference in degree than a difference of kind to him, having to do with the fact that “synchronic studies raise fewer problems than diachronic ones (the data being more homogeneous in the first case).”<sup>47</sup> Moreover, although preferring the synchronic approach, Lévi-Strauss explicitly states that social reality is built of various structures interacting on both synchronic and diachronic levels.<sup>48</sup>

In *The Savage Mind*, Lévi-Strauss uses the concepts of continuity and discontinuity to address the same problem. For Lévi-Strauss, history and

<sup>43</sup> Lévi-Strauss, *Structural Anthropology*, 283.

<sup>44</sup> *Ibid.*, 284–85.

<sup>45</sup> *Ibid.*, 285.

<sup>46</sup> *Ibid.*, 287.

<sup>47</sup> *Ibid.*, 291.

<sup>48</sup> *Ibid.*, 312.

evolution is always discontinuous; if we insisted to see it as a structure, there would be “ruptures” in the diachronic structure of the social process.<sup>49</sup> We may imagine this by positing a single structure as being pertinent to any given era, and, at the same time, being disconnected from the structures pertaining to the other eras – an image showing a close resemblance to Michel Foucault and his historical periods, each with its own “episteme” as an particular paradigm “defining conditions of possibility of all knowledge.”<sup>50</sup>

Considered from this perspective, I can see a genuine fundamental reason why Lévi-Strauss (and de Saussure) preferred not to study social process in both its spatial and temporal dimensions. Since they wanted to operate with as simple structures as possible, they did not find historical development structurally tractable. The message from French structuralists to anyone considering application of general structuralism into social science would then read: it might not be easy, especially regarding the existence of uncertain emergence within evolution. We shall see that a very similar point is behind the second main objection against the French structuralism – that of too extreme methodological holism. Before moving to the second objection, let us make two more general remarks.

First, under this reading, it is our own limitations as scientists, instead of the nature of social reality, which restricts our approach in theoretical social science to the synchronic one. Without being able to identify strict structural patterns in the course of history, we are epistemically limited to the observation of more or less imperfect tendencies. Yet, our inability to identify them does not have to mean the ontic absence of any such exact structural patterns in the social historical process. In other words, that something seems chaotic and unstructured to us at the present moment does not mean it is in fact not well structured and organized, albeit on a very complex level, perhaps even above our capacities of comprehension.

Second, going for simpler common underlying structures, if indeed there are some such, instead for more complex ones, which, moreover, differ from one case to another, might be a rational research strategy even if one was convinced the more complex structures to better capture the given reality. In other words, even if we knew that history is well structured, we might

<sup>49</sup> Lévi-Strauss, *The Savage Mind*, chap. 9; Megill, “Foucault, Structuralism,” 453; Heller, “Structuralism and Critique,” 163; Jacques Derrida, *Writing and Difference* (London: Routledge, 2001), 368.

<sup>50</sup> Michel Foucault, *The Order of Things: An Archaeology of the Human Sciences* (London: Routledge, 2005), 183; Megill, “Foucault, Structuralism,” 460.

choose to “overlook it” in case the structuring was too complex, and we could study other problems using much simpler structures of the synchronic sort.

Let us now move to the objection of too extreme methodological holism, and first ask, again, in what sense it is at odds with the present views in social ontology. The reason simply is that today scarcely anybody defends any of the most extreme positions of either atomistic methodological individualism or extreme methodological holism, majority of social ontologists allowing for a role of both individuals and some supra-individual entities (institutions, customs, norms, and the like) in the construction of social reality.<sup>51</sup> Apart from the more usual balanced ones, the two extreme positions are the following: the radical methodological individualism, claiming that social reality is nothing but the result of independent actions of atomic individuals, and the radical methodological holism, insisting that social reality is given entirely by some supra-individual entities.<sup>52</sup>

A classic example of a more extreme holistic position is connected with the teachings of Marx. According to the Marxist methodological holism, it is the impersonal and immutable general laws of historical materialism which drive the whole socio-economic historical process. Individual people – whether they be paupers or capitalists – can change nothing on the general course of history. They are like individual grains of sand in a desert which

<sup>51</sup> Examples of a balance between individualism and holism are the two very influential contemporary social ontological position associated with Tony Lawson and his colleagues at the Cambridge Social Ontology Group, and of John Searle and his colleagues at the Berkeley Social Ontology Group. Cf., e.g., Tony Lawson, *Economics and Reality* (London: Routledge, 1997); Tony Lawson, *Reorienting Economics* (London: Routledge, 2003); John Searle, *The Construction of Social Reality* (London: Penguin Books, 1995); John Searle, *Making the Social World: The Structure of Human Civilization* (Oxford: Oxford University Press, 2010). Another balanced position is Anthony Giddens’ “theory of structuration”: Anthony Giddens, *The Constitution of Society: Outline of the Theory of Structuration* (Cambridge: Polity Press, 1984).

<sup>52</sup> The account is, obviously, greatly simplified here. Apart from the fact that hardly anyone at present would defend any of the extreme positions, there arise more detailed questions and exist various nuanced stances in the controversy between methodological individualism and methodological holism. As an introduction, cf., e.g., Philip Pettit, “Methodological Holism and Individualism,” in *The Oxford Companion to Philosophy*, ed. Ted Honderich (Oxford: Oxford University Press, 2005), 598; Michael Macnamara, “Holism,” in *The Concise Encyclopedia of Western Philosophy*, eds. Jonathan Rée and J. O. Urmson (Oxon: Routledge, 2005), 166–67; Gabriel Segal, “Methodological Individualism,” in *The Concise Encyclopedia of Western Philosophy*, eds. Jonathan Rée and J. O. Urmson (Oxon: Routledge, 2005), 570–71; Daniel E. Little, “Philosophy of the Social Sciences,” in *The Cambridge Dictionary of Philosophy*, ed. Rober Audi (Cambridge: Cambridge University Press, 1999), 705–6.

move along with the sand dunes, according to given rules, which are far beyond their power of influence.<sup>53</sup>

Operating under the influence of Marxist social theory, it were also the French structuralists who came very close to the radical holistic extreme of the individualism-holism debate.<sup>54,55</sup> So much so, in fact, that the debate itself is sometimes referred to as the agency-structure debate, where “the structure” stands for a supra-individual whole.<sup>56,57</sup> Both French structuralists and Marxists pursue the same goal of searching for the supposed hidden, deep structures that determine the social reality as we experience it.<sup>58</sup>

Since structuralism in any form, not French structuralism only, is more concerned with the structured wholes than with the isolated individuals, there are natural reasons why any form of structuralism might tend to be associated with holism rather than individualism. If someone defines, for instance, holism in psychology by saying that “it sets the focus on Gestalts, not elements,”<sup>59,60</sup> this amounts but to rephrasing of the basic tenets of structuralism discussed above; if the wholes of holism are, moreover, viewed as “patterns,” which are more real than the parts of the patterns (the elements), which are only abstracted from them,<sup>61</sup> this definition of holism is almost indistinguishable from that of general structuralism. On the other hand, if the opposite position to methodological holism – methodological individualism is defined as the approach ascribing “intrinsic” properties to individu-

<sup>53</sup> Cf. Karl Marx, *Capital* (Ware: Wordsworth Editions Limited, 2013), Vol. 1, part 7–8.

<sup>54</sup> Cf. Kearney, “Structuralism,” 372; Schatzki, “Structuralism in Social Science,” 867; Blankenburg, Palma and Tregenna, “Structuralism,” 70; Epstein, “Social Ontology,” 3.3.2.

<sup>55</sup> For an example of a direct influence of Marxism on Lévi-Strauss’ structuralism see Lévi-Strauss, *Structural Anthropology*, 333.

<sup>56</sup> The holistic, as well as static, bias of the French structuralism acknowledged by a more sympathetic treatment reads: “structuralist approach tends to be less preoccupied with the more traditional considerations of ‘subjectivity’ and ‘history,’” (Allison, “Structuralism,” 883), or elsewhere: “[French structuralists] minimized considerations of social-historical context and individual as well as collective action,” (Schatzki, “Structuralism in Social Science,” 867).

<sup>57</sup> Sometimes one even may hear that, “Any school of thought in the social science that stresses the priority of order over action is ‘structural,’” (Schatzki, “Structuralism in Social Science,” 867).

<sup>58</sup> Allison, “Structuralism,” 883; Kearney, “Structuralism,” 371–72; Culler, “Structuralism,” 865; David Pellauer and Bernard Dauenhauer, “Paul Ricoeur,” in *Stanford Encyclopedia of Philosophy*, accessed September 17, 2018 <https://plato.stanford.edu/entries/ricoeur/>; Blankenburg, Palma and Tregenna, “Structuralism,” 70.

<sup>59</sup> Macnamara, “Holism,” 166.

<sup>60</sup> Lévi-Strauss was himself well aware of this structuralist nature of the Gestalt psychology, cf. Lévi-Strauss, *Structural Anthropology*, 324–25.

<sup>61</sup> Macnamara, “Holism,” 166.

als instead of “externally relational properties,”<sup>62</sup> it makes methodological individualism sound exactly like the opposite of structuralism.

If methodological holism in social science is traditionally associated with the existence of supra-individual entities existing somewhere “over and above” the individuals, French structuralism shows us that it does not always have to be so. The primary structures of French structuralism (and de Saussure’s linguistics as well) reside deep within individuals, in their very minds, namely in the unconscious parts of those.<sup>63</sup> What makes Lévi-Strauss a methodological holist, rather than individualist, is the fact that individuals and their actions do not make any difference to the structures and to the social reality in general.

What is missing from Lévi-Strauss’ account according to present standards of social ontology is allowing for some role of individuals’ actions, and perhaps their free will, to modify social reality. Also missing is the possibility of macro-social features emerging from rule following micro-social behaviour of the individuals, perhaps by the means of their mutual interaction. Moreover, neither Lévi-Strauss nor de Saussure allow for any significant role played by the heterogeneity among individuals – they both presuppose all the individuals to be in possession of an exact copy of the underlying structure. All this makes them more methodological holists than individualists, and, at the same time, makes their social ontology less acceptable with the present audience.

These limitations – whether omissions or deliberate choices – are closely connected with the predilection for “synchronic structuralism” in contrast to the “diachronic” one. Any heterogeneity, free choice, unconstrained agency, and any emergence of macro-patterns from micro-patterns render the overall structure less tractable. As remarked above, in the sympathetic reading, the message from French structuralists to any future structuralist of social science might sound: beware of the hard-to-structure processes of evolution, agency and emergence of macro- from micro-. Indeed, although no final blow to structuralism in social science was as yet delivered, these will precisely be the touchstones of any future success of structuralism in social science. A prospective social science structuralist will either have to explain why these, despite the present opinion to the contrary, do not matter (much) for social ontology, or they will have to try to tackle them in the structuralist way.

<sup>62</sup> Segal, “Methodological Individualism,” 570.

<sup>63</sup> Epstein, “Social Ontology,” 4.1.

Although Lévi-Strauss connected the deeper social structures with human rationality, and thus, at least implicitly, with the human mind, what is missing from his account is a more “dynamic” and “individualistic” point of view amounting to a proper treatment of evolution and agency. Although structuralist about human mind, Lévi-Strauss’ structuralism was of a “rigid” variety, assuming one fixed and universal structure of human rationality. Though he was aware that minds play important role in the construction of social reality, it is the unconscious universal mental structures, shared by the whole community (and the whole humanity, in fact), that he saw as the bedrock.<sup>64</sup> Any role of the individual agency was thus dismissed, and what was left was not, in effect, much different from the outright methodological holism.

Lévi-Strauss was searching for a supposed fixed structure of ahistoric, objective rationality, rather than some “dynamic,” historically changeable structural features of human understanding and agency, perhaps more pertinent to actual human behaviour in respective historical periods and cultures.<sup>65</sup> This is also, in a nutshell, what the main drift of the post-structuralist criticism of Foucault and others was levelled at.<sup>66</sup> By overemphasising the static over the dynamic and the “institutional” over the individual, the French structuralists simply did not give fair proportions to agency and evolution in their presentation of social ontology, the critics claim.

The main objections against French structuralism – ahistorism, holism, and universalism – seems to have a common root. Not speaking much about the uncertainty and emergence present in evolution, and in agency and the generation of the social out of the mental, the picture painted by the French structuralists seems rather static and rigid. Interpreting it as a recognition that it is precisely these aspects which are hard to elaborate theoretically, one cannot but agree. Seeing it as an omission in their conception of social ontology, one would have to agree with the usual criticisms levelled at them. At least until the static view is substantiated by something more than a simple Aristotelian intuition of an immutable essence residing behind all the empirical social material across all times and cultures.

In any case, how to incorporate the dynamic interplay of heterogeneous unconscious mental structures to form out a truly agency-and-structure

<sup>64</sup> Epstein, “Social Ontology,” 4.1.

<sup>65</sup> Kearney, “Structuralism,” 372.

<sup>66</sup> Allison, “Structuralism,” 883.

type of structuralist social ontology remains the major challenge for the return of structuralism into social science.

## **Conclusion**

Structuralism is broadly the same approach in both mathematics and social science. While gaining popularity in the philosophy of mathematics, it has seemingly lost its appeal in social science. The reason is the decline of French structuralism, the approach generally identified with the application of structuralist approach into social science. The major shortcomings of French structuralism were, however, the limitations of their social ontology, not the use of structural approach per se. This means that, in principle, the doors are open for anyone wishing to apply general structuralist approach into social science.

The main thesis of the present paper being stated in the previous sentence, it still makes sense to comment shortly the case of French structuralism. What is missing from its social ontology is some account of agency and interaction, emergence of macro- from micro-, and evolution. Being ahistoricist and (extremely) methodologically holistic, its position does not tally well with the present state of social ontology. Yet, to incorporate precisely these aspects into a structuralist framework might prove the most difficult part of any future social structuralist venture.

## **Three Remarks**

While the challenges facing structuralism in social science are tough indeed, there are many reasons why it may be worth trying and meeting them. Apart from the increasing popularity of structuralism in mathematics and physics, several more specific reasons follow:

1. For a physicalist claiming that social reality can be explained in terms of physical science, if the physical reality turns out to be structural, as several recent philosophers of science believe, so will have to be the social reality.
2. For anybody pursuing the course of a mathematical social science, since mathematics seems to be structural, their social science must, by implication, be structural, too.
3. From the epistemological point of view, should it turn out that we, as humans, only understand structurally, it would mean all our knowledge is structural – whether we explicitly reflect on it or not, the knowledge of social reality including.

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