Descriptive Imaginary and the Epistemological Profile of Modern Social Sciences

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Abstract

In the present paper we intend to introduce the concept of descriptive imaginary, which designates a special type of scientific imaginary, as an investigative tool regarding the epistemological profile of social sciences. The concept is partially originated in the terminology of the French School of History and Anthropology in which important contributors are Gilbert Durand, Jacques Le Goff, Jean Jacques Wunenburger and others. We are going to distinguish descriptive imaginary from other types of imaginary, like artistic imaginary or religious imaginary and to emphasize its role in the development of natural sciences, but also of social sciences as well. As far as imagination is concerned, it had a rather difficult relation with philosophy, including epistemology and philosophy of science. Thus, it is mandatory to justify the use of the term “imaginary” in relation to the epistemological profile of various scientific disciplines. But some of the old prejudices regarding the contribution of imaginative faculty to scientific progress seem to be abandoned nowadays. At least, the productive imagination was finally distinguished from the reproductive one. Moreover, in spite of the fact that human imagination can produce a wide range of fictional entities, its partial use within the scientific descriptive effort regarding the characteristics of nature can be put into evidence, provided the use of imaginative faculty within the limits of rationality with a deep focus on the plausibility of descriptions. An important ingredient in this case is represented by specific criteria for selecting viable descriptive representations used in the development of scientific theories. We are going to study some crucial points in the historical evolution of natural sciences and social sciences, aiming to emphasize some intriguing similarities but also some disparities among them, in order to unveil the specificity of modern social sciences as far as the methodological road from Theory to Inquiry in their case is concerned. The case of sociology, which was born as “social physics” seems to be emblematic in this respect. In the end, we are going to develop a possible explanation for the presence of some methodological elements in the epistemological profile of modern social sciences that consolidate their status as modern sciences.

Keywords: Descriptive imaginary; modern science; descriptive representation; scientific methodology; social science.
1. Introduction

Modern science represents, undoubtedly, one of the greatest achievements of humanity. In the present times its influence reaches the most dynamic levels of human society, in terms of technology, but also in terms of general view about the world, about the universe, about the place of human beings within it. As a consequence, the rise of modern science and the evolution of various scientific disciplines towards methodological maturity remain even today two of the favorite subjects of research for epistemologists and historians of science. Beyond the sheer chronology of events, extremely important for philosophers of science remain the fundamental mutations that took place as far as the epistemological profile of various disciplines is concerned. In this respect, Euclidean Geometry and Newtonian Mechanics were regarded as models of scientific rigor and methodological coherence, models that influenced the historical evolutions of other disciplines, which urged to attain scientific respectability. The present endeavor intends to unveil a few significant aspects of such evolutions, taking into consideration two groups of disciplines quite different in their basic nature, but in an interesting relation concerning their cultural influence upon society: natural sciences and social sciences.

Social sciences represent a field with increasing influence in contemporary society; therefore, an analysis of their epistemological profile could still represent an interesting inquiry. Giving the fact that nowadays the influence of scientific discourse is beyond any question, social sciences aim to prove again and again their belonging to the category of scientific disciplines. Despite the fact that recent methodological developments shortened the distance between them and the classical scientific disciplines like mathematics or natural sciences, social sciences remain in a debatable position as regards their relation with the acknowledged scientific methodology. Their progress in the last few decades is quite remarkable, but the complexity of their object of study still reduces significantly the authority of generalizations made within their field.

2. Literature Review

In discussing the epistemological profile of social sciences, we are going to use a theoretical investigative tool. The concept of descriptive imaginary (Chiriac, 2011b, pp.126-141), which allows us to unveil some important turning points within their historical development, especially as far as the morphology of their scientific representations is concerned (Chiriac, 2013a, pp.109-118). The name of the concept could seem quite unusual and the link between it and the field of social sciences could also seem quite unfamiliar; therefore we are going to explain briefly the genesis of this concept and its particular utility.

As one can easily observe following its genesis, descriptive imaginary is a concept that emphasizes the use of imaginative faculty in the process of elaborating scientific descriptions of natural processes (Chiriac, 2011a, pp. 162-169). In fact, the very introduction of such a concept raises some questions regarding the relation between the development of modern natural sciences and the use of imaginative faculty. In comparison to other analysis of the same extent, the present one is centered on such a concept as theoretical tool for investigating the development of modern sciences. At first glance, our methodological option could seem a little awkward, mainly because of the strange relation between imaginative faculty and the idea of scientific, rigorous knowledge, which usually is related to abstract conceptual thinking. Moreover, imagination itself had quite a tough time throughout the history of its integration as a philosophical lucrative concept for philosophers and historians of science. From Plato up to modern philosophers, its contribution to the expansion of human knowledge remained somehow unclear or debatable at best. (Védrine, 1990, p. 12) After all, the numerous difficulties various philosophers had in deciding whether or not imagination had a decisively positive contribution to the process of acquiring scientific knowledge about the world determined the replacement of this concept with another one: the so-called imaginary. About imaginary, understood as a noun, different authors expressed recently quite refined and extended points of view, especially those belonging to the French School. For authors like Gaston Bachelard, Gilbert Durand (Durand, 1999; 2000), Jacques Le Goff or Jean Jacques Wunenburger (Wunenburger, 2003) l’immaginaire, as they call it, is a convenient replacement of imagination in any philosophical discussion, conserving quite a lot from the richness of the old concept of imagination and enriching its range of significance with the idea of collective sharing of imaginary products by a certain community of people.
3. Approach

Taking into account the aspects mentioned above, one can discuss about a religious imaginary (Funkenstein, 1998, p.11), a literary imaginary, a social imaginary and so on (Chiriac, 2013b, pp.111-123). History of mentalities, for example, benefits a lot from taking into consideration this perspective upon human society, whose deep transformations throughout different periods of time are influenced by the evolution of religious and social imaginary. Middle Age, for example, from a cultural point of view, was dominated by religious imaginary, which influenced the most important aspects of human life. The very understanding of nature was tributary to Bible as ultimate reference for what exists and what does not exists in the real world. The use of such a particular ontology prevented medieval people to make a sharp distinction between what is real and what is the sheer product of human imagination. Therefore, in their case, the notion of fiction is not usable in the way we understand it today. We can observe in this context the fact that imaginary influences or at least can be linked to the general perspective about the surrounding world humans have. There seems to be, in this respect, one category of imaginary with great influence on the way human beings understand the properties of nature: the scientific imaginary. Historians and philosophers of culture tend to neglect its particularities, treating it on par with other types of imaginary, but as far as we are concerned, a more careful treatment of it is worthy, especially as regards a better understanding of science as an evolving process. From the beginning we are going to make a distinction between the physical real and reality. While the first is fundamentally independent from the states of human mind (D’ Espagnat, 1990), we discuss about reality as an image of the physical real, as a product of human mind. Thus, what we call scientific reality is nothing more than a coherent, detailed and complex conceptual construct about the most significant characteristics of the physical real. What interests us mainly is the contribution of scientific imaginary in the process of developing scientific reality, in the case of natural sciences, and in the case of social sciences as well. More exactly, scientific reality is going to be understood as an image of natural phenomena, in the first case, whilst in the second case scientific reality is nothing more than an image of social phenomena. In fact, the specificity of the so-called social reality represented a subject of vivid debate in the history of Sociology, for example.

4. Discussion

What could seem awkward at first glance in our approach is the idea that imaginative faculty is used within the process of describing the physical real. One could ask himself why are necessary the products of human imaginative faculty for making the physical real intelligible, since we collect a significant part of the information about the surrounding world throughout our senses. (Fauconnier, Turner, 2002) The answer to such a question could be that, long ago, starting with Galilean and Newtonian physics, the scientific description of nature went far beyond the limits of human senses. Therefore, perception was no longer sufficient for acquiring a reliable set of information about nature. In order to select a set of reliable knowledge about the most significant features of nature, human beings needed the ability to restructure conceptually the image of the physical real. Precisely that kind of activity stimulated the use of working descriptive hypothesis, which involved a mixture between products of abstract analytical thinking and products of imaginative faculty. The development of mathematics from Egyptian and Greek geometry to Arab algebra fully illustrates this mixture. Trigonometry and Analytical Geometry are also good examples of mixture between visual and non-visual mathematical entities. Ontologically, things are even more spectacular in the case of modern physics, where each theoretical component of scientific discourse must be linked, directly or indirectly, to a measurable feature of the physical real. In this case, the ontology associated to the scientific theories determines a radical selection among the products of imaginative faculty used within the effort of describing nature, namely the descriptive representations of real physical objects and real physical processes. (Cao, 1997, p.50) In fact, the real danger for the proper development of modern scientific discourse lay in the imaginative excess which could undermine the plausibility and verifiability of scientific descriptions. In this respect, the transition from pre-scientific description of natural phenomena to modern scientific ones witnessed the gradual introduction of some specific pragmatic criteria for selecting the suitable descriptive representations from the crowd of various fictional products of human mind. The rigors of such a selection increased in time and marked the development of Modern Chemistry from the roots of Alchemy, for example, or the development of modern
Astronomy from the roots of Astrology and so on. Culturally, such a process had its own consequences, involving complex mutations in the mentality of the general public (Gaukroger, 2006, p. 19).

In spite of the fact of being much younger than natural sciences, social sciences experienced a quite similar process of maturation in terms of descriptive representations selection criteria. Disciplines like Sociology, Economy or Social Psychology used various conceptual tools when dealing with such a complex object of investigation like human society. At the beginning, the strongest points of view were ideologically justified, but gradually a more cautious attitude towards the empirical verifiability of the claims about society in its entire was adopted, due to the fact that genuine scientific methodology was introduced. However, the road towards a refined methodology capable to select verifiable knowledge from the amalgam of various descriptive representations with depictive and explanatory function was a quite long one and we will try to give an example, taking into account the case of one of the most ambitious social science: Sociology. Due to the complexity of its object of study, Sociology was understood from the beginning as a discipline capable of unifying all the other sciences, at least at the level of using the knowledge produced by them for underlying the complexity of human society in its entire. One of the biggest dilemmas of sociologists regarded the very nature of social phenomena: could such phenomena be treated by using the conceptual and methodological tools developed by natural sciences or it should be understood as a genuine different kind of phenomena. In other words, one of the difficulties regarded the proper way of understanding and composing social reality as a descriptive image of the social real. Due to the great prestige of natural sciences, the analogy with natural phenomena was quite popular among the first sociologists, as it is the case with Auguste Comte and John Stuart Mill. As it was the case of natural science in their youth, the first step towards methodological maturity was that of going beyond teleological explanations which pay tribute to Aristotelian way of understanding the relation between the investigator and the phenomenon he studied. In this stage, the amount of descriptive fictions used for explaining the processes was pretty significant and the simplifications used were quite severe. A few trends from natural sciences, as organicism or mechanicism were quite influential. For example, sociology was understood as a Social Physics by Quetelet, or as a Social Mathematics by Condorcet, which could give us important clues about its epistemological profile at that time.

As a consequence, social reality was regarded as having many of the characteristics of physical reality, which justified the extensive use of mathematical methods combined with a strong reductionism as far as social actors were concerned. One of the very few characteristics of social reality considered important in that period of time, which remained significant for sociologists even today, was its accountability. The fact that social processes are considered measurable is one of the main arguments for introducing statistical methods in sociology and this could be regarded as a significant advantage for Modern Sociology. In fact, it is an indirect effect of the first scientific revolution that influenced the epistemological profile of natural sciences in the XVII-th century. Two centuries after that moment, social sciences benefited from that moment, which in our terms could be considered the first turning point in the morphology of descriptive imaginary. Still, one of the main problems of sociological descriptive representations was the lack of attention paid to the specificity of social phenomena beyond the raw analogies with biological or physical phenomena.

The first step on this road of refining the descriptive representations involved in depicting the social real and creating an accurate image of it, called social reality, was the introduction of the so-called "Volksgeist", the spirit of society, by Herder, who became aware of the fact that human society cannot be reduced to a simple physical phenomenon. At first glance, in epistemological terms, this use of the vague concept of “spirit” could seem a step backward on the road towards a real modern sociological methodology. However, the good part of it, as it is also the case with the contributions of Vico regarding “La scienza nuova”, is represented by the understanding of the specific ontology of the social phenomena. It is, in fact, a first step towards a better correspondence between the descriptive strategies adopted by scientists and the particular nature of social phenomena.

Such a tendency was continued to a new level by another generation of scientists, among whom the most important personalities could be considered Emile Durkheim, Max Weber and Georg Simmel (Porter, Ross, 2008, p.57). While Durkheim was focused to develop the rules of sociological method (Durkheim, 1982), emphasizing the genuine specificity of social phenomena (Hafner, 1998, pp.455-464), which he understood as the particular reality of a complex organism, Weber was more interested in emphasizing and investigating the options of individuals, their possibilities of choice. As to Simmel, through his neo-Kantian approach he was one of those who struggled to formulate possible and coherent answers to the question “What is society?” As a result of his analysis, sociologists
faced the problem of understanding individuality and fragmentation, which could be regarded as a further step towards a more complete image of society as multilevel complex system. However, beyond the remarkable achievements of this new generation of scientists, one cannot speak about a fervent dynamics of descriptive imaginary specific to Sociology, given the fact that the real widespread of sociology at world level happened after the Second World War (Swedberg, 2012, pp.1-40).

5. Conclusions

Among the specific features of descriptive imaginary, generally speaking, is a dual dynamics of descriptive representations: at individual level and at social level. Therefore, we can speak about a private part of descriptive representation and a public part of descriptive representation, the last one having its own evolution at the level of scientific community. In this respect, 1945 and 1960 could be considered as turning points in the development of descriptive imaginary specific to sociology. The first stage in its dynamics, the modern stage, was dominated by the activity of personalities like Talbott Parsons, Robert Merton or Paul Lazarsfeld, while the later one, the postmodern stage, was dominated by the activity of personalities like Robin Williams, Alvin Gouldner or Jean Baudrillard. Throughout the road towards methodological maturity, the morphology of descriptive representations became more complex and the authority of generalizations declined gradually, in front of the problem of group identity.

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