Naturalism

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In this section, which forms part of my discussion of the relation and interaction between philosophy and science in the twentieth century, I will show that ‘naturalism’ has played a very crucial role. I consider this role a positive one. In fact, probably, naturalism has constituted the closest relation between philosophy and science. By considering the roots of different types of ‘naturalism’, we shall see that the current debates on naturalism have been an inevitable development. Here also I will show that the current debates are inescapable for most philosophers. By considering some of the different versions of naturalism, I will show that the place of ‘naturalism’ in contemporary philosophy of science is a very crucial one. Finally, I will study the Quinean version of “Epistemology Naturalised”. I will argue that Quine’s version of naturalized epistemology is not as radical as is usually thought. I pursue it through a close reading of Quine’s original text. I will reveal some misunderstandings of Quine’s naturalized epistemology by shedding light on some of the relevant concepts including ‘purely descriptive epistemology’, ‘circularity’, ‘natural science’ and ‘normativity’. To do this, I will first illustrate some of the very different views on that in current debates among philosophers (and particularly philosophers of science) and scientists.

Varieties of naturalism

To begin we can divide ‘naturalism’ into ‘methodological naturalism’ (epistemological naturalism), that is my concern in this section, and ‘philosophical (ontological or metaphysical) naturalism’. Methodological naturalism (MN) can be defined as “a re-conception of the traditional relation between philosophy and science to which philosophical inquiry is conceived as continuous with science”. (De Caro, M. and Macarthur, D. 2004.) This definition originates with W.V.O. Quine, to whom we will return when we investigate his “Epistemology Naturalised”. I could bring here many other definitions from the most famous adherents to naturalism but I did not do that because I needed a very simple definition, also very close to Quine’s naturalistic view. In other words, methodological “naturalism is committed to a methodological principle within the context of scientific inquiry; all hypotheses and events are to be explained by reference to natural causes and events”. (Paul Kurtz, 1998) Philosophical naturalism (PN) is “a commitment to an exclusively scientific conception of nature”. (De Caro, M. and Macarthur, D. 2004.) To make things easier to follow, let me say that Ontological Naturalism says that only natural entities exist; there is nothing supernatural, we here are not involved this version at all, except when we study the relation between these different versions. Methodological (epistemological) naturalism is the view that belief and evidence are natural phenomena that should be studied as other natural phenomena, i.e. by ordinary scientific methods. Many naturalists and anti-naturalists believe that there is little consensus on the meaning of naturalism. (Giere, R. N. 2000. Papineau, David. 1993 and 2004. Forrest, Barbara. 2000. Maddy, Penelope. 2001. Kim, Jaegwon. 2003. Stroud, B. 1981.Bergstrom, Lars. 2008. )

Let me say something about terminology. I think as Quine stated once in his, “Naturalism; or living within one’s means”, names of philosophical positions are necessary evil. They are necessary since we have to refer to a stated position or doctrine, and it would be tiresome to keep restating it. They are evil in that they come to be conceived as designating schools of thought, objects of loyalty from within and objects of obloquy from without, and hence obstacles, within or without, to the pursuit of truth. For example, one can recall that Carnap was a physicalist but he was not a naturalist in any of the current versions. In contrast, Quine was a physicalist and a naturalist but he saw distinctions between them, and finally Papineau is a naturalist and a physicalist but he thinks there is no difference between them. He wanted to change his book’s name from ‘philosophical naturalism’ to ‘philosophical physicalism’. (Papineau, D. 1993.)

Then, here I am not going to define a new meaning of naturalism; it is essentially a terminological matter. In this part of my research the important question is not which philosophical position is right and not what to call them; my issue is to show how ‘naturalism’ played a very special role for the relation between philosophy and science. To start such a task, I turn to the origins of the naturalism. I want to investigate, how do these roots relate to science.

The origins of naturalism

Regardless of the type of naturalism that we have in mind, MN or PN, naturalism has its roots in the scientific revolution of the 17th century, and the philosophical movements that emerged in that era. Over the past four centuries since the beginnings of the scientific revolution, there has been a gradual but relentless reversal of the roles of philosophy vis-á-vis science. The historical roots of philosophical naturalism reach back into the sixteenth-seventeenth century in the works of natural philosophers like Galileo Galilei, Francis Bacon, and Isaac Newton and so on. One of the most important tasks of natural philosophers was to investigate ‘nature’ and human being to get a view of the world and of man’s relation to it, in which only the operation of ‘natural’ laws and forces is admitted or assumed. After the period of scientific revolution, we can see big names such as Kant and Hume. I disagree with Penelope Maddy when she thinks the roots of naturalism are in Kant. For me Hume is a better alternative, however, I believe that it would be better, both historically and philosophically, to look closer for the sources of current philosophical and methodological naturalism.

Then we leave both Kant and Hume here. (Margaret Morrison, in her paper "Reduction, Unity and the Nature of Science: Kant's Legacy?", convincingly argues against more optimistic Kantians that any assimilation of Kant's transcendental principles of homogeneity, specification, and continuity to symmetry principles in modern science must fail because the latter's justification is ultimately ontological while the former, due to their regulative status, cannot in principle be fulfilled. Similarly, Kant's concept of fundamental forces is essentially different from that of present-day physics.) However, Maddy reasonably brings a good historical perspective on distinctive neo-Kantians like Reichenbach and Carnap as the roots for naturalism. Later we can identify Reichenbach as an empiricist from Berlin, and Carnap as a positivist from Vienna. (For the role she considers for Kant and then consequently for Carnap and Reichenbach, see Maddy, 2001). I will return to Logical positivism as a philosophical movement in this section, but just as far as it is related to our naturalism, we will refer to logical positivism as a philosophy centrally concerned with science.

It is evident that we need to develop a unified and systematic understanding of naturalism, something that we do not have yet.

Hilary Kornblith in his, “Naturalism: Both Metaphysical and Epitemologocal”, suggested a unified manner for the naturalistic themes. (Kornblith, Hilary.1994.)

To reach contemporary naturalists especially in analytic philosophy and see how they show their interest in science, it is better to return to the early part of the twentieth century and understand how and why this association between philosophers and scientists starts. In fact it started with logical positivists like Carnap, Reichenbach, Schlick and Neurath; when they face the fact that modern science has falsified Kant’s supposedly a priori Euclidian geometry and undermined the supposedly inescapable notion of causality; they focused particularly on how Kant (a philosopher) could be reconciled with Einstein (a scientist). For most philosophers with a naturalistic view, the epistemological thesis of naturalism is that all knowledge that we can acquire is acquirable only through the application of scientific method; then in a wider sense one can say that the so-called logical positivists and later empiricists would be one of the two main roots for the current naturalism. using of scientific methods, otherwise we cannot say Logical Positivists had naturalistic views like their contemporary colleagues, however, Quine in an interview at a panel with Block, claimed that the later Carnap was very close to naturalistic view in a contemporary version. The second group, that they were influential on contemporary naturalism, especially on American naturalistic views; are fifteen American philosophers that in 1944 published a volume of essays under the title ‘Naturalism and Human Spirit’. Among all of them, I can mention the leading ones including John Dewey, Sidney Hook, Ernest Nagel, George Boas, Abraham Edel, Sterling Lamprecht, and John Herman Randall. However, most of contemporary naturalist philosophers, including the professed naturalists, seem unaware of the influence of the above American naturalists group, in particular logical positivism/empiricism. (Kim, Jaegwon. 2003.)

Since Logical Positivists are more crucial as the deep roots of current naturalism, let me just study them. There are many stories about logical positivism (later empiricism), from ‘a dead movement’ to one of the most philosophical movements in Twentieth century. (To find how they are dead, see passmore, John. 1967. To figure out who killed them, see Popper, Karl. 2002. In fact, Popper in his autobiography claims that there was a murderer for Logical Positivists, Popper named himself as the killer. Nevertheless, we will see things are not going as Popper or Passmore thought.)

Since I will study later this movement in detail in an independent chapter under the title ‘Logical Empiricism’ in my research, let me here just investigate logical positivists and their very different ideas about the relation between science and philosophy. By considering historical evidences, and also a list of the leading names, it seems to be fair to say that a number of scientifically minded philosophers and philosophically minded scientists came together in to various places throughout Europe to reflect on the current state of scientific and philosophical knowledge. (For a better understanding and a more fair work at the pluralistic views in logical empiricism, see Richardson, Alan, and Uebel, Thomas. 2007. And for a reappraisal and re-evaluation of this important philosophical movement see Friedman, Michael.1999. Moreover, see Stadler, Friedrich. 2002. Finally to read a volume of original essays and basic works of the group members see Sarkar, Sahotra. 1996.)

Logical Positivist/Empiricists vary in many ideas; however, almost all of them they believe that scientific methods are the sole source to get the knowledge. A leading trend including Carnap, Neurath, and Charles Morris, was involved with a project that it changed to an independent movement under the title ‘Unity of Science’. Logical positivists, were very active in many different sciences of that time, in fact many of them were scientists. Every single of above goals guide them to naturalist views that many of those orientations are still alive in contemporary philosophy of science, more in the name of neo-Carnapian or neo-positivists. (Ney, Alyssa. 2012.) For example, Otto Neurath, offered important impulses to the early group with his interdisciplinary orientation (economics, logic, sociology, history and mathematics) and his ability to contextualize philosophy of science in a socio-critical sense. His non-reductionist, holistic, and naturalistic philosophy of science places him in the tradition of Quine.

Epistemology Naturalised

In this part I will clarify what exactly Quine, as one of the most important and professed naturalist philosopher in the twentieth century, is saying about the form of naturalism that he believed. I am not defending Quine’s very complex holistic and system-centered view; however, very soon one can understand that many critiques of his naturalistic view, especially the suggestion that, by abandoning traditional epistemology, he will not leave any task for philosophy to do and the claim that Quine thinks that the new epistemology is purely descriptive, are wrong. To accomplish such a task, I will pursue this a close, direct reading of Quine’s original text.

Quine suggested that in the past two centuries there have been five points where empiricism has taken a turn for the better. The last, or “The fifth is naturalism: abandonment of the goal of a first philosophy prior to natural science”. (For a better understanding of these five points, see Quine, Willard Van Orman. 1999.) Quine in his “Five Milestones of Empiricism”, identified a representative of naturalism in history of philosophy, Auguste Comte , who declared that “positive philosophy” does not differ in method from special sciences. Quine stated many times a very similar notion. For example in his “Naturalism; or, Living within One’s Means”, he states, “Naturalistic philosophy is continuous with natural science”. (Quine, W.V.O. 2004.) Quine in his well-known “Epistemology Naturalised” declares, “Epistemology in its new setting, conversely, is contained in natural science, as a chapter of psychology”.(Quine, W.V.O.2004. P.269)

Now we scrutinize the following misunderstandings relative to Quine’s “Epistemology Naturalized”. If epistemology is supposed to be a chapter of psychology then what is left for philosophers to do?

Quine replies that ‘naturalistic philosophy’ has many deeper tasks to do, including, clarifying, organizing, and simplifying the broadest and most basic concepts, and analyzing scientific method and evidence within the framework of science itself.” Nevertheless, it seems the last phrase, i.e. ‘within the framework of science’, will raise a problem: circularity. However, Quine noticed the problem and made a solution for that. Quine cites Neurath’s metaphor of the boat. We are like sailors at sea on a ship who must repair the ship without going into dry dock. We cannot repair it all at once, as we require it to continue our journey. Thus, every part is reparable, but not all at once. What keeps each bit in place is that it fits into the whole and contributes to the journey. Therefore, there is no Archimedean point outside our knowledge, for example the first philosophy, which can be used a foundation for that knowledge. No piece of knowledge is immune from suspend at the same time. Rather we hold firm to parts of our knowledge structures in order to examine and improve other parts. The test of such pieces of knowledge is that they do the jobs we want them to. ( For the exact words of Neurath see Neurath. 1933. And for the exact words of Quine see Quine, W.V.O. 2004. P.269) By considering this, we can understand how Quine may state there is no firmer basis for science than science itself. Another support for my view that there is no circularity in Quine’s belief is; one can suppose a kind of circle, but it is hardly vicious. It is not really the case of something being justified by itself. I am in agreement with Lars Bergstrom when he sees it as a matter of some ingredients of a system being justified by their coherence with other ingredients of the same system. The fact that different ingredients of one and the same system are justified by mutual coherence is typical of coherence theories of justification. (Bergstrom, Lars. 2008.)

Finally, I can say the last words about the problem of circularity. When Quine was writing, why not settle for psychology, he was aware of such circularity, nevertheless, he saw that circularity for the old epistemologists and he says that it was disallowed in earlier times as circular reasoning. Then he rightly argues that if validation of grounds of empirical science is a goal for old epistemologists, they will defeat their purpose by using psychology or any other empirical science in the validation. However, in his version, naturalistic epistemology, such scruples against circularity have little point once we stopped dreaming of deducing science from observations. In fact, he had already showed how empiricists despaired of deducing the truths of nature from sensory evidence.

Another objection to Quine ‘s naturalised epistemology is that epistemology is a normative discipline, but Quine considered it purely descriptive. It is not true, because Quine clearly declared that, “Traditional epistemology was in part normative in intent. Naturalistic epistemology, in contrast, is viewed by Henri Lauener and others as purely descriptive. I disagree. Just as traditional epistemology on its speculative side gets naturalised into science, or next of kin, so on its normative side it gets naturalized into technology, the technology of scientizing.”(Quine, W.V.O. 2004. P.282). In fact Quine does not repudiate epistemology, but he assimilates it to empirical psychology and he keeps both descriptive and normative versions for his naturalized epistemology.

To end this part let me say what Quine means by ‘natural science’. He included the farthest flights of physics and cosmology, as well as experimental psychology, history and the social science. He also included mathematics, insofar at least as it is applied, for it is indispensable to natural science. What he is excluded is ‘some prior philosophy”, and why? Descartes’ dualism between mind and body is called metaphysics, but as Quine thinks, it could as well be reckoned as science, however false.

Conclusion: The Place of Naturalism in relation and interaction between philosophy and science

In current debates and most of philosophical projects, one can discover that naturalism is a dominant orientation in analytic philosophy, perhaps for the last three decades of Twentieth century, especially in the United States. Naturalism also has played crucial roles in many other branches of philosophy including philosophy of mind, practical philosophy, cognitive science, and so on. In fact, one cannot find easily a part of philosophy without any relation or impact of naturalistic debates.

Even its critics now commonly endorse that, naturalism is one of the most important philosophical program, and it has played a very crucial role in Twentieth century. However, the importance of naturalism for this section of my research is not to show that there are many claims like philosophy of science is not possible without naturalism. For my purpose, is to investigate that what is the fruitfulness of naturalism in relation between science and philosophy. Does naturalism have any advantage for philosophy; the answer of this conclusion is yes. Philosophy may interact and even intertwined with science to clarify, organize, and simply the broadest and most basic concepts, and analyze scientific method and evidence within the framework of science itself. It has started a PNP program that it brings some hope on my view in this section. PNP (Philosophy-Neuroscience-Psychology) is an innovative program designed to foster engagement among different disciplines addressing the mind-brain. The value of philosophy is not to have or back to traditional epistemology. Philosophy can do its tasks easily with a moderate naturalistic view. In contrast to many objections to Quine’s version as a radical one, I demonstrated that Quine’s recommendation is a reasonable, practical and moderate one. Naturalism that I defend is going to tell us we need a better and very close relation between philosophy and science. In fact, Quine telling us that the work of philosophers, in a naturalistic epistemology, is “tying up loose ends of science”.

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