

Cognition, Social Impulse, and the Principle of Adaptation:

Insights into the Peirce–Veblen Connection

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Abstract: This paper seeks to offer insights into the connections between Charles S. Peirce and Thorstein B. Veblen regarding their understanding of the logic of scientific thought and cognition. In this sense, this work explores how both Veblen and Peirce dismissed the Cartesian notion of unmediated cognition and how they sought to depict cognition as a process. Furthermore, this paper presents Peirce’s concept of “social impulse” and Veblen’s “principle of adaptation” as non-excludent perspectives on science and cognition that have strong evolutionary content.

(82 words)

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Peirce and Original Institutional Economics

In 1987, Philip Mirowski, the historian and philosopher of economic ideas published the controversial paper “*The Philosophical Bases of Institutional Economics*” in the *Journal of Economic Issues* (JEI). In this work, Mirowski (1987) sought to offer insights into a reassessment of the pragmatist roots of Original Institutional Economics (OIE). According to the author, OIE thinkers dismissed the philosophical contribution of the main pragmatist thinker, Charles S. Peirce (1839–1914). For Mirowski, the reference to the hermeneutical aspects of Peirce’s thought might help restructure the manner in which OIE understands the connections between scientific activity and the social world. (Footnote 1) Moreover, the reassessment of Peirce’s ideas provide a philosophical advantage to OIE when compared with the Cartesian method of neoclassical economics.

More than thirty years after Mirowski (1987), we note that most of OIE did not move toward Peirce’s pragmatism. In response to Mirowski, one of the main thinkers of OIE—Paul D. Bush—vehemently asserted that OIE has strong philosophical foundations defined in the works of Thorstein Veblen, John Dewey, and Clarence Ayres. In this sense, for Bush (1989:1164), the recovery of Peirce’s ideas within OIE is vain, because “Mirowski’s critique appears to be based more on the desire to read institutionalism from the perspective of what he calls “Peircean hermeneutics” than on the desire to *appraise on their own terms* the foundations these writers [Veblen, Dewey, Ayres] have laid for the literature of institutional thought.” (Footnote 2) In a subsequent publication, Liebhafsky (1993:743) highlighted the view that the aversion to Peirce was a consequence of the advantage of John Dewey as “The” pragmatist reference within OIE, something explained by the historical formation of the school since “Ayres acknowledge indebtedness to Dewey and that of Tool, Bush, and others through Foster.”(Footnote 3)

Curiously, despite objections to the reassessment of Peirce, in recent the last years, some new possibilities for understanding the connections between Peirce and Veblen emerged with OIE. This emergence occurred because some thinkers began to assert that not only Darwin but also Peirce were evolutionary references to Veblen. In this sense, Hodgson (1998: 417-418) pointed out that Peirce “had a formative and fundamental influence upon him [Veblen], establishing Darwinism not merely as a biological but as a philosophical and methodological creed.” In the same direction, Hall and Whybrow (2008) pointed out that the Veblenian “cumulative causation”—commonly understood as a Darwinian concept—strongly resembles the Peircean notion of “synechism.” Moreover, the comparison among Veblen, Peirce, and Darwin is well analyzed by Viano (2002), who concluded that Peirce was more Darwinian than Veblen regarding social order and the role of institutions.

Following these ideas and in the spirit of reevaluating Peirce’s evolutionary concepts and their relatedness to Veblen’s institutionalism, this short paper seeks to offer some insights into the understanding of the scientific inquiry and the nature of human cognition of the two thinkers.

Peirce’s Method of Science

The modern philosophical rationalist tradition initiated by René Descartes (1556–1690) had innumerable repercussions on how Western philosophers understand the human mind and scientific activity—something that extends in many ways to the discipline of Economics.(Footnote 4) For our present interests, we must bring to attention the so-called “methodology of doubt,” one of the main features of Cartesianism. According to Descartes, the main principle of all scientific enterprises must be to doubt everything as best as is possible. From this perspective, we must accept as truth what is evident, what can be intuitive with clarity and precision. In “Rules for the Direction of the Mind,” Descartes (1957:31) points out that

intuition is “a conception, formed by pure and attentive mind, so easy and distinct that no uncertainty remains. It is thus free from doubt, drawing its origin solely from the light of reason, and is more certain, because more simple, than *deductio*.” For Descartes, intuition is separable from deduction, which is the necessary process to make intuition evident. Those two methods together (intuition and deduction) are the pillars of scientific thought from the Cartesian perspective.

Peirce’s epistemology strongly attacks the Cartesian method. We can find Peirce’s position well presented in his “cognition series”—a set of three papers published between 1868 and 1869 in *The Journal of Speculative Philosophy*. (Footnote 5) For our objectives, we must hold on to the fact that Peirce rejects Cartesianism because he sees genuine doubt and intuition as a psychological impossibility. If we accept the Cartesian method, we must accept the notion that it is possible to begin any inquiry free of prejudice (Struhl, 1975: 482). In this sense, Peirce highlighted the notion that the concept of intuition is grounded in the idea that it is possible to have a cognition that is not linked to previous cognitions or, similarly, to have a cognition that is “determined by something out of the consciousness” (CP 5.213). (Footnote 6) In *Some Consequences of Four Incapacities* (CP 5.264), Peirce presented his critique of the Cartesian system through four propositions: (i) we have no power of introspection, but all knowledge of the internal world is derived by hypothetical reasoning from our knowledge of external facts; (ii) we have no power of intuition, but every cognition is determined logically by previous cognitions; (iii) we have no power of thinking without signs, and (iv) we have no conception of the absolutely incognizable.

Regarding Peirce, we can understand cognition only as a continuous process without a precise start or end. (Footnote 7) In this sense, Peirce’s epistemology departs from very different bases when regarding the roles of belief and doubt. For Peirce, the objective of the inquiry is the attainment of a belief and the resolution of doubt. We do not move from one belief to

another because we seek to methodologically doubt every belief. The state of doubt emerges when a belief does not respond adequately to what we want to understand. At this specific moment, we search for a new belief that alleviates the unpleasant state of doubt.(Footnote 8)

If attaining a belief is the main objective of scientific inquiry, how must we act to achieve a belief? In *The Fixation of Belief*, Peirce (CP 5.358) offered an interesting discussion of the different methods for fixing beliefs, with only one that proves to be adequate. The first method that Peirce evaluates is “The Method of Tenacity”—when we establish a particular arbitrary belief regarding a specific subject by ourselves. The second method is the “Method of Authority”—receiving a belief defined by an authority and following this belief based on that. The third method is the “A Priori Method”—when a belief is achieved because they seem agreeable to the human mind, that is, the “emergence of those beliefs which appeal to the natural preference of all men.” For Peirce, the only method that can offer a satisfactory belief in the long run is his fourth method: the “Scientific Method.” To understand this method and the failure of all other methods for fixing beliefs, we must pay attention to the role of what Peirce defined as “social impulse.”

Peirce (CP 5.378) pointed out that a tendency exists in human beings to recognize each other and, correspondingly, to recognize each other’s beliefs as having the same value as their own beliefs. According to Peirce, “This conception, that another man’s thought or sentiment may be equivalent to one’s own [...] arises from an impulse too strong in man to be suppressed, without danger of destroying the human species. Unless we make ourselves hermits, we shall necessarily influence each other’s opinions.” The social impulse explains a human’s evolutionary tendency to search for and use conflicting opinions towards the construction of a shared belief, an impulse that allows human beings to depart from fragmentation and conflict and achieve consistency and convergence. Hausman (1995: 32) considered that Peirce’s “social impulse” is a Darwinian concept because “it is likely that Peirce introduces the idea of a social

impulse in light of an empirical generalization found in Darwin's discussion of social feeling in animals and humans."

The best way for the community to cope with the external permanency of things (the Real) is through the "Scientific Method," which is the only method founded on our evolutionary "social impulse." According to Peirce, the scientific method departs from the notion that something permanent exists—a reality out there that we need to understand. This reality allows us to establish the distinction between falsity and truth and to compare and discuss different possibilities to cope with reality. Moreover, the understanding of this reality is the result of a common belief. This belief is common given our "social impulse" and conforms with the agreeable state of mind that our mind seeks to achieve. When this belief is no longer compatible with reality, the uncomfortable state of doubt arises, and we seek a new common belief. Santaella (2004: 53) stated, "Doubt begins when the regular function of a habit is interrupted. It has two faces: It interrupts an established uniformity and stimulates a new habit that will substitute the former one." More importantly, in a departure from Peirce's criticism to Cartesian tradition, we must highlight the notion that this new belief will arise from previous beliefs and thoughts because cognition is a process. As the "social impulse" establishes a reference for this cognitive process, then its hermeneutical nature becomes clear. The understanding of Reals emerges in science as a shared belief—a habit of thought devoted to all of humanity and not specific groups. Thus, for Peirce, the "Scientific Method" is the best method for fixing beliefs in the long run.

If we review the first three methods for fixing a belief, we will see that they fail to understand the evolutionary power of the "social impulse." The "Method of Tenacity" does not consider that human beings are aware of each other's beliefs, which may result in a change in their own beliefs. The same happens to "The Method of Authority" because the church, the State, or any authority can offer a belief; however, people will consider other beliefs as well,

and the hegemonic belief will probably not survive in the long term. Regarding the “A Priori Method,” we must point out that this is the Cartesian method *per se* once it comes from a movement toward an admirable deductive fruition of ideas because “the very essence of it is to think as one may be inclined to think” (CP 5.385). Therefore, it does not establish any role for shared beliefs and social impulse.

Veblen’s Critique of Neoclassical Economics and “The Principle of Adaptation”

For both Peirce and Veblen, the process of thought is not the result of Cartesian methodological doubt and direct intuitive cognition. For the authors and contrary to the Cartesian tradition, we cannot ground the logic of science in an external and unmediated conception of cognition; instead, we need to understand the processual nature of mind.

Veblen focused on habits and institutions as the main determinants of human behavior. He understood that the shared habit of thought is simultaneously a feature of social groups and the source of our personal beliefs and behaviors—the milestone of his critique to neoclassical economics. In this sense, Veblen’s anti-Cartesianism regarding human cognition collides with the *homo economicus* depicted by neoclassical economics. In his 1898 manifesto, Veblen directly criticizes the Cartesian-neoclassical understanding of human thought: “Spiritually, the hedonistic man is not a prime mover. He is not the seat of a process of living, except in the sense that he is subject to a series of permutations enforced upon him by circumstances external and alien to him” (389–390). Veblen (1909) moved forward with his attack and added that, in neoclassical economics, human behavior “is taken out of the sequence of cause and effect and falls instead under the rule of sufficient reason. By virtue of this rational faculty in man, the connection between stimulus and response is teleological instead of causal” (Veblen, 1909: 623).

Veblen's accusations of neoclassical economics converge with Peirce's criticism of the Cartesian understanding of scientific method and cognition. On the one hand, if we find unmediated cognition through the application of intuition and deduction, on the other hand, we find the same thing under the form of a cognition that received a "God-given notation of the hedonistic calculus" (Veblen, 1909: 631). In Veblen's (1884) "Kant's Critique of Reason," we find some of the first ideas published by the American institutionalist on the understanding of the logic of scientific thought. The connections with Peirce's ideas are deep.

Veblen (1884:261–262) directed his efforts to attack the empiricist tradition that states that experience per se can provide a hypothesis. For Veblen, this is impossible because "experience [...] cannot forecast the future" and "data do not tell what the effect of action will be, except as we are able to judge the future by the help of the data given." In this sense, Veblen understood that only reflexive judgment can offer a hypothesis, and this reflexive judgment consists of the manifestation of what he called the "principle of adaptation." This principle states that human cognition seeks adaptation "on the part of the object to the laws of the activity of our faculties of knowledge, or, briefly, adaptation to our faculties" (1884, 265). In this sense, the "principle of adaptation" consists of the ability of the human mind to organize all information to devise a coherent whole. The human mind develops a hypothesis to organize information in a coherent pattern. This creative action is in fact a manifestation of the mental predisposition that is already in our mind.(Footnote 9)

Veblen's attacks on empiricism have the same content as Peirce's attack on Cartesianism: despite the differences, both traditions are based on an unmediated conception of cognition. Furthermore, Veblen's "principle of adaptation" is in line with his latter emphasis of the role of habits and institutions in human action. The first institutionalist understood that human behavior and motives are shaped by shared habits of thought that are continuously changing. According to Veblen, these shared habits of thought are products of hereditary traits

and “past experience, cumulatively brought out under a given body of traditions, conventionalities, and material circumstances; and they afford the point of departure for the next step in the process” (Veblen, 1898:181).(Footnote 10) In this sense, in light of Veblen’s institutionalism, we must consider that the “principle of adaptation” depends on the mediated role of previous knowledge ingrained in habits and institutions.

Peirce’s “social impulse” is the Darwinian justification for the emergence of shared beliefs that move forward the “Method of Science.” In the Veblenian perspective, “social impulse” is in line with the existence of institutions. Moreover, our interpretation of Veblen’s “principle of adaptation” converges with Peirce’s epistemology regarding the nature of cognition as a continuous and, especially, social process. In our view, these short insights may offer (more) elements for a reassessment of Charles S. Peirce pragmatism within OIE. Indeed, it is our pedigree.

(2486 words)

Footnotes

1. In his work, Mirowski (1987) presents the “Durkheim/Mauss/Douglas Thesis” (DMD). This reference points out the hermeneutical aspects in the relation between social environment and scientific knowledge. The “Durkheim/Mauss” reference emphasizes the direct repercussions of social relations in the construction of scientific activity. On the other side, the “Mary Douglas” reference understands the influence of scientific thought on the social world.

2. Our highlights

3. For a better understanding of OIE’s genealogy and history, we recommend Sturgeon (1981); and Cavalieri e Almeida (2017).

4. For a deep recent discussion of the Cartesian influence over economics we recommend Fullbrook (2016).

5. The “cognition series” is formed by: “Questions Concerning Certain Faculties Claimed for Man” (CP 5.213-263); “Some Consequences of Four Incapacities” (CP 5.264-317) and “Grounds of Validity of the Laws of Logic: Further Consequences of Four Incapacities” (CP 5.318-357).
6. Following the usual quotation of Peirce’s works, I use “CP” to indicate Collected Papers (1994), with the first number corresponding to the volume and the second number to the paragraph.
7. Santaella (2004:32) describes Peirce’s thought and highlights that for him “[t]hinking is an ongoing process based on the combination of three elements: the sign-thought, the object, the precedent thought, which sign refers, and the subsequent thought in which sign is thought”
8. Veblen (1884:265) makes have a similar understanding about the settlement of a new belief in our mind: “whenever the intellect finds the objects of its knowledge to be such as to admit of the unhampered activity of the faculties employed about them, there results a gratification such as is always felt on the attainment of an end striven for.”
9. Dyer (1986) and Mirowski (1987) argues that Veblen’s “principle of adaptation” is very close to Peirce’s idea of “abductive inference.” In Luz (2017) we make further considerations on this connection.
10. In this sense, for Veblen (1909:248), the difference between the neoclassical conception of human behavior and the evolutionary perspective is clear: “The older preconceptions of the science are here spoken of as construing human nature in inert terms, as contrasted with the newer, which construes it in terms of functioning.”

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