

Continuity and Continuousness: The Chain of Ideas Linking Peirce's Synechism to Veblen's Cumulative Causation

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Abstract: This paper seeks to establish that a chain of ideas connects and effectively links together core thoughts advanced by philosopher Charles Peirce with economist Thorstein Veblen. Peirce introduced into 19th century American philosophical inquiry the ancient Greek understanding of continuity and continuousness – derived from “synechism.” We argue that Peirce’s understanding and use of synechism serves as the foundation for Veblen’s understanding and formation of the concept and principle of “cumulative causation.” This stands at the center of Veblen’s attempts to introduce evolutionary thinking into modern economics.

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This paper traces and also emphasizes strong connections between ideas regarding continuity and continuousness introduced into American philosophical thinking by Charles Sanders Peirce. Some decades after attending a seminar held by Peirce, Thorstein Bunde Veblen introduced these ideas into seminal contributions to social science thinking and economic science.

Connections between Peirce and Veblen, and especially Peirce’s influence on Veblen’s ideas have been speculated. In his book, *Thorstein Veblen and His America* ([1938] [1943] 1972), Joseph Dorfman appears to be the first to note the connections between Peirce and Veblen. Some decades later, Alan Dyer (1986) elaborates on a host of similarities related to scientific inquiry and method between Peirce and Veblen. Dyer (1986, 30-2) stresses that Peirce’s seminal contributions to epistemology

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found their way into Veblen's preference for reasoning by "induction" over "deduction." Dyer (1986, 31) further suggests that Veblen's understanding of, definition of, as well as his use of "deduction" would be more accurately interpreted as a direct borrowing of Peirce's concept of "abduction."

In addition, Robert Griffen (1998) explores what initially was a short term contact between Peirce and Veblen at Johns Hopkins University in 1881: a contact that would yield long term influences on Veblen's thinking. However, Griffen's detailed account of Peirce's influence on Veblen – like Dyer's – remains limited mostly to questions of epistemology, namely what Veblen's borrowed from Peirce regarding theory of knowledge and scientific method.

What Dyer and Griffen fail to emphasize – and what we seek to establish in this inquiry – is what we suggest is Veblen's most important and enduring contribution to economic science. Namely, Veblen sought to lead economic science away from its foundation in Newtonian mechanics, recasting economics as an evolutionary science. And in these efforts, Veblen appears fully indebted to Peirce's contribution to American philosophical thinking, as Veblen relies on concepts advanced by Peirce for developing his understanding of "cumulative causation," and other notions related to processes and changes rooted in continuity and continuousness.

Peirce on Synechism

Charles Peirce devoted his creativity and brilliance toward engaging in numerous areas of inquiry: ranging from geology, to chemistry, to semiotics, to logic, as well as other areas. However, political economy and economic science remained beyond the scope of Peirce's inquiries. Veblen's ranges of interests were indeed broad – in the tradition of Peirce. Veblen's interests ranged – from war and peace to questions of epistemology and even the state of American higher education. Unlike Peirce, Veblen tended to concentrate on and devote the largest portion of his writings to topics related to economic science.

Peirce devoted a portion of his broad inquiry into realms of knowledge toward understanding "continuity" and "continuousness." Peirce borrowed the term Synechism from his reading of ancient Greeks, relying on understandings of *synechismos*, that is related to *synechés*, suggesting "continuity" or how things are "held together," as Reynolds' (2002, 10-11) teaches us. Following the Greek understanding, Peirce assigned the definition and meaning of "continuous" to the Greek words. Thus, a "synechist," in Peirce's view, would then be a person who recognizes the importance of continuity and continuousness.

In a philosophical nutshell, synechism appears as a tendency in philosophical inquiry that insists on the necessity of hypotheses involving true continuity. In his 1898 book, *Cambridge Lectures on Reasoning and the Logic of Things*, Peirce teaches us that synechism considers the importance of "firstness," "secondness," and "thirdness."

To wit, firstness is suggested to be wholly related to chance. Secondness would then be characterized as a "brute" reaction to firstness. Thirdness, is then suggested

to not be out of relation to firstness and secondness. Without firstness and secondness, Peirce (1898) teaches us that thirdness “. . . would not have anything upon which to operate.” Peirce’s understanding suggests that thirdness implies an outcome not unrelated to firstness and secondness. Hausman (1993, 152-3) suggests that Peirce’s thirdness is wholly unlike Hegel’s notion of “synthesis.” Within Hegel’s dialectical framework, synthesis is suggested to emerge as a dependent outcome of “thesis” and “anti-thesis.” Peirce rejects the Hegelian deterministic understanding of “synthesis,” and instead insists on the independence of thirdness from firstness and secondness.

Peirce’s understanding of continuity and continuousness – as noted by synechism – can be thought to play a fundamental role in philosophical inquiry and imply broad meanings. So important is continuity that Peirce (1898) notes that synechism or the synechist “. . . refuses to believe that when death comes, that the carnal body ceases quickly.” We take this to imply that continuity transcends the meaning and even the significance of bodily death: that bodily death is not really some kind of definitive end in itself. In addition, the synechist fails to distinguish or differentiate between “physical” and “psychical phenomena”: instead suggesting that all phenomena are of one character, with some appearing more material and others more metaphysical.

Joseph Dorfman ([1938] [1943] 1972) notes that Veblen attended Peirce’s lectures when both were at Johns Hopkins University in the early 1880s. With greater respect for detail, Griffen (1998, 733) notes that in the fall of 1881, Veblen was indeed enrolled at Hopkins and taking Peirce’s seminar, “Elementary Logic.” Griffen (1998, 733) further notes that the topics likely covered in this course included “. . . philosophical questions such as the conception of causation.”

Dyer also notes that Veblen did attend Peirce’s lectures when both were at Hopkins. In addition, Dyer also suggests that Veblen’s failure to directly reference Peirce is not to be taken that Veblen was not borrowing from Peirce. Dyer (1986, 30) notes that in Veblen’s article “Kant’s Critique of Judgment” that Veblen fully understood Peirce’s concept of “abduction.” In this vein of thinking, we would also like to speculate that Veblen not only knew of and understood Peirce’s concept of synechism, but that the concept and principles of synechism and continuousness would later emerge as the most seminal understanding of “cumulative causation,” an assumption and process at the core of Veblen’s understanding of social and also economic processes that served to lay a foundation for his understanding of social and cultural evolution. Where Veblen extends Peirce, is in his understanding of continuity and continuousness, he also strongly implies and even emphasizes “connection” and “connectedness,” what Peirce implies but fails to ostensibly emphasize.

We think it is appropriate to reemphasize that Veblen was well schooled in philosophy, completing his Ph.D. in this discipline at Yale University in 1884. As Mark Blaug (1986, 258) teaches us, Veblen went on to study for and earn a subsequent Ph.D. in economics at Cornell University. A large part of the richness in Veblen’s contribution to economic science, and one of the reasons that we still read

Veblen so avidly and grapple with the seriousness of his ideas, is that he brought to the Economics discipline a profound as well as a thoroughly schooled knowledge of philosophical inquiry. His knowledge of philosophy proved especially effective at his rethinking, reformulating, and challenging neoclassical economics, especially that tradition represented by his contemporary, Irving Fisher.

Nicholas Georgescu-Roegen (1998, 387) stresses that Fisher, especially, relied on a mechanistic approach: growing out of what he terms “classical mechanics.” Schooled in philosophy, Veblen effectively countered Fisher’s elementary and mechanical understanding of economic processes through introducing a Peircian influenced approach to economic science, an approach emphasizing continuity and continuousness as it relates to an interplay between and among material and immaterial elements and forces in the creation of social and economic processes.

Peirce’s Influences in Veblen

In his “Instinct of Workmanship” Veblen concerns himself with ways in which material and immaterial changes come about and engender further changes in the material and immaterial. Veblen ([1898a] 1993, 185) can be quoted:

The ways and means, *material and immaterial*, by which the native proclivities work out their ends, therefore, are forever in a process of change, being conditioned by the changes *cumulatively* going forward in the institutional fabric of habitual elements that govern the scheme of life. (authors’ italics)

What Veblen is suggesting is that elements, both material and immaterial or, as Peirce asserts – physical and psychical – are characterized by continuousness and connectedness. Though Veblen emphasizes “change” more than does Peirce, when doing so he suggests that change or evolution in society and economy is also integral to continuousness and connectedness, as change and evolution are engendered in the interplay of the material and immaterial.

In his article, “Why is Economics Not an Evolutionary Science?” first appearing in the *Quarterly Journal of Economics* in 1898, Veblen stresses advances made in the natural, and especially, biological sciences as these areas of inquiry moved away from taxonomy and toward an evolutionary approach to these disciplines. Biologists, in Veblen’s ([1898b] 1993, 131) view, shifted inquiry away from what he terms as the “. . . taxonic structures of reefs” and toward the living organism, the polyp – as it were – whereby the living habits of this modest organism engenders changes and evolutionary processes found in reefs, while also responding to changes in reefs. To quote Veblen (136) :

[a]ll the talk about cytoplasm, centrosomes, and karyokinetic process means that the inquiry now looks consistently to the life process, and aims to explain it in terms of *cumulative causation*. (authors’ use of italics)

Shifting his inquiry away from advances in biology, but relating these advances to human beings, as well as to social science's ability to deal with continuousness, continuity, and evolution, Veblen (139) notes:

The economic life history of the individual is a *cumulative process of adaptation* of means to ends that *cumulatively change* as the process goes on, both the agent and his environment being at any point the outcome of the last process. His method of life today is enforced upon him by his habits of life carried over from yesterday and by circumstances left as the mechanical residue of the life of yesterday." (authors' italics)

Veblen (139-40) adds:

What is true of the individual in this respect is true of the group in which he lives. All economic change is a change in the economic community - a change in the community's methods of turning material things to account. The change is always in the last resort a change in habits of thought (Peirce's psychical). [Veblen adds] A given contrivance for effecting certain material ends becomes a circumstance which affects the further growth of habits of thought - habitual methods of procedure - and so becomes a point of departure for further development of methods of compassing the ends sought and for the further variation of ends that are sought to be compassed.

To Veblen, human and societal activities are far from being pointless, random, and without tendency. Human beings and society exhibit - if not a predetermined or even a specified direction - at least a tendency. Veblen (140-1) notes that:

[e]conomic action is teleological, in the sense that men always and everywhere seek to do something. [Veblen adds] It is necessarily the aim of such an economics to trace the *cumulative* working-out of the economic interest in the cultural sequence. (authors' italics)

What Veblen poses as continuity, continuousness, connection and connectedness - as well as the profound link between the material and immaterial - can be seen not only as drawing heavily from Peirce's thinking on Synechism, but also as an extension of its basic tenets. Veblen, just like his Hopkins' professor, Charles S. Peirce, understands that evolutionary change is integral to the interaction of the material and immaterial. In this way, Peirce's seminal contribution is advanced by Veblen - away from pure philosophy - and into the realm of economic and social inquiry. Veblen was writing on a diverse range of subjects in economic inquiry in the last decades of the 19th century and in the first three decades of the 20th century, moving forward with a Peircian approach.

Conclusion and Discussion

This paper has sought to establish that continuity and continuousness can be found in the chain of ideas linking Charles Peirce's understanding of synechism to Thorstein Veblen's understanding of "cumulative causation." Our research findings suggest that cumulative causation emerged as a key term, concept, and understanding used in Veblen's inquiry into the dynamic interplay of the material and immaterial in economic and social processes, and thus serves as the foundation for his efforts to develop an evolutionary theory for Economic Science. Phrased differently, Peirce provided a foundation on which Veblen could build his understanding of process, change, and social and cultural evolution. Veblen understood from Peirce's teachings that institutional change and social and cultural evolution were engendered not only through changes in the material realm, but also through dynamic and explainable interactions between the material and the immaterial.

Both Peirce and Veblen were exposed to and challenged by contributions of Charles Darwin, and especially Darwin's hypothesis regarding the central role of natural selection, what later developed into a theory of biological evolution. As Goudge (1964, 323) teaches us, Peirce – influenced by Darwin's advances – attempted to develop an evolutionary philosophy. Veblen, in the tradition of his Professor Peirce, as well as Darwin, sought to transform Economics into an evolutionary science.

While Veblen's personal contacts with Professor Peirce appear limited to just a few months back in Baltimore in 1881, the exposure nevertheless appears to have engendered powerful influences. We think these influences are aptly characterized as generating continuity and continuousness, as well as displaying connection and connectedness in the ideas of Peirce and Veblen: thus serving as a useful example of cumulative causation.

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