Veblen's Evolutionary Methodology and Its Implications for Heterodox Economics in the Calculable Future

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Abstract

Critics have repeatedly claimed that heterodox economics has failed in that it has limited acceptance by the mainstream of the economics profession and little influence on other approaches and policies. They blame heterodox economists for their own failure. I subject this claim to critical examination from the perspective of Veblen's evolutionary methodology. Veblen's theory of the business enterprise will be used as an example, which exemplifies the case that a 'blasphemous' theory is ignored and marginalized even though it provides rich insights into economy and society. Heterodox economics has shown a similar path. It is also argued that social science does not follow the biological principle of natural selection. What survives does not necessarily mean the fittest in the social realm. The history of science is replete with paradoxical incidents that an incoherent, irrelevant, or even wrong theory becomes dominant and widely accepted because it is one that serves the vested interests in academia and society. Economics is no exception.

Keywords: Thorstein Veblen, Evolution, Business Enterprise, Heterodox Economics

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1 Introduction: The Failure of Heterodox Economics?

There is a perennial claim that heterodox economics has failed. What does it mean by the failure of heterodox economics? Most recently, an eminent evolutionary economist, Geoffrey Hodgson (2019), argues that the heterodox economics community has failed to "establish sufficient consensus over core issues and to develop alternative positions of power within academia" (4) and that "unrestricted tolerance of diversity [or excessive pluralism] within heterodoxy leads to a failure of quality control" (151). Other heterodox economists have also made a similar argument that heterodox economics has failed in the sense that, for example, it has only limited acceptance by the mainstream of the economics profession and little influence on other approaches and policies. Their diagnosis is that the failure is due to, among others, heterodox economists' *self-marginalization* within the economics discipline, *antagonism* against the mainstream economics, *insufficient consensus* over core ideas (and, not to mention, on the label, 'heterodox' economics), and a heavy ideological bias. They also suggest remedies to overcome the failure and to have a better future. Just to mention notable strategies: give up the label 'heterodox'; engage conversation with mainstream economists (in particular, mainstream dissenters); reorient heterodox research from a 'generalist mission' (e.g., research on methodology and philosophy; aiming to replace neoclassical orthodoxy) to a 'specialized' mission (e.g., research on institutions or money); engage with other disciplines (e.g., philosophy, law, sociology, political science), and so on (see, for example Colander, Holt and Rosser 2004, 2007-8; Fontana and Gerrad 2006; Holt, Rosser and Colander 2011; Rosser, Colander and Holt 2013; Hodgson 2019).

Apart from the ambiguity of the meaning of failure/success, the above critiques are problematic for multiple reasons (as discussed in detail later). A general problem of note is that critics, be they mainstream or heterodox, "blame the victims for their own marginalization and demise" (Lee 2013, 120). It is not to say that heterodox economists themselves are not responsible for the limited acceptance/influence and the lack of their research quality, but that critics overlook the institutional arrangements within economics which have systemically suppressed heterodox economics. The history of economics is abound with external pressures and attacks on heterodox economics via the processes of hiring, promotion, publication, research evaluation and funding, etc., which have hampered the development of heterodox economics and marginalized heterodox economics within economics (Lee 2009). History reveals that economics is not a 'free' market of ideas in which, as mainstream economists believe, 'rational' economists make optimal use of scarce scientific resources which leads to the progress in economics (see, for example, Wible 1998). Economics is a contested discipline in which its prevailing institutions are biased toward the dominant mainstream economics. In such an academic landscape it is obvious that the mainstream economics deliberately marginalizes heterodox economics by way of controlling and perpetuating the institutions. Those critics who accuse heterodox economists for their 'failure' tend to overlook how economics has evolved, how heterodox economics has survived, and how academic institutions generate unfavorable conditions for heterodox economics.

The debate on the nature and future of heterodox economics has been ongoing and we should not avoid this debate if we are concerned with the future of heterodox economics. Instead of repeating what has already been said, in this essay I subject some of heterodox critics' arguments to critical examination from the perspective of Veblen's evolutionary methodology. Veblen's theory of the business enterprise will be used as an example, which exemplifies the case that a 'blasphemous' theory is ignored and marginalized even though it provides rich insights into economy and society. Heterodox economics has followed a similar path. It is also argued that social science does not follow the biological principle of natural selection. What survives does not necessarily mean the fittest in the social realm. The history of science is replete with paradoxical incidents that an incoherent, irrelevant, or even wrong theory becomes dominant and widely accepted because it is one that serves the vested interests in academia and society. Economics is no exception.

The paper is structured as follows. In Section 2, Veblen's evolutionary methodology is summarized to highlight its distinctive way of thinking with regard to the evolution and evaluation of theory. In Section 3, Veblen's theory of the business enterprise is discussed focusing on its methodological characteristics, essential arguments, and implications. In Section 4, the implications of Veblen's evolutionary methodology and theory for heterodox economics are discussed. In the last section, the main arguments of the paper are highlighted.

2 Veblen's Evolutionary Methodology

Veblen's general evolutionary approach, no doubt inspired by, *inter alia*, Darwin's evolutionary biology, concerns primarily with "a cumulatively unfolding process or an institutional adaptation to cumulatively unfolding exigencies" (Veblen 1900/1961*c*, 173). His evolutionary economics is defined accordingly as "the theory of a process of cultural growth as determined by the economic interest, a theory of cumulative sequence of economic interactions stated in terms of the process itself" (Veblen 1898/1961*e*, 77). Evolutionary economics so defined is positioned against pre-modern or pre-Darwinian taxonomy whose concern centers on the equilibrium end-state (Veblen 1908/1961*a*).

For Veblen, evolution is, as I interpret it, thus viewed as an *uncertain, open-ended socio-historical process*. The speed of the process is either gradual or rapid. The direction is indetermined *a priori*. This is at odds with Spencerian evolutionism that "[p]rogress ... is not an accident, it is a part of nature; all of a piece with the development of the embryo or the unfolding of flower" (Spencer 1851, 65). Evolution is 'uncertain' in the sense that, like Keynes's concept of fundamental uncertainty, purposeful strategic actions of human beings do not necessarily end up with the desired state. Veblen's view of evolution is similar to the Marx's notion of history that "Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past. The tradition of all dead generations weighs like a nightmare on the brains of the living" (Marx 1852).

Nothing is static or natural or universal or normal in the socio-historical process. There is no equilibrium state, either provisional or permanent, in a world that is constantly in motion. More to the point, human beings are distinguished from animals since the former are *intelligent* as well as *instinctive* creatures making institutions—habits of thought and organizations—to cope with uncertain exigencies in the surrounding environment. Intelligence (knowledge and technology), instincts, and institutions are social constructions. They do not emerge or function in a social vacuum. Socially constructed knowledge, instincts, and institutions are translated into actions, which in turn change the former in the course of history. Evolution in Veblen's theoretical system is thus *an open-ended uncertain process* not because of natural laws or biological traits, but because of purposeful actions of making and changing institutions. It is the "transformative social agency" that drives changes in the social domain (Lawson 2003, 116, 129). In this regard, Veblen's evolutionary approach is distinguished from classical and 'neoclassical' economics, both of which are taxonomic and teleological. As such, Veblen's evolutionism does not rely exclusively on the Darwinian biological evolutionary principles since Veblen is concerned with the evolution of institutions in the socio-historical context (Veblen 1900/1961*c*, 1908/1961*a*; Anderson 1933; Jennings and Waller 1998; Argyrous and Sethi 1996; Jo 2019*b*).

The distinctive character of Veblen's evolutionary methodology can easily be noticed if it is contrasted, as Veblen did, to utilitarian-marginalist economics. Veblen recognized that utilitarian-marginalist economics was incompatible with evolutionary economics since the former is static, taxonomic, teleological, and hedonistic. Veblen also pointed out a *methodological contradiction* in what he called 'neo-classical' economics, in particular the economics of Marshall who represents "the later development in the classical line of political economy" (Veblen 1900/1961*c*, 171, 261). While Marshall held an (Spencerian) evolutionary viewpoint,[1] his theory was marginalist and method was taxonomic and teleologic. This contradiction between or inconsistent mixture of the evolutionary vision and the taxonomic theory is what Veblen captured by naming it "neoclassical" economics—both *continuity* and *departure* from taxonomic classical economics. Lawson (2013/2016, 53) notes that:

> the defining feature of all neoclassical economics is basically an inconsistent blend of the old and the new; it is in effect an awareness of the new of metaphysics of processual cumulative or unfolding causation, combined with a failure to break away from methods of the older taxonomic view of science that are in tension with this modern ontology.

The contradiction was not resolved by Marshall insofar as *Principles* (1890/1920) is concerned. Instead, Marshall developed marginalist theory around such concepts as relative scarcity, optimizing behavior and rational choice, equilibrium, competition under a hypothetical notion of the 'normal conditions of life,' assuming that the capitalist social relationships

[1] Marshall's evolutionary thinking was largely influenced by Herbert Spencer, rather than by Charles Darwin, as evidenced by Marshall's biological analogies of the survival of the fittest and natural selection as if economy and society resemble the natural realm (Marshall 1890/1920, 241; Hodgson 2004; Jennings and Waller 1998; Laurent 2000; (Jo 2019*b*)).

and institutional arrangements (e.g., the market structure) are fixed. This assumption, as manifest in the analogy of "the trees of the forest" (Marshall 1890/1920, 315), makes the separation of Marshall's marginalist theory from ever-evolving society possible, as if the latter (i.e., "the forest") does not change and thereby it can be ignored. The separation in turn led later neoclassical economists not only to discard the evolutionary vision to save the marginalist theory, but also to re-introduce evolutionary thinking in a perfunctory manner to defend/expand their marginalist theory. The latter is exemplified by the evolution of the neoclassical firm theory after the marginalist controversy in the 1940s and 1950s (more on this later).

In light of Veblen's nomenclature, thus, marginalists are not neoclassical. Instead, New institutional economics (e.g., Williamson, North), new evolutionary economics (e.g., Nelson and Winter), and evolutionary game theory (e.g., John Maynard Smith, Bowles and Gintis) that emerged in the 1970s and 1980s fall into Veblen's 'neoclassical' economics in the sense that they, like Marshall, bear an "air of evolutionism." In other words, above-mentioned approaches are "quasi-evolutionary" or quasi-institutional economics which presumes *normality* and *fixity* of the system in which transformative social agency and its reciprocal-cumulative relationship with institutions are replaced by optimizing individuals (Veblen 1900/1961*c*, 175, 178; Veblen 1898/1961*e*; Dugger 1995; Finch and McMaster 2018; Fine 2019; Jo 2019*b*). For example, in Nelson and Winter (1982) the evolutionary process becomes a fictitious history as expressed in the probabilistic Markov process and the simulation experiment in which purposeful human actions play no role. Such an approach, from Veblen's viewpoint, cannot be the evolutionary account of economy and society. Therefore, Veblen calls for discarding the marginalist approach as well as the quasi-evolutionary approach if economics is to be an evolutionary science (Veblen 1898/1961*e*).

The flip side of Veblen's argument, however, is that economics is not likely to be an evolutionary science (although Veblen hoped otherwise):

> [s]o long as the habitual view taken of a given range of facts is of the taxonomic kind and the material lends itself to treatment by that method, the taxonomic method is the easiest, gives the most gratifying immediate results, and best fits into the accepted body of knowledge of the range of facts in question. ... The well-worn paths are easy to follow and lead into good company. (Veblen 1898/1961*e*, 79)

Drawing upon Veblen's argument and his evolutionary methodology I will deal with the issue of evolution and evaluation of theory in the following section.

2.1 Evolution and Evaluation of Theory

Veblen's evolutionary approach described thus far bears profound implications for the evolution of theory and scientific enterprise undertaken by economists. Scientific enterprise is a deliberate human activity creates useful, false, or destructive knowledge and technology of the life process. Whether a knowledge is useful or destructive depends upon the environment in which the knowledge is created and used for a particular purpose (e.g., nuclear fission used for power plants and bombs). That is to say, scientific enterprise and resulting knowledge cannot be separated from social environment and from the prevailing habits of thought and preconceptions. On the relationship between science and society Veblen notes that "science and the scientific point of view [i.e., preconceptions of scientists] will vary characteristically in response to those variation in the prevalent habits of thought which constitute the sequence of cultural development" (Veblen 1908/1961*a*, 38).

No knowledge is created or developed individually. Knowledge is "of the nature of common stock, held and carried forward collectively by the community ... an affair of the collectivity, not a creative achievement of individuals working self-sufficiently in severalty or in isolation" (Veblen 1914/1964*b*, 103). The community is a social institution which initiates, maintains, and/or promote a particular scientific point of view. Individuals belonging to the community (including academic ones) are not independent of the prevalent habits, or preconceptions, of that community (Veblen 1906/1961*b*; Tilman 2007, 18). The "question of a scientific point of view, of a particular attitude and animus in matters of knowledge, is a question of the formation of habits of thought" (Veblen 1908/1961*a*, 38). Veblen's evolutionary methodology implies that the continued survival and progress of theory is not guaranteed since it requires favorable institutional arrangements as well as well-functioning scientific communities which lend support to scientific enterprise of creating and expanding the joint stock of community knowledge of the life process.[2] To put it another way, failure or success of a theory is not

[2]The concept of the 'joint stock of community knowledge' warrants some elaboration as it is relevant to our discussion of the evolution of theory and of knowledge. The stock of (technological and managerial) knowledge animates resources (and, of course, requires resources to conduct scientific enterprise). That is to say, whether any resource is useful or not depends upon the joint stock of knowledge; and by the same token some previously utilized resources become obsolete when new knowledge is created and accepted. In this regard, "Resources *are* not, they become; they are not static but expand and contract in response to human wants and acts" (Zimmermann 1933/1951, 15). Two important theoretical implications can be drawn from the evolutionary view of resources. Firstly, if all knowledge is socially created, it is not possible to single out one individual's 'productivity' from another's in the process of production. Labor, natural inputs, and the produced means of production *become* productive factors because of technological and managerial knowledge in place. 'Capital' or 'labor' alone cannot be productive in and by itself. The joint stock of knowledge accumulated from the past determines the kind of inputs and the ratio between inputs. Thus it is not possible to have the neoclassical production function with variable input proportions, marginal productivity, and hence profit maximization from the evolutionary perspective (Veblen 1914/1964*b*, 103, 144; Lee 2018, 43-45). Secondly, the assumption of scarce resources is a non-evolutionary, static concept which presumes the fixed system of nature and society and the absence of transformative social agency. Some evolutionary-institutional economists, however, assume 'local and global scarcity' (Hodgson 2019, 54), the concept of which is at odds with this evolutionary point

entirely determined by its consistency, coherence, and relevance, since the acceptance of theory depends on its conformity to the prevailing institutions and preconceptions. Under such circumstances a valid or relevant theory may be accepted, but only to the extent it can be molded into an accepted form.

From the Veblen's evolutionary perspective, it is therefore readily conceivable that "a non-evolutionary conception of the economic process can take hold and persist precisely because theories can become self-propagating and self-entrenching in an evolutionary manner. ... A model which applies tools which are already widely in use, or appeals by way of analogy to exiting work, is clearly favoured" (Argyrous and Sethi 1996, 491). Thus the development of a particular theory is not only path-dependent but also uncertain due to change-resistant or 'ceremonial' habits of thought and prevailing scientific practice within the community.

To illustrate this point, consider major debates in economics, such as the empty boxes debate in the 1920s, the marginalist debate in the 1940s-50s, the administered price controversy in the 1930s–70s, and the capital controversy in the 1950s-70s. These debates questioned inherent errors and flaws in mainstream economics. However, the debates have not led mainstream economists to correct errors and flaws in theory. The financial crisis of 2008 also revealed the irrelevance of mainstream theories and models as wells as the irresponsibility of mainstream economists. But they have not changed the way they theorize and model the real world. Instead, mainstream economists either ignored the flaws (e.g., the empty boxes debates and the capital controversy), modified their theories and models to escape the attacks from heterodox economists (e.g., the marginalist debate), or just ignored the entire debate as if it has never happened (e.g., the administered price debate). As a result, mainstream economics has become more flexible without losing its worldview and methods—that is, methodological individualism, deductivisim, mathematical formalism based upon such axiomatic preconceptions as scarce resources, rationality, optimizing behavior, the market price mechanism. It is a myth that scientists, especially mainstream economists, are able to correct errors themselves and hence that all the widely-received theories are the best possible ones (Yalcintas 2016).

Is it not absurd that mainstream economics, allegedly 'the queen of social sciences,' is incapable of correcting its own errors and creating better knowledge? If mainstream economics is looked from the Veblenian lens, the incapability of self-correcting errors, irrelevance of theory, and irresponsibility of mainstream economists make good sense. As noted above, as the prevalent ceremonial habits of thought remain unaltered, so do the scientific point of view and scientific enterprise. In other words, if the habitual approach is taxonomic economics, a theory must conform to axiomatic preconceptions or propositions "concerning the normal re-

of view. Veblen's and Zimmermann's argument is not simply about the temporal, individual, or locational availability of a resource. It is about the creation and use of resources that depends upon the accumulated joint stock of knowledge and the decision to generate specific knowledge for a particular purpose. Knowledge is in its nature social and historical-evolutionary.

lations of things" (Veblen 1898/1961*e*, 67) if it is to be received by the dominant mainstream of economics profession. A 'heterodox' theory, therefore, is to be rejected by the mainstream economists, because they are trained to ignore any concerns other than taxonomic theory and method, like business people are trained to discard anything other than pecuniary interests under the pecuniary culture (Veblen 1914/1964*b*, 347). Such a "trained incapacity" of economists is socially created and managed through the establishment of academic institutions (Veblen 1918/1957, 152; Wais 2005).

What Veblen's evolutionary approach implies is that the success and failure of a particular economic approach rests with the institutional arrangement of the time—e.g., publication, hiring, promotion, and research funding—which have been unfavorable to heterodox economics for many decades. It is thus wrong to assume that a heterodox theory is treated, evaluated, and judged on an equal footing with a mainstream theory since the prevailing academic institutions are dominated and controlled by mainstream economists, and that the relevance and validity of a heterodox theory seeking a causal explanation of the economic life process is fully grasped and appraised by mainstream economists who are occupied exclusively with the deductive mathematical-taxonomic method.

A scientific evaluation of an academic work, from Veblen's viewpoint, should not be based upon logical consistency alone. It should be judged in a comprehensive manner with particular regard to coherence, correspondence, comprehensiveness, and relevance (Eichner 1983, 206-210), which can hardly be measured by the number of citations—allegedly the objective measure of research quality that is most widely used by the profession and also used by critics of heterodox economics such as Hodgson (2019). A good economic theory from Veblen's point of view is one that explains the cumulative causal mechanisms of the economic life process taking place in the historical-institutional context. It is therefore erroneous as well as unscientific to say that heterodox economics has failed because it is not well received by the majority of economists.

3 Veblen's Theory of the Business Enterprise

Veblen's 1904 *The Theory of Business Enterprise* (TBE) is a major work which exemplifies his evolutionary approach to economics. In a nutshell TBE is *an inquiry into the nature and evolution of capitalism (or a system of institutions under capitalism) by examining the motives, objectives, and conduct of the most powerful and dominant institution of capitalist society, the business enterprise* (Anderson 1933; Mayhew 2000, 58-59; Endres 2004; Frigato and Santos-Arteaga 2012, 73-74; Jo and Henry 2015, 24-28; Jo 2018, 201; Jo 2019*a*).

Obviously, TBE can hardly be grasped from the mainstream viewpoint. Those who hold taxonomic, utilitarian, and hedonistic preconceptions would only get superficial understanding of the Veblen's theory. One obvious reason is that the firm in the mainstream theory, as of Alfred Marshall (1890/1920), is an *abstract, ahistorical entity*, which is presumed to be *socially-beneficial, socially-responsible, and socially-efficient* as its optimizing behavior is conducive to not only maximum profits for the firm itself but also maximum social welfare if markets are competitive. This conception of the firm is translated into the firm behavior in the market in which the universal market price mechanism qua the selection mechanism dictates the behavior of the firm, and hence the priority is given to the market, not the firm. In other words, "the reduction of the theory of the firm to an automatic signalling system, in which market prices determine resource allocation and decision making and entrepreneurship are absent, means that in the [mainstream] theory of the firm there are now no firms" (Kay 1994, 238).

In contrast to the mainstream notion of the firm, Veblen's business enterprise is J.P. Morgan, Standard Oil Company, and US Steel Corp., Wall Street banking company, etc. It is a real going concern which emerges, grows or disappears over time and which is organized and managed for the sake of achieving its goals (Jo and Henry 2015; Jo 2019*a*). It is a social organization whose success and failure is tied up with other domains of society through technical-income relationships. The business enterprise, in particular big corporations which became large and dominant due to mergers and acquisitions as well as technological development (the machine process), is the "master institution" of capitalism (Veblen 1923/1964*a*, 89), actions of which drive the changes in the capitalist economic system and the welfare of people therein.

What are the objective and motives of the capitalist business enterprise? The answer to this question requires the understanding of the nature of the whole system in which the business enterprise works. The capitalist society Veblen was analyzing is 'credit economy,' the social institutions of which were organized in such a way as to make monetary profits in the interest of the business enterprise and 'kept classes'—that is, "investors and owners of capitalized property" or "who derive an income from the established order of ownership and privilege" (Veblen 1919, 55, 162), as opposed to making serviceable goods and services in the interest of the underlying population. The business enterprise, as the master of the credit economy, is created and managed so as to protect and promote the interests of the kept classes. Credit economy thus replaced 'money economy' in which good-making activity is given priority over money-making activity. The money economy does not adequately capture the modern capitalist system. But this is the still the system presumed by the standard mainstream theory. Since social arrangements are in favor of business interests over industrial interests, Veblen anticipated that society would evolve against the interest of the underlying population since profits are gained by disrupting industry (e.g., 'industrial sabotage') and hence the material basis of welfare of people becomes dependent upon money-making activities of the business enterprise (Veblen 1904, ch. 7; see also Jo and Henry 2015). It is thus obvious that the business enterprise is not socially-beneficial, socially-responsible, or socially-efficient. If so, the business enterprise is the least-fit from the Veblen's social evolutionary perspective (Veblen 1914/1964*b*, 123, 144; Edgell and Tilman 1989, 1009).

As noted, a distinctive feature of TBE is that it is not confined to the business enterprise. It deals with the entire system of capitalist society centering on the business enterprise and its related issues such as industry, business, banking, households, the state, business cycles, crisis, welfare, education, language, policy, politics, and culture. This is one of the reasons Veblen's theory was/is neglected by mainstream economists who are concerned exclusively on the optimizing behavior of the firm in the market context (Mumford 1931, 314). It may well be that mainstream mathematical tools are too limited to incorporate Veblen's insights and that if Veblen's theory is fully accepted, the entire neoclassical firm theory breaks down. The latter is the case because, as discussed in the previous section, Veblen was not merely criticizing the neoclassical-marginalist theory of the firm; rather, he was building his own theory of the business enterprise from the evolutionary perspective as an alternative to the neoclassical theory (Anderson 1933; Endres 2004).

What this implies is that even though later development in or expansion of the neoclassical firm theory, such as new institutional economics (e.g., Williamson) and new evolutionary economics (e.g., Nelson and Winter), bears the flavor of Veblen's evolutionary-institutional economics, they are not able to explicate the evolutionary process in the Veblenian sense.

Consider the new institutionalist theory. The firm is an optimizing organization whose activity is constrained by the fixed system of markets governed by the universal market price mechanism that is imperfect due to positive and significant transaction costs. This firm is not an active agent or the master institution controlling the market and the society to its own advantage. It is the same optimizing firm in a more 'realistic' setting. The new institutional firm is still subject to the market mechanism (Dugger 1990; Knoedler 1995; Mayhew 2000; Jo 2019*a*). Thus it is injudicious to say that new institutional firms are compatible with the Veblenian business enterprise (see, for example, Groenewegen 2004, for such an argument).

Similarly, Nelson and Winter (1982) and other economists claim that their evolutionary approach to the firm is 'heterodox' to the extent that it rejects the standard optimization doctrine and is hence compatible with (and conducive to the development of) the Veblenian evolutionary-institutional theory of the business enterprise (see, for example, Foss 1998; Nightingale and Potts 2003; Hodgson and Knudsen 2004; Becker and Knudsen 2012; Hodgson 2007, 2013, 2019). A close examination of Nelson and Winter's theory, however, reveals that it entails the Spencerian version of evolutionary change, the Marshallian supply-demand engine, and Simonian bounded 'rationality,' all of which are at odds with Veblen's evolutionary theory. Veblen's approach rejects the notion of rationality, be it bounded or not, and the market price mechanism derived from optimizing behavior. Spencerian evolutionism which applies biological evolution to the social realm with the doctrine of the survival of the fittest is also rejected by Veblen (Veblen 1900/1961*c*, 167, fn. 10; Jennings and Waller 1998;

Ramstad 1994, 71; Tilman 1996, 32).[3] In Nelson and Winter (1982), moreover, the firm is a semi-automatic, passive entity whose behavior is constrained by rules as if genes determine the behavior of the living organism and is subject to the market selection mechanism. Nelson and Winter's firm is nothing but a 'bowl of capital-jello,' a black box, and a production function as in the standard neoclassical theory (Mirowski 1983/1998, 166; Vromen 1995, 77; Mayhew 2000, 58). In other words, it is a 'neoclassical' evolutionary theory in much the same sense as Marshall's economics is a quasi-evolutionary tone of neoclassical economics *per* Veblen (Boulding 1984; Mirowski 1983/1998; Ramstad 1994; Vromen 1995, 2001; Mayhew 2000; Watkins 2010; Frigato and Santos-Arteaga 2012; Jo 2019*b*). In a nutshell, these two developments in the mainstream theory of the firm demonstrate that they are precisely Fine (2019)'s examples of the latest phase in "economics imperialism"—namely, "the exclusive preoccupation with optimisatioin is suspended, but it is not discarded" (139).

4 On Heterodox Economics

The above discussion on the difference between Veblen's TBE and mainstream theory of the firm raises a couple of questions pertaining to the meaning and nature of heterodox economics. What is the reason that some heterodox economists consider heretic mainstream theory heterodox? And how de we evaluate a theory's relevance? Let me deal with each question.

There is no single definition of heterodox economics and of mainstream economics, because each is an umbrella term referring to a diverse set of approaches in terms of theory, policy, and methodology. Not to mention even a school of economic thought is often defined differently if it is composed of diverse sub-groups (e.g., Post Keynesian economics with fundamentalist Keynesians, Kaleckians, and Sraffians). Less arguable is that the meaning and boundary of heterodox economics is more ambiguous than that of mainstream economics. This is so because heterodox economics has a relatively short history.[4]

[3] To quote Veblen, "It may be interesting to point out that the like identification of the categories of normality and right gives the dominant note of Mr. Spencer's ethical and social philosophy, and that later economists of the classical line are prone to be Spencerians" (Veblen 1900/1961*c*, 167). And also: "It is a notable fact that even the genius of Herbert Spencer could extract nothing but taxonomy from his hedonistic postulates; *e.g., his Social Statics*. Spencer is both evolutionist and hedonist, but it is only by recourse to other factors, alien to the rational hedonistic scheme, such as habit, delusions, use and disuse, sporadic variation, environment forces, that he is able to achieve anything in the way of genetic science, since it is only by this recourse that he is enabled to enter the field of cumulative change within which the modern post-Darwinian science live and move and have their being" (Veblen 1908/1961*d*, 191-2).

[4] There are notable events that help popularized the label heterodox economics in the 2000s: the creation of the Association for Heterodox Economics (1999), the Australian Society of Heterodox Economists (2002), *Heterodox Economics Newsletter* (2004), and *Heterodox Economics Directory* (2005). Of course, the term 'heterodox' was used by economists well before 2000s, but the meaning was not quite the same. As a contested discipline and social science, there always exists the mainstream and heterodoxy. By heterodox economics

Table 1: Classification of Economics

<table>
<tr><td>Veblen
(1898, 1900)</td><td>Evolutionary Economics

Historical, evolutionary (Darwinian), institutional, cultural, uncertain cumulative process</td><td>Neoclassical Economics

Marshall; quasi-evolutionary; evolutionary vision (Spencerian); taxonomic theory; normality and equilibrium</td><td>Marginalist Economics

Taxonomic, teleological, hedonistic; utilitarian version of classical economics</td></tr>
<tr><td rowspan="2">Lee (2009, 2013)
Lavoie (2014)
Jo, Chester, and D'Ippoliti (2018)
Fine (2019)</td><td rowspan="2">Heterodox (blasphemers)

Marxian-Radical, Post Keynesian, Original Institutionalist, Social, Feminist, Ecological, French Régulation, Social Structure of Accumulation, etc.</td><td colspan="2">Mainstream-Orthodox</td></tr>
<tr><td>Dissenters (heretics)
New Institutional, New Evolutionary, Evolutionary Game Theory, Behavioral, Experimental, Agent-based complexity, Austrian, etc.</td><td>Neoclassical

Monetarist, New classical, New Keynesian, Rational Expectation, Real Business Cycle, Game theory, etc.</td></tr>
<tr><td>Hodgson (2019)</td><td colspan="2">Heterodox
Rejection of Max U</td><td>Orthodox
Max U</td></tr>
</table>

Heterodox economics is in the process of making its identity as a system of theory, an intellectual community, and a social network that is different from the mainstream economics. This means that there exist multiple definitions of heterodox economics depending upon author's own theoretical and methodological orientations (see Mearman, Berger and Guizzo 2019, for a variety of views on heterodox economics). The ongoing debate on the meaning and nature of heterodox economics indicates that it is healthy scientific enterprise with internal diversity.

Various definitions and classifications put forward by heterodox economists can be sorted into two broad groups (see Table 1). The first group holds that heterodox economics is methodologically and theoretically different from and independent of mainstream economics that is originated from neoclassical-marginalist economics (in Veblen's nomenclature). From this view heterodox economics encompasses those 'blasphemous' schools of economic thought that have developed their own research agenda and intellectual communities. As such, mainstream dissenters-heretics who questions and partially amend the core mainstream doctrines are excluded from heterodox economics (just to mention some recent works from which such a classification is drawn Lee 2009, 2013; Lavoie 2014; Jo, Chester and D'Ippoliti 2018*a*; Fine 2019). However, the attempt to exclude the 'middle ground' from heterodoxy has often been countered by other heterodox economists. They have argued that heterodox economics should embrace dissenters of mainstream economics since their approach deviates from the conven-

I mean here the various schools of thought organized through currently active intellectual communities (see, Lee 2009, 203-4).

tional neoclassical doctrines (for example, Colander, Holt and Rosser 2004, 2007-8; Hodgson 2019). The underlying assumption of such an argument is that mainstream economics has changed and its boundary vis-à-vis heterodox economics should be redrawn. In his recent book, Hodgson (2019) defines mainstream economics in terms of the 'Max U' doctrine (i.e., the utility maximizing agent). Then any research program that rejects Max U is considered to be heterodox. Therefore, Nelson and Winter's new evolutionary economics, Herbert Simon's bounded rationality and old behavioral approach, evolutionary game theory, for example, can safely be included in Hodgson's definition of heterodox economics.

I find that Hodgson's definition not only narrow but also problematic. Utility maximization is doubtless one of core doctrines of mainstream economics, which requires, among others, the assumption of relative scarcity. But Hodgson (2019, 54) does not reject the concept of scarcity, which is at odds with the evolutionary perspective on resources (see footnote 2 above). Most of streams classified here as mainstream dissenters-heretics do not reject or pay any attention to the assumption of relative scarcity. Not to mention, while Hodgson (2019) views 'Max U' as *the* defining characteristics of mainstream economics, he is silent on profit maximization, cost minimization, equilibrium outcomes, etc. which are as essential as 'Max U.'

As discussed above, the core idea of new institutional economics is firm's 'minimization' of transaction costs in facing imperfect market price mechanism. This is not an alternative to the mainstream optimization doctrine but a variation of it. Also consider Nelson and Winter (1982). They reject the 'standard' profit maximization assumption to explicate the evolutionary selection process, but they do not discard the optimization doctrine entirely. They use the standard downward sloping demand schedule. It implies that consumers are optimizing individuals who seek maximum utility. They do not provide a reason why such a demand curve is assumed. Moreover, "[i]f it [the demand curve] is derived from the constrained maximization of utility of individuals, subject to a market clearing condition, then they have undermined their entire manifesto against orthodox method" (Mirowski 1983/1998, 165). Max U, the market price mechanism, and the firm as a production function still remain in the new evolutionary economics, although sometimes these core doctrines are hidden. With the 'suspension' of some core doctrines, "the mainstream economist can claim no longer to be neoclassical, to have become more realistic, and even to be interdisciplinary and heterodox in departing from what has gone before" (Fine 2019, 139). This is precisely what Nelson and Winter (1982) and Hodgson (2019) argue. But the suspension should not be equated to the giving-up of the mainstream paradigm or to moving toward heterodoxy. The way economics has evolved over the past 100 years and the prevailing institutional arrangements in economics would hardly change the way they theorize economy and they teach economics. It should also be pointed out that like most mainstream economists, Hodgson (2019) and other heterodox critics define both heterodox and mainstream economics in terms of "a particular method of inquiry without ideological, theoretical, or factual content, and without any aim of analyzing and explaining the provisioning process" (Lee 2013, 116). Consequently, the method-oriented definition of economics is independent of history and society, as if there is an unchanging, universal method that can be applied to ever-changing history and society or as if history and society never change (as is the case for Marshall, see Section 2 of this paper).

A problem is that they redefine economics as a science which is separate from economy and society, which runs counter to the view of economics, including Veblen's definition of economics delineated earlier, endorsed by classical political economy most of the heterodox traditions since the 20th century (Jo and Todorova 2018).

As to the question of evaluating theory, let us again consider Veblen's TBE and the mainstream firm theory. If the purpose of a theory is to understand the real-world business enterprise—that is, its internal strategic decision-making process and its historical evolution vis-à-vis the institutional arrangement of the society in question, Veblen's TBE is most suitable. However, if the purpose is to find the (dis)equilibrium condition for firms to maximize profits in the fixed and given market structure or how the market selects the fit and deselects the unfit, we must rely on the mainstream theory. In this regard, Veblen's theory is not a substitute for the mainstream theory, and vice versa. Nor can one theory be incorporated into the other. It is not reasonable to evaluate the relevance of Veblen's TBE from the mainstream viewpoint. Some authors, however, argue that "Veblen never developed a systematic theory of the firm, and even less an 'evolutionary' theory of the firm (the same could be said of his institutionalist followers)" (Foss 1998, 479). Such a judgment is predicated on the preconception that to be an alternative theory it should be similar to the mainstream theory in terms of method, scope, and language (Jo 2019*a*). Furthermore, it is assumed that the mainstream theory is 'scientific' or valid and hence that the reference point of evaluating a heterodox theory is the mainstream theory.

But what's obvious is that, as discussed in previous sections, Veblen's TBE cannot be separated from history and society, while the Marshallian-mainstream firm theory is based upon 'mental constructs' and hence ahistorical (Henry 1990, 156). If economics is a 'social' science it is TBE, not the mainstream theory, that is to be widely-accepted and taught. The fact is, however, that it is the Marshallian-mainstream theory that is still dominant and has been taught in economics classes since the publication of Marshall's *Principle of Economics*. This fact lends credence to the Veblenian evolutionary thesis that the dominance and acceptance of a theory in economics does not depend on the historical relevance, theoretical coherence, or its rich implications for the real-world problems. Instead, the dominance and acceptance depends mainly upon the institutional arrangements. Some approaches are discarded simply because they do not conform to the dominant institutions—that is, the scientific enterprise dominated and controlled by mainstream economics or, in other words, "they are not packaged in such a way as to engender rapid replication by the research community at large" (Argyrous and Sethi 1996, 493). It is a mistake to assume that social scientific enterprise is a self-correcting and progressive process (Yalcintas 2016, 3-42).

5 Conclusion

Some critics have repeatedly claimed that heterodox economics has failed. They more often than not blame heterodox economists for their own failure. I have argued in this paper that it is a mainstream-centered, anti-heterodox claim which can hardly be supported by historical evidence. Veblen's evolutionary methodology suggests that the dominance of mainstream economics is not because of its 'scientific success' but because of the institutional arrangements in academic economics favoring mainstream economics. Veblen's approach also implies that heterodox economics should break completely with mainstream economics and its variants (dissenters-heretics) if it is be a scientific inquiry into the cumulatively unfolding life process as we find in the real world. Partial rejection of or integration with mainstream economics would only lead to the weakening of heterodox economics.

The history of heterodox economics has demonstrated that heterodox economics has survived as a result of deliberate and concerted efforts of organizing its communities and social networks, teaching students, and carrying on research agenda in the contested landscape dominated by mainstream economics. This also means that its future depends on a range of strategic actions taken presently. It is thus wrong to assume that academic economics is a market of ideas in which 'rational' economists engage in fair competition for the progress in economics since the market will sort out good theories from bad ones (or the fit from the unfit) or in which every idea is treated or evaluated on an equal footing. There is no such thing as the natural selection mechanism in economics. Instead, there is a range of formal and informal institutions that govern the way how economists theorize and model the world, how they educate students, how they evaluate others' scholarly work, and how they hire their colleagues. Prevailing ceremonial institutions maintained by mainstream economics have marginalized and ignored heterodox economics. Consequently, mainstream ideas, theories, and methods are selected regardless of their irrelevance and incoherence. Major controversies and debates in economics evidence that the scientific enterprise of economics is not self-correcting. Flawed or irrelevant mainstream theories are likely to remain dominant since they are the ones endorsed and promoted by the prevailing academic institutions, as well as by those who are vested in the dominant institutions.

In contrast to critics' understanding of the state of heterodox economics, I think that heterodox economics as scientific enterprise has been successful in terms of growth and research quality. New communities, social networks, conferences, journals, newsletters, etc. have been created to promote pluralistic heterodox economics as an alternative to mainstream economics. Due to the nature of heterodox economics as a group of various schools of thought with their own distinctive methodological orientation and theoretical emphasis, it may be impossible for heterodox economics as a whole to reach a consensus on the core ideas. Nor would it be possible to find a balance between internal diversity and sufficient consensus within heterodox economics as Hodgson (2019) wishes. But what's important is that for the past 20 years or so heterodox economics has been evolving and growing. Although the critique of mainstream economics is still essential part of heterodox economics, heterodox economists have increasingly paid more attention to their own research agenda. This means that heterodox economics is not merely an opposition to mainstream economics. It has been developing its own methodology, theory, and policy (see, for example, Jo, Chester and D'Ippoliti 2018*b*).

The future of heterodox economics is uncertain. It could be better or worse than what it is now. Only thing we can say is that there will be a better future if heterodox economists keep struggling to survive in the face of the marginalization and discrimination by the mainstream economics, developing their theory and policy, and, more importantly, making institutions that would help promote heterodox economics.

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