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Instinct, Habits, Workmanship, Idle Curiosity and Technological Progress: Prerequisite of Innovation[1]

Instinto, Hábitos, Mano de Obra, Curiosidad Ociosa y Progreso Tecnológico:Prerrequisito de la Innovación

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Abstract

The present essay pursues to link the concepts of instinct, habits, instinct of workmanship* and idle curiosity, all of them researched by Thorsten Veblen, with the Theory of Economic Progress, from Clarence E. Ayres, both economists considered founding fathers of the Institutionalism in Economics, to aim to the beginning of a definition process for a theoretical framework to support a future doctoral thesis in the Innovation aspects. We believe that the Institutionalism, as an economic thought, represents a solid conceptual framework to deeply explore the development of Innovation.

Keywords: Instincts, Habits, Instinct of Workmanship, Idle Curiosity, Economic Progress.

*Workmanship understood as "how to do things well".

Resumen

El presente ensayo persigue enlazar los conceptos de instinto, habito, instinto de "Workmanship"*, curiosidad ociosa, todos ellos estudiados por Thorsten Veblen, con la Teoría del Progreso Económico, de Clarence E. Ayres, ambos economistas considerados fundadores del Institucionalismo en la Economía, a fin de iniciar un proceso de definición de un marco teórico que soporte una futura tesis doctoral en los aspectos de la Innovación. Creemos que el Institucionalismo, como pensamiento económico, representa una sólida conceptualización para explorar más profundamente el desarrollo de la Innovación.

Palabras clave: Instintos, hábitos, instinto de mano de obra*, curiosidad ociosa, progreso económico.

* La mano de obra entendida como "cómo hacer las cosas bien".

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Introduction

A review of the scientific literature about origins for innovation and technology, from an Institutionalist standpoint i.e., Veblen and Ayres, will be pursued mainly. Following this train of thought, the essay will present an introductory part, referring to the different elements of habits and instincts, revised through the articles on the Veblenian question addressed by Dr. Geoffrey M. Hodgson, who in turn has produced a wealthy and intellectually rich theoretical framework on Veblen's early XX century academic work.

Next, the Concept of the Instinct of Workmanship, (Veblen, 1898) will be taken into account, originated from the basic concept of human instincts and which appears to be an excellent prerequisite for the process on Human Innovation, well needed as one of the most brilliant strategies to get Civilization out of the actual social distraught.

Following, the concept of "*Idle Curiosity*" which becomes a strong precedent for this search on the theoretical basis of Innovation will be addressed. This notion was presented for the first time by Veblen in his essay "The place of Science in Modern civilization" (Veblen, 1919).

The Idle Curiosity phenomenon is understood as the capacity of the man being able to follow a learning process to apprehend new and novel knowledge that solves situations present in society. This systematic curiosity, if we can name it this way, seems to be a powerful theoretical prerequisite for the later scheme of Innovation that has helped tremendously the economic and social progress of the society, especially, starting 1.990 up to the beginning of the XXI Century.

And finally, by revising, Clarence E. Ayres' Institutionalist theory of Technological Progress, economic thoughts about the development of technology, economic development and innovation will be addressed, stressing the values and their unity, characterizing Technology and the basic elements that do form his theory, all of them being presented as a theoretical prerequisite for the upsurge of Innovation.

Habits and Instincts, the beginning

One has to start admitting that the conceptual thought that allowed Veblen to begin elaborating his further definitions of habits and instincts, was the Darwinian theory of evolution, (Hodgson, 2004). Veblen took from Darwin, his principle of natural selection and the causation considerations, (Hodgson, 2004). The evolution theory does portray Nature as placed in an ever changing environment, the formation of habits and instincts is also dynamic, and here is where we see the evolution theory contribution to Veblen.

Another fundamental base was the American pragmatism philosophy. This was masterly described by Hans Joas in 1.996 and cited by (Hodgson, 2004), by understanding perception and cognition as a successive direction or redirection of action in a specific situation, not as a prior one. The establishment of goals does not occur as an intellectual reflection prior to action; they, goals, are developed by internalizing our aspirations and tendencies and are always operative. These aspirations take place in our bodies (instincts), and many times we are not even aware of them but they take control over our day to day behavior.

An additional contribution to Veblen´s theories is the one from the American pragmatist philosophers, well found in (Hodgson, 2004) reference providing an assorted set of definitions of habits, these text goes as follows: the pragmatist William James definition (1892, p. 143) who wrote: *'Habit is thus the enormous fly-wheel of society, its most precious conservative agent.'*. Another pragmatist sociologist, William Thomas and Florian Znaniecki (1920, p.1851) were against the erratic use of "habit" to express stability on

human behaviour and defined "*A habit … is the tendency to repeat the same act in similar material conditions.*'. William McDougall (1908, p. 37) defined: "*acquired habits of thought and action*' *as* '*springs of action*' *and saw* '*habit as a source of impulse or motive power'.''* Also in 1924, he stressed the differences between behaviour and dispositions. Finally, Hodgson also cites the great pragmatist John Dewey (1922, p. 22): *''The essence of habit is an acquired predisposition to ways or modes of response. The use of habit is largely unconscious. Habits are submerged repertoires of potential behaviour; they can be triggered or reinforced by an appropriate stimulus or context''.*

All of the definitions above point out to a teleological intention, the sum of them describe habit as a purposeful action, repeated, propense, learned and acquired. This last adjective implies a social environmental action to man as a prerequisite for the generation of a habit; hence, the formation of habits is affected by the influence of society in the individuals. There is also a sequential manner in (Hodgson, 2004), where "*instinct is prior to habit, habit is prior to belief, and belief is prior to reason*". This seems to be a proper road to understand the connections between habit and instinct.

Additionally, Hodgson signals (2004, p. 172) an important concept when he states that habit and instinct trigger motivation, placing this qualification under Darwinian principles. This is also another reinforcement of Veblen´s intellectual source from Darwin's evolution theory.

All these common places between habit and instinct are also well described by Howard Margolis (1987, p. 29) cited by Hodgson (2004, p.174) stating that the human brain is a mix of instinct, habit and judgment, which can be affected by mistakes, but holistically speaking can help the brain to survive in its operational environment and concludes that: "*There is a natural hierarchy in the three modes (instinct, habit, judgment). Habits must be built out of instincts; judgment must somehow derive from instinct and habits''*. This is a ratification of the sequentiality exposed by Hodgson above, instinct, habit, belief and reason.

There is also the convenience statement addressed by (Hodgson, 2006) where he ascribes instinct as "*biologically inherited dispositions*" and habit to "*learned dispositions*", as well as instincts as "*inherited thru genes*" and, habits "*thru culture and institutions*".

Up to now, we have been presenting the connections; let us use Hodgson's findings to elaborate about differences between habit and instincts. One distinguishable difference lays in the fact that habits are "*dependent on the particular environment of the individual*", in the other hand, instincts have much less degree of freedom before "*the potential variability of circumstances''.* (Hodgson, 2006). Also recapping Veblen´s words, instincts are of "*innate and persistent propensity*" and habits are "*molded by environmental circumstances*". Hodgson (2006, p. 118).

Another valuable characteristic is the association between instincts-nature and habit-nurture, (Hodgson, 2006). This distinction can be read on the basis of the natural and embedded characteristics of the individual as for the instincts and the acquired nature of the habits being influenced in its formation by society as indicated in the previous page of this essay. For the sake of this analysis it is also important to present a valuable definition of instinct, presented by (McDougall, 1908) and cited by Veblen in "The instinct of workmanship and the State of the Industrial Arts", Veblen (1908, p. 1), where instinct is defined as:

> *An innate or inherited psychological disposition which determines his possessor to perceive, and to pay attention to, objects of a certain class, to experience an emotional excitement of a particular quality upon perceiving such an object.*

This definition comprises the genetic component, inherited, the predisposition to act and the psychological involvement; it appears clearly the hierarchy of steps, cited by Hodgson of "*instinct-habit-belief-reason*", placing instinct at the beginning of the process of individual action.

Also, the link of habits, instincts and innovation is well observed in the important essay of (Redmond, 2003), were the instinct of workmanship, prerequisite of the concept of idle curiosity is cataloged by Veblen as a prior experience for the upsurge of human innovation, and the instinct of workmanship and the parental bent, another Veblenian approach, are the source of technological progress. This was the rationale behind presenting the general description of habits and instincts thru a Veblenian optics, well managed by Geoffrey Hodgson in the present part of this essay.

As for the nature of the different categories of instincts, Thorsten Veblen has signaled, the survival, the gregarious, the repulsion, pugnacity, and our Instinct of Workmanship, all of them described in his famous "The Instinct of Workmanship and the State of the Industrial Arts" essay, Veblen (1908) which also will be covered in the next part of the present paper.

Summarizing, habit and instinct as conceived by Veblen are fed from Darwin's evolution theory and the pragmatist North American tradition. We presented definitions of instinct extracted from James, Thomas, Znaniecki, McDougall and Dewey all of them important collaborators of the pragmatist North American yard. All these definitions, habits and instincts are purposeful, teleological, repeated, learned and acquired and the habit formation on the individual is affected by society. The sequential model as presented by Hodgson is instinct-habit-belief-reason. This sequentiality is very important to catch the true way to Invention and Technological Progress coming from the Institutionalist Theory.

Consequently, the road to understand the connections and the differences above, between instincts and habits, has been really well paved, besides the great importance of them in the development of Innovation and Technological Progress, this last topic, going hand in hand with Human Innovation.

The InstinctofWorkmanship, the continuation

According to Veblen (1908) *"the instinct of workmanship is a generic feature of human nature that guides the life of man in his utilization of material things and gives rise to a proclivity for purposeful action*" Cordes (2004, p. 2).

Veblen´s definition places it as the engine to drive technological progress; in fact, he considers this, the technological progress, a consequence of workmanship, (Cordes, 2004) Veblen determines four periods where habits, technology, habits and institutions interact, they were: 1- The peaceful era, 2- The predatory one, 3- The handicraft and 4- The machine period, Cordes (2004, p. 4). The workmanship greatly develops in the peaceful period, backing up society's efforts and becoming a forming force on culture and institutions.

Veblen (1908) also defined the "idle curiosity" which will be covered next in this paper as favoring the aims of workmanship, ending up in a formal search of efficiency thru ways and means that is the generic definition of "idle curiosity". This as indicated before produces technologically and materially better goods, services and ideas. The instinct of workmanship also ends up causing and generating mechanisms promoting the growth of Science and Technology.

Ralph C. Epstein (1926) has a very generous description of many great inventors, inoculated with the instinct of workmanship. He starts pointing out about Samuel Crompton, the British inventor of the spinning mule, that helped the English textile industry in

the beginning of the Industrial Revolution, late XVIII, early XIX Centuries, but who managed a very aggressive discipline to systematically revise on the technological inventions to help develop this baby industry.

There are also references about the historic period between 1872 and 1915 in the United States, where a very concentrated numbers of patents were found registered at the U.S. Patent Office, (Epstein, 1926), with a listing of patents of great inventors as Thomas A. Edison with 977, Francis H. Richard, 847, Elihu Thompson, 627, Charles E. Scribner, 437, George Westinghouse, 340, and Edward Weston, 299. We can really see a very high instinct of workmanship and motivation among all these gentlemen to have such a prolific set of inventions.

The Idle curiosity, riding thru

The hermeneutics of knowledge under the on-going process of "*idle curiosity*" ends up in anthropomorphic arguments as Veblen dictates, (1919, p. 7)). Also, by using its research on the Eskimo and Pueblo Indian populations, he concludes that their body of knowledge is very much centered in the observation of nature, as he describes them a "*lower barbarian*" cultures is also very much based upon myths and legends, (Veblen, 1919). Another of his claims, is that learning is acquired thru the "*idle curiosity*" mechanism. An additional central and strong veblenian statement is that idle curiosity has allowed the strength of a far more comprehensive corpus of knowledge to society, (Veblen, 1919).

The development of thought that permitted the establishment of a system of knowledge is fed by the everyday´s "*affairs of life* ", (Veblen, 1919) with the institutional structure that the society is placed in. The "*higher barbarian*" culture in Veblen´s words also called "*predaceous*" is characterized by their pragmatism, (Veblen, 1919). Also the protocols guiding the idle curiosity are no longer those of blood relationship, homely life, but those referring to prestige, adscription and dependence. He refers to the Schoolmen (part of the predaceous class) as also being pragmatic. The idle curiosity has also been interpreted as the "*scientific spirit*". His definition of "pragmatism" is taken in terms of the preferential advantage for the agent, the workmanship on the production of goods and services and the suitable behavior.

Our interpretation of workmanship along the veblenian partiture refers to the effort and skills the men invest in order to produce a good, a service or any other human process with high standards of quality, taste and serviceability. To support this, we have following cite from Veblen: "*Chief among those instinctive dispositions that conduce directly to the material well-being of the race, and therefore to its biological success, is perhaps, the instinctive bias here spoken of as the sense of workmanship.*" (Veblen, 1914, p. 25)

He also admits the interdepence between science and technology. Also, he stresses there has been a great amount of workmanship improving the knowledge build up due to the "*idle curiosity*" phenomena (Veblen, 1919).

However, later, Veblen asserts that the savage culture has much less pragmatism if nothing in terms of knowledge and beliefs, (Veblen, 1919). This may sound racist, because of dealing with lower educated races, but it is part of his prolific observations of the economic man.

The search fed by the "*idle curiosity*" to develop Science is rather a new quest as Veblen states, probably because he is writing end of the XIX Century, hundred years passed from the Industrial Revolution and a period of time where the wealth of Natural Sciences had taking place in society already, then, this qualification sounds historically obvious. No such Veblen in our underdeveloped societies can claim this, end of the XIX Century.

Clarence E. Ayres and "The theory of Economic Progress", the 20th Century

Jointly with Commons, the greatest historian, Veblen, the greatest social critic, Mitchell, the greatest statistician, Clarence E. Ayres, has been described the greatest philosopher of the Institutionalism, (Hill, 1997). Son of a Baptist preacher, alumni from Brown and Harvard, had his first teaching tenure at Amherst College in Massachusset. He obtained his PHD in Ethics, after his tutor Robert Hoxie committed suicide.

Also, taught at Chicago, 1919-1920, then, at Amherst until 1923 and from that year until 1924 at Reed College. Afterwards, until 1927, had a journalistic job as associate editor of the "New Republic". On 1927, the couple, Ayres and wife, moved to New Mexico until 1930, when he accepted an Economics Professor Post at The University of Texas, staying until 1969, when he obtained retirement, (Hodgson, 2004).

Ayres connection to the field of Innovation takes place when he wrote in 1944, his brilliant work "The Theory of Economic Progress", where he exposed many features about economic growth from a technological standpoint.

According with (Weinel & Crossland, 1989), Ayres theory has the following characteristics:

- The humankind activity is collective and cultural.
- Each cultural community has a technological frame, including their competencies and tools.
- Technology is the application of tools and competencies to the problem solving situations in human life.
- When using tools and competencies (the life process), if everything else remains equal (ceteris paribus), then, new tools and competencies are generated (The "tool combination principal"). We will add that this new recipe is also an upsurge for Innovation and new ideas.
- Progress is to be encountered at the ever augmenting and difficulty of the "technological behavior" (the "technological continuum").
- The technological growth refers to the inventory of competencies and instruments and opposes to the amount of ceremonial activities. Ceremonialism here refers to the social traits as Veblen proposes and which Ayres considers damaging and obtrusive to technological progress, (Ayres, 1961). On Ayres expression, ceremonialism refers to "myths, mores, arbitrary distinctions on status and rank and conventional rules", (Rutherford, 1981, p. 660).
- And finally, technological progress equals to creation of value.

It is also important to point out the values that Ayres encountered on technological progress, presented in his work "Toward a reasonable society", (Ayres 1961) and also commented by (Rutherford (1981). Freedom, considered as the outcome of technological progress and also the betterment of man´s life and contemplated through different stadiums like, communications, mobility and ignorance, this last, specially considered as the bed for the development of technology, given the importance of the educational improvement of man. (Ayres, 1961).

Likewise, the value of equality, defined by Ayres as: "the absence of artificial and arbitrary barriers", (Ayres, 1961), seen inequality as the outcome of ceremonial traits like tradition, superstition and myth, and again stressing that this ceremonialism does not improve the technological progress.

The value of security, to nurture emotional aspects like, social integration and counseling. Also including medical security, against epidemics, famine, poverty and conflicts.

Here, Ayres proposes that "The citizens of the industrial society must consume abundantly, because if they do not industrial society will collapse", (Ayres, 1943). This statement appears perverse because obliges society to the ever spending behaviour that concluded in the high damage humankind is presently experiencing. Consumption is important, but it ought to be rational, to avoid the maladies of the actual civilization, like the environmental risk the earth is facing already.

Abundance is the following value in the Ayresian prospective. It is linked with freedom, equality and security, (Rutherford, 1981), and it is generated on the basis of a "substantial degree of comfort to all members of the community", (Ayres, 1961). Losses on production make the market stop, also overproduction originates crisis, by saving or economizing a society cannot achieve technological growth. This goes hand in hand to the above claim on consumption, stressed by Ayres, but still damaging to society, as we made it clear before.

Ayres made a big claim about society sacrificing quality before quantity, then, the arts and crafts growth were based upon the fact that the goods and services represented an improvement on quality from the ones before.

Democracy stands as the glue of the other values, (Ayres, 1961). According with Ayres, Democracy is the field where the majorities are implemented, where people do reconcile opinions and thoughts, and where the truth is learned and operated.

Finally, the real pro of these values is their unity prospective. Freedom and abundance are interrelated, the first generates the second, but without abundance and prosperity, there will not be a real chance for freedom. On the other hand, men enjoying freedom can promote excellence that results in fluency and also security ought to be built to keep the rest of values in good shape, (Rutherford, 1981).

To conclude Ayres participation in this essay we can cite him directly from his "The role of Technology in Economic Theory" essay where he claims that "*technology is workmanship*", (Ayres, 1953). Also from the same work he places industrial growth as a consequence of technological development and finally, he seems to regret that the full contribution that technology has given to human life improvement (betterment, he calls), has not been fully recognized.

The last three references do enhance our idea of joining together instinct, habit, and instinct of workmanship and idle curiosity, with the immense Ayresian contribution of Technological Progress, as an obvious and required prerequisite for Innovation.

Conclusions, the curtain is closed

This is only a preliminary and incomplete revision of the topics which seem to precede Innovation, from an Institutionalist standpoint. They still need to be revised with some other authors or theories to start building up a robust theoretical framework in the upsurge of Innovation.

Certainly, the linkage from instincts, habits, instinct of workmanship and idle curiosity à la Veblen, with the Theory of Economic Progress from Ayres, all of that based on the Institutionalist Theory that both represent, is a very good start to ignite the phenomena of Innovation.

Deeper research has to be performed in the Theory of Diffusion, by Everett Rogers, more insight into Ayres work and the latest cognitive researchers that have been covering Innovation as their field of study. The flaw here, is his requirement to sacrify quality of goods before quantity, practice that generated a high degree of consumism, during the 20th Century on, reaching undesirable and uncomfortable levels of goods, which may end up generating a full "garbage" of unwanted goods and services.

We cannot forget that the actual disgruntled civilization can be greatly helped through the exploration on Innovation with a strong linkage with technology in order to help overcome better the social acidity of the XXI century for humankind.

Still, without instincts, habits, workmanship, idle curiosity all of them from an institutionalist standpoint, combined with a revised Theory of Technological Progress from Ayres, there will not be a healthy and sound process of Innovation. This is a logical and sound conclusion of this reflection article.

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