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Bounded Rationality, Institutionalism
and the Diversity of Economic Institutions

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1. Introduction

The aim of the paper is not to consider the details of the Veblenian argument. We will rather try to evaluate the contribution that his approach can still give to economics after one hundred years from his famous paper "Why is not economics an evolutionary science?". In particular, we will try to contrast the "Old Institutional" Veblenian approach to the New Institutional approach and point out some relative advantages of the former.

Much of New Institutional Economics has relied on some "mild form" of bounded rationality. In turn, this "mild" form of bounded rationality has been associated to a view of evolution that allows the explanation of institutions in terms of "transaction costs efficiency"¹. We will try to show that this "mild" form of bounded rationality has some serious shortcomings that are avoided in the approaches of Veblen (and Clark).

An important consequence of the approach of the "Old Institutionalists" is that bounded rationality implies maximising behaviour only when the stress and effort associated to intentional rationality are not relevant - an observation that relates maximising behaviour to their theory of habits in a challenging and interesting way. Moreover the Veblenian view of bounded rationality does also necessarily imply that preferences themselves are "produced" by expending certain resources (including those related to our own bounded rationality); for this reason, they are necessarily influenced by the "conditions of production" of preferences of a past state of society.

In the Veblenian approach, preferences are endogenous in the sense that they cannot be taken as given independently of a certain social context where their costly formation took place. By contrast, basic human instincts are somehow exogenous to this context because they have been selected during a long period of "natural" history. When the preferences and the associated habits do not fit a changed situation, exogenous human instincts may induce a costly revision of preferences; alternatively instincts may be repressed and a costly stagnation of society may take place.

The first section of this paper considers the transaction costs of "New Institutional Economics" with particular reference to bounded rationality. The second section considers how the Veblenian approach can challenge this view by proposing a theory of "endogenous preferences" and "exogenous instincts". The third section

¹ For a criticism of this view and its relation with a certain type of evolutionary theories see Hodgson (1996).

considers some limitations of the Veblenian approach that are strictly associated to his Darwinian roots. It is argued that the future development of evolutionary and institutional economics should not be limited by some ambiguities of these roots.

2. Bounded rationality and economising behaviour.

According to Williamson (1985, p.45) "Bounded rationality is the cognitive assumption on which transaction cost analysis relies". Referring to Simon (1961 p. xxiv) Williamson defines bounded rationality as a form of rationality in which economic actors are at the same time assumed to be "intendely rational but limited so". Williamson emphasises that New Institutional Economics takes a sensible middle way that makes "simultaneous references to both intended and limited rationality (1985, p. 45). In spite of his reference to Simon, Williamson's view of "bounded rationality" has relatively mild implications for orthodox economic theory.

From the bounded rationality assumption, Herbert Simon draws the conclusion that satisfying behaviour is more appropriate than maximization to explain human actions. According to him the replacement of maximization by satisfying behaviour "is an essential step in the application of the principle of bounded rationality" (Simon 1957 p. 198) . By contrast, Williamson (1996, p. 351,) argues that "even granting that "satisfying" is a more descriptively accurate than maximising, satisfying is also a cumbersome concept and is difficult to model. The association of bounded rationality with satisfying behaviour is, according to Williamson been a "faithful choice". It has not encouraged economising reasoning and it has become identified "with aspiration level mechanics instead -which has wide appeal but it is more widely associated with psychology".

Independently of the merits or the shortcomings of satisfying behaviour Williamson seems to believe that a paradoxical implication of bounded rationality is some form of "*super-rationality*" where the agents do not only rationally economise on the resources that have been the traditional object of economic theory *but also on their own bounded rationality*.

In the Williamsonian construction the role of bounded rationality is quite marginal² and it is quite compatible with the fact that some agents are endowed with a

²The fundamental blocks of the Williamsonian construction are the concept of asset-specificity, the concept of "private governance" and the related fruitful "unification" of the fields of law, economics and organization theory.

rationality that does, in many respects, exceed that of the traditional neoclassical agent.

According to Williamson, the most important implication of bounded rationality is that: "*all complex contracts are unavoidably incomplete*. That is the transaction cost story. (1996, p. 37) However, the New Property Rights approach of Grossman, Hart and Moore (that has also the aim of formalising some of the Williamsonian insights) has shown how bounded rationality is a marginally important background cause to justify contract incompleteness (Hart 1995). In their framework, contract incompleteness is by no means due to the fact that the agents cannot forecast the implications of their future actions and they are somehow limited by their rational ability to gather all the relevant information and to compute the optimal solution. Contract incompleteness can be simply due to the "*bounded writing and communication skills*" (Hart 1990, p. 699) that upset the relation between the contracting agents and the courts. While this particular type of bounded rationality makes it impossible third party enforcement, in other respects the agents are endowed with a super-rationality well above that of the traditional neoclassical individuals. The agents do not only maximise their own utility function but do also fully anticipate also the consequences of the maximising behaviour of the other contracting agents under the situation of absence of third party investments. For this reason they exchange their non-human capital in such a way that the total human capital investment is maximised and a second best allocation of property of non-human assets is achieved under the constraint contractual incompleteness.

The New Property Rights approach is one example where the agents taking into account the constraints imposed by the bounded rationality (in this case of writing and communication skills) end up paradoxically solving a problem that is a great deal more complex than that of the traditional neo-classical agent. Perhaps, this approach does really follow the Williamsonian suggestion of economising on bounded rationality; indeed it does certainly end up going in the opposite direction towards a "common knowledge" assumption that is typical of a strategic type of "super-rationality" where the agents maximise by taking also into account the maximising behaviour of the other agents. However, the paradoxical implications of the "New Property Rights approach" show that "economising on bounded rationality" is a very complex form of economising behaviour which has many more dimensions (and, sometimes, contradictions) that Williamson seems willing to consider. In this respect, one may distinguish among different types of costs associated to the different types of bounded rationality and observe the contradictory implications that "economising on bounded rationality" has in a traditional neoclassical framework:

a) Bounded communication skills.

This is the case considered by "New Property Rights" approach. However, that approach considers one particular type of communication cost (that arising with third party enforcers) and assumes that the cost of transmitting this information is infinitely large. Given this assumption the solution to the "economising on bounded rationality problem" is trivial: zero resources will be dedicated to communicate with the third party enforcers and the agents can exclusively concentrate on the problem of allocating the resources among the other uses. All the other following types of bounded rationality are ignored. It is not surprising that the solution implies a degree of rationality that goes well beyond that which is traditionally assumed in the traditional neoclassical framework. The "shadows" of bounded communication skills appears only in the background and does not have any important consequence for the modelling exercise.

Bounded communication skills can, however, have a much more important and explicit role in the understanding of economic organisations. An obvious example is Hayek's criticism of central planning and its defence of the market institution. Also his argument relies on the same type of bounded rationality: a great deal of the information held by the agents cannot be easily transmitted to the other agents. In this context the agents economise on communication costs by using the price system because it provides a powerful summary information of the opportunities perceived by the individual agents. This virtue of the price system is particularly remarkable when a great deal of this information is "tacit knowledge" that cannot be transmitted by using a formal language. Unlike the Pareto optimality properties of the neoclassical model, the Hayekian virtues of the market economy can only be understood when some forms of bounded rationality are introduced into the analysis. In particular, under the assumption that prices are zero-cost communication channel while non-price information is tacit (i. e. it can only be transmitted at infinite costs) the Hayekian conclusion is rather obvious and implies a different version of "market optimality"³.

Economising on communication skills becomes more interesting when one does not assume that communication channels are characterised by either zero or infinite communication costs. In this case a combination of a plurality of communication channels may, in principle, best economise on bounded communication skills. If, besides the case of communication skills, rationality is otherwise unbounded, the individual agents can easily solve this "optimisation" problem. Even in this case there are, however, several problem with this view.

³ The Hayekian version of the optimality of markets is at the same time stronger and weaker than the traditional "Pareto optimality". While the Hayekian market is far from the "first best" conditions that characterise Pareto optimality, it is optimal in the strong sense that it is not only the best but even the only feasible system by which the information dispersed among the agents can be communicated to the other agents. On this issue see Pagano (1992).

Communication channels improve by being practised because of strong "learning by using" effects. Moreover, they are characterised by strong "network externalities" because the utility of each channel is due to the number of agents that are using it (David 1994).

Economising on bounded communication skills would require a "meta-channel" where the agents could choose the most economical channels taking into account the "learning by using" effects and the "network externalities" that are involved in the choice. However, this begs the very question that it is supposed to answer: how a (meta-)channel is ever chosen. A convincing story should neither exclude the possibility that agents try (some times, rationally) to look for better channels nor that they can be locked in what were "a priori" inefficient channels.

b) Bounded information processing skills.

Even if communication channels are not costly and the transmission of information among agents does not involve any "translation cost" among different languages we are still bounded by our ability to hold and to process information. Indeed, in many cases, modern society is characterised by an overflow of free row information that makes often it even more costly the acquisition of genuine knowledge.

Economising on this type of bounded rationality is notoriously difficult. If processing information is costly, then the agents will process additional information only when its expected marginal benefit outweighs its marginal cost. But the expected marginal benefit will depend on the a-priori beliefs of the agents. These can be wrong because there is no way to be certain about the value of additional information before processing it. (See Stigler (1961). Thus the individuals can be trapped in wrong beliefs that are not changed because the acquisition of additional knowledge, which would show them to be wrong, is (wrongly) assumed to be too costly.

It is certainly reasonable to assume that the individuals will try to economise on their bounded information processing capabilities. However, after years of rational expectations, we know even better that this story cannot be cast in any simple maximization framework that does not take into account the constraints due to the history and the nature of the agents (Pagano 1992). Only if we know the beliefs, the personality and the information that has already become part of the knowledge of the agents we may understand how they "economise" on their limited information skills.

c) Bounded calculation skills.

It is a puzzling aspect of orthodox economic theory, that this cost has only been rarely considered. If optimisation is the cornerstone of the theory, the optimising

costs due to the bounded calculation skills of the individuals should be very relevant and the individuals should try to economise a great deal on this type of bounded rationality. By contrast, while the costs of transmitting and processing information have been widely taken into account, the optimisation costs, related to the individuals' bounded calculation skills, have been rarely mentioned.

Economic theory has made us rather familiar with a story where the individual optimise under additional constraints due to the bounded individual abilities of communicating and processing information. One could think that bounded calculation skills could be similarly handled by simply adding another constraint to the optimisation problem. If the new constraint is binding, we would come to the "usual" conclusion that a "lower" constrained optimal result must be obtained when one takes into account the limited computational skills of the agents.

However, the parallel between computational costs and information is somehow misleading. We can immediately see that the agent does not really simplify the optimisation problem by taking into account her own optimisation costs. If she could not solve the former optimisation problem she must find more difficult to solve the latter problem because it involves an "extra-constraint" on bounded rationality and an "extra-choice" on the allocation of time to be devoted at computation and of that to be devoted to the activities considered in the preceding optimisation problem. She is again constrained by her own computational power and faces a more complex optimisation framework.

The analogy with information costs breaks down. The agent can "cancel" the collection and processing costs of the information that she does not consider when she optimises. By contrast, as long as she tries to optimise, she can never cancel "optimisation costs" (Conlisk 1987 and 1996, Hodgson 1998). Indeed, when the agent tries to optimise and chooses to allocate time between calculation and other activities, her bounded rationality implies that she has to face a new more complex calculation problem. A new optimisation problem will naturally arise because she has to decide how to distribute her time between this new "second order" calculation and the other activities; but this involves a "third order" calculation and so on generating an "infinite regress".

The "infinite regress" problem can be somehow "hidden" by mistaking the identity of a rationally bounded agent with that of an unbounded external observer. An external observer could easily determine which is the optimum solution for the agent taking also into account her own bounded calculation constraints. By contrast, this solution is impossible for the agent herself; she cannot include the bounded rationality constraints in her optimisation problem without being constrained (even more!) by her own bounded rationality. In other words, "an external God" may easily

"calculate" what is best for us given the constraints imposed by our own human nature. By contrast these constraints prevent ordinary human beings from engaging in this ambitious exercise without experimenting the limitations of the human condition and allocating an increasing amount of resources in endless and useless calculations.

Economising on bounded calculation skills must take a form different from the simple reformulation of a maximization problem. We should accept that, while individuals may calculate among a number of limited alternatives, they can never calculate with any precision which one should be the focus of their own limited calculations. The history of the individuals must step in again to explain which limited set of alternatives will be on the agenda of the individuals. Optimisation and calculations must leave space to that mysterious concept, fluctuating in between our rationality and our emotions, that some people call "intuition". Perhaps, this vague world is one of the less unrigorous ways of referring to the mechanisms by which we economise on our own limited calculation skills.

d) Bounded preference formation skills.

We have seen how difficult is for an agent with well defined and complete preferences to make choices according to a more inclusive economising criterion. However, the agents are also bounded by their own ability to "produce" and develop preferences⁴. In some cases, the understanding of our own preferences is often very difficult and sometimes requires a lot of (sometimes rather painful) introspection - a skill that we are only likely to use for the most important choices. Moreover, developing our own preferences requires other important costly skills. Some musical skills are required to prefer Bach to Mozart and, even developing preferences for different types of wines requires some (pleasurable) investment.

If bounded rationality does also involve that the "production" of preference is costly, we should non be surprised by the fact that the agents try somehow to economise also on this type of activity. However, this consideration does not only imply that the room for optimising behaviour is limited even further. It does also involve an inversion of the traditional links existing between preferences and choices.

⁴ It is even more costly to produce preferences that are consistent. Our multiple self can involve an aggregation problem that replicates Arrow's problem of social choice at individual level. If facing these contradictions is costly, the production of preferences would then run also against the limits of bounded emotional skills (see point e). Screpanti (1998 Ch.. 2) points out how, according to the characteristics of our personality, we could either suppress or face our own internal pluralism. In both cases, because of our multiple self, the "production costs" of preferences would increase in a rather dramatic way. One of the many possible roles of ideology and socialisation could lie in creation of some "economies of scope and scale" especially in the processes of repression of some of the multiple aspects of our personality. If we want to push even further this "economic" analogy, intolerance and conformism may be due to the fact that, because of the economies of scope and of scale, the absence of "internal" repression by an individual increases the repression costs of other individuals. Of course, the increase in costs may or may not increase welfare (that is, in this case, particularly hard to measure).

When this type of bounded rationality is acknowledged, past choices have a great influence in determining the types of preferences that are going to be developed. In this sense choices influence preferences and they are not simply their outcome. In order to explain the choices of today we cannot simply rely on preferences because the choices faced in the past explain the combinations of areas where these preferences have been relatively developed and of areas where they are underdeveloped or do not even exist. Thus, an unfortunate consequence of economising on the bounded rationality associated to preference formation is that the individuals may be stuck in choices-preferences self-reinforcing equilibria: because they faced some choices they developed the preferences in particular areas and because they develop preferences only within this particular range they keep on making this type of choices (Pagano 1991 pp. 329-330). Economising on preference formation can only rarely be done on the basis of some "meta-preferences" that can rationally justify the preferences that have been developed. Like preferences, these "meta-preferences" are costly to develop and are subject to the observations that we have just made.

Individual history is likely to be a highly path dependent succession of preferences and choice. The initial choices made by parents and the community of the individual have some importance in explaining which choice-preferences paths an individual did not practice and in which areas she was an active, and often rational, player.

e) Bounded emotional skills.

Even when being a rational chooser is in our best interest, our emotions can often prevent us from doing so (Screpanti 1998). In this sense we face further constraints on our rationality. We are aware that being a rational chooser can be often stressing. For this reason, while we try to develop the emotional ability to behave in this way, we try also to economise on it. Those who do not economise on rationality and never relax may later pay for the overuse of these scarce capabilities and may, sometimes, have later serious nervous breakdowns. In the economists' language, this is tantamount to saying that these individuals have distributed inefficiently over time their own emotional ability to behave rationally. It is again rather misleading to formulate the problem as that of finding the optimal degree of rationality and "irrationality" because in the usual vicious circle we would take for granted unbounded emotional skills.

The emotional skill to be rational seems to be the outcome of a complicated (self-) education that seems to change also according to the different national cultures.

Moreover, we do not get utility only from what we have or from what we do but also from what (we believe that) we are. Thus, it is not surprising that we are often engaged in activities of self-definition, or in the search of our own identity, and that this identity must also be emotionally satisfactory.

In principle we could like to define ourselves as the neo-classical rational individuals who try to maximise their life time consumption. However this is only one particular possibility and does not seem very appealing: when we define ourselves in this way, we immediately hit the limitations due to the shortness of our life and to the relative fragility of our existence.

In economic theory "rational individuals" should maximise taking the constraints of their life as given. Unfortunately the constraints that are due to our own human condition do not gently bind us. Often we hit them in a very painful way; for this reason we try to re-define ourselves in such a way that these constraints look less binding and become more acceptable. This is usually done by defining ourselves as members of something larger that does not share the same limitations. Suppose that re-defining ourselves as members of a nation relaxes these constraints and make us feeling that we overcome these limitations. In this case utility-maximising persons may happily die for their nation and enjoy being part of something that will never die (Pagano 1995).

Again the search of an identity could be rationally recasted as an economising problem where the net benefits of each identity are carefully compared. However, this exercise prevents the identity from satisfying the very needs that it is supposed to fulfil. The point is that often people can satisfy these needs only if they believe that religion or nationality constitute their identity independently of their choice. An identity that is chosen by an individual would seem to share her contingency and limitations. An identity, that aims to satisfy the need of overcoming the fragility of individual life, must be such that individuals feel that they are not choosing this identity but they are rather "chosen" by it.

A God or a Nation, that are chosen to maximise our utility, are meaningless and are useless to overcome the fragility and the contingency of our lives. This need can be only satisfied if we believe that God or the Nation have "chosen" us in order to realise their wills. Only in this way can the individuals believe that they are now part of something bigger that survives their bodies and share with it some feeling of immortality. Somehow, the choice of these identities can be seen as another skilful way of economising on bounded emotional skills and acquiring that peace of mind that allows us to become in other respects rational choosers. But if any economising process is involved, it cannot be recasted in any traditional orthodox framework. Moreover, nationalistic and religious wars make us wondering whether this

economising process is really likely to take place. If one needs to be emotional in order to be rational, it is very unlikely that the mix of rationality and emotions that struggles in our mind is itself only the outcome of some rational economising process.

The contradictions that one encounters when she tries to economise on bounded rationality are hardly surprising. In a world of bounded rationality the ability to economise on bounded rationality must also be severely bounded and "economising behaviour" cannot be mechanically extended to bounded rationality without contradicting the idea of bounded rationality itself. Bounded rationality does necessarily involve some departure from the economising behaviour that is assumed in standard economic theory.

3. Endogenous preferences, exogenous instincts and institutional change.

Economising behaviour cannot be easily extended to take into account the numerous forms of bounded rationality that we have just considered. The Williamsonian suggestion ends up exacerbating the weakness of a "rational economising man". After one hundred years there is no better way of expressing this point than by quoting what is perhaps Veblen's most famous passage:

"The hedonistic conception of man is that of a lightning calculator of pleasures and pains, who oscillates like a homogeneous globule of desire of happiness under the impulse of stimuli that shift him about the area but live him intact. He has neither antecedent nor consequent. He is an isolated definitive human datum, in stable equilibrium except for the buffets of the impinging forces that displace him in one direction or another. Self-poised in elemental space, he spins symmetrically about his own spiritual axis until the parallelogram of forces bears down upon him where-upon he follows the line of the resultant. When the force of the impact is spent, he comes to rest a self-contained globule of desire as before. Spiritually, the hedonistic man is not a prime mover. He is not the seat of 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". (Veblen 1898 p. 390)

If we want to make sense of the ways in which individuals try to deal with their own limitations, we need a radical departure from the standard neoclassical

approach. Even the simple awareness of our own limitations cannot be achieved without changing ourselves in the process. Costly communication, information and decisions, painful introspection in our own (often contradictory) "preferences", delicate definitions of identity, complicated sentiments and emotions are all often involved when we try to understand and, possibly, do something about our own limitations. The self, that bears the full weight of her own limitations, must be seen as real person whose capabilities and shortcomings are a product of natural, social and personal history. At the same time, unlike the neo-classical individual, this same self is a "prime mover" that does not only change the world around her but also herself in the process. Again quoting from Veblen turns out to be most incisive way of summarising the argument:

"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 past process. His methods of life to-day are enforced upon him by his habits of life carried over from yesterday and by the circumstances left as the mechanical residue of the life of yesterday." (Veblen 1898, p. 391)

According to Veblen, when one extends the argument to the community where the individuals live, all economic change "is always a change in habits of thought" and "their life is an unfolding activity of a teleological kind" (p. 391). Even if changes can involve a great deal of rationality and intelligence, they are never costless and, after some time, the limited rationality of the agents switches necessarily to something else. In the meantime the successful changes, that are selected, stop being outcomes of a process of rational understanding; they become rather the object of a process of habituation that allows an unconscious application that saves on bounded rationality. When this happens the neo-classical ideal of maximization with unbounded rationality may paradoxically take place. In this sense, as the "Old Institutional" J. M. Clark pointed out in 1918, the neo-classical theory of costless maximization could be considered as a special case of the Institutional approach.

In general, according to Clark, the maximization of utility is incompatible with the hedonistic postulate of the theory:

"A good hedonist would stop calculating when it seemed likely to involve more trouble than it was worth, and, as he could not in the nature of the case tell just when this point has been reached, he would make no claim to the exactness of his results." (Clark, 1967 p. 25).

However, Clark points out that habits may make it reasonable to assume that in particular situations the maximization principle is possible. According to Clark "indeed it is only by the aid of habit that the marginal utility principle is approximated in real life, for only so it is possible to have choosing *which is both effortless and intelligent*, embodying the results of deliberation or experience, without the accompanying cost of decision, which as we have seen, must prevent the most rational hedonist from attaining hedonistic perfection. For habit is nature's machinery for handing over to the lower brain and nerve centres the carrying on of work done first by the higher apparatus of conscious deliberation." (Clark, 1967 p. 26-7). Unfortunately the very same mechanism may imply that " It may be one's past mistakes that grip him in spite of himself, or his unconsidered impulses that are thus hardened and set" (Clark, 1967 p. 27, my italics).

Clark's particular case involves the following paradox: intentional rationality can never reach full optimality; by contrast the habits can, in principle, reach full unbounded optimality. However, in this case their optimality is likely to be relative to some past situations when the habits were formed with the possible help of some intentional rationality. For these reason, even if the habits were "rationally" formed, we can become their slaves in the sense that they do not fit the present situation. However, it is only when individuals do not maximise that standard optimality results may somehow be achieved!

According to Veblen the adaptive process works through both "a selection between stable types of temperament and character" and "an adaptation of men's habit of thought to changing circumstances" (Veblen 1953, p. 132). Or, in other words, to use a contemporary terminology adaptation has simultaneously "Darwinian" and "Lamarckian" characteristics. However this is "of less importance than the fact that, by one method or other institutions change and develop. The development of these institutions is the development of society"(Veblen 1953, p. 132).

However, the evolution of institutions does not imply that they can be explained in terms of their relative efficiency at organising present economic life.

In the first place institutions are necessarily "products of past processes, are adapted to past circumstances, and are therefore never in full accord with the requirement of the present. "When a step in the development has been taken, this step itself constitutes a change of situation which requires a new adaptation; it becomes the point of departure for a new step in the adjustment and so interminably." (Veblen 1953, p. 132).

In the second place, "all change in habits of life and of thought is irksome. The difference in this respect between the wealthy and the common run of mankind lies

not so much in the motive which prompts to conservatism as in the degree of exposure to the economic forces that urge a change. The members of the wealthy class do not yield to the demand for innovation as readily as other men because they are not constrained to do so. (Veblen 1953 p.137-8). Moreover the members of the privileged classes have also "a material interest in leaving things as they are"(Veblen 1953 p.141) .

In the third place, while the lower classes have an interest in the transformation of society, they lack the time and the energy to foster the change. Moreover the lower classes are subject to the cultural hegemony of the privileged classes. Because of the "prescriptive example of conspicuous waste and conservatism" of the wealthy classes (Veblen 1953 p.141) the lower classes spend a lot of energy trying to imitate them instead of trying to change the prevailing habits.

Finally, "efficient" changes of society are very difficult to achieve because of what we may call today "institutional complementarities" that characterise each economic system. "The code of properties, conventionalities, and usages in vogue at any given time and among any given people has more or less of the character of an organic whole; so that any appreciable change in one point of the scheme involves something of a change or readjustment at other points also, if not a reorganisation all along the line." In particular, in the case of major changes, "it is immediately felt that a serious derangement of the entire scheme would result; it is felt that a readjustment of the structure to the new form taken on by one of its chief elements would be a painful and tedious, if not a doubtful process.(Veblen 1953 p.139) .

The contrast between the Williamsonian and Veblenian "rationally bounded individuals" is striking. The Williamsonian individual is striving to economise on and beyond his own bounded rationality and tends to achieve efficient behaviour and institutions. By contrast, the Veblenian individual is seriously bounded by his own rationality in the sense that it necessarily implies that the capacity to economise on bounded rationality is itself bounded. Thus, the Veblenian individual can be easily stuck in inefficient habits and institutions.

Indeed the opposite problem seems to arise within the Veblenian framework: How can efficient institutional change ever occur? Do bounded rationality and the consequent endogenisation of preferences imply that the individual is unable to change inefficient institutions? Isn't the Veblenian individual less of "prime mover" than neoclassical "lightening calculator " that Veblen had so appropriately criticised for not being "the seat of process of leaving"? Doesn't the "behaviouristic" Veblen completely overshadow the "humanistic" criticism that he had moved against neoclassical theory?

The answer lies in the fact that, while habits and preferences are largely endogenous in the sense of being strongly influenced by the history of society, the instincts of individuals are largely exogenous in the sense that they have been selected during long periods of natural and human history.

In the Veblenian approach instincts should not be seen as something opposed to "rationality". They do also imply that people try to analyse and understand real situations in order to achieve some results. As Jensen (1987) points out according to Veblen instincts are "teleological categories" and every instinct involves "consciousness" and intelligence (Veblen 1964, pp 3, 4). According to Jensen in Veblen's view the "average" human nature is dominated by six major proclivities. They are: an "instinct of workmanship; an instinctively...actuated idle curiosity"; an instinctive disposition labelled "the parental bent"; a proclivity to acquisition; a "set of self-regarding proclivities"; and "an habitual bent" that makes instinctive "habituation possible" on the part of human beings. (Veblen 1957, p. 4; 1964, p. 11, 25, 26, 27, 182, 204, 285).

In this sense there is no incompatibility between the "humanistic Veblen" and the "behaviouristic Veblen" or between "intentional" and "non-intentional" behaviour (Luca Fiorito 1997 p. 122) . They are both an outcome of the interactions between instincts and institutions - an interaction that does not necessarily entail the emergence of a spontaneous order a la Hayek or of efficient institutions a la Williamson. Like in the Darwinian theory of natural selection, the interactions do not have "a priori" guaranteed benevolent outcome.

Luca Fiorito (1997 p. 121) observes that the Marxian class struggle (but even more, I would add, the "contradictions" between relations of production and productive forces) finds its counterpart in Veblen's conflict between the positive values of technology and the existing institutions. However, the Veblenian approach does not share the deterministic teleological aspect of the Marxian view of history where the progressive role of the development of productive forces wins necessarily against the fetters of conservative relations of production. In many cases "those instincts which make directly for the material welfare of the community, such as parental bent and the sense of workmanship" have prevailed over the "bonds of custom, prescription, principles, precedent". "But history records more frequent and spectacular instances of the triumph of imbecile institutions over life and culture than of peoples who have by force of instinctive insight saved themselves alive out of a desperately precarious institutional situation....." (Veblen 1914 p. 24-5).

After one hundred years, if one takes the problem of bounded rationality seriously, the Veblenian approach has remarkable advantages with respect to the neo-classical, Marxian and New institutional traditions. With respect to the first it provides

a more general case where "maximization" can only occur as a particular case. With the respect to the second and the third it provides a framework where efficient institutional change is possible but not necessary. Thus, unlike the case of New Institutional Economics, in Veblen institutions have not to be understood and predicted as efficient answers to the present situation. The role of the economist becomes rather more similar to that of geologist: the present set of institutions can be seen like a set of mutually supporting rocks that have come about in a process of cumulative growth as an answer to the problems of different periods of history. Somehow, they still bear the mark of the conditions under which they were generated. In this sense, "economising behaviour" does not shape the institutions of the present day society and even less the utilisation of "bounded rationality" itself. Indeed, also for rationality, it turns out that "If rational behaviour is to be assumed, then its evolution has to be explained" (Hodgson, 1998 p. 189).

4. The Darwinian roots of Veblen's unilinearism.

While the Veblenian approach can allow for both indefinite stagnation and progress it shares a "unilinear vision of history" with the Marxian and the New Institutional schools. Ann Mayhew has convincingly explained this point as follows:

"For Veblen, as for Morgan and other members of the "historical evolutionary school" with whom Veblen shared so much, the goal was to produce a record of mankind that would be told "in terms of the process [of evolution] itself." Comparisons between present societies in all their variations would allow a reconstruction of the past. The critical assumption - which Veblen shared with the anthropologists during 1880s - was that sociocultural variation could be arrayed unilinearly. *Variation was a matter of stage achieved, not a consequence of many divergent histories.* (Mayhew, 1998 p. 452, my italics).

In my opinion, the "unilinear" vision⁵ that characterises the Veblenian approach can be traced to his Darwinian roots. This is somehow paradoxical. In natural history variation is not only a matter of the "stage achieved" by a given species

⁵ This unilinear view of history is, in fact, perhaps close to what Popper (1957) has called "historicism" and criticised for the fact that it denies the existence of historical change in a strong sense: "It almost looks as if historicists were trying to compensate themselves for the loss of an unchanging world by clinging to the faith that change can be foreseen because it is ruled by an unchanging law" (Popper 1957 p. 161). Even if Popper does not use this terminology unilinearism is, perhaps, the best way to explain what he calls the "unholy" alliance between historicism and utopianism: since history runs along a single line the advent of a given utopia can be "scientifically" predicted.

but it is also a consequence of the "many divergent histories" that characterise the different species. The paradox is made even more striking by the fact that the title of the book "The Origin of Natural Species stressed more the latter aspect than the former. However, as Helena Cronin points out, the title did somehow contradict the content of the book:

"The two fundamental problems that Darwin's theory was designed to solve were adaptation and diversity. The riddle of adaptation he solved superbly. As for diversity, on certain aspects he was equally successful. The patterns of geographical distribution, the fossil record, the taxonomic hierarchy, and comparative embryology all fell into place under his incisive analysis. But in the mist of such success, there was one problem that remained just outside his grasp. It was poignantly the problem of the origin of species". Cronin H. (1991, p. 430)

In the Origin Darwin was not only unable to explain the circumstances under which speciation (the formation of a new species) could occur but did not even make a clear distinction between the concept of species and the concept of variety within a given species. This is very clear in the following passage:

"Laying aside the question of fertility and sterility, in all other respects there seems to be a general and close similarity in the offspring of crossed species, and of crossed varieties. If we look at species as having been specially created, and at varieties as having been produced by secondary laws, this similarity would be an astonishing fact. But it harmonises perfectly with the view that there is no essential distinction between species and varieties."(Darwin 1859 p. 288)

The confusion between species and variety is even more striking when one considers that in his early work Darwin was well aware of the definition of species in terms of reproductive isolation - a definition that is consistent with modern biology and implies a clear difference between varieties and species. At the same time, the passage shows how the confusion was perhaps to be found in "a strong, even though perhaps unconscious, motivation for Darwin to demonstrate that species lack the constancy and the distinctiveness claimed by them by creationists". (Mayr 1982, p. 262) Creationists pointed at these characteristics of species to challenge the claim that such discontinuities could be the results of the gradual adaptation due the working of natural selection. Thus, Darwin "solved" the species problem defining them by degree of difference rather than by reproductive isolation and by denying their qualitative distinctness from varieties of the same species.

In some ways, to deny the distinctness of species was a successful strategy against the creationists. "But the switch from Darwin's species concept the 1830s to that of 1850s laid the foundation for controversies that lasted for a century" (Mayr 1982 p. 269) ". Perhaps, another consequence of this switch was that it created some space for a view where "*variation was a matter of stage achieved, not a consequence of many divergent histories*".

Humankind could be seen more as *the most advanced stage* of natural history than as *one of the divergent histories* that characterised living species. The discontinuity of speciation and the comparative understanding of the diverging histories of the different species were sacrificed to a vision where evolution could even be seen as unfolding along a single line. When the vision was transposed from natural to human history it implied something similar to what Veblen (like Marx) believed to be true: while progress and stagnation were both possible they were only occurring along a single line (Pagano 1999). The vision had also an attractive implication: the synchronic analysis of different societies existing at the same point of time allowed the diachronic reconstruction of the different stages that defined the single line of development of each society. Or, in other words, the comparisons between present societies in all their variations would have allowed a reconstruction of the past. When anthropological and historical evidence disclaimed this unilinear vision of history "the convergence of many disciplines on a "single natural-historical model of the world" ceased and, with it, the evolutionary vision faded". (Mayhew, 1998 p. 452).

5. Conclusion.

After one hundred years the Veblenian appeal for an evolutionary approach to economics is surprisingly appealing and one must go in some Veblenian-type of study of the evolution of economic theories to understand why this is the case (Argyrous and Sethi, 1996).

If we take seriously bounded rationality, we can make very little use of the New Institutional approach where rational economising behaviour is extended to bounded rationality itself. Preferences cannot be taken as exogenous to a given institutional context (see Bowles 1998) while important aspect of human nature (like Veblen instincts) can. Stagnation and progress must be both possible outcomes when institutions are seen as the outcome of habits that have developed in the past and are only seldom going to be revised.

At the same time, it is necessary to go beyond Veblen's unilinearism and understand the process of cumulative growth which distinguish the many lines along which the different histories of the different societies flow, sometimes like those of different "organizational species" (Pagano, Rowthorn 1996). After one hundred years, with the advantage of the "speciation debates" in modern biology (Pagano 1999), we cannot afford to be grounded in the unilinear roots of Charles Darwin.

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