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THE INFLUENCE OF SCOTTISH ENLIGHTENMENT ON DARWIN'S THEORY OF CULTURAL EVOLUTION

BY

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I. INTRODUCTION

Since the 1980s, institutional change has become a matter of great interest as economists faced the necessity and the challenge to provide a theory of economic or cultural evolution. Their first reaction was to refer to biology, a field in which theories of evolution have reached a high degree of sophistication. This was all the more legitimate and relevant given that biology has been largely influenced by economics (Schweber 1977, 1980; Gordon 1991; Kresge and Wenar 1994; Depew and Weber 1995). Indeed, the influence of classical political economy on the views of one of the fathers of the modern theory of evolution, Charles Darwin, is widely admitted. Darwin borrowed from economists fundamental ideas such as spontaneous order and methodological individualism (from Adam Smith), the positive role of diversity and variety (from Charles Babbage) and the concept of the struggle for life (from Thomas Malthus). Therefore, the ideas promoted by the founding fathers of political economy, sometimes called "Darwinians before Darwin" (Hayek 1973, p. 23), have shaped Darwin's theory of biological evolution.

However, these concepts could not be reimported from biology to economics without modifications. The next step was then to specify in which way a theory of biological evolution could help to define a theory of cultural evolution. Some important questions were raised: what does the survival of the fittest mean within the field of economics, or more generally in social science? How should one take into account habits and routines, or the inheritance of acquired characteristics in a Darwinian viewpoint? The discussions and controversies led to the conclusion that a theory of cultural evolution could not rest upon Darwinian arguments

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alone but should also refer to Lamarckian ones (see for instance Hodgson 1993; Witt 1995).

The goal of this paper is to reassess the relationship between Darwin and the founding fathers of political economy through the presentation of Darwin's theory of cultural evolution, which differs from his theory of biological evolution on certain points. While the latter is developed in the well-known *The Origin of Species by the Means of Natural Selection* (1859/1988), the former is described in *The Descent of Man and Selection in Relation to Sex* (1871/1988). Darwin retains his mechanism of natural selection and the idea of a struggle of life, but in the social sphere the unit of cultural evolution is no longer the individual, as in biology. In his demonstration, Darwin emphasizes the role of instincts and sentiments, the place of imitation and sympathy in the process of acquisition of knowledge. In this new theoretical framework, the concept of sympathy is explicitly borrowed from the founding fathers of political economy. More generally, his theory of human nature follows in many respects those of David Hume (1739–40/1992) and of Adam Smith (1759/1976). Therefore, and this is the argument put forward in this paper, there exists a Darwinian theory of evolution that cannot be understood without reference to the founding fathers of political economy. The latter have not only influenced Darwin's theory of biological evolution but their ideas have also permeated his theory of cultural evolution.

This article is organized as follows. In the next section, we concentrate on the way Darwin elaborates his own theory of human nature on the roots of the conceptions of Hume and Smith. The third section deals with Darwin's theory of cultural evolution in the light of the thesis of the classical political economists. A fourth section concludes and sums up the argument.

II. DARWIN'S THEORY OF HUMAN NATURE

In *The Descent of Man*, Darwin attempts to understand social and cultural evolution from a naturalist point of view, that is, through the mechanism of natural selection. More precisely, Darwin ascribes to his work two major objects: "to consider, firstly, whether man, like other species, is descended from some pre-existing form; secondly, the manner of his development" (1871, p. 253). To put it differently, the purpose of the book is to demonstrate that social evolution, as well as natural evolution, is a continuous and spontaneous process. In this perspective, one of the central points of his argument consists in showing that "there is no fundamental difference between man and the highest mammals in their mental faculties" (Darwin 1871, p. 287). Obviously, an investigation of human faculties is of great importance in order to know how these faculties evolve and whether men are able to control their evolution. To reach this goal, Darwin refers to the founding fathers of classical political economy. The reason is straightforward. As both economists and philosophers, Hume and Smith devote a large number of pages to the presentation of their moral theories. In particular, they ground their economic ideas, especially those related to the spontaneity of social order, in their conception of man. Reason and moral sentiments are at the center of their argument. Darwin was aware of the great

importance of these two features for a theory of cultural evolution. He then adopted views of human beings similar to those developed by Hume and Smith.

From Reason …

Hume and Smith belong to the Scottish Enlightenment, which is part of Enlightenment but radically different from the continental perspective. In particular, in the point of view adopted by Hume and Smith, reason is not contemplated as a basic and central characteristic of human nature. In contrast with the rationalist philosophy of the continental Enlightenment, they argue in favor of a sensualist theory of human nature. Their conception of man can be understood in reference with the statue of Abbé de Condillac (1754/1989): without any of the five senses, man does not differ from a piece of marble. Indeed, human beings are not granted a specific capacity that could be labeled reason. Ideas, knowledge, as well as human capacities, come from the use of the senses through the accumulation of impressions:

> All the perceptions of the human mind resolve themselves into two distinct kinds, which I shall call IMPRESSIONS and IDEAS. The difference betwixt these consists in the degrees of force and liveliness with which they strike upon the mind, and make their way into our thought or consciousness. Those perceptions which enter with most force and violence, we may name impressions; and under this name I comprehend all our sensations, passions and emotions, as they make their first appearance in the soul. By ideas I mean the faint images of these in thinking and reasoning (Hume 1739–40/1992, p. 1).

Furthermore, Hume adds that "This then is the principle I establish in the science of human nature [that …] as the first ideas are supposed to be derived from impressions, it still remains true, that all our simple ideas proceed either mediately or immediately from their correspondent impressions" (1739–40, p. 7).

Darwin acknowledges the importance of impressions and makes some statements that can be labeled Humean: "man, from the activity of his mental faculties, cannot avoid reflection: past impressions and images are incessantly and clearly passing through his mind" or a "man cannot prevent past impressions often repassing through his mind; he will thus be driven to make a comparison between the impressions of past hunger, vengeance satisfied, or danger shunned at other men's cost, with the almost ever-present instinct of sympathy, and with his early knowledge of what others consider as praiseworthy or blameable" (1871, p. 311).[1]

Furthermore, even if we have no direct indication that Darwin was opposed to Cartesian rationalism—no quotation of René Descartes can be found in *The Descent of Man*—the definition, and also the role ascribed to reason by Darwin,

[1] The utilization by Darwin of the word "impression" is certainly more than a mere coincidence since these quotations follow a reference to Hume's *Enquiry Concerning the Principles of Morals*. One should be surprised to find no quotation of Hume's *Treatise of Human Nature*, where the Scottish philosopher presents his theory about knowledge and impressions, in *The Descent of Man*. The paradox might be apparent: Darwin utilizes words and concepts clearly borrowed from the *Treatise* but quotes the *Enquiry* because his purpose is to document the link between sympathy and morals.

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present some striking similarities with the sensualism of Scottish philosophers. First, let us start with a comment of Darwin: "of all the faculties of the human mind it will, I presume, be admitted that reason stands at the summit" (1871, p. 292). Such statement can receive two interpretations. Either reason can be considered as a dominating and autonomous faculty, or it can be viewed as the result of the development and the use of all the other human faculties. Clearly, it is the second approach that is emphasized by Darwin. Indeed, in his investigation of the way human beings acquire reason, he begins by a description of the acquisition process of all the other faculties such as imitation (p. 291), attention (p. 291), and imagination (p. 292). Thus, the acquisition of these faculties is a necessary condition for the elaboration of reason. Reason does not govern the exercise of other human faculties but results from the accumulation of experience through a process of trial and error. Darwin thus emphasizes that:

> as Mr. Wallace has argued, much of the intelligent work done by man is due to imitation and not to reason; but there is a great difference between his actions and many of those performed by lower animals, namely, that man cannot on his first trial, make, for instance, a stone hatchet or a canoe, through his power of imitation. He has to learn his work by practice (1871, pp. 288–89).

The limited role of reason is of great importance for a theory of social evolution because it first means that reason is a product of evolution and not the causal origin of evolution. It precludes any possibility for men to control the evolution of their societies. It is a necessary condition for a theory of spontaneous order. Secondly, the relative weakness of reason leaves room for senses and feelings—or instincts, as Darwin puts it. Then, as a second step, a theory of social evolution must provide an explanation for the importance of instincts. However, Darwin is not a philosopher even when he analyzes the evolution of societies. His line of reasoning remains that of a naturalist. He finds evidence showing that reason is not all-important. In a related way, many examples convince him that morality and social instincts are the basis for the evolution of societies. The writings of Hume and Smith provide him with a philosophical justification allowing him to put these together into a theory. Darwin then takes for granted that sympathy is the key concept that he needs.

… *To Sentiments and Sympathy*

The concept of sympathy has received little consideration among economists.[2] However, Hume finds "no more remarkable" quality in human nature "than the propensity we have to sympathize with others" (1739–40, p. 316). On the other hand, the first chapter of Smith's first book, *The Theory of Moral Sentiments* (1759, pp. 9–13), which is entirely devoted to sympathy, acknowledges the importance of this feeling. In fact, the less significant rationality is supposed to be, the greater must be the role played by sympathy. In a rationalist perspective,

[2] With exceptions such as Arrow (1951/1963), Harsanyi (1977), and Sen (1977). On the comparison between sympathy and empathy in historical perspective, see Fontaine (1997).

society is ordered through institutions built by the means of reason. Sensualism replaces reason with sympathy, and social contract with spontaneous order.

Sympathy is a concept of a great importance for the theory of spontaneous order developed by Hume and Smith.[3] In other words, a theory of spontaneous order, as well as a theory of social evolution, viewed as spontaneous processes, has to refer to sympathy.

The Descent of Man, in which Darwin presents his theory of social evolution, develops a line of reasoning that is based upon sympathy.[4] Here, we have direct evidence that Darwin was perfectly aware he was borrowing a concept from Hume and Smith. A first mention of sympathy was made by Darwin in his *Notebooks*. After having read an account of Smith's writings made by Dugald Stewart, Darwin concludes that sympathy is "very unsatisfactory because it does not like Burke explain pleasure" (Notebook M, p. 108, August 1838). This rejection of Smith's explanation of the stability of moral order, although clear, as noted by Schweber (1977, p. 276), is not definitive. Indeed, in *The Descent of Man*, Darwin considers that happiness is only a possible reward and that sympathy is the real motive of human conduct. In this latter book, not only does Darwin put the concept at the core of his argument, he also makes explicit and positive references to Hume and Smith.

First, Darwin refers to the "first and striking chapter of Adam Smith's *Theory of Moral Sentiments*" to define the "all-important emotion of sympathy" (1871, p. 309). Darwin's enthusiasm is justified because in this chapter Smith links sympathy, pleasure, and pain. Darwin sums up Smith's argument with another explicit reference: "Adam Smith has formerly argued … that the basis of sympathy lies in our strong relentiveness of former states of pain and pleasure. Hence, 'the sight of another person enduring hunger, cold, fatigue, revives in us some recollection of these states, which are painful even in the idea.' We are thus impelled to relieve the sufferings of another, in order that our own painful feeling may be at the same time relieved. In like manner we are led to participate in the pleasures of others" (1871, p. 308).[5] Therefore, he adopts Smith's

[3] On the links between sympathy, human nature, and the nature of rules, see Josselin and Marciano (1995, 1997, 1999).

[4] When Darwin wrote his book, he was not the only biologist to refer to this concept of sympathy. Wallace (1866) and Huxley also made use of sympathy but with major differences.

[5] "The development of moral qualities is a more interesting problem. The foundation lies in the social instincts, including, under this term, the family ties. These instincts are highly complex, and in the case of the lower animals give special tendencies towards certain definite actions; but the more important elements are love, and the distinct emotion of sympathy" (Darwin 1871, p. 592). Also: "the first foundation origin of the moral sense lies in the social instincts, including sympathy" (1871, p. 593). On his side, Smith writes: "how selfish, soever, man may be supposed there are evidently some principles in nature which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it" (Smith 1759, p. 9). Similarly, Hume notices that: we have found instances, in which private interest was separate from public; in which it was even contrary: And yet we observed the moral sentiment to continue, notwithtanding this disjunction of interests. And wherever these distinct interests sensibly concurred, we always found a sensible increase of the sentiment, and a more warm affection to virtue, and detestation of vice, or what we properly call *gratitude* or *revenge*. Compelled by these instances, we must renounce the theory which accounts for every moral sentiment by the principle of self-love (1871, p. 109).

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argument according to which "the basis of sympathy lies in our strong relentiveness of former states of pain and pleasures" (1871, p. 308). Finally, Darwin justifies his affirmation that "we are indeed all conscious that we do possess such sympathetic feelings" (1871, p. 310) with a reference and a quotation of Hume. He thus notices that "Hume remarks (*An Enquiry Concerning the Principles of Morals*, ed. of 1751, p. 132) 'there seems a necessity for confessing that the happiness and misery of others are not spectacles altogether indifferent to us, but that the view of the former … communicates a secret joy; the appearance of the latter … throws a melancholy damp over the imagination'" (1871, p. 310). These references are interesting for they trace back to the Scottish Enlightenment philosophers the origin of the concept of sympathy used by Darwin.

Besides, Darwin not only borrows a word but also a concept. The utilitarian dimension put aside, the quotations of Smith and Hume made by Darwin illustrate how close he is to the perspective of sympathy as a principle of communication among individuals. Such is also the perspective of Hume and Smith. Thus, to sympathize with others means "to receive by communication their inclinations and sentiments, however different from, or even contrary to our own" (Hume 1739–40, p. 316). The justification lies in the fact that:

> "the minds of all men are similar in their feelings and operations, nor can any one be actuated by any affection, of which all others are not in some degree susceptible. As in strings equally wound up, the motion of one communicates itself to the rest; so all the affections readily pass from to one person to another, and beget correspondent movements in every human creature" (Hume 1739–40, pp. 575–76).

Therefore, because of sympathy, individuals research the approbation of others and reject behaviors that could generate disapprobation. On his side, Darwin considers that "the approbation and disapprobation of our fellows depends on sympathy, which … forms an essential part of the social instinct, and is indeed its foundation-stone" (1871, p. 304). A second characteristic of sympathy is thus to be a principle of imitation. Finally, the force of sympathy is restricted to local areas. Indeed, sympathy is a scarce feeling: "sympathy, we shall allow, is much fainter than our concern for ourselves, and sympathy with persons remote from us, much fainter than with persons near or contiguous" (Hume 1739–40, p. 116). Darwin adopts the same perspective on "scarcity" as the one chosen by Hume or Smith: "sympathy is directed solely towards the members of the same community, and therefore towards known, and more or less beloved members, but not to all individuals of the same species" (1871, p. 309).

Let us see how Darwin makes use of sympathy to explain the evolution of societies.

III. THE MECHANISM OF CULTURAL EVOLUTION

The Origin of Species introduces Darwin's theory of biological evolution; *The Descent of Man* describes his theory of social evolution. In these two books, Darwin adopts the same principle of selection to explain both biological and cultural evolution. Darwin clearly wants to transfer his mechanism of selection

to explain the evolution of moral and social qualities in the human world: "such social qualities (as sympathy, fidelity, and courage), the paramount importance of which to the lower animals is disputed by noone, were no doubt acquired by the progenitors of man in a similar manner, namely, through the natural selection" (1871, p. 321).

Nevertheless, even if he can be regarded as the first naturalist to be convinced of the continuity between nature and culture, Darwin is aware of the differences between these two spheres. It is important to mention that at his time some very famous philosophers like Herbert Spencer denied that the cultural sphere could be appreciated from a different point of view than the one used to describe the natural sphere. Particularly, he assumed that the working of the mechanism of biological evolution, namely the natural selection, still operates in the cultural sphere. This evolutionist philosophy raises a striking problem because it has often been confused with Darwinian evolutionism. If Herbert Spencer can be deemed the founding father of the social Darwinism tradition, this is not the case of Darwin's evolutionism (Tort 1983).

In order to understand the position of Darwin as to the nature of cultural and moral evolution, we first have to analyze the principle and the target of selection and then we have to address the question of the spreading of moral and social rules of conduct. It will be emphasized throughout how the links between his theory of cultural evolution and the concept of sympathy, borrowed from the Scottish classical economists, are crucial in Darwin's mind.

The Principle of Selection and Its Target

The main difference between the biological and the cultural spheres is that Darwinian selection works for the good of the individual organism in nature while it benefits the group in society. As noted by Robert Nadeau, "the hypothesis of cultural evolution assumes that human groups are in competition with one another and that throughout history they have been seeking to adapt themselves in order to survive, reproduce and if possible grow, expand and spread abroad" (1998, p. 481). In the same manner that biologists view group selection as an alternative principle that makes the existence of altruism intelligible, Darwin assumes that group selection can account for the existence and the evolution of moral and social instincts:

> with strictly social animals, natural selection sometimes acts on the individual, through the preservation of variations which are beneficial for the community … With the higher social animals, I am not aware that any structure has been modified solely for the good of the community … In regard to certain mental powers the case is wholly different; for these faculties have been chiefly or even exclusively gained for the benefit of the community, and the individuals thereof have at the same time gained an advantage indirectly (1871, pp. 285–86).

What role does sympathy play in this process of group selection? To answer this crucial question we have to compare the relative performances of sympathy and egoism in Darwin's theory of cultural evolution. It is well known that Darwin,

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in *The Origin of Species*, has emphasized the success of egoist behaviors in the struggle for life. Furthermore, neo-Darwinian biologists have shown how, in the natural sphere, the assumption of group selection is not viable, and it could be easily replaced by an explanation in individualistic terms. In the first place, Darwin seems to advocate for the role of egoism as a basis for cultural evolution, too. Indeed, he recognizes the existence and the strength of this feeling:

> It is extremely doubtful whether the offspring of the more sympathetic and benevolent parents, or those which were the most faithful to their comrades, would be reared in greater number than the children of selfish and treacherous parents of the same tribe. He who was ready to sacrifice his life, as many a savage has been, rather than betray his comrades, would often leave some offspring to inherit his noble nature. The bravest men, who were always willing to come to the front in a war, and who freely risked their lives for others would on average perish in larger numbers than other men (1871, p. 321).

Individualism and the related sentiment of egoism also seem to have a comparative advantage in the struggle for life in the cultural sphere. However, this advantage remains located within the group because, in the competition between groups, egoism is less efficient than sympathy:

> although a high standard of morality gives but a slight or no advantage to each individual man and his children over the other men of the same tribe, yet an advancement in the standard of morality and an increase in the number of well-endowed men will certainly give an immense advantage to one tribe over another (1871, p. 322).

The efficiency of egoism is indeed reduced by free riding. Egoistic behaviors reduce the likeliness of and the prospect for cooperation. The survival of the group is threatened. Furthermore, the importance of egoism does not allow us to explain one of the most important characteristics of human civilization—morality. In this perspective, trying to understand the working of Darwinian cultural evolution would remain a problem because it is not obvious why human beings give up their egoist motivations once they are supposed to be civilized, since the continuity between the natural and the cultural sphere is assumed.

Darwin escapes these difficulties in suggesting that egoism, or the instinct of self-preservation, is a temporary attitude of human conduct: "the desire to satisfy hunger, or any passion such as vengeance, is in its nature temporary … The instinct of self-preservation is not felt except in the presence of danger" (1871, p. 312). Conversely, sympathy is a persistent characteristic of human nature: "Even when we are quite alone, how often do we think pleasure or pain of what others think of us,—of their imagined approbation or disapprobation; and this all follows from sympathy" (Darwin 1871, p. 312). And finally, habit strengthens sympathy: "so that man can value justly the judgement of his fellows, he will feel himself impelled, apart from any transitory pleasure or pain, to certain lines of conduct" (1871, p. 310).

The conclusion is, then, that the only groups to succeed in the competition against other groups are those with the higher rate of morality:

> when two tribes of primeval man, living in the same country, came into competition, if (other circumstances being equal) the one tribe included a great number of courageous, sympathetic and faithful members, who were always ready to warn each other of danger, to aid and defend each other, this tribe would succeed better and conquer the other (1871, p. 322).

The Spreading of Social and Moral Rules of Conduct

In Darwin's theory of social evolution, the group can clearly be identified as the target of the selection process. The next point that has to be clarified concerns the object of cultural selection. What is replicated and transmitted from a group to another one and from a generation to the next one? This question is important to ascertain the relevance of Darwin's theory.

As noted earlier, natural selection operates in human societies as well as in nature, but without its individualistic dimension. Thus, as Darwin considers that cultural selection is a product of struggle for life between human groups (tribes in the ancestral times; nations or races in the recent periods), the object of selection, that is the entity which transmits its structure, in a faithful way, to the next generation will also change in nature. Darwin cannot resort anymore to the same kind of entity—namely, an individualistic one—since he wants to demonstrate that only groups with the highest rate of morality win against the other ones. So, in Darwin's mind, the object of cultural evolution is moral and social rules.

In the biological sphere, Darwin's argument demands that natural populations should exhibit inheritable variations in fitness that are transmitted from parents to offspring in an invariant sequence. In the cultural sphere, the sympathetic nature of individuals plays an equivalent role to that played by the mechanism of inheritance in the biological sphere.[6] The process can be sum up as follows. Sympathy, being a principle of communication, creates a peaceful environment and generates cooperative behaviors, leading individuals to imitate each others', following the same rules. These successful rules develop, first within the group, and then from a (successful) group on to the other ones, and then from a generation to the next one.[7] Thus, according to Darwin, replication and transmission of rules results from an imitation process that depends on the existence of sympathetic behavior: "as from habit, following on beneficial experience, instruction and example, his sympathies became more tender and more widely diffused, extending to men of all races" (1871, p. 318), or, "the very idea of humanity … as soon as this virtue is honored and practiced by some few men, it spreads through instruction and example to the young, and eventually becomes incorporated in public opinion" (1871, p. 317). This process of inheritance of moral beliefs then allows for the explanation of diversity in the social realm.

The criterion which determines the success of a group practicing some kind of rules on other groups is a demographic one: the social instincts, according to

[6] This argument has been suggested to us by Robert O'Hara.

[7] This perspective is close to the Hayekian view on social evolution. On the links between F.A. Hayek and Darwin and their respective theories of social evolution, see Marciano and Pélissier (1999).

Darwin, have been progressively developed because they were a positive benefit for the prosperity of and for the good of the community:

> in the case of the lower animals it seems much more appropriate to speak of their social instincts, as having been developed for the general good rather for the general happiness of the species. The term, general good, may be defined as the rearing of the greatest number of individuals in full vigor and health, with all their faculties perfect, under the conditions to which they are subjected (1871, p. 316).

And Darwin adds further that:

> as the social instincts both of men and of the lower animals have no doubt been developed by nearly the same steps, it would be advisable, it found practicable, to use the same definition in both cases, and to take as *the standard of morality, the general good and welfare of humanity, rather than the general happiness* (1871, p. 316).

The possibility of transmission of acquired characteristics in the social world has been considered to be the hallmark of a typical Lamarckian point of view. This debate is out of order because it must be granted that Darwin himself, and not Lamarck, has shown how the evolution of moral and social qualities was first embedded in his own evolutionary theory and secondly was linked with a theory of human nature. The concept of sympathy is central in his thesis because it legitimates the process of imitation. In fact, Darwin assumes that men seek the approbation of their followers, and then adapt their behavior in this perspective. The possibility of a spreading of such rules of conduct is thus legitimate. Furthermore, it must be added that Lamarckian evolution is essentially teleological: hence in the social realm, just as in nature, such a point of view means that cultural evolution is goal-oriented.

IV. CONCLUSION

From the explanation of the evolution of natural species to the explanation of the evolution of moral and social qualities of human races, Darwin resorts to the same principle of evolution. In *The Descent of Man* his purpose is to adapt the working of the mechanism of selection to the specificity of the cultural sphere and, especially, to prove that the foundation of moral and social rules of conduct can be explained by a process of cultural selection. The main inspiration for Darwin's theory of cultural evolution is the moral philosophy of Smith and Hume. While the latter points out the social and sympathetic nature of human beings, Darwin's target is to explain the emergence and the evolution of these social and moral qualities from a naturalistic point of view. Therefore, his main idea is to assert that the moral sense is innate because it is derived from social instincts of lower animals through the process of natural selection. Following Hume's thought, Darwin is convinced that men are social beings and that they had kept and developed from their ancestors their sympathetic feelings. Hence, the foundations of the morality, which is one of the specific characteristic of cultural evolution, lie in a sentiment of sympathy and not in "a form of

selfishness, as it is assumed formally by philosophers of the derivative school of morals [utilitarian philosophy]" (Darwin 1871, p. 316). By contrast, the particularity of the social Darwinist tradition is to assert that the principle of egoism—that is, the preservation principle—is the main guide of evolution in the social sphere. Then, cultural evolution is assumed to be the equivalent of the survival of individuals who are the fittest. In the case of Darwin it is equivalent to the survival of the advantageous rules for the good of the community. And, in order to account for the existence of sympathetic behavior, Darwin had to refer to a group selection approach.

REFERENCES

Arrow, Kenneth. J. 1951. *Social Choice and Individual Values*. New Haven, CT: Yale University Press, 1963.

Condillac, Abbé Etienne Bonnot de. 1754. *Traité des Sensations*. Paris: Fayard, 1989.

Darwin, Charles. 1859. *The Origin of Species by the Means of Natural Selection*. London: Encyclopedia Britannica, 1988.

——. 1871. *The Descent of Man and Selection in Relation to Sex*. London: Encyclopedia Britannica, 1988.

Depew, D. J. and B. H. Weber. 1995. *Darwinian Evolving: Systems Dynamics and the Genealogy of Natural Selection*. Cambridge, MA: MIT Press.

Fontaine, Philippe. 1997. "Identification and Economic Behavior: Sympathy and Empathy in Historical Perspective." *Economics and Philosophy* 13: 261–80.

Gordon, Scott. 1991. *The History and Philosophy of Social Science*. London: Routledge.

Harsanyi, John. 1977. *Rational Behaviour and Bargaining Equilibrium in Games and Social Situations*. Cambridge: Cambridge University Press.

Hayek, Friedrich August von. 1973. *Law, Legislation and Liberty*, vol. 1: *Rules and Order*. London: Routledge.

Hodgson, Geoffrey M. 1993. *Economics and Evolution: Bringing Back Life Into Economics*. Cambridge: Polity Press.

Hume, David. 1739–40. *A Treatise of Human Nature*. Buffalo, NY: Prometheus Books, 1992.

Josselin, Jean-Michel and Alain Marciano. 1995. "Constitutionalism and Common Knowledge: Assessment and Application to the Design of a Future European Constitution." *Public Choice* 85: 173–188.

——. 1997. "The Paradox of Leviathan: How to Develop and Contain the Future European State?" *European Journal of Law and Economics* 4: 5–21.

——. 1999. "General Norms and Customs." In J. Backhaus, ed., *The Elgar Companion to Law and Economics*. Aldershot: Edward Elgar, pp. 233–239.

Kresge, S. and L. Wenar. 1994. *Hayek on Hayek: An Autobiographical Dialogue*. London: Routledge.

Marciano, Alain and Maud Pélissier. 1999. "*La théorie de l'évolution culturelle hayékienne à la lumière de la Descendance de l'Homme de Darwin*." WP GREQAM 99C08.

Nadeau, Robert. 1998. "Spontaneous Order." In J. B. Davis, D. Wade Hands, and U. Mäki, eds., *The Handbook of Economic Methodology*. Cheltenham: Edward Elgar, pp. 477–84.

Schweber, Silvan. S. 1977. "The Origin of the *Origin* Revisited." *Journal of the History of Biology* 10: 229–316.

Schweber, Silvan. S. 1980. "Darwin and the Political Economists: Divergence of Character." *Journal of the History of Biology* 13: 195–289.

Sen, Amartya. 1977. "Rational Fools: A Critique of the Behavioral Foundations of Economic Theory." *Philosophy and Public Affairs* 6: 317–44.

Smith, Adam. 1759. *The Theory of Moral Sentiments*. Indianapolis, IN: Liberty Press, 1976.

Tort, P. 1983. *La pensée hiérachique et l'évolution*. Paris: Aubier Montaigne.

Witt, Ulrich. 1995. "The Theory of Societal Evolution: Hayek's Unfinished Legacy." In J. Birner and R Van Zijp, eds., *Hayek, Coordination and Evolution: His Legacy In Philosophy, Politics and Economics and the History of Ideas*. London: Routledge, pp. 178–89.