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Naturalism as a political-cultural enterprise

ABSTRACT

Le naturalisme dans les sciences sociales, que nous qualifions de « constitutif », tend à accréditer un principe unique du développement social et humain, extrapolant les modes de développement des formes élémentaires de la vie aux modes de développement de ses formes supérieures. Ce faisant, il soutient diverses versions de la nature de l'homme, invoquant son héritage biologique, son a-moralité originnaire, les formes pures de l'humanité originelle, ou au contraire les progrès évolutionnaires de sa nature grâce à des processus adaptatifs participant de l'interdépendance entre l'individuel et le social. Nous montrons à partir des exemples importants des œuvres de Freud, Bourdieu, Marx, Lévi-Strauss, Spencer Baldwin et Piaget, que le naturalisme a servi, suivant ces lignes, la construction inavouée de systèmes interprétatifs mettant la démarche scientifique au service d'une entreprise politico-culturelle.

Naturalism in social sciences, described in this article as “constitutive”, tends to substantiate a single principle of social and human development, by extrapolating the modes of development for the basic forms of life to the modes of development of its superior forms. Several versions of the nature of mankind are thus put forward invoking biological inheritance, originating a-morality, pure forms of original humanity, or on the contrary the evolutionary progress of its nature thanks to adaptive processes that participated in the interdependence between the individual and the social. Along these lines, we show, through the important examples of the works of Freud, Bourdieu, Marx, Lévi-Strauss, Spencer, Baldwin et Piaget that naturalism has served in the building of unacknowledged interpretative systems that have placed the scientific approach at the service of a political-cultural enterprise.

Key words: Naturalism, Evolutionism, Darwin, Freud, Bourdieu, Marx, Lévi-Strauss, Spencer, Baldwin, Piaget.

Naturalism as a political-cultural enterpriseⁱ

More than any other, the work of Darwin marks out the beginning of the scientific era in terms of the analysis of living beings, and has been both a model of conceptual purity and a catalyst for new ideas in scientific thought. Nonetheless its success is coupled to a political-cultural role that it plays, and more generally that naturalism plays in the human sciences. It is significant in this respect that the objections to Darwinian theory are still capable of raising the hackles of biologists, and that they should be immediately imputed to a fundamental antipathy towards evolutionist doctrine inspired by religious convictions, or even to an irrational and fundamentalist creationism (Chauvin, 1997).

The rhetorical manicheism that sets naturalist approaches against religious or metaphysical forms of interpretation reveals an issue that is not solely scientific. It supplants the discussion of theoretical premises. In order to dispense immediately with any ambiguity on this topic, the distinction should be drawn between an ontological naturalism for which man is the outcome of natural evolution in the same way as everything else in the natural world, and a constitutive naturalism that develops its explanatory schemas of human and social life from models produced in biology and evolutionism. Constitutive naturalism looks at evolution in general terms from a continuist viewpoint. It extrapolates the modes of development for the basic forms of life to the modes of development of its superior forms. In terms of the human mind, it does not consider that any qualitative break was introduced by articulate language and rational thought, or any specific economy of intellectual development associated with cultural modes of transmission. This type of naturalism is the subject of this article.

Constitutive naturalism has two distinct approaches according to whether the emphasis is placed on one or other view of man's descent, one which derives from an animal struggle for survival, or one which derives from the struggles between human groups at the beginning of social life. Because for man struggles between groups was a substitute for the animal struggle for survival, cooperation was a survival factor and a vector of development that

made him into a naturally social being. Society is his environment in the biological sense.

According to the first approach naturalism accounts for the dark side of human motives masked by conscious ends. Socially constructed values hide the working of primitive forces and deceive man as to his real nature, falsifying his links to religion, to morality, culture, etc. Both Sigmund Freud and more recently Pierre Bourdieu have made this type of argument with considerable success. Thus, as Bourdieu states (1992, p. 108), "in addition to the three 'narcissistic injuries' inflicted on humanity by Copernicus, Darwin, and Freud himself, we must add one more that sociology has made us suffer" by unveiling the hidden motives for social action.

But social life is not rooted in struggle. The intrinsic motivation of cooperation is a response to the hostility of the outside world. In this second approach naturalism leads to an association of the human personality with the social circumstances of its development. It substitutes a collective fate for an individual fate that stems from a personal link with transcendence that is falling into disuse. Such a fate is sealed by the earliest legacies of humanity, as Lévi-Strauss conceives of it, or is the ideal future of a process of natural evolution, as conceived by the progressive thinkers whose intellectual legacy has passed through the writings of Herbert Spencer, James Mark Baldwin and Jean Piaget.

Marx is located somewhere between these two approaches and closer to the second, even though he does not use the conceptual tools of naturalism. The idea of class-antagonism evokes that of Darwin's struggle for survival, but this antagonism is not the future for Marxist doctrine, holding out as it does for the realisation of the ideal circumstances from which the total man of communist society will emerge.

In becoming constitutive, naturalism in the social sciences tends to substantiate a single principle of social and human development. Now as one can say about evolutionary theory, any system of philosophy is a monism or the search for a single principle underlying the universe. Inversely, because the proposition is reversible, any monism is a philosophical system (Neville 1885, p. 576).ⁱⁱ

The crowning glory of constitutive naturalism is, in this approach, that it provides the tools for philosophical systems in the name of scientific investigation. I should make clear that my aim is not to put forward a critique of each of the doctrines that are discussed, as this would make little sense in the present context, and nor is it to debate their merits or contributions. It is to show through these important examples that naturalism has served in the building of unacknowledged philosophical systems that, by using the authority of science, have placed the scientific approach at the service of a political-cultural enterprise.

Darwin

The origins of man

Why did the transformational theories that preceded Darwinian theory, such as Lamarck's, or the evolutionary theories contemporaneous with it, such as that of Spencer, not have the same undermining effect on religious concepts as that of Darwin?ⁱⁱⁱ

What was happening in Darwinian theory, and why is it described as being a fundamental injury inflicted upon humanity? The answer to the question was supplied by Darwin himself who declared his difficulty in imagining that a good God could have created the frightful cruelty of nature. For example, the ichneumons that lay their eggs inside caterpillars and whose larvae eat them alive. Nature's carnage is difficult to reconcile with the idea of a benevolent God, but easy to reconcile with that of the theory of natural evolution. Our understanding can only be revolted, wrote Darwin to Asa Gray on 22 May 1860,^{iv} because what advantage can be served by the suffering of the lower species since the dawn of time? The explanation is wholly contained within the efficient cause that he had discovered, natural variation and natural selection. The death of the Creator is confirmed by the nature of the creature; not so much by the reality of its biological nature but of its moral nature, that of its basic instincts. These are the methods put forward for the evolution that is in question: violence, the struggle of all

against all, biological utilitarianism. From the conclusions of *The Origin of Species* to those of *The Descent of Man*, the existence of a Creator is being very obviously called into question, through the creature. Darwin concludes the second edition of *The Origin of Species* in an emotional manner: "There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being evolved." (Darwin, 1860, p. 490) He would declare in the last lines of *The descent of man*, that "For my own part I would as soon be descended from that heroic little monkey, who braved his dreaded enemy in order to save the life of his keeper; or from that old baboon, who, descending from the mountains, carried away in triumph his young comrade from a crowd of astonished dogs—as from a savage who delights to torture his enemies, offers up bloody sacrifices, practises infanticide without remorse, treats his wives like slaves, knows no decency, and is haunted by the grossest superstitions." (Darwin, 1870, pp. 404-5)

It is not the descent from animals that calls man most into question but what it reveals about him that disqualifies the creator because of the nature of the creature.

The modern era appears strictly speaking to have been one of a collective de-centring process, that of access to the consciousness itself of humanity. This de-centring process was promoted by Hegel as is shown by the famous dialectic of the master and slave. In his journey towards freedom, the slave experiences an unhappy consciousness, the imagination of a transcendent master. Man is alienated, just like Hegel's slave who remains outside of life until the moment that he becomes conscious of this state, accepts the idea of his own death, that is the death of God.

Progress as a substitute for the religious

The idea of progress runs through all of Darwin's work, in contradiction with one of its most important scientific contributions that made it into a break

with the pre-Darwinian transformist theories. It even appears in the very slogan that became the symbol of the naturalist's work: "the survival of the fittest".

The vision of natural progress appears in the conclusion to Chapter III of *On the Origin of Species* in the idea that it is vigorous, healthy and happy individuals who survive and multiply. Such a claim suggests that the individuals who will survive in the long term must be thought of as those best adapted and this suggestion is explicit in the expression that Darwin borrowed from Spencer: "the survival of the fittest". Strictly speaking however a theory of natural selection only supposes that the individuals or species adapted to survival and to reproduction in specific environmental conditions should in fact survive and transmit their characteristics to subsequent generations. In other words the principle of natural selection should not be interpreted positively but negatively, in the sense that it only requires that no feature that is characteristic of the individuals of a species could have consequences that might interfere with survival or reproduction of the species in question. In particular natural selection makes it possible to explain the survival of those who are comparatively better adapted to some specific conditions. The use of the superlative has tended to suggest that those who survive were not only comparatively better but also to some extent that they were ideally adapted for survival. Yet Darwin was not explicit on this point. The reason is that his aim in *On the Origin of Species* was not confined to the analysis of the causes of transformism, for such an interest came from a more fundamental interest connected to the history of life on Earth. There can be no doubt that Darwin associated evolution with progress. Nature, through the survival of the most adapted had made the higher forms of life gradually appear. (Mandelbaum, 1971).

If one examines the places where Darwin talks in terms that associate concepts of evolution and of progress, they do not appear when he is offering a theoretical explanation of the way that new species develop, but they do occur in the passages where he is writing about the general history of life on earth. In these passages, the evaluative attitude taken by Darwin takes two contrasting forms: regret and even distaste for the means of evolution and its

costs, and at the same time a celebration of the direction of these changes. It is as the direct result of this war of nature leading to famine and death, which is, according to him, the most "exalted object which we are capable of conceiving, namely, the production of the higher animals"; for "from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved."(Darwin, 1859: 490)

Although Darwin held that progress was a consequence of the laws of nature, he nevertheless rejected the idea of its necessity, as he wrote in the fifth edition of 1869 of *On the Origin of Species* "natural selection, or the survival of the fittest, does not necessarily include progressive development—it only takes advantage of such variations as arise and are beneficial to each creature under its complex relations of life." (Darwin, 1869, p. 145) In other words selection is always relative to a specific environment. But everything happens as if Darwin^v was committed to believing that the general outline of evolutionary development should be progress. This could not be a retrograde process or one that was indifferent from a moral standpoint. Darwin gradually moved from theism to agnosticism. In January 1844, in other words fifteen years before the publication of *Origin of Species*, he confessed to his friend Joseph Hooker: " I am almost convinced (quite contrary to opinion I started with) that species are not (it is like confessing a murder) immutable. " The murder to which Darwin confesses is probably that of God, the God who is creator of all species. Nevertheless the hypothesis of the transformism that reveals the flaw in creationism obliging living creatures to adapt themselves to an evolving environment, had been formulated more than four decades earlier by Lamarck whose work would be a source of inspiration for Darwin. The naturalist was loath to reveal what he called his materialism. But he was conscious that God was unnecessary for his system and wrote to Hooker in March 1863 "...I have long regretted that I truckled to public opinion & used Pentateuchal term of creation, by which I really meant 'appeared' by some wholly unknown process." (Christen, 1981, p.19)

In order to understand human evolution from its infra-human ancestors, Darwinian theory opened up several paths to psychology and anthropology

in particular. This evolution from the infra-human to the human underpins in itself the notion of progress. But its extrapolation to social evolution since the dawn of time takes it beyond the range of the scientific approach. A reflection by Pierre Janet clarifies the role played by the ideology of moral and social progress that is inscribed in the laws of life that colour the whole of the 19th century. The philosopher, seeking substitutes for religion, had envisaged that there were indeed two: "the first, he thought, was perhaps expected more than any other to go beyond religion; this was scientific psychotherapy, that sought to treat by scientific means those conditions of the mind for which religion was the common remedy, supreme but imperfect. The other substitute would be the cult of progress." Such progress was not purely economic or technological and went far beyond the intellectual and social spheres to connect with an idea put forward by Guyau, the 19th century thinker whom Janet particularly admired: "Have confidence in ourselves and in the universe". (Ellenberger, 1970, p. 425)

Freud

The historical-cultural mission

In 1932 Carl Jung wrote an article on Freudian theory with the title "Freud: a historical-cultural phenomenon" (Jung, 1932, 1960). We know that Jung had been at the outset a close collaborator with and disciple of Freud, then broke away from him for the main reason that the article is concerned with — the interpretational dogmatism of Freud, as expressed in the role given to sexual trauma in the aetiology of neuroses. In his autobiography Jung recounts that he had retained a vivid memory of Freud telling him "My dear Jung, promise me that you will never give up sexual theory. It is the most important thing! You see, we must make a dogma out of it, an unshakeable stronghold." Freud told him this with feeling, writes Jung, with the air of a father saying "promise me one thing, my son, that you will always go to church on Sundays!" Surprised, Jung asked him "A stronghold — against what?" and Freud replied "Against the rising tide of black mud — against occultism!" The ideas of "stronghold" and of "dogma" are worrying, observes

Jung since dogma means an unchallengeable article of faith, "One can only impose like this where one wants to crush a doubt once and for all. This was no longer a scientific judgement, but a matter of a purely personal desire for power. This shook our friendship to its heart. I knew that I could no longer make this position my own. By "occultism" Freud seemed to mean virtually everything that philosophy and religion — as well as the para-psychology that was appearing at this time - might have to say about the soul. For me the sexual theory was just as "occult" - in other words unproven, a single possible hypothesis, like many other speculative conceptions. A scientific truth for me was a hypothesis that was satisfying for a short while, but not an eternally valid article of faith."(Jung, 1961, p. 177-178)

Jung describes the many cases of neurosis that he had been asked to observe in which sexuality only played a secondary role while other factors occupied the first rank, such as difficulties of social adaptation, or tragic life circumstances, etc. Faced with such cases, Freud as Jung tells it could not admit that any other factor than sexuality could be the cause (Jung, 1961, p. 174). As a consequence, Jung saw a primary motive that was not part of the scientific ethos in the interpretive reductionism of Freudian theory. This was not a motive that Jung could attribute to conscious work. He attributed it to a social role that Freud had unconsciously played. The Swiss psychologist demonstrates how much the doctrine of repressed sexuality was framed by a specific socio-historical context. Freud's ideas had a psychoanalytic function in relation to a bourgeois society that could be described as hypocritical, sentimentally moral, and artificially religious. This brilliant thesis portrays Freud as the great latent psychoanalyst of a whole society, that of the end of the Victorian era, through his "scandalous" interpretations of what were considered to be the highest values and sentiments.

Let us examine at the outset the idea of the domination of a historical-cultural task over the work of the scientist, by asking if the intellectual contexts in which Freud developed his own views, and if the phenomena that he was given to observe justify the universality that he claimed for his sexual theory.

Firstly, Freud broke with the theories of Charcot who had held that trauma was a catalysing cause that revealed hereditary predispositions, by calling into question the importance of traumatism in the aetiology of neurosis. But why did Freud, beginning from this point, centre his explanatory model on sexual trauma? Are the reasons empirical and based on the cases that he listed, as Breuer appears to confirm in an article they co-authored? This type of induction remains risky and provisional. Do the reasons also relate more to his intellectual orientations? This second hypothesis is corroborated by the ideas of his time according to which sexual traumatism produced memories that could liberate emotions greater than those of event itself. (Andersson, 1997) However these two hypotheses are not enough to justify the systematic nature of the link that Freud developed between mental pathologies and trauma and practices of a sexual nature. But a further and without any doubt major dispositional factor must be added to these, and that is his fascination with the theory of evolution. Thus he writes in 1925 in the opening pages of autobiography, that "Darwin's doctrine which was then in the news had a powerful effect on me, because it promised an extraordinary step forward in the understanding of the world" (Freud, 1925, 1984, p.16). It can be argued that this discovery of the foundations of the human condition led Freud to hope that he would be able to find the "key" to the mysteries of the unconscious, with aggression and sexuality playing a central role in the struggle for survival. But from a scientific viewpoint, all of these factors should have raised questions for Freud. Yet in Freud's doctrine sexual theory exhibits two significant features: it is systematic, and hermetically sealed against counter-examples. Put differently, it constitutes a doctrinal point seen as an unchallengeable truth, or what would be defined as a dogma, as Jung says about it. Doctrinal dogmatism is the counterpart, in scientific thought, of the sacred principles of religious thinking. Now if one believes that something is sacred, Freud thought, this is because one has a strong suspicion that there is something very impious to be hidden. (Jung, 1960, p. 399-400)

Doctrinal systematicity

Freudian interpretation works through an interpretative reversal between the conscious morality of individuals and the amorality of the impulses that they are supposed to be concealing. Illness is the price paid by the psyche in order to resolve an inner conflict. This general idea leads one to suspect, through neurosis, that there are impulses that are quite shameful to the conscience, and all the more so where individuals adhere to the strictest of moral precepts. There is thus a direct path that leads from the psychic troubles of the individual to sexual and aggressive impulses. According to Freud neurotic symptoms are *essentially* substitutes for the satisfaction of unfulfilled sexual desires. When an instinctive impulse is repressed, its libidinal elements are changed into symptoms, its aggressive elements into feelings of guilt. The wish for the death of a beloved person is replaced by the fear of seeing this person die. By demonstrating a tender altruism, the neurosis is only compensating for the opposing feeling that is at its source and which is one of stark egotism. Every one of those people who is so taken with a higher morality, explains Freud, has experienced a period of nastiness in childhood, a phase of perversion that prepares for and heralds the later superego phase. In *Civilisation and its discontents* (1929) Freud summarises what psychoanalysis teaches us about human nature, writing that "men are not gentle creatures who want to be loved...they are on the contrary creatures among whose instinctual endowments is to be reckoned a powerful share of aggressiveness." They are tempted to satisfy their need for aggression on their neighbour, "to exploit his capacity for work without compensation, to use him sexually without his consent, to seize his possessions, to humiliate him, to cause him pain, to torture and to kill him." (Freud, 1981, p. 64) The imposed ideal of loving your neighbour as yourself is justified precisely by the fact that nothing is more contrary to basic human nature.(Freud, 1981, p.66) There is no natural or intuitive faculty that could be explained by the fact that evil is a threat to the survival of the ego because it represents, on the contrary, what is desirable and enjoyable. (Freud, 1981, p.80). One of the most famous inversions used by Freud is that where he transforms the pure image of childhood by bringing the idea of sexuality into it. This demystification of childhood comes to counter what

Freud sees as one of greatest prejudices of humanity, that of its innocence (Freud, 1984, p. 56).

The inversion of the sublime into the horrible is carried out in a most thoroughgoing manner in the psychoanalytical approach to art. An enlightened critique of it was set out in 1925 by the Russian psychologist Lev Vygotsky in his fine thesis on the psychology of art (Vygotsky, 1925 2005).

Freud explains, in his *Creative Writers and daydreaming*, that fantasy, poetic creativity and dreams are generated by unsatisfied wishes and aim at their satisfaction. If they are hidden it is because these are "wishes of which we are ashamed; these we must conceal from ourselves, and they have consequently been repressed, pushed into the unconscious". The psychoanalysts claimed in all seriousness, remarks Vygotsky who cannot understand their predilection for deriving all urges from a single source, "That if Shakespeare and Dostoïevski did not become criminals, it was because they represented murders in their works and that this freed them from their criminal inclinations." Artists, according to Otto Rank, "belong to the pioneers of humanity in the fight to tame and ennoble anti-cultural sexual impulses." (Vygotsky, 2005, [1925]). The practical applications of psychoanalysis reveal, according to Vygotsky, the sterility of the approach from the viewpoint of social psychology. On the subject of his study of Leonardo da Vinci, the Russian psychologist notes that Freud tries to deduce the whole future of the man, and all of his work, from the main childhood experiences of the first years of his life, claiming that he wants to demonstrate how artistic activity derives from the original psychological impulses, and at the end of his study, acknowledges that the "certainty" of his results cannot be overestimated. For his part Jung cites this study by Freud as a confirmation that his latent social mission was accomplished at the expense of scientific exactitude.

Closure to falsifying principles

Freud does not accept any attack on the integrity of his theory even when facts and scientific developments seem to argue against it. A first example is

the difficulty in extrapolating Freudian interpretations to different societies as neurosis is present among peoples and individuals who have no problems from the point of view of the precepts and prohibitions that are part of the social life to which Freud refers. Jung emphasises how the role played by the Victorian socio-cultural context in the theory of neurosis makes the scientific nature of the theory open to question (Jung, 1960). We could also mention the case of the war neuroses that were grist to the mill of Freud's adversaries who saw them as a denial of the hypotheses of psychoanalysis, as sexual factors are not the only ones responsible for neurotic ailments. But here, according to Freud, "this is just a premature and trivial triumph"; since as no deep analysis of a case of war neurosis had been carried out, one could only conjecture on their motivations to draw conclusions. (Freud, 1984, [1925]: 92)

Religion in the sights

When Freud realised that his patients were inventing their infantile traumatic experiences, he called on heredity to explain neurosis: the heredity of the species. He did not depart from the unilaterality of his interpretation, even if it meant moving from individual traumatism to the collective traumatism supposed to be involved in the development of the individual through a recapitulation of the development of the species^{vi}.

Thus Freud explains the phylogenetic origins of the Oedipus complex in terms of an analysis of totemism. His interpretation is based on a combination of the two taboos that regulate totemism: "don't kill the totem" and "don't have sexual relations with women of the same totemic clan", with the two themes of the Oedipus complex: "kill the father" and "marry the mother". Freud bases his argument on Darwin's hypothesis that man had originally lived in a primal horde where everybody was under the domination of a single powerful male, who was violent and jealous. He thus imagined the following scenario: the father of the primal horde claimed all the women as his own, and killed or chased away all of his rival sons. One day, the sons got together and killed and then ate the father, because they were primitive cannibals, which put an end to the

existence of the paternal horde. Feeling remorse for their deed, they joined together in a clan of brothers under the rules of totemism, which should exclude the possibility of any renewal of the same situation, and all renounced the possession of women, which had been at stake in the murder of the father. As they were now no longer rivals, they learned how to get on with each other. Hence the social organisation of humanity became possible, with all its implied moral and religious restrictions. The scenario set out by Freud resembles a mythological epic. We could add that it is proposed as a substitute for the myth of the garden of Eden in Genesis, offering an inverted and diabolical version of the origins of mankind and original sin. Jung even goes so far as to compare Freud to an Old Testament prophet, destroying false idols and pitilessly laying bare the corruption of the contemporary soul. This epic is meant to be a social scenario that would have been repeated sufficiently often as to become transmitted hereditarily and belongs to the genetic heritage of mankind. Moral and religious and social restrictions were the sources of the psychic conflict illustrated by the Oedipus complex that expresses instinctive drives that come from the genetic inheritance of a real scenario. Right up to the end of his life, Freud firmly believed in the Lamarckian theory of the transmission of acquired characteristics. Once he was aware of the non-confirmation of the hypotheses of this theory, he "postulated" a phylogenetic explanation "for psychological reasons" that make manifest for us the circularity of his scientific argumentation. He died before recapitulation theory became totally discredited. (Ritvo, 1990)

These factors corroborate the hypothesis that the dogmatic kernel of Freudian theory aimed at a restructuring of consciousness, in a society at odds notably with the repression of sexuality. This is the thesis put forward by Jung and discussed here. The scientific aim that Freud continually placed in the foreground performed a cultural task at the expense of a real theory. "Nowadays", writes Jung, "the voice of the man who speaks in the desert must take on scientific accents if it wants to reach the ear of his contemporaries. The world must be shown that it is science that has led to such results." (Jung, 1960: 402) Was Freud not aware of

the domination of this historico-cultural mission over his scientific work? That was Jung's view. The answer to this question is not within the scope of this article. We can only remark that evolutionism was an inspiration in the human sciences for models based on the postulate of natural laws that provided an ultimately mistaken philosophical systematicity to the approaches in which they were involved.^{vii}

Bourdieu

The political-cultural mission

Bourdieu's enterprise is comparable, on a historico-cultural level, to that of Freud. It is also based on a constitutive naturalism fairly summarily argued by the great French sociologist who does not pretend to be developing, properly speaking, a genetic psychology of the social actor. If a parallel should need to be drawn between the role played by sexual theory in Freudian doctrine, the theory of habitus would take its place as the dogma around which Bourdieusian theory is built. The concept of habitus as it is defined by Bourdieu is no longer regarded as unchallengeable by some of his disciples.(Corcuff, 2003) Although its gradual softening might permit work inspired by Bourdieusian theory to gain in scientific weight, it undermines the theory as such, and inevitably does this at the cost of a reduction in the specifically cultural and axiological influence of the Bourdieusian interpretative system.

Bourdieusian theory, as well as a whole body of studies using the structuralist, culturalist and neo-marxist systems of interpretation that appeared in western human sciences in the 1960s and 1970s, played a politico-cultural role, one that is comparable to that which Jung attributed to sexual theory in the post-Victorian period. Sociology and the human sciences more generally have worked for a reform of consciousness at a crucial point when post-war economic expansion allowed major social change, particularly in the expansion of educational opportunity in society. The Bourdieusian theoretical system is one of the most successfully developed of those that appeared in this period. But Bourdieusian theory,

which seeks to reveal an aspect of human nature that is presented as a law of social life, is dominated by the political-cultural task that it performs. The issue is once more a reform in consciousness. Bourdieu develops a radical critique of culture with the aim of denouncing false relationships and destroying social fetters. He shows how one can understand what creates social esteem in a quite different way. His theory is part of the emancipation movement of modern man by the radical relativisation of his values. His interest is polemical. Like Freud, Bourdieu wants to reveal the dark and hidden side of human action, within social space. It is relationships of interest, shared between forms of domination and submission, that are its basic structuration.

Constitutive naturalism and interpretive monism

Bourdieu draws on the long term development of social forms and the struggles between social groups to account for the inherent tendencies of human nature. The relational structures that link social objects together are the outcomes of a gradual process of differentiation in society. They define different relatively autonomous "fields" in "social space" that are the sites of specific forms of interest: "In a field agents and institutions fight (*lutter*), according to the rules and regulations that are constitutive of this field of struggle (...) with varying degrees of strength, and as a result, varying possibilities of success, so as to appropriate to themselves the specific profits which are at stake in the game." (Bourdieu, 1992: 72-78).

The struggles of interests in social space occur through the organisation of symbolic systems. The arbitrary nature of the social order cannot be better expressed since it is suspended from symbolic systems, and thus relationships of meaning that are themselves merely the products of power relations. The symbolic order masks the reality of power relations, much as in psychoanalysis the basic drives undergo transpositions that hide their true sources from individuals. But whereas Freudian theory is rooted in a naturalism of the innate, that evokes the distant genetic heritage of the species, Bourdieusian theory is concerned with the social nature of man, developed through social learning. This is where the central notion of

habitus intervenes. Habitus represents a supposedly stable system of schemas of perception of thought and action, playing the role of operators connecting social structures and individual actions through the intermediary of the incorporation of symbolic systems. Habitus, as a "structuring and structured structure" is engaged in the "practices and thoughts of the practical schemas stemming from incorporation across the historical process of socialisation - ontogenesis — and of social structures themselves stemming from the historical work of successive generations — phylogenesis". (Bourdieu, 1992, 113) He identifies "the problem of the genesis of the socialised biological individual", with that of "some social conditions of learning and acquisition of the generative structures of preferences that make up habitus in the form of the incorporated social". Yet, for certain logical reasons according to him, this process is relatively irreversible: all stimuli and all conditioning experiences are at any given moment perceived through pre-existing categories constructed by prior experience. This explains the importance of original experiences and, consequently, a relative closure of the system of dispositions that are constitutive of habitus. Common sense tends, through its incorporation of symbolic relations by habitus, to treat as real the meanings that refer to the basically relational characteristics of the components of reality.

Radical critique of culture

The symbolic foundations of social life explain why certain members of society, who make up the dominant class and because they make up this class, have the power to impose their interests on the other members of society, and thus in consequence form the dominated class. Indeed they exercise this power by imposing their reality as *the* reality. They are assumed to impose their *meanings* on the other members of society. The culture of the "dominant classes" thus legitimates an arbitrary social order. It is the vehicle of the categories of perception and thought which predefine thinking about reality, and transpose the arbitrary structure of social relations in an unrecognizable form. As a result it is able to pass as natural in the eyes of

social actors. Thus nothing legitimates the social order: it is based on power relationships, transposed by culture into relationships of meaning.

These relationships of meaning are what is at stake in social action. Its deeper bases are concerned, in Bourdieusian theory, with the creation and maintenance of these symbolic power relations. One cannot help thinking of Freud and his explanation that the basis of any action, however wonderful it may appear, and particularly so if it appears to be sublime, is an unsated lust. Bourdieu emphasised that in this respect he was not being cynical in claiming that "on the question of how to know whether virtue is possible, one can substitute the question of how to know if it is possible to create universes in which people have an interest in the universal". These are forms of oppression whose real stakes are unknown to social agents, who are marked by the idea of symbolic violence as willingly concealed within affective relations: "One of the effects of symbolic violence is the transfiguration of relations of dominance and of submission into affective relations, the transformation of power into charisma or charm likely to create affective enchantment" (Bourdieu, 1994: 165, 189).

Habitus does not presuppose any determinism, any mechanics of action, but a logic of the organism that operates in a systematic and durable way. It is the linchpin of the system, a postulate nonetheless, and inalienable because it does not form the independent bedrock of the theory, inferred for sociological reasons, thus closing it on itself and providing its well-known political-cultural force. As with Freud, in the end, Bourdieu does not herald any fundamental transformation of what man is, at base, but the progress that is possible through his knowledge: "Determined (deprivation), man can experience his determinations (greatness) and work to surmount them." (Bourdieu, 1997:156-7)

Marx

The political-cultural mission

Marxism has often been described as a "secular theodicy" or as an ideology that uses science as part of its marketing for ethical and political

ends.(Christen, 1981: 225) We will not return to this question except to observe, in the work of Marx and Engels and its relationship with research on the development of human biology, the search for a general and suprahistoric meaning in human evolution. In other words although one can observe a rhetorical, purely analogical and even manipulative use of scientific results in the relationship of the founders of Marxism with science, there is also to be seen a more profound interpretive undertaking concerning the future of humanity in the service of concrete social change. It is not a matter here of revealing the dark side of human action that is to be found behind the veil of illusion erected by the forms of social life, as in the case of the work of Freud and Bourdieu. The human motives that are unearthed are not founded in the end on the heredity of the species but on the formation of human consciousness by its environment. Naturalism will potentially be called upon, though not to provide evidence of the facticity of the social constructs that mask a human reality that is determined by its origins, but rather to demonstrate the malleability of this nature. Human progress relies then on man's power to change the circumstances that inform his nature; if the consciousness of man is a product determined by his circumstances, then to change these circumstances is to change man. The change that is proposed will be more radical as the links between man and his circumstances are thought of as more univocal. If naturalism must serve the politico-cultural project of Marxian thought, it is in showing the deterministic role of circumstances. The developmental models that it inspires will thus be evaluated not in terms of their scientific values but of how well they conform with Marxian interpretation.

The law of the formation of human consciousness

Marx is not a theorist of naturalism. The relationship between his views and the Darwinian model is a distant one. For both Marx and Engels men begin to distinguish themselves from animals as soon as they begin to *produce* their means of subsistence. There is a break between human and natural development that comes about through the mediation of tools. Moreover Marx does not rely upon any psychology as such. Nonetheless

Marxist doctrine is constitutively naturalist through the basic conception in which man's consciousness is his environment: "It is not the consciousness of men that determines their existence, but their social existence that determines their consciousness." (Marx, 1859) The tool, although it marks a turning point in human evolution, and although it changes its fundamental modalities, does not intervene in the constitutive connection between circumstances and human reality. On the contrary, it is because man "self-produces" himself by producing that the organisation of labour determines his consciousness. This is why the division of labour, by limiting the potentialities of human accomplishment through the defined place occupied within the production system, is held to be the source of the degradation of the human person. The determinist link between social being and human consciousness is an hypothesis which, although is not explicitly based on a biological argument is nonetheless of a naturalistic type.

The law of the development of human history

On the 24th September 1859 *The Origin of Species* was published in London. Less than three weeks later an enthusiastic Engels writes to Marx about it and draws two general consequences from his reading of the book, the disappearance of teleology and the historical evolution of nature: "Darwin, by the way, whom I'm reading just now, is absolutely splendid. There was one aspect of teleology that had yet to be demolished, and that has now been done. Never before has so grandiose an attempt been made to demonstrate historical evolution in Nature, and certainly never to such good effect." (Marx and Engels, 1983: 550) Marx replied a year later to say that Darwin's is "the book which contains the basis in natural history for our view." (Marx and Engels, 1985: 233) and also wrote to Lassalle to say that this "book is very important and serves me as a basis in natural science for the class struggle in history". (Marx and Engels, 1985: 245) The foundation supplied by the theory of the struggle for life did not refer back to biological and genetic premises, but historical-cultural ones that were, according to Marx, an ideological context capable of supporting his own ideas. In the eyes of Marx, Darwin saw in nature what social relations in England together with his

cultural dispositions, allowed him to see. (Marx and Engels, 1985: 380) Darwinian theory established the role of struggle in the development of nature, not as much scientifically as ideologically. Neither Marx nor Engels stopped at the process at the heart of the theory, that of the struggle for life and natural selection. What took pride of place for both philosophers was the "mortal blow" delivered to teleology; Referring to the 18th century, Engels writes that "the highest general idea to which this natural science attained was that of the purposiveness of the arrangements of nature, the shallow teleology of Wolff, according to which cats were created to eat mice, mice to be eaten by cats, and the whole of nature to testify to the wisdom of the creator." (Engels, 1941 [1883]: 33-34) After Darwin no supra-historical intelligence, no predestined design could dominate the natural and human order which would justify and account for a specific purpose defined by natural dispositions. But the theory of the struggle for life shed light on the natural order in a particular way that concealed the forms of symbiosis underlying the development of species. It did not make it possible to account for human evolution once the production of commodities by man, and the internal cooperation of groups, changed the purposes of struggles and the associated forms of solidarity. (Marx and Engels, 1936 [1875]: 437-442)^{viii} This was the source of the gross error of the Darwinists, according to Marx, who having recognised in the world of animal and vegetative life a law inspired by "the struggle for life in English society", conversely, considers this "a conclusive reason for human society never to emancipate itself from its bestiality". (Marx and Engels, 1988 [1869]:216) On the contrary, human development properly speaking was not rooted in the struggle of all against all, in general competition within the species, but in cooperation, which leads to Engels to say that "the social instinct was one of the most essential levers of the evolution of man from the ape". (Marx and Engels, 1936 [1875]: 437-442)^{ix} What came in second place for the two philosophers was the idea of historical development in nature: "Just as Darwin discovered the law of development of organic nature, so Marx discovered the law of development of human history" declared Engels at Marx's funeral in 1883. To their eyes, the importance of Darwin's work lay not so much in the processes that it

brought to light, but in the very energization of the future of natural and human evolution such that it was possible to envisage the perfectibility of man.

From this point onwards Marx's infatuation with Trémaux's theories becomes more understandable, something that the history of Marxian ideas has tended to conceal. After the publication of book titled *Origine et transformation de l'homme et des autres êtres* by the latter, Marx wrote to Engels in 1866 that "it represents a *very significant* advance over Darwin [...]In its historical and political applications far more significant and pregnant than Darwin." (Marx and Engels, 1988: 303) Marx also quotes Trémaux's conclusions on the determination of human characteristics by geological factors: "If not comprehended by the great laws of nature, man's undertakings are but calamities, [...] The same soil will give rise to the same character and the same qualities." (Marx and Engels, 1988: 303) Trémaux's book claimed to set forth "the great law of the improvement of beings", based on his observations as a traveller, establishing causal relationships between geological history, soil quality and improvement. "The perfection of beings is or becomes proportional to the degree of improvement of the soil (*sol*) on which they live, and soil is generally in better condition the "more recent" is the geological formation to which it belongs" (Trémaux, 1865: 117). Whilst even Engels tried to reason with Marx about the nullity of Trémaux's thesis "The book is utterly worthless, pure theorising in defiance of all the facts, and for each piece of evidence it cites it should itself first provide evidence in turn" (Marx and Engels, 1988: 320), Marx maintained his position, replying that "Trémaux's basic idea about the *influence of the soil* [...] is, in my opinion, an idea which needs only to be *formulated* to acquire permanent scientific status, and that quite independently of the way Trémaux presents it." (Marx and Engels, 1987: 321) We have no reason to suppose that Marx ever revised his position despite Engels's more careful reading, although the latter did not criticize Trémaux's theory on the influence of the soil on human development. (Christen, 1981: 58) Engels indeed, in writing to Marx grants that Trémaux "deserves credit for having emphasised the effect of the

'soil' on the evolution of races and logically of species as well". (Marx and Engels, 1987: 322)

What Marx admires in the first instance in Trémaux is the overturning of the explanatory principles between human reality and milieu. He sees Trémaux's theory as being an advance in this respect over that of Darwin. The Lamarckianism of Trémaux (in the modern sense of the word, attached to the transformational role of the environment)^x was in better agreement with a reformation of consciousness through a change of circumstances than the theory of natural selection (Christen, 1983: 55-56). What had convinced Marx in Trémaux's work comes down to a general idea that offers a new vision of human development, although of a profoundly racist nature when it is associated with the idea of progress, that of the determining role of any material base. (Lecourt, 1983: 227-249) Such a base in Trémaux's work disregards the essential mediation effected by work on nature in the writings of Marx and Engels - (Engels, 1941 [1883]: 255)^{xi}. But another idea attracted Marx, that of historical progress: "Progress, which Darwin regards as purely accidental, is essential here on the basis of the stages of the earth's development, *dégénérescence*, which Darwin cannot explain, is straightforward here [...]" (Marx and Engels, 1987: 303)

The economic organisation of work in the sights

The celebration of the putting to death of teleology by Darwin and the joint celebration of the determined meaning of natural development in Trémaux's work do seem to be contradictory. To explain the twin celebrations, we must look again at the dominant Marxian project. For Marx, the determinism of the material base that constituted the tenuous relationship between his ideas and the theory of Trémaux, was closely linked to the idea of historical development, which was the most powerful reason for his infatuation with Trémaux. Now determinism, human malleability and progress are three ideas that satisfy Marxian views if they are understood as making it possible for man to become master of his destiny: "The materialist doctrine concerning the changing of circumstances and upbringing forgets that

circumstances are changed by men." (Marx, 1888, [1845]) The constitutive naturalism of the theory, that ties human consciousness to its milieu, is the lever of concrete social change on the understanding that only an effective change of circumstances will make the reform of consciousness promised by Marxist doctrine possible.

Lévi-Strauss

The societal-cultural mission

There has not been much research into what gave rise to the influence of Lévi-Strauss's work beyond the confines of the academic world: "The extraordinary match between his discourse and his epoch cannot be explained by the scientific natures of his analyses alone [...] his analyses have profoundly shaped those of international political leaders of UNESCO as much of those of many public figures throughout the world." (Pajon, 2011: 12) Although the political dimension of the thought of Lévi-Strauss is little known, it seems to have been primordial in his career. Before the war he was a militant, an organiser, and an orator with a profound ambition: to be the "thinker of the socialist party" and the author of a metaphysics at the service of the revolution. Whilst the disappointments of 1936, Brazil, the war and his American exile confirmed him in his abandonment of militantism, they in no way proved to be the end of his metaphysical ambitions. The view taken by Lévi-Strauss on western civilization subscribed to a marxian interpretive schema, applying the dominant/dominated dichotomy at the heart of his work: primitive societies/civilized societies. In a context where Third-World-ism was in its growth phase, the societal-cultural mission that he pursued served the theory of decolonisation.

Throughout all of his work Lévi-Strauss maintained a dialogue with the Marxism that had fed his political convictions. From Freud he took the idea that the history of the structuring of the human psyche conferred a primary explanatory role on the unconsciousness; and beyond the idea of the unconscious the confirmation already learned from Marx is that "consciousness is always deceiving itself; and especially that behind the

arbitrary and the apparent irrationality of some creations of the mind, it is possible to discover a meaning."(Lévi-Strauss, 1977: 201-2) From Marx, he claimed to have retained the idea that "ideology" is a product of the relations of men amongst themselves and of their relationships with the world, "that the ideology of any society becomes comprehensible only in light of the concrete relations which the men of this society maintain among themselves and with the world in which they live and work" - even though he understands the meanings of these relations as more moral than economic. Basing himself on the Marxian distinction between base and superstructure, Lévi-Strauss presents his approach as a contribution to the theory of superstructures : the discovery of a principle that makes it possible to integrate them all. (Lévi-Strauss and Kussell, 1971:44-50)

The search for a single principle that is at the basis of symbolic thought heralds the interpretative monism of Lévi-Strauss. We will try to show that it takes on the same type of moral mission as the work of Freud. By scrutinizing the origins of mankind it would make it possible to exhume not simply the a-social instinctual emotions, but on the contrary the essential sources of sociability. Mankind was born, with society itself, out of the obligation to exchange. One could not be more opposed to Freud on this point, and for good reason. If sexual desire and its repression irreparably structure the relations of individuals with each other and themselves, what Lévi-Strauss fundamentally contests in Freud, then nothing, no future circumstance would be able to reconcile man with himself, with his alter ego.

In an article published in 1953, "Panorama of Ethnology 1950-52", Lévi-Strauss set out the aim of his project in structural anthropology: to build a global and scientific theory that would serve the affirmation of a new humanism and a new morality: "While the modern movement is more ambitious in its scope, it is not essentially different in its methods. Ethnology always concerns itself with the understanding of man through a comparative study of a vast number of human experiences. [...] Never has an ambition so high been so consciously formulated by a single discipline. For ethnology is nothing less than an effort to explain the complete man by means of studying the whole social experience of man." (Lévi-Strauss, 1953)

In his writings and interviews, Lévi-Strauss blamed the falsified ideals of the Enlightenment and of classical humanism, since for him they had betrayed the distorted consciousness of those who, in coming from the "dominant" cultures could only think of human progress through the extension of the conceptions that came from their own social experience to the "dominated" cultures. Thus, in his inaugural lecture as the chair of social anthropology at the Collège de France in 1960, he defined anthropology as "an enterprise, both renewing and atoning for the Renaissance, to spread humanism to all humanity."

Towards a new humanism or the fundamental laws of the social mind

Much as communist society allows man to have access to a total humanity, because he can vary his experiences as he wishes, and thus escape the intellectual myopia of people confined to a specific occupation, structural anthropology works towards providing man with a full and complete consciousness of his humanity by unearthing the intellectual structures that generate all his cultural and social experiences. Lévi-Strauss states in *La Pensée sauvage* that ideological changes cannot generate social changes, that the opposite order is the only true one, but that a theory of superstructures demands that they should be given careful attention for reasons of method. Nonetheless by researching the basic logic of the human mind, across the diversity of cultural formations, structural anthropology pursues a goal that is both pedagogic and moral. (Lévi-Strauss, 1958: 28)^{xii}

The naturalism that runs throughout the work of Lévi-Strauss plays a different role to that in Marxism, linking constitutively consciousness and circumstances. Through the concept of the structural unconscious, Lévi-Straussian naturalism links culture and nature constitutively. Through this constitutive link, it guarantees that man in general, natural and immanent in different cultural formations, is what human consciousness should reappropriate for itself. The naturalism of the structural anthropologist ensures that the abstraction process that is thus put into operation so as to excavate the essence of man is not a simple one of scientific modelling, but reveals real structures that are a priori general forms that apply to different

contents of experience. These structures are assumed to regulate the unconscious relations that govern human mental life, primitive as well as modern: "it is necessary and sufficient to grasp the unconscious structure underlying each institution and each custom, in order to obtain a principle of interpretation valid for other institutions and other customs, provided of course that the analysis is carried far enough."

The rejection of any reference to an essence so as to consider only relations, is characteristic of the object of structural analysis, and aims to ensure its universality. This latter represents a functional whole, a system whose parts are considered "as synchronic wholes". The idea of applying structural analysis to anthropology was suggested to Lévi-Strauss by developments in linguistics. In this perspective, he defined culture whether it existed in language, kinship rules, myths, art, economy as a set of symbolic systems: "Without reducing society or culture to language, we can initiate this 'Copernican revolution' [as Haudricourt and Granai call it] which will consist of interpreting society, as a whole, through a theory of communication." Lévi-Strauss, 1958:95)

The aim of structural anthropology is to discover the unconscious structures of symbolic thought. Consciousness is only a receptacle for the clashes and conflicts between "competing orders of an organic, intellectual or social nature". By basing the intelligibility of the human element on an unconscious system that remains outside any form of capture, making humanity into the "absolute zero" of a specific science of nature, structuralism borders on being the negation of any anthropology. (Simonis, 1978: 77, 338) By doing so, it remains coherent with the a-historicity of total man that Lévi-Straussian humanism attempts to circumscribe.

Prohibition of incest as social contract

On publication, *Les Structures élémentaires de la Parenté* (*The Elementary Structures of Kinship*) was described as "the most important book in anthropology of its generation", whose contribution to social organisation could be compared to that *The Origin of Species* to biology. (*American Anthropologist*, 1950: 392-393) The future of the theory developed in the

book, inspired by the formulation of a unique generator of social life, would not however confirm the pertinence of this comparison. Thirty five years earlier Freud had imagined that the murder of the father of the primal horde explained the transition from nature to culture through the appearance of moral and religious norms. Lévi-Strauss had also constructed a myth where the prohibition of incest seemed to be the founding moment of society. Like Freud he was thinking about a human universal, working beneath consciousness but against it, defined for him by moral Rule, and not separated from it.

Lévi-Strauss used the following reasoning: what is universal in man is concerned with nature and is characterised by spontaneity; what is subject to a norm belongs to culture and has the attributes of the relative and particular; the prohibition of incest is part of both the order of nature and the order of culture: it is a social rule and the only one that may be universal (incest does not refer necessarily to the biological parents, but to persons linked to each other through the terms "father", "mother", "sister", etc.) (Lévi-Strauss, 1948: 64,65) The prohibition of incest is thus a key element of the transformation from nature to culture (Lévi-Strauss, 1948: 99). According to Lévi-Strauss's central thesis, it establishes humanity not through what it forbids, but through what it requires: exogamy and the exchange of women.

By moving the cursor of human history to the moment closest to the advent of culture, to try to grasp the essence of humanity, anthropology is able to confront psychoanalysis on its own terrain: "Natural man did not precede society, nor is he outside it." wrote Lévi-Strauss in *Tristes tropiques*, expressing the moral meaning of the structural enterprise, "it is our task to find its shape, immanent in the social state, and beyond which the human condition is inconceivable." (Lévi-Strauss, 1955: 392)

Commentators on Lévi-Strauss recognise that the abundant use he makes of the dichotomy nature/culture in his work is a type of fiction analogous to that of the *Contrat social*. Like Rousseau and Thomas Hobbes before him, Lévi-Strauss has recourse to an imaginary state of nature in order to build a general theory about the functioning of human societies. The exchange that is introduced as result of the prohibition of incest puts an end to the state of

permanent war that preceded the advent of societies. (Descola, 2008) For the Lévi-Strauss of *Structures élémentaires de la parenté*, a sort of Big Bang^{xiii} (Godelier, 2004) gave birth to language and as a result to exchange, and as a result of that to society, and in correlative way, to the kinship relations through which the exchange of women is organised.

Why women? This point was the source of fierce critiques by feminist anthropologists who saw it as a naturalisation of male domination, and its inscription in the unconscious structures of symbolic thinking (Godelier, 2004: 30, 552 and Reiter, 1975). Lévi-Strauss selected, from the three modes of exchange that exist or have existed (exchange of women by men, exchange of men by women, and much more frequent, the mutual giving of sons and daughters, Godelier, 2004: 180-1) only one of them. Why? Did he ignore some social variants when he wrote that "The emergence of symbolic thought must have required that women, like words, should be things that were exchanged"? Did he take this scenario to be primary? Whether it was women, men, or sons and daughters does not affect the exchange thesis, but it is that which counts for him on the scientific level. By contrast, on a symbolic level he is not indifferent to the fact that it is a matter of women. They represent goods, "valuables *par excellence*", the perpetuation even of life itself. The fact that exchange concerns women gives a mythical dimension to the scenario of the birth of society.

Lévi-Strauss also uses another questionable hypothesis, the idea that incest is widespread in nature. He relied upon the science of his time in writing that "the social life of monkeys does not lend itself to the formulation of any norm in the domain of sexual life". But when new findings were announced, (Bischof, 1972: 7) he maintained that the prohibition of incest does not have its roots in "Nature". The demand for a Rule coming from an innate mental structure is of course close to a formulation in biological terms, (Kortmulder, 1968: 437-449) but if the Rule in question is one inherited from the animal world it no longer is possible to base the advent of society on exchange. Lévi-Strauss suggests, potentially with some justification, that the processes that are responsible for the rarity of incest

among the great apes and other species are not linked to incest itself. (Godelier, 2004: 565).^{xiv}

Another hypothesis, however, brings down the house of cards. This is that our ancestors grouped together in "biological families, closed within themselves". Because of a primary asociality due to the absence of language, Lévi-Strauss thought, the members of these biological families could only unite among themselves and thus live in a world dominated by ties of consanguinity. (Godelier, 2004: 544) The reasoning is circular in that it establishes causal relationships between language, inter-family exchange, prohibition of incest, on the basis of the postulated relationships between absence of language, closure of biological families on themselves, and ties of consanguinity. Lévi-Strauss takes the same wrong line as Freud had done to support his theory. As Godelier notes, in this respect he takes the second hypothesis formulated by Darwin. Yet it was the first hypothesis that proved to be correct. As our animal ancestors formed into multi-male and multi-female bands that thus constituted alliances, the incest taboo cannot consequently be invoked as the source of the interfamily exchange with the coming of language.

Finally, if the explanation of the meaning of the prohibition of incest by Lévi-Strauss cannot be maintained, this is because he challenges a basic dimension of human relations, to the extent that he puts his interpretation at the service of a new conception of human nature. He obliterates ties of descent to place ties of affinity at the centre. He imagines that what brought humanity out of the state of nature and enables the coming of culture was alliance, rather than consanguinity. This view does not prevail. Godelier shows that in all societies "a man and a woman are not enough to make a child", putting into play other agents who transform the foetus that the human beings make into a child who will take its place in the cosmos and in society. In other words forms of descent are as cultural as those of alliance. Against the unilaterality of the foundations of Culture in the work of Lévi-Strauss, Godelier offers a contrary and dual interpretation that puts transmission into play alongside exchange: "it is precisely the forms of the non-reciprocal gifts that Lévi-Strauss has — willingly or not — left in the

dark, stricken with non-existence, in the same way as he leaves in the dark the axis of descent and filiation so as to put forward and privilege the axis of alliance and affinity." (Godelier, 2004: 573, 554-5) Resolution of the problem of the prohibition of incest can progress from this point and interest itself in the specificity of familial ties.^{xv}

The critique of civilisation and progress

In order to contest the human penchant for thinking that "Humanity is confined to the borders of the tribe, the linguistic group, or even, in some instances, to the village, so that many so-called primitive peoples describe themselves as 'the men' (or sometimes — though hardly more discreetly — as 'the good', 'the excellent', 'the well-achieved')," (Lévi-Strauss, 1952: 12), anthropologists are able to extend human social experience in theory - at least where they cannot do it in practice. Their work is in this respect pedagogic, since they can hope to converse with Eskimos in the morning, Australian aborigines in the afternoon, Bororo Indians in the evening, and with westerners after supper, without ever becoming an Eskimo, Aborigine, Indian or westerner.

From 1952, after the publication of his slim volume *Race and History* commissioned by UNESCO, cultural relativism was associated with the name of Lévi-Strauss and was for half a century the main theme of methodology and professional ethics in ethnology, as notes the ethnographer Michel Panoff. (Panoff, 1993)

Lévi-Strauss had not only challenged any hierarchy of cultures, he had also striven to demonstrate their equality, especially in regard of approaches that placed "dominated" cultures (called primitive) in an *a priori* inferior position in relation to "dominant" cultures (western culture in particular). Where the first position installed a salutary axiological neutrality, the second was located on the very terrain that was the object of his critique, and *it was evaluative*. More worryingly, by thinking that he could get closer to the pure forms of the mind through the study of the logics that structured human activity in primitive societies, Lévi-Strauss was led to see amongst the members of primitive societies the original qualities that were the object of

his scientific-philosophical quest - in ways that remind us of the Rousseau of *Discours sur l'origine et les fondements de l'inégalité parmi les hommes*. The fight against ethnocentrism was his war horse, but he tended to invert the bases of its own logic, to over-value the so-called "dominated" primitive cultures to the detriment of western society.

If for example the coming of speech marked the appearance of the exchange society for him, that of writing — on the contrary — was a means for the "creation of hierarchical societies, composed of masters and slaves, using some part of their populations to work for the profit of the other part". (Charbonnier, 1961: 32, 191)^{xvi} This (manifest) debasement of humanity is seen expressed at the level of art. With writing, art is detached from the community where it is a "system of communication, functioning at a group level", and becomes to some extent "the thing of a minority that is looking for an instrument or means of private pleasure". (charbonnier, 1961: 32, 74, 191)

The moral, societal-cultural mission pursued by Lévi-Strauss was something that had also been evident to those who were adepts of the heritage of the Enlightenment, according to *Race and History*. The central argument of the little book, that it is a remnant of barbarism to call barbarian anything that is not one's own, was pushed to the extremes of iniquity, argued the anthropologist and writer Roger Caillois (Caillois, 1955: 64-76), because it led to nothing less than calling the Greeks and Chinese barbarians par excellence "to the degree that they defined themselves as civilised in relation to the surrounding barbarism above which it was after all to their credit and their glory to have hauled themselves". More serious, notes Caillois, is the definition of the basic features of western civilization, taken by Lévi-Strauss from Leslie White: growth in the amount of energy available by head of population and extension of life expectancy. Industry and hygiene are placed at the forefront, to the detriment of science and morality — evidently a major omission because in these two dimensions more than any other the question of human progress was concentrated. By arguing that all peoples have brought the same ingenuity to play in producing equivalent inventions – without regard to the differences in the

intellectual capital and effort expended in rigorous investigation — Lévi-Strauss could praise Australians on the basis of their inextricable kinship ties for the foundation of general sociology, etc. This made transparent a spiteful anger that Caillois attributed to the passionate conviction that western civilization is "hypocritical, corrupt and repugnant" and in this we can connect Lévi-Strauss with Freud, Marx and Bourdieu. "It is a generous attitude" he comments "that leads to exalting others to the detriment of oneself. It has little connection with science whose aim is not to be magnanimous, but exact."(Caillois, 1955: 69)

Spencer, Baldwin, Piaget

The societal-cultural mission

There is a line of thought that can be traced that runs from Herbert Spencer to Jean Piaget, through the work of James Mark Baldwin, the father of the theory of "organic selection". This line of thinking is applied quite specifically to the study of the origin of necessary laws of the mind and of nature.^{xvii} There is no place here to discuss this fundamental question known as genetic epistemology, except to emphasise the naturalism that is inherent to the approach. It separates, a priori, the faculties of thinking, apprehended through models drawn from biology, from transmitted cognitive tools. What will be discussed here relates to another source, more general, that connects the three thinkers. The theory of evolution was an inspiration to them in developing a general interpretative model that they tended to apply in a transversal way to psychology, education, morality, politics, religion and epistemology. The interpretative monism that accounts, here too, for the constitutive character of their naturalism, made biological evolution into the scientific basis of an ideology of social progress in the work of all three writers. To these three names, we must link that of John Dewey, because of his role in the history of educational progressivism, and because it was said that it would be difficult to find a philosopher in whom naturalism was more inveterate. But Dewey, despite his intellectual interest in areas where the relations between biology, psychology and sociology were in play, kept his

viewpoint as a philosopher in relation to scientific matters. Now the objective here is to understand the conception of scientific works in the mode of philosophical systems, or put in another way, in terms of an implicit and paradoxical fusion of two registers, that of scientific investigation and that of philosophical interpretation, on the basis of the laws of human evolution inspired by naturalism.

Spencer, Baldwin and Piaget all conceived of forms of social utopias with a religious dimension. They imagined a golden age, a state of perfection, no longer located in a distant past as when perfection represented a direct gift from the Creator to his creation, but one to be found in a distant future ensured by the laws of social and human evolution. The revealing of this natural process in each of the works of the three thinkers underpins an exhortation to work socially and politically to favour this development. This aspect of their work is not a secondary one. The dynamic of social progress that was part of an extrapolation from the laws of life to man and society, corresponds to a starting hypothesis rather than a scientific result. Put differently progress is a premise for their models the object of a faith that drives them and that they think should drive their co-citizens to serve the social future.

Spencerian laws of human progress

The young Spencer imagined an ideal society where government would disappear, where the classes would be dissolved and where landed property would be held in common. The philosopher tried to give scientific substance to this dream. (Richards, 1987) He described the progressive development of a society conforming to the two moral laws of nature. These two great laws were, in his view, the principle of the greatest happiness of the greatest number, and the principle of equal liberty. Individual desires for happiness, which are only desires for liberty which are only desires for the free and harmonious exercise of the faculties or even desires for a complete life, adjust themselves gradually in the interactions of individuals with their environment. The progress of social differentiation continually accentuates the interdependence of human activities, putting each sphere of activity

within a complex network articulated with the whole. Running through all of Spencer's work is the idea that the adaptation of human nature to its living conditions progresses towards a state of perfection, which represents a state of perfect equilibrium, where individual liberties no longer encroach upon each other, for such encroachments induce frictions between the spheres of action that the laws of evolution will make disappear. The "social and moral scourges" are thus progressively supplanted by the adjustment of human nature to its living conditions.

The central model of the Spencerian system is the fundamental principle of adaptation: the adjustment of internal organic relationships to the external relations in the environment, which organises life as it does the mind, since both have evolved from the same undifferentiated form. The adaptation of the nervous system to the progressive specialization of social functions is the basis of the evolution of intelligence to the level of higher complexity.^{xviii} Humanity perfects itself through the fixation of acquired experience in the form of hereditary transmission. Lamarckianism is adopted under the form of a provisional hypothesis by Spencer, because it agrees with the facts. Thus man is thought to have developed the altruistic feelings that will dictate his conduct from generation to generation through inheritance. He will accomplish without difficulty tomorrow the moral actions that he finds repugnant today because they are imposed on him by constraint. He will accomplish them with pleasure because they will have become inherent to his nature, instinctive, while immoral actions will be naturally disagreeable to him. The laws of evolution ensure the reconciliation of the greatest liberty, of the most complete individuation, with the greatest social cohesion. But Spencerian man situated at the limit of evolution will not develop any further action in its own terms. He will enjoy life thanks to a harmony pre-established by the accumulated experiences of the species.

Science thus promises the advent of a higher humanity liberated from mediations, the forms of authority imposing their constraining laws, of a humanity "set free from evil" by internalisation of the experiences of the species. One political consequence of the dynamic of social progress in the Spencerian system is that the happiness of society is not due to any plan.

Interference with the natural adjustment of the human being to his environment is assumed to restrain the improvement of humanity.

The Baldwinian laws of human progress

James Mark Baldwin used Darwin against Spencer to derive contrary political-cultural lessons from the laws of life. By doing so Baldwin encouraged two breaches in American thought, one with the ahistorical individualism of the Enlightenment that had been a long-serving basis for discussions about human nature, and the other with the historical individualism of Spencer's philosophy, that had led to seeing each individual not as an element of society, but as a biological atom controlled by natural laws. In the Baldwinian schema, the evolution of man is a process of socialisation which, beginning with the individualism of the struggle for life, and proceeding through the struggles between groups where virtues of cooperation allowed the development of the higher human faculties, ends up in a natural collectivism. In following Baldwin, American social philosophy could link human nature scientifically to its social background. By persuading his contemporaries to accept his views, Baldwin hoped to make social reform based on collectivism a possibility. (Noble, 1958)

As it had done with Spencer, evolution leads Baldwin to associate the laws of life with the moral perfection of humanity, but unlike Spencer in this case perfection is not a passive inheritance: the individual inherits a potential for learning that constantly increases and culminates in pure creativity. As he becomes freer, man has a need of a spiritual ideal that is no longer personified by a God, once he recognises his creator as society to whose reality he owes his identity. According to the American philosopher and psychologist the spiritualisation of modern humanity is promoted by the worship of a social ideal whose laws of evolution show that it must be symbolised by the group. (Baldwin, 1911: 32)^{xix}

Let us summarise the key elements of this theory which is based on the principle of evolution highlighted by Baldwin: the directionality given to selection by activity useful to survival and the principle of organic selection.

The struggle for life at the origin of human physiological characteristics is substituted for a struggle between groups that accounts for the transformation of the issues involved in selection in man. Evolution has made man a naturally social being. History is his environment. The intelligent adaptation of individuals to their social environment, cooperation, has directed the selection of useful inherited factors, precisely those which have contributed to increasing learning ability and reducing behavioural inheritance, that is the instincts. Through the principle of organic selection, Baldwin explains how the illusion of a genetic transmission of acquired characteristics is created by natural selection itself. The latter does not operate solely on the basis of chance mutations, but on a combination of transmitted and acquired characteristics. This is why acquired characteristics influence the process of selection and thus the direction of evolution. Individuals who present efficient combinations of innate characteristics and acquired dispositions survive. The principle of organic selection accounts for the fact that the psychological ("mental") unit is what he calls the "socius"; an individual who is "adapted" to the creation of "fruitful" relations with others. This unit is assumed to work for the survival of the group in the competition between groups. In order to stimulate social progress it was a matter of cultivating the founding mental attitude, which brings the individual into cooperation with his fellows. (Baldwin, 1909: 29, 43-4) Learning capacity comes in the course of cooperation between individuals of the same group, is substituted for instincts, opposing to Spencerian man the real activity of man progressing in evolutionary terms. But the plasticity of the mind is not at all a congenital characteristic, independent of the cultural transmissions that are the malleable substitutes for instincts, the vectors of conformity. We should note that the Baldwinian explanation of the evolution of the higher human faculties is of limited scientific relevance because it becomes null and void once death or the absence of descent no longer control the processes of human biological improvement, though Baldwin was sufficiently well aware of this to be a partisan of eugenics, through the sterilisation of individuals with criminal

tendencies for example. This limitation, if it should have given the scientist pause for thought, clearly had not discouraged the social prophet.

Evolution is change, but through it man can ensure some progress. Knowing that it evolves through a process of adjustment to new situations, he can control its direction through the worship of the ideal to which society must lead, and that the laws of life will justify. Ethical man and ethical society will thus emerge in a spontaneous way as the fruits of a well understood evolution. The ideal cannot be approached by social constraint, but will be the outcome of the autonomous creative activity of the individual. The latter, increasingly better socialised by the interplay of evolution and increasing cooperation, has less and less need of external discipline to cooperate with his peers. New forms of action and of thought develop that culminate in society where agents willingly cooperate with each other, where *judgement becomes the major factor of socialisation*. The human perfection that Spencer saw in the hereditary polish given to the spheres of individual action is also inherited, through the selection of abilities associated with cooperative behaviour, ethical man being a personality who is completely socialised who wants total cooperation with his fellows. The individual acts through the intermediation of evolution increasingly as a creative force. Reason is, in this process, only a vector of mediation and learning ability. But value for Baldwin must be based on direct experience. The major human faculty in this respect is the imagination, through which man is liberated to a higher spiritual level, from all rational mediation. The last two Comtean stages, metaphysical and positive, both correspond to logical stages. They are sublimated in Baldwin's writings by a "hyperlogical" stage. In this stage the imagination, alone creative and moral, confers an ethical reality onto social evolution that gives meaning to the idea of a religion of humanity (Baldwin, 1915)^{xx} The inevitable development of human potential inspired by the laws of life require that the philosophy of education should protect experimentation through free activity, allowing the individual to initiate new social values. Baldwin's radical position is of a religious nature. The prophets of progressivism promise their contemporaries that beyond the current anarchy, the laws of progress would make possible the creation of a

new society of perfect cooperation and absolute harmony.(Noble, 1958) Against Spencer they claimed that society was changing, not because men were in competition, but because they were creative. Sociology should provide knowledge about the laws of social development which would convince society to abandon current conventions, traditions and institutions seen as outmoded, held to be obstacles to the march of progress.

The Piagetian laws of human progress

The work of Fernando Vidal was the first to shed light on the important role played in Piaget's oeuvre by his scientific convictions. (Richard Kohler [2008] (2009)^{xxi} Even when, following the second world war, the image of a second Piaget was being confirmed, one based on the study of an "epistemic subject" that offered developmental psychology explanatory models that seemed to be safe from any *parti pris*, the values that can be detected in his *oeuvre* were not at all circumstantial, but "relate to the very substance of his thought". (Vidal, 2000: 35) Following the failure of an early novel, *Recherche*^{xxii}, to gain recognition amongst philosophers and most significantly by his teacher Arnold Reymond, Piaget abandoned metaphysics although he remained faithful to his viewpoint on immanence, progress and equilibrium, for which a reading of *Recherche* helps in understanding the fundamental axiological dimension. He never gave up his private conviction that the ideal norm towards which progress was leading is perfect equilibrium, the assimilation of the universe by the mind. (Vidal, 2000: 35) Following these analyses which have only recently revealed the convictions that underpin the Piagetian edifice, we will endeavour at this point to clarify the societal-cultural project from his autobiographical writings including *Recherche*.

Rather than simply a *bildungsroman* about the spiritual crisis of a young man, Sébastien, who suffers the turmoils of a period marked by the dazzling achievements of the sciences, under the impulse particularly of evolutionary theories, the decline of religious convictions, and by the war, *Recherche* is a philosophical essay. The last part of the essay — as Piaget wrote more than thirty-five years later — explains the author's ideas and more exactly his solution to them. War is a symptom of the troubles affecting the ideas of a

period because, writes the young Piaget, ideas lead the world. And evil takes root in the conflict then occurring between science and faith (Piaget, 1918: 71). In Catholicism, the social body seems inert because its unity is constructed at the expense of individual diversity (Piaget, 1918: 35). The religion that organised the old order, by leaving it to revelation and authority, is not adapted to the spiritual and moral needs of modernity: "more than ever we need to save the social order and a faith that is paralysed will never be able to save the world" (Piaget, 1918: 21). Piaget was convinced that the solution must be offered by biology. He describes the mystical confidence of his character, shared with a number of scientists, in evolutionism's "universal doctrine of explanation and liberation" and his enthusiasm for "the invasion of this doctrine that revolutionised the moral sciences, psychology, sociology, all the disciplines up to and including the theory of knowledge itself." (Piaget, 1918: 57) Auguste Comte seemed to him to have been a much more profound precursor than had been thought, "who had attempted one of the most interesting reconciliations of science and faith (...) that is the search for a humanity organised on the basis of order and progress. No more dogmatism, but a pure faith and a free science." (Piaget, 1918: 86) A new ideal was to be found, and it was for Piaget to develop the solution that would dominate all of his scientific work.

In his autobiography, the major part of which was written in 1950, (Boring, 1952: 237-256)^{xxiii} Piaget mentioned Bergson (Bergson, 1938) according to whom any philosopher (author, to be precise, of a "philosophical system") is generally dominated by a single personal idea that can be grasped in the form of a mediating image that is completely unattainable but underpinning the whole innovative aspect of his work, expressed through the intellectual tools of his time. The idea that Piaget tried to approach from several directions and that he considered to be innovative but nevertheless the central idea of what would constitute a philosophical system rather than a scientific work, was centred on the relations between whole and parts, involving the notions of equilibrium and organisation (or of structure), and a process that fixes - as we shall see - the development of human faculties and human progress in the laws of life. Piaget notes that in all domains of life

(organic, mental, social) there are "totalities" that are qualitatively distinct from their parts that impose organisation upon them. This can be expressed as basic reality necessarily depending on a whole that informs it but, as Piaget writes, the relations between whole and part vary from one structure to another. More generally, two types of equilibrium underpin the Piagetian model, one imperfect and unstable, the other ideal. The first may contain the whole or the dominant parts; in the second whole and parts are in harmony and reciprocally preserve themselves. Piaget relates that this initial research led him to conceive that in terms of the social aspect of thought, the ideal equilibrium (reciprocal preservation of the whole and its parts) was related to cooperation between individuals who become autonomous due to this very cooperation; while two general forms of imperfect equilibrium are characterised either by the modification of the parts by the whole, the impact of social constraints, or the authority of elders, or by either through the modification of the whole by the parts, under the impact of the unconscious forms of individual ego-centrism "analogous to the mental attitude of young children who know neither how to collaborate nor how to coordinate their points of view." Piaget maintains that this same schema applies to all areas of life. "My sole idea, expressed in various forms" he wrote in 1950 "was that intellectual operations proceed in terms of structured wholes. These structures determine the type of equilibrium which all evolution tends to follow; at once organic, psychological and social, with their roots descending as far biological morphogenesis itself."

With the aim of putting his biological training at the service of the analysis of how intelligence came into being, Piaget extrapolated the evolutionist idea of adaptation as an attempt at achieving equilibrium between the organism and its environment to knowledge as a "problem of the relations between the acting and thinking subject and the objects of his experience". By separating the general forms of thought from all specific "content" and by reducing the conditions of logical thought to the development of logico-mathematic structures, through the spontaneous activity of the individual, the psychologist was able to maintain that the explicit mediation proposed by formal education was secondary and without any active role in intellectual

development. But to understand the key to his interpretative system, it is necessary to outline the driving force behind it.

Let us go back to *Recherche* where the tension that drives all of evolution has a profoundly moral and spiritual meaning. Any real organisation is in a state of unstable equilibrium, but by the very fact of being set up it tends towards the state of total equilibrium that is the ideal organisation. (Piaget, 1918: 98) Now the ideal organisation represents the full flowering of life, the good, the beautiful, religious equilibrium. It accounts for the tension that drives morality, art, and mysticism. The same is true for the laws of psychology and sociology. The good, the beautiful, the bad and the ugly are thus "a matter of balance" and more generally any life is an organisation that is in a state of (real) unstable equilibrium, but whose "law" is an (ideal) stable equilibrium towards which it tends to go: any real equilibrium although it may presuppose an ideal equilibrium that makes it possible, and that imparts its thrust according to established laws. (Piaget, 1918: 158) It is the tension towards the ideal equilibrium (underlying the Piagetian concept of equilibration) that explains for Piaget the phenomenon of consciousness as "pure internal translation of physico-chemical phenomena" and the laws of psychology. It opens up the route towards a biological psychology. Piaget deduces socio-political consequences from his system: a social regime founded on the equilibrium of parts and whole, in other terms the agreement of parties and individuals that has the formula of a broad socialism, and the subordination of all to the service of humanity itself, envisaged as a whole and as a directing ideal. Piaget also deduced the moral consequences that could be formulated in a Kantian way: "act in a manner that would achieve the absolute equilibrium of the vital organisation, as much collectively as individually." (Piaget, 1918: 176)

Piaget's sociology is and would remain evolutionist. Referring himself to the Durkheim of *La Division du travail social*, the psychologist interprets the social evolution that is marked for Durkheim by the passage from the "communitarian" structures of the archaic societies which stem from a community of beliefs, to the structures of interdependence found in modern societies, in terms of a process of equilibrium. The social cohesion of modern

societies, that represents for Spencer a combination of individual interests based on economic exchange, reinterpreted by Durkheim on the basis of the permanence of moral constraint that comes from society, becomes for Piaget a matter of general equilibrium built on awareness: "the organisation cannot be aware of its activity without being conscious of the thrust that makes this organisation pull towards an absolute equilibrium" (Piaget, 1918: 175). Moral consciousness, and from the socio-political viewpoint modern democracy, represented as products of intellectual biological development, also make traditional social institutions appear to be inadequate for human development. This is the reason for the Piagetian defence of what are called active schools as precious assets in the development of a rational morality. (Piaget, 1932: 67) It is essential that consciousness of a necessary equilibrium should be born from individual actions and the interactions between individuals, that is both helpful and limiting of alter and ego. This ideal equilibrium that can be made out when an argument or a pacification occurs, assumes a long and reciprocal education between and amongst children, according to Piaget.

Mediations and forms of authority in the sights

In the work of Spencer, Baldwin and Piaget, the motor of social progress is rooted in the laws of life itself; moral progress through natural adaptation, antithetical to all interventionism, from the parts to the whole that they make up, all that evolves under a differentiating tension to the attainment of perfection of the fit between parts; moral progress through genetic development of the plastic capacities of the mind, capacities progressing through the survival of those best adapted to the social order organised in terms of the ideal, where all external discipline disappears; moral progress lastly through a rising set of equilibria between wholes and parts, a set energized by a vital tension towards the ideal equilibrium where whole and parts are reciprocally preserved. Perfection of the human species is opposed according to these three philosophical-scientific dynamics, to the mediations and forms of authority expressing the intellectual and moral underachievement of earlier periods. These works in which progressive ideas

in education are rooted also contain a prophetic dimension that is not a secondary concern in them, as has been shown. Through an extrapolation from the laws of biological life to human and social life, the philosophers who are at work behind the scientists reveal the immanent presence of the divine in the world, move the golden age to the end of time, and find in the laws of life the modern meaning of the religious and by bringing them to light, find some precepts for politics and education that are thought to favour social and human improvement, and to pave the way towards the ideal.

The political-cultural enterprise

Experience of a social order destabilised by economic and social change, scientific discoveries, and the decline of religious sentiments encouraged some philosophers who were also working as scientists, to seek the spiritual and moral foundations of modern humanity. In such a context the interpretive monism of the doctrines that are discussed here, based on the constitutive character of the naturalism that served them as their scientific background, sustained a project for the renewal of consciousness. The inversion of real relationships, transforming pettiness into grandeur, aggression into compassion, power relations into relations of affection, the idea of civilization and progress into regression, etc, were the weapons of a war against the realist interpretation of social, cultural and moral constructs. The laws of the improvement of life were promoted by some as substitutes for the organising and moral role played by religion, and nourished the critique of social institutions that had their roots in a previous stage of historical evolution.

Several versions of the nature of man were thus put forward within the social sciences that evoked the beginnings of mankind and through his biological inheritance revealed its originating a-morality, the pure forms of original humanity, or on the contrary the evolutionary progress of its nature thanks to adaptive processes that participated in the interdependence between the individual and the social, turning human consciousness into an ideal to be achieved. According to the different versions of his natural reality,

man is endowed with the faculty of putting his knowledge of the laws of life at the service of social progress. Progress does not participate so much in the domination of nature as it does in the understanding of its constitutive links to nature and its natural environment: the society. It marks a turnaround of the ontology of the Enlightenment in favour of the concrete collective, and against the abstract individual. From this point progress demands a reform of consciousness that feeds a more or less radical critique of religious, cultural, educational, economic, and political, etc., institutions and organisations. The naturalism that is described here as constitutive is the instrument of a political-cultural enterprise that traversed the social sciences from their earliest developments. It can be seen as the greatest obstacle confronting an authentic understanding of human reality, a comprehension that can open the way to the "generally human".

References

- Andersson O (1997 [1977]), *Freud avant Freud*, Paris : Empêcheurs de penser en rond.
- Baldwin, JM (1909), *Darwin And The Humanities*, Baltimore, Review Publishing.
- Baldwin, JM (1911), *The Individual and Society*, New York: G.P. Putnam & sons.
- Baldwin, JM (1915), *Genetic Theory of Reality*, New York, G.P. Putnam & sons.
- Bergson, H (1938) *La pensée et le mouvant*. Paris: PUF.
- Bischof, N (1972) The biological foundations of the incest taboo, *Social Science Information*, 11(6): 7-36.
- Bourdieu P (1992) *Réponses. Pour une anthropologie réflexive*, Paris: Seuil, 1992, p.108.
- Bourdieu P (1994) *Raisons pratiques*, Paris: Seuil.
- Bourdieu P (1997) *Méditations pascaliennes*, Paris: Seuil.
- Charbonnier, G (1961) *Entretiens avec Lévi-Strauss*, Paris: Julliard.
- Chauvin R (1997) *Le darwinisme ou la fin d'un mythe*, Paris: éditions du Rocher.
- Christen Y (1981) *Le grand affrontement Marx et Darwin*. Paris: Albin Michel
- Corcuff P (2003) *Bourdieu autrement. Fragilités d'un sociologue de combat*, Paris: Textuel.
- Darwin C (1859), *On the Origin of Species*, London: John Murray.

- Darwin C (Second edition, 1860), *The Origin of Species*, London: John Murray.
- Darwin C (1871) *The descent of man*, London: John Murray.
- Descola P (2008) *Sciences humaines*, n°8, 2008.
- Ellenberger HF (1994 [1970]), *Histoire de la découverte de l'inconscient*. Paris: Fayard.
- Engels F (1936 [1875]) Engels and Darwin – Letter to Lavrov, edited by Dona Torr *Labour Monthly*, July 1936, 437-442.
- Engels F (1941 [1883]) *Dialectics of Nature*, translated and edited by Clemens Dutt; with a preface and notes by J. B. S. Haldane, London: Lawrence and Wishart.
- Erickson, MT (1989) "Incest avoidance and familial bonding," *Journal of Anthropological Research*, 45 (3): 270–80
- Freud S (1930 [1929]) *Civilization and its discontents*, trans. Joan Rivière, London, Hogarth Press.
- Freud S (1981 [1929]) 1981 *Malaise dans la civilisation*, Paris, PUF, 1981, p.99.
- Freud S (1984 [1925]), *Sigmund Freud présenté par lui-même*, Paris: Gallimard.
- Freud S (2001 [1923]), *Totem et tabou*, Paris : Payot 2001
- Godelier M (2004) *Métamorphoses de la parenté*, Paris: Fayard
- Hart CWM (1950) Review of *Les Structures Élémentaires de la Parenté* by Claude Lévi-Strauss, *American Anthropologist*, New Series, 52(3): 392-393
- Jung CG (1961) "*Ma vie*". *Souvenirs, rêves et pensées*, Paris: Gallimard, 1973.
- Jung CG *Problèmes de l'âme moderne*, Buchet/Chastel, 1960, chap. XV "Freud. Un phénomène historico-culturel". First published as "Sigmund Freud in his historical setting.", (1932) *J. of Personality*, vol. 1, no. 1, pp. 48-55.
- Kohler R (2009[2008]), *Jean Piaget, De la biologie à l'épistémologie*, trad. E.Barilier, Lausanne: Presses polytechniques et universitaires romandes.
- Kortmulder, K (1968) An Ethological Theory of the Incest Taboo and Exogamy. With Special References to the Views of Claude Levi-Strauss, *Current Anthropology*, 9(5): 437-449.
- Lecourt, D (1983) Marx au crible de Darwin, in Congrès international pour le centenaire de la mort de Darwin, *De Darwin au darwinisme. Science et idéologie*, Paris: Vrin, 227-249.
- Letter from Darwin to Asa Gray, 22 May 1860.
- Lévi Strauss C (1977) Entretien avec Raymond Bellour, in R.Bellour et C.Clément, *Claude Lévi-Strauss ; Textes de et sur Lévi-Strauss*, Paris: Gallimard, 201-202.
- Lévi-Strauss C (1953) Panorama de l'ethnologie contemporaine, *Diogenes*, 96-123.
- Lévi-Strauss C (1953) Panorama of Ethnology 1950-52", *Diogenes*, 1(1): 69-92.
- Lévi-Strauss C (1955) *Tristes Tropiques*, Paris: Plon.
- Lévi-Strauss C (1958) *Anthropologie structurale*, Paris: Plon.
- Lévi-Strauss C (1963) *Structural Anthropology*, vol. I. New York: Basic Books.
- Lévi-Strauss C (1974) *Anthropologie structurale* Paris: Plon.

- Lévi-Strauss C (2008 [1948]) *Les structures élémentaires de la parenté*, Paris: Flammarion.
- Lévi-Strauss C, Kussell PB (1971) Interview, *Diacritics*, 1, (1): 44-50.
- Mandelbaum M (1971), *History, Man and Reason, a Study in Ninetenth-Century Thought*, Baltimore and London: The Johns Hopkins Press.
- Marx K (1977 [1859]) *A Contribution to the Critique of Political Economy*, Moscow, Progress Publishers.
- Marx K (1977[1859]), *A Contribution to the Critique of Political Economy*, Progress Publishers: Moscow
- Marx K, Engels F (1973) *Lettres sur les sciences de la nature*, Paris: Editions sociales.
- Marx K, Engels F (1975) *Selected Correspondence 1846–1895*, New York: International Publishers.
- Marx K, Engels F (1983) *Collected Works: vol. 40, Letters 1856-59*, London: Lawrence and Wishart.
- Marx K, Engels F (1985) *Collected Works: vol. 41, Letters 1860-64*, London: Lawrence and Wishart.
- Marx K, Engels F (1987) *Collected Works: vol. 42, Letters 1864-68*, London: Lawrence and Wishart.
- Marx K, Engels F (1988) *Collected Works: vol. 43, Letters 1868-70*, London: Lawrence and Wishart.
- Naville E, « La doctrine de l'évolution comme système philosophique », *Revue Philosophique*, XX, 1885.) 576.
- Noble DW (1958), *The Paradox of Progressive Thought*, Minneapolis: University of Minnesota.
- Pajon, A (2011) *Lévi-Strauss politique. De la SFIO à l'UNESCO*, Paris: Privat.
- Panoff, M (1993) *Les frères ennemis. Roger Callois et Claude Lévi-Strauss*, Paris: Payot.
- Piaget J (1918) *Recherche*. Lausanne: Édition la Concorde.
- Piaget J (1932), *Le jugement moral chez l'enfant*. Paris, PUF.
- Piaget J (1952, 1966) Autobiography written (parts I to VII) in 1950 at the request of Prof. Boring for volume IV of *A History of Psychology in Autobiography*, Worcester: Clark University Press. 237-256. part VIII (1950-1966) was added for the collection *Jean Piaget et les sciences sociales*, in *Cahiers Vilfredo Pareto* n° 10, published on the initiative of and edited by G. Busino, Geneva, Droz. 129-159.
- R.Caillois, (1955) Illusions à rebours (II), *La nouvelle revue française*, n°25, p.64-76.
- Reiter R (1975) *Toward an anthropology of women*, New York: Monthly Review Press.
- Richards RJ (1987) *Darwin and the Emergence of Evolutionary theories of Mind and Behavior*, Chicago: The University of Chicago Press.
- Ritvo LB (1990) *Darwin's influence on Freud : a tale of two sciences*. New Haven: Yale University Press.
- Simonis Y (1968) *Claude Lévi-Strauss ou « La passion de l'inceste »*, Paris: Flammarion.
- Trémaux,P (1865) *Origine et transformation de l'homme et des autres êtres*, Paris: Hachette.

Vidal F Piaget avant Piaget. Pour une relecture de l'oeuvre piagétienne in O. Houdé, C.Meljac, *L'esprit piagétien. Hommage international à Jean Piaget*, Paris: PUF.

Vidal F *Piaget before Piaget*, (1994) Cambridge, Mass.: Harvard University Press.

Vygotsky L (2005 [1925]), *Psychologie de l'art*. Paris: La Dispute

Wolf, AP (1995) *Sexual Attraction and Childhood Association. A Chinese Brief for Edward Westermarck*, Stanford: Stanford University Press.

ⁱ I would like to thank one of my anonymous reviewers for helpful suggestions on an earlier version of this article.

ⁱⁱ E.Naville, « La doctrine de l'évolution comme système philosophique », *Revue Philosophique*, XX, 1885.) 576. This writer notes that the word determinism, at that point unknown in the official vocabulary of the French language, was introduced in the last edition of the *Dictionnaire de L'Académie* in 1877, a fact that signals the importance of the idea that the word describes, if not in philosophical circles, where it had always been important, at least in the concerns of the educated public in general. The *Dictionnaire de l'Académie* defined the term as follows: "DETERMINISME, système de « philosophie qui admet l'influence irrésistible de motifs." (system of "philosophy that admits the irresistible influence of motives"). Whether such motives were conceived of as automatic impulses, which is the conception used in materialism, or whether they were thought of as influences of a logical order, freedom is denied in both cases.

ⁱⁱⁱ Spencer, as with Darwin, accepted the existence of dimensions of existence that could not be grasped by the human mind. According to Spencer, man should acknowledge the existence of an unknowable inconceivable for him; science and religion were called upon to be reconciled by forming the two complementary poles of thought.

^{iv} Letter from Darwin to Asa Gray, 22 May 1860.

^{vi} This is an extrapolation to the human psyche of the biogenetic law invented by Haeckel on the development of the human psyche, according to which ontogenesis, the development of the individual organism, recapitulates phylogenesis, the development of the species. A version is also found in Spencer's work.

^{vii} Psychoanalysis widened the field of investigation of psychology by opening it up to the unconscious. But its practical application, noted Vygotsky, could not have any real utility unless it gave up some fundamental original sins, if alongside the unconscious it also took account of consciousness as an autonomous factor and if, finally, having given up pansexualism and the all-infantile, it encompassed in its field of investigation the whole of human life, and not just the first and schematic conflicts alone.

^{viii} As Engels writes to Lavrov, "The essential difference between human and animal society is that animals are at most *gatherers* whilst men are *producers*. This single but cardinal distinction alone makes it impossible simply to transfer the laws of animal societies to human societies. It makes it possible that, as you justly remark, "Man waged a struggle not only for existence but for enjoyment and for the increase of his enjoyments ... he was ready to renounce the lower enjoyments for the sake of the higher." [...] Incidentally it is to be noted that the mere consideration of past history as a series of class struggles is enough to reveal all the superficiality of the conception of that same history as a slightly varied version of the "struggle for existence." Engels to Piotr Lavrov on the latter's article, "Socialism and the struggle for life" published in n°17 of *Vperiod* (12-17 novembre 1875) K.Marx, F.Engels, *Labour Monthly*, July 1936, pp. 437-442, "Engels and Darwin – Letter to Lavrov," edited by Dona Torr.

^{ix} Engels to Piotr Lavrov about his article, "Socialisme et lutte pour la vie" published in n°17 of *Vperiod* (12-17 novembre 1875) K.Marx, F.Engels, *Lettres p.87. Labour Monthly*, July 1936, pp. 437-442, "Engels and Darwin – Letter to Lavrov," edited by Dona Torr.

^x This role is not, properly speaking Lamarckian, as Lamarck brought into play adaptation that emerged from a sort of vital thrust, internal and not influenced by the environment. Cf. Y.Christen, *Le grand affrontement*, p.55- 56.

• ^{xi}According to Engels "Here – where the means of development are socially produced – the categories taken from the animal kingdom are already totally inapplicable." Frederick Engels, (1883) "Dialectics of nature / translated and edited by Clemens Dutt ; with a preface and notes by J. B. S. Haldane., (1941) London, Lawrence and Wishart, p. 255. F.Engels, *Dialectique de la nature*, Paris, Editions Sociales, 1968, p.317.

^{xii} Marx and Engels themselves thought that only a change in circumstances would produce, for example, a relevant educational system, but as a relevant educational system was necessary to a change in circumstances, they accepted that it would have start from the existing situation.

^{xiii} As Godelier puts it in *Métamorphoses de la parenté*.

^{xiv} Cf. M.Godelier, *Les métamorphoses de la parenté*, p.565. Living in multimale and multifemale groups the monkeys with whom we share the same ancestor, the chimpanzees and bonobos, see their young disperse at puberty and go to other groups. The purpose of the processes at work are not to limit consanguinous couplings in order to prevent negative genetic consequences, but to regulate the sexual development of individuals in such a way that the satisfaction of their desires does not put in danger the reproduction of the society in which they are born, through multiple rivalries. M.Godelier, *Métamorphoses de la parenté*, p.589-592.

^{xv} Godelier invokes the prevention of intrafamilial rivalries, reviving the Freudian scenario on an updated and demythologised basis. The influence of psychoanalysis more generally has led to ignorance of the specific nature of family ties, through an unwarranted assimilation of the forms of affection (familial and sexual). Cf. on this subject and in the same field of naturalism: Mark T. Erickson, "Incest avoidance and familial bonding," *Journal of Anthropological Research*, vol. 45, no. 3 (1989), p. 270–80; Arthur P.Wolf, *Sexual Attraction and Childhood Association. A Chinese Brief for Edward Westermarck*, Stanford, Stanford University Press, 1995.

^{xvi} He is hardly troubled by the weakening of his hypothesis through the existence, that he mentions, of pre-literate societies that practise slavery, nor of its very limited scope as soon as all social differentiation can be interpreted as a form of hierarchy, and hence of exploitation. G.Charbonnier, *Entretiens avec Lévi-Strauss*, Paris, Julliard, 1961, p.32 et p.191.

^{xvii} In his theory of knowledge Spencer tried to reconcile the requirements of empiricism and transcendentalism in the debate that divided the disciples of Locke and Kant, by making the a priori necessary truths something inherited by each individual in accordance with the experience of the species and the inheritance of acquired characteristics. On this topic cf. R.J.Richards, *Darwin and the Emergence of Evolutionary theories of Mind and Behavior*, Chicago, The University of Chicago Press, 1987.

^{xviii} For Spencer, evolution is a response to two adaptive forces. The first is based on learning through interaction with the environment (creating the activation or the obsolescence of the functions involved) and on the Lamarckian principle of the inheritance of acquired characteristics. The second, developed after consideration of the Darwinian intellectual climate and which is based on the Darwinian principle of the survival of the fittest, is indirect. Nonetheless it is seen as too crude to take account of the historical development of human mental functions and of moral intuition. Finally, the principle of equilibrium governs the adaptation of organisms through the reorganisation of the system of internal adjustment.

^{xix} "The outcome of idealisation in the social realm is not a supreme personality, but an ideal group, a Utopian social order, for which all the individuals must be equally fitted (...) The postulate of the ideal group, even more than that of ideal individuality, must be reinforced by the assumption of the existence of a being who embodies them at once. In this sense again religion serves to bind together the actual and the ideal. (...) the reality of God substitutes a personal relation for the mere formal postulate of the ideal; so also for society it substitutes, for a Utopian moral order, a genuine concrete end." J.M.Baldwin (1911), *The Individual and Society*, New York, G.P. Putnam & sons, p.32.

^{xx} Cf. J.M.Baldwin (1915), *Genetic Theory of Reality*, New York, G.P. Putnam & sons. This humanism, whose motivation is biology, nonetheless leads to eugenics in Baldwin's writings.

^{xxi} Cf. Richard Kohler [2008] (2009), Jean Piaget, *De la biologie à l'épistémologie*, trad. E.Barilier, Lausanne Presses polytechniques et universitaires romandes. The author refers to F.Vidal, *Piaget before Piaget*, Cambridge, Harvard University Press, 1994.

^{xxii} The full text of this work as published in 1918 (in french) can be found available as a download at http://www.fondationjeanpiaget.ch/fjp/site/textes/VE/JP_18_Recherche.pdf

^{xxiii} J.Piaget, Autobiography written (parts I to VII) in 1950 at the request of Prof. Boring for volume IV of *A History of Psychology in Autobiography* (Worcester, Clark University Press, 1952, pp. 237-256) ; part VIII (1950-1966) was added for the collection *Jean Piaget et les sciences sociales* (Genève, Droz, 1966, pp. 129-159, in « Cahiers Vilfredo Pareto » n° 10, published on the initiative of and edited by G. Busino)