Philosophy, Science and Naturalism[1]

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If romantic literature has been characterized by the rediscovery of national ancestors, an exaltation of the "I" and the flowering of passions, by grandiose feelings towards nature, naturalism, differently, has sought to express the influences of the environment and heredity on human relations and the harsh world of contemporary socioeconomic conflicts. To this end, it was based on a determinist scientific thought, of which criticism of religions, a hope for political reforms and an evident skepticism towards the human condition were part.

And if there was a method consciously applied by its writers in the elaboration of narratives, it came, above all, from one of the most evident facets of positivism; that is, from that which consisted in the empirical observation of natural facts and which we can directly verify through experience and the senses. Just as in nature, sociocultural phenomena - the raw material of the sociology proposed by Comte - would also have their laws of formation, continuity or transformation, both in time and space, and would depend, to a large extent, on endogenous or biological factors. By naturalism, in summary, the advance and scientific achievements of the industrial revolution started to exert a powerful attraction on literature, at the same time that they modified the plastic arts, perplexed, at that moment, with the power of photography.

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If we determine as a "positivist period" that which roughly runs from 1830 to the first decade of the 20th century, it can be seen that the links between scientific development, technological innovation, the growth and diversification of industries and the expansion of wealth are quite close (a situation which, to a certain extent, is repeated after the end of the Second World War). In physics, for example, the contributions of Faraday, Maxwell, Hertz, Joule or Helmholtz appear; chemistry takes an exceptional leap with Jöns Berzelius, von Liebig and Mendeliev; in the biological sciences the figures of Koch, Pasteur and Darwin, among many others, are great; in geometry, the proposals of Riemann, Lobachevski and Felix Klein appear; in mathematics, more complex problems and innovative solutions are presented by Augustin Cauchy, Karl Weierstrass and Georg Cantor.

As for philosophy, and despite the sometimes remarkable differences between the authors mentioned below, the various stories usually gather, under the name of positivism, not only the propositions of Comte, but also those of John Stuart Mill and Herbert Spencer, in England, those of Jakob Moleschott and Ernst Haeckel, in Germany, and also those of Roberto Ardigò, in Italy. This fact results from the existence of some principles that were commonly accepted or defended by those authors. Thus: 1) opposition to idealistic or metaphysical currents, adopting a materialistic view of the world and the conviction that every idea of a spiritualistic character will sooner or later be overcome; 2) one can only really know what the scientific method applied by the natural sciences allows us to investigate; such method, which formulates the laws of cause and effect of phenomena, applies equally to the examination of society and, therefore, to the social sciences; 3) the technical application of scientific knowledge is the only or, at least, the best solution for human problems and their

concrete interests; 4) consequently, there is an effective hope for rationality, for the continuous and growing progress of societies, as much as in the technological field of nature; 5) by means of processes or stages, everything evolves from the simplest to the most complex, from the indefinite/imperfect to the defined/perfect, or even from contradictions to stability - matter, life, art.

In truth, some of the ideas and proposals in this positivist design had already been suggested by authors such as Pierre-Jean Cabanis or Saint-Simon (with whom Comte worked as secretary). Cabanis, by the way, ended up being considered a naturalist philosopher, a term used in France for those who relied on English empiricism, French encyclopedism and, in general, European enlightenment. In the work "Relations between the physical and the moral of man" (Rapports du physique et du moral de l'homme), Cabanis thus explains the examination of ideologies (the highlights are mine, not the author's): “Writers who have dealt with some depth with the analysis of ideas, language or other signs that represent them, and with the principles of private morality or public morality, have felt almost all this need to address themselves, in their research, according to the knowledge of physical human nature. Indeed, in what way can we accurately describe, appreciate and limit, without error, the movements of a machine and the results of its action, if we do not know its structure and properties beforehand?... Every philosopher has made his theory of man; even those who, in order to explain the various functions, had to suppose in him two dynamisms of a different nature, recognized that it was impossible to subtract the intellectual and moral operations of the physical empire; and in the close relationship they admit between both driving forces, the gender and character of the movements always remain subordinated to the laws of the

organization... Here, the moralist and the doctor always walk on the same line. This one (the physician) only acquires the complete knowledge of physical man by considering him in all the states through which the action of the outer bodies and the modifications of his own faculty of feeling may pass; the one there (the moralist) makes the more extensive and just ideas of the moral man the more attentively he has followed, in all the circumstances in which he is placed by the hazards of life, the events of the social state, the governments, the laws, and the sum of the errors or truths spread around him. ... the principles relating to the latter study are necessarily obscured by the wave of metaphysical hypotheses. In fact, in the study of the moral sciences, there was no solid basis left, no fixed point to which the results of observation and experience could be tied... Such was, before Locke appeared, the state of the moral sciences".

Similarly, Saint-Simon proposes in Mémoire sur la science de l'homme: "Recalling the general notions that all educated men received in their education, about the march that the human spirit followed after the origin of its development, reflecting in a particular way on the march that it followed after the fifteenth century, we see: 1) that his tendency after that time is to base all his reasoning on facts observed and discussed; that on this positive basis he has already reorganized astronomy, physics, chemistry; and that his sciences today are part of public education and form its basis. It follows necessarily from this that physiology, of which the science of man is a part, will be treated by the method adopted by other physical sciences, and will be introduced into public education when it has

become positive... General science cannot be a positive science unless the particular sciences are based on observations".[2]

It appears that the qualification of positive has been used for the method adopted by the physical and natural sciences, the latter also having to be transposed or suitable for physiological and philosophical investigations. Thus, it should be taken into consideration that the term positive, as Leibniz already used it, designates what is on view, to the most immediate recognition, consisting, therefore, in an existing reality or in fact.

Hence the reason for, already in the Warning of his *Cours de Philosophie Positive*, Comte to define positivism as "a special way of philosophizing which consists in facing theories... as having as object the coordination of observed facts, which constitutes the third and last state of general philosophy, primitively theological and then metaphysical" (Classiques des Sciences Sociales, idem, ibidem). Refusing to propose or reach absolute notions, and even to know the intimate causes of the phenomena, Comte restricts himself to "discovering the effective laws, that is, their invariable relations of succession and similarity. The explanation of facts is henceforth nothing more than the link established between the various particular phenomena and certain general facts". Therefore, if nature has immutable laws, the mission of science would be to discover their functioning and establish a unity, and the understanding should abandon "metaphysical" pretensions of reaching the first or the final causes. It is destined to accomplish the most complete submission of nature to man, so that he may dominate it and instrumentalize it. If this is valid for the sciences in particular, it is even more valid for the

[2] www.uqac.uquebec.ca, Classiques des Sciences Sociales, Université du Québec.

"universal science" which is the positive sociology, the foundation of all human reform and improvement, and the way to definitively overcome previous "stages" of culture (theological and metaphysical). To achieve this goal, it must determine, with the help of biology and physiology, the laws of a social life that prevent its tendency to dissolve.

In the work *De la Physiologie Sociale*, the same Saint-Simon had explained what was then understood by physiology, word and concept dear to naturalism. First, it examines the action and influences of outside agents on vital organisms. But it is not a science that concerns only the internal and individual functioning of physical and chemical processes. Socially thought, it studies the vitality of cultures and civilizations, what contributes or to develop and improve them, or, on the contrary, to halt, disturb and destroy them. It is, of course, about economic, social, political, moral and artistic aspects, which are related to each other, since society would not move like a chaotic cluster of independent actions without ends. In his words, “A social physiology, constituted by the material facts that derive from the direct observation of society, and a 'hygiene' (that is, a healthy balance) involving the precepts applicable to such facts are, therefore, the only positive bases on which the organization system claimed by the current state of civilization can be established ... the strength of a people rests much more on the social pact that combines all the capacities for the improvement of useful and common works than on the multiplicity of the elements of wealth and of power that no philanthropic spirit can reconcile ... today, kings should no longer rule far from their peoples; they must not do anything important without explaining the reasons, admit them to their councils, ask them for their opinion on measures to be taken, consult them regarding the needs

of the State and grant them the power to vote or refuse to vote. taxes, that is, the power to favor or prevent the undertakings submitted to their examinations" (www.uqac.uquebec.ca, Classiques des Sciences Sociales, pg.34).

Even so, the most direct influence, even though confessed, on physiological observation and experimentation that Zola and writers such as Paul Alexis, Joris-Karl Huysmans and Guy de Maupassant have adopted is found in the work *Introduction à l'étude de la médecine expérimentale,* by Doctor Claude Bernard. So much so that Zola, in the text known as *Le Roman Expérimental* (Charpentier, Paris, 1890, reproduced at www.lettres.tice.ac-orleans-tours.fr, with no indication of a page) first makes an encouraging summary of the medical work and then states: "if the experimental method leads to knowledge of physical life, it must also lead to knowledge of passionate and intellectual lives. It is only a question of degrees on the same path, from chemistry to physiology, after physiology to anthropology and sociology". Assuming, therefore, the roles of observer and experimenter, the novelist becomes "the judge of instruction of men and their passions".

With all this, one can perceive the importance attributed to the environment, the physical aspects, history and concrete social relations that will be the most important aspects for Comte and positivism. Starting with the fact that human phenomena are, above all, sociological, and this in the most precise sense that man, when only subjectively considered, is nothing more than an abstraction, since no science can be built on individuality.

This same consideration is now applied to artistic phenomena, as Hippolyte Taine (*Philosophie de l'art*, Germer Baillière Ed., 1865, chapter I, pages 9 and 10) writes at the suggestion of positivism: "The

family of artists, in turn, is comprised of a larger whole, which is the world around it and whose taste is in keeping with its own. Since the state of customs and spirit is the same for the public and artists, they are not isolated men... Phidias, Ictinus, the men who made the Parthenon and the Olympic Jupiter were, like the other Athenians, free and pagan citizens, educated in the lecture, having fought, exercised naked, having the same habits, the same interests, the same ideas, beliefs, men of the same race, language and education... In any other part we would find similar examples of the alliance and intimate harmony that is established between the artist and his contemporaries; and we can safely conclude that if you want to understand his taste and talent, the reasons that make him choose such an art genre, represent such a feeling, *it is in the general state of customs and public spirit that we should seek them* ... Just as there is a physical temperature that, due to its variations, determines the appearance of such or such species of plants, so there is a moral temperature that... ...determines the appearance of such and such an art... *The productions of the human spirit only by its environment, like those of the living nature, are explained*" (emphasis added).

This historical landscape and its social links are present in what is considered one of the "manifestos" of naturalism: the defence of the style made by Huysmans in *Émile Zola et l'Assomoir* (reproduced in Lettres.tice.ac-orleans-tours.fr, without page), journalistic criticism of 1887, in which the novelist also argues about the need for a literature in which the simple or rustic man is studied, as much as the "depraved" women who wandered around the big French cities. In other words, "virile works" that strip away the themes of modern life, of living beings that, in everyday life, can be found in the streets.

By adding literature to positive experience, physiology and contemporary social facts, Zola's proposal is: "The experimental novel is a consequence of the scientific evolution of the century; it continues and completes physiology; it replaces the study of abstract man, of metaphysical man, with the study of natural man, submitted to physical-chemical laws and determined by the influences of the environment. ... the naturalist novelists observe and experiment, and all their work is born of the doubt in which they put themselves, in the face of ill-known truths, to unexplained phenomena, until an experimental idea suddenly awakens their ingenuity and leads them to institute an experiment to analyze the facts and to become masters of them... The metaphysical man is dead, all our terrain is transformed with the physiological man. Undoubtedly, the cholera of Achilles and the love of Dido will remain as eternally beautiful paintings; but behold, necessity leads us to analyze anger and love and to see precisely how these passions work in the human being. The point of view is new and becomes experimental, instead of being philosophical... in short, everything is summed up in this great fact: the experimental method, both in letters and in sciences, is in the process of determining the natural, individual and social phenomena, of which metaphysics has so far given only irrational and supernatural explanations".

This "scientistic" character is also clearly revealed in the prefaces to Zola's works, such as the one written for *Thérèse Raquin* in 1868: "It is beginning, I hope, to be understood that my objective was scientific, first of all. When my two characters, Thérèse and Laurent, were created, it pleased me to propose and solve certain problems; thus, I tried to explain the strange union that can occur between two different temperaments. I showed the deep disturbances of a blood

nature in contact with a nervous nature. Let's read the novel carefully and see that each chapter is the study of a curious case of physiology. In a word, I had only one wish: to have a powerful man and an insatiable woman, to look for the beast in them, to see only the beast, to throw them into a violent drama and to scrupulously note down the sensations and acts of these beings. I have simply done on two living bodies the analytical work that surgeons do on corpses".

Another remarkable influence: that of Prosper Lucas, author of the *Traité philosophique et physiologique de l'hérédité naturelle dans les états de santé et de maladie* (edited by J.B. Baillière, Paris, 1850)[3], the basis of Zola's studies for the conception of the Rougon-Macquart family. In this work, Luke collects previous data and notes to describe and explain what he calls "representatives" of hereditary influences (normal and abnormal) on "physical forms and souls": the father and mother for direct heredity; the collaterals for indirect heredity; the parents' ancestors for return heredity; the previous spouses. What reappears in the preamble of *La Fortune des Rougons*: "I want to show how a family, a small group of beings behaves in a society, blossoming to give birth to ten, to twenty individuals who at first sight seem profoundly dissimilar, but which analysis shows are intimately linked. Heredity has its laws, like gravity".

Although he claimed that the words romanticism and naturalism meant nothing to him except to foment quarrels between opposing temperaments, Maupassant asserts in the preface to Pierre and Jean (Paul Ollendorff Edit, Paris, 1888): "after the literary schools that wanted to give us a deformed, superhuman, poetic, moving, charming or superb vision of life, there comes a realistic or naturalistic school

[3] *Philosophical and physiological treatise on natural inheritance in states of health and disease*.

that wanted to show the truth, nothing but the truth and only the truth... the novelist who wants to give us an exact image of life, must carefully avoid the ordering of exceptional events. His aim is not to tell a story, to amuse or move us, but to force us to think, to understand the hidden meaning of events... Instead of scheming an adventure and making it walk in an interesting way to the epilogue, he will take his characters in one moment of their existence and lead them, through natural transitions, to the next moment. In this way he will show how feelings and passions develop, how one loves, how one hates, how one fights in all social environments, how bourgeois interests, the interests of money, family and politics fight".

In turn, and as soon as “O Mistério da Estrada de Sintra” (*The Mystery of the Road to Sintra,* 1870) had ended, Eça de Queiroz, while participating in the Casino Conferences, declared himself a fan of the new realistic, naturalistic or experimental aesthetic (terms he used interchangeably , as well as the writer and theorist Júlio Lourenço Pinto), justifying it as "a philosophical basis for all conceptions of the spirit, a law, a guide letter, a script of human thought in the eternal artistic region of the beautiful, the good and the fair ... It is the negation of art for art, it is the ban on the conventional, the emphatic and the mushy. It is the abolition of rhetoric considered as the art of promoting the commotion using the swelling of the period, the epilepsy of the word, the congestion of figures of speech. It is analysis with the aim of absolute truth. On the other hand, Realism is a reaction against Romanticism: Romanticism was the apotheosis of feeling; Realism is the anatomy of character ... cold narratives, sliding with o images on the surface of a mirror, without interference from the narrator. The novel has to convey nature to us in exact, blatant, real pictures ”(Realism as a new expression of art, reconstitution of

António Salgado Júnior in Histories of the Casino Conferences, Typography of the Military Cooperative, Lisbon, 1930, pages 55 and 56).

But if the realist-naturalist writers made the commoners, the proletariat and the new bourgeois upstarts habitual characters in their narrations and dramas, even so their greatest representatives cannot be considered positivists from a political or philosophical point of view. Let us compare, for example, the merciless plots of the Goncourt brothers, Gottfried Keller, Zola, Maupassant, Eça, Thomas Hardy, Giovanni Verga, Blasco Ibañez or even our Aluísio de Azevedo to realize that, far furthermore, Comte's perspective turned out to be doctrinally conservative and messianic, while the literary current maintained a disenchanted or even ironic and skeptical view of the social order. What is still called “social Darwinism”, that is, the conviction that socioeconomic relations reproduce, in their own way, the natural struggle for the survival of the strongest or the fittest (“the strong and cruel struggles of life”, as Strindberg refers in the preface by Fröken Julie, Miss Júlia) is visibly portrayed in plays by Henry Becque (The Crows, The Parisian), Hauptmann (Before the Dawn, The Weavers, The Beaver Skin) or Strindberg himself (Comrades, Father, The Dance of Death, Debit and Credit), in whose plays and tales (Weddings) Darwinism is revealed in the form of radical anti-feminism and anarchic socialism.

In his final works, as Système de Politique Positive or Traité de Sociologie Instituant la Religion de l'Humanité (Carilian-Goeury et Vor Dalmon, Paris, 1851-1854) Comte shows himself visibly a representative of the 1789 counter-revolution, imbued, at the same time, of fervor for science and for a spiritual-religious tutelage whose model goes back to the “theological” Middle Ages. Hence its appeal

to technical-scientific progress and religious order: “... it is necessary here to irrevocably build the universal point of view of true wisdom, finally combining, through morals, two correlative aspects that science had to temporarily separate. Its successive appreciation is in line with philosophy and religion requires its habitual union, only it can lead real life, both private and public ... it is necessary that the appreciation of the past is sufficiently systematized to reveal the future. Now, this continuity could not be obtained unless human progress always represents the simple development of an immutable order ... our march can only acquire a truly positive character resting, at the same time, on the theory of order and that of progress, the only ones capable of preserving us, one of the arbitrary, the other of the absolute ... no great progress can actually be made if it does not, in short, lead to the evident consolidation of order” (tome 4, pages 1 to 4).

Since he never developed a criticism or a proposition of political economy and was never concerned with a theory of the State, remaining anchored in the realm of ideas, positivism ended up, strangely, heading towards a Religion of Humanity (or Great-Being), a soteriology almost irrational, considering the rational expectations of the time and of philosophy itself. Only Humanity matters, since it is the generic instance that allows the material, social, intellectual and moral lives of individuals. It replaces the figure of God to give “positivity” to social life. Or, in the words of the “evangelist” himself: “my public course in 1847 marked the irrevocable event of religious positivism, condensing our feelings into thoughts and our actions around humanity, definitely a substitute for God. Since then, the simultaneous elaboration of dogma, cult and regime emerged,

adequate to the demonstrable faith, whose full systematization constitutes the main destiny of this treaty" (tome 3, page 618).

In England, Stuart Mill approaches positivism with regard to the already traditional empirical aspect of British philosophy, based on sensitive and inductive knowledge. That is, if all we can know is part of the experience provided by the senses, what would be the guarantee of our analogies, inferences and generalizations, by which we formulate laws and principles? Mill himself replies (A System of Logic, book II) that only a set of previous and sensitive inferences is what allows us to generalize and conclude that the universe is not chaotic, but, on the contrary, is governed by regularities, which he follows a uniform course and that the unknown can only be glimpsed by what is already known. Although materialistic, Mill admits (*Essay on Theism*) the existence of an order or creative intelligence of the universe and, precisely for that reason, it is also up to man to give an order and establish harmony in society, through good, justice and personal freedom.

Already in the early 19th century, positive ideas of transformation and adaptation were gaining evidence with the new natural historians (or naturalists), such as Jean-Baptiste Lamarck (*Philosophie Zoologique*, 1809) or Georges Cuvier (*Les Révolutions de la Surface du Globe*, 1829), despite their differences. In any case, opposition to creationism and the immobility of living beings becomes evident, at the same time as environmental conditions for survival and a progressive complexity of organisms gain importance.

Thus, for example, writes Lamarck: "All physical bodies, whether solid, fluid, liquid or gaseous, are each endowed with their own qualities and faculties; but in the sequences of the movement spread among them, such bodies are subjected to diverse relations and

mutations in their state and situation; they establish among themselves different forms of union, combination or aggregation; they then prove infinitely varied changes, until complete disunity with their other components, separations from their aggregates, etc.; thus, such bodies acquire other qualities and faculties relative to the state in which each one is. As a result of the disposition or situation of such bodies... of the faculties each one possesses, of the laws of every order that govern their changes and their influences, in short, of the movement that does not allow them any absolute rest, there reigns continually, in everything that constitutes nature, a powerful activity, a succession of movement and mutations of all kinds that no cause could reduce, except that which made everything exist. To regard nature as eternal and, consequently, as having always existed, is for me an abstract idea whose reason could not satisfy me... *Nature, by successively producing all species of animals* and starting with the most imperfect or the simplest, to finish its work with the most perfect, *gradually complicated its organization*... and each species, due to the influx of circumstances in which it found itself, received the customs with which we know them and the modifications of their parts that the observation shows us" (edition Dentu, Paris, pg. 360, 361).

A little later, in an article written in 1857 on the Enlightenment notion of progress, Herbert Spencer used the term "evolution", understanding it as a principle common to the phenomena not only of the material universe, but also of society (*Progress: its Law and Causes*, Westminster Review). This generalizing conception was suggested to him by Schelling's natural philosophy, by the naturalists and by the then recent embryological development theory of the physician and physiologist Karl von Baer (discoverer of the blastocyst stage, the notochord and the ovum), and that he had exposed it in the

book *Über Entwicklungsgeschichte der Thiere* (On the History of Animal Development), of 1828. Two years after Spencer's article, Darwin made the term popular in his book "The Origin of Species", stating that evolution, in the case of living organisms, took place by natural selection. Darwin, in fact, limited the concept of evolution to living beings, while Spencer employed it with reference to the entire universe. In his opinion, it is characterized by the passage from an initial state of indefinition, more homogeneous or simple, to another more defined, heterogeneous or of greater complexity in forms and connections.

Therefore, the notion of stability or permanence (of philosophical or religious nature) was deeply shaken in favor of a vision of continuous change, despite the indestructibility of matter and the conservation of energies. Such principles, according to Spencer, are subject to the inexorable law of "integration of matter and dispersion of movement".

And as far as society and culture are concerned, the promise of development, brought by complexity, resembles the law of the three stages of Comte. The evolutionary progression from the simple to the compound can be observed in socioeconomic relations. There would then be two types of society throughout history: the militant, previous, and the industrial, of its time. The first was based on hierarchical or statist relations of obedience, while the industrial one is built on voluntary or freely contracted obligations.

Outside the French environment, however, perhaps it was the current of German materialist positivism that most reverberated on the perspectives of naturalistic literature. Its main exponents - Karl Vogt, Jakob Moleschott, Ernst Haeckel and Ludwig Büchner (younger brother of the playwright Georg Büchner) -, all researchers in the

biomedical fields, dedicated themselves to combat dualist ideas in the sciences, thus exercising direct influences on philosophy and the spirit of the time. The authors believed that their investigations clearly pointed to the absolute prevalence of biological mechanisms over the functioning of all animal life, including the psychological and teleological aspects of human beings. Hence they are considered “materialistic monists”. For Moleshott, for example (*Der Kreislauf des Lebens*, The Cycle of Life, 1852), physiological or vital phenomena are sufficient in themselves, that is, they do not, in explanatory terms, need any extra-physical or supernatural hypothesis. Büchner, professor at Tübingen, defended Moleschott's propositions in his work *Kraft und Stoff* (Force and Matter, 1852), reaffirming the ideas of the indestructibility of matter and energies, of evolution and immutability of natural laws. For both, what we call spirit is the result of a cooperative action of many substances endowed with qualities and natural forces. In Büchner's view, to neglect the importance of matter, and thus the body itself, is an aberration that can only be reached through ignorance or fanaticism. Haeckel added many observations and facts in support of Darwin's theory (although he was not entirely convinced of natural selection), in addition to contributing greatly to biological taxonomy (for example, and among others, the terms phylum, phylogeny, ontogeny), ecology, missing link). With his initial investigations, which resulted in the work *Generelle Morphologie der Organismen* (General Morphology of Organisms, 1866), he proposed the parallelism between the evolution of the individual embryo and the phylogenetic development of the species to which it belongs. Much later, at the end of the century, he wrote *Die Welträtsel* (The Enigmas of the World), a hugely successful book across Europe. There, the thesis of science is again supported as the

power to reveal the world and the path of human liberation and salvation.

In Italy, at last, we come across Roberto Ardigò, a priest who, faced with a religious crisis at the age of forty, abandoned the habit to consecrate himself to philosophy and teaching, attracted by the ideas of Pomponazzi, Comte and Spencer. In *Pietro Pomponazzi*, he writes: "Modern thinking, to which Europe owes its present condition of greatness and power, is the maturing of a philosophy that was born close to us during the years of the Renaissance... In the present era, human rights, of the French Revolution, have become the laws of society; individual sentiment, of the Germanic Reform, has become effective civil and religious freedom, and the new rational principles, of the Italian Renaissance, have become our positive science. At this time, speculation has no value, but only that which is based on observation and experiment, and in which the morality of work is esteemed above all" (pp. 10 and 11, ed. Giustino Soave, Mantova, 1869). A year later, in *La psychologia como scienza positiva*, he reaffirms the notion and the reality of the fact as the basis of all research and reflection: "It possesses a reality of its own, an unalterable reality that we find ourselves obliged to affirm, as it is given to us and as we find it, with an absolute impossibility of taking anything from it or adding to it; fact is something divine; the abstract, on the contrary, is we who form it; and we can form it as something special or more generic; therefore, the abstract, the ideal, the theoretical principle are human" (quoted in Historia del Pensamiento Filosófico y Científico, vol. III, Reale, G. and Antiseri, D., Herder Editorial, Barcelona, 1988).

This *fact* of scientific study or philosophical proposition is equivalent, in the literary universe of naturalism, to the “slice of life”

that serves as a starting point for narration, thus preserved in its maximum truth. Society, in turn, corresponds to man's own environment, and for this very reason conditions him in all aspects, just as physical and chemical phenomena determine natural conditions. Hence the preference for the novel, the most appropriate vehicle for the descriptive deepening of psychological and social mechanisms and conditions.