

# THE LATE NINETEENTH CENTURY SCIENTIFIC IMPACT ON AMERICAN AND SPANISH INTELLECTUALS (1875-1898)

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(Resumen)

Este artículo se centra en la internacionalización de las ciencias sociales a finales de siglo y cómo influyó en la intelectualidad norteamericana y española. La recepción tardía del positivismo comtiano en España, como también fue el caso con el evolucionismo cientifista, se dio durante el sexenio revolucionario, una etapa política que pronto quedó reemplazada por un régimen oligárquico. Sin embargo, los intelectuales reformadores pronto aplicaron este bagaje positivista y evolucionista enarbolando demandas de “regeneración” y “modernización”, en especial tras el Desastre de 1898. El caso de Norteamérica es bien distinto. La democracia, una fuerte industrialización y expansión económica unido a valores morales y religiosos que competían por el bienestar y la autoconfianza individual lograron acomodar el impacto del pensamiento evolucionista en clave de pragmatismo, como conocimiento aplicado y ciencia empírica, en ocasiones no exento de ribetes anti-intelectualistas.

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The purpose of this study is to appraise the flow of interlocking scientific and intellectual trends that operated in America and Spain during the world-wide *fin-de-siècle* movement towards the internationalisation of the social sciences. The time-span has however been broadened so that different previous scientific and intellectual approaches have the opportunity to fit into the puzzled era of “scientism”. This contribution focuses thus on a specific historical period and topic, but the intention is not to go into the methodology and analysis of natural and social phenomena as they distinctly appear in the different approaches of the American and Spanish intelligentsia. Too much has been written in that sense. The purpose is to understand to what extent and how American and Spanish intellectuals were influenced by the general development of natural and social sciences in the late nineteenth century -basically of evolutionary nature- at a time when “objectivism” and naturalistic law-patterns were applied to social phenomena alongside a strong belief-system in human progress and modernization, very much in line with Condorcet’s Enlightenment ideas on human progress. But scientific revolutions and ideas do not take place, as traditionally assumed, with dispassionate objectivity. As Thomas Kuhn noted in his now famous *Structure of Scientific Revolutions* (1962) the emergence of new scientific paradigms arouse ideological and political battles between the various social classes in society. Evolutionism was indeed a too radical scientific revolution for the prevailing cultural values, and, all too often, a new modified watered-down version of the new scientific paradigm was processed and invoked as the original paradigm. This was the case with evolutionism both in America and Spain.

The late 19<sup>th</sup> century stands as a period of dramatic confrontation between religion and science, specially related to the Darwinian debate. Thus, while the impact of science

and evolutionism<sup>1</sup> on the general public was one of surprise, confusion and even rejection, the secularists embraced initially both with equal zeal generating disparate interpretations.<sup>2</sup> The intelligentsia basically endorsed evolutionism as it provided a trustworthy scheme for progress, in contrast to Malthus' previous gloomy picture of human evolution and the Utilitarians sheer hope of being able to engineer progress. But the term evolution was soon ideologically vested with several meanings, it was to be applied either innocuously as synonymous to development or, more radically, as a biologically determined law-pattern applicable to all worldly phenomena. Actually "Social-Darwinism" –the most conspicuous and employed understanding of human evolution- provided the intellectual underpinnings for very different political and social standpoints<sup>3</sup> even if conservative and liberal *laissez-faire* doctrinaires drew most heavily on such ideas. In America, as J.H. Altschull remarks, "it provided assurances that the quest for wealth and power was good in itself, beneficial for all society [...] Under the spell of Social Darwinism, the old law of nature that had been thought to lead to the triumph of justice and love now became the natural law of competition, [...] the gospel of wealth."<sup>4</sup>

Some additional preliminaries are probably a necessary requirement. Firstly it must be underlined that this comparative approach requires a special effort to wrestle with the international crossroads so that this contribution will hopefully not fall among the sum of nation-based studies. Secondly, this paper will focus on how the trends in social sciences have influenced the frame of mind of American and Spanish intellectuals from different ideological strands, a rather undeveloped field mainly due to "ideological" reasons inasmuch as social sciences have been suspicious of belonging to the realm of a liberal capitalist establishment, and to the fact that religious fundamentalism, reactionary Conservatism plus Anarchist "social engineering" and Socialist "scientific materialism" belonged to the outside boundaries of what was the mainstream of Western academic sociology, at least as far as the end of the nineteenth century is concerned. This assumption is obviously more European than American as a long-standing liberal consensus pervaded the American mind and social action, defusing radicalism and streamlining what scholars in cultural studies call "American exceptionalism."<sup>5</sup> Another related and debated issue is the scarce theoretical production of American and Spanish intellectuals, to the extent that they

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1. For an overview of the nature of social evolutionism, see Stephen K. Sanderson. *Social Evolutionism. A Critical History*. Cambridge & Oxford: Blackwell, 1990.

2. Carter, George S. *A Hundred Years of Evolution*, London: Sidgwick&Jackson, 1958. The book offers an overall appraisal of the effects of evolutionism. A more ingoing study is Peter J. Bowler's *Theories of Human Evolution. A Century of Debate, 1844-1944*. Oxford: Basil Blackwell, 1986; and *The Eclipse of Darwinism. Anti-Darwinian Evolution Theories in the Decades around 1900*. Baltimore&London: John Hopkins UP, 1983. Also Frank X. Ryan. *Darwinism and Theology in America, 1850-1930*. 4 vols. Bristol: Thoemmes, 2002.

3. For a summary overview, see Lee Cameron McDonald, *Western Political Thought. Part III. Nineteenth and Twentieth Centuries*. N.Y.: Harcourt Brace Jovanovich, 1968. 436-438.

4. Altschull, J. Herbert. *From Milton to McLuhan. The Ideas behind American Journalism*. N.Y. and London: Longman, 1990. 200-202

5. Among others, Seymour Martin Lipset. *American Exceptionalism. A Double-Edged Sword*. London: Norton &Company, 1997; and Deborah L. Madsen. *American Exceptionalism*. Edinburgh: Edinburgh UP, 1998.

have been considered, rightly enough, barely as conveyers of the intellectual production of their European counterparts.

Thirdly, the time period is limited to a crucial period in American and Spanish history. American history was fractured into two halves by the Civil War and its aftermath, but the closing decades of the 19<sup>th</sup> century experienced likewise the rapid decline of small-town liberalism and the rise of a new urban business ethic during the "Gilded Age" of new industrialism.

Spain underwent also a critical historical period with modernization claims clustered to "regenerationism" and "modernism,"<sup>6</sup> cultural expressions that magnified and overemphasized Spanish decadence and industrial backwardness, suddenly in evidence as a turnout of the "disaster" of 1898,<sup>7</sup> but actually as a response to what may be summarized as a vividly experienced recent past transition from a pre-industrial to a becoming industrialized society. However, prior to 1898, different Positivist-evolutionist and neo-Kantian intellectuals had already made the blueprint of the country's pathology and its remedies. Among all these intellectuals one should firstly mention Angel Ganivet, a representative of the "1898 generation", who was torn as a "pre-regenerationist" between modernity and traditionalism.. Other Spanish intellectuals were far more in tune with their time even if too straight-jacketed by Spanish "essentialism". Albeit the fact that Ganivet held a conspicuous remedy to the Spanish malady -*noli foras ire, in interiore Hispaniae habitat veritas*- nonetheless the reshaping of cultural and scientific approaches was by that time a crossroad of interrelated influences which means that this study will dismiss what may be considered the "natural" Spanish cultural boundaries.

America was still very indebted to European abstract thinking to the extent that theoretical undertakings remained there a rather undeveloped domain. The application and diffusion of science and knowledge acquired contrariwise high prominence. This is probably one of the reasons why Positivism hardly exerted any influence in the American setting as it since the Enlightenment was an open field for empirical scientific endeavours, relatively unrestrained by metaphysical and philosophical premises. Accordingly, the main resistance to the new revolutionary scientific discoveries in America was to be located in the widespread religious belief-system based on "supernaturalism", that is, upon the idea that a Creator had "designed" all the forces of Nature. But here again both Anglicanism and Calvinism, not too speak of other Protestant expressions, soon integrated science through constant theological accommodations.<sup>8</sup> Contrariwise to what happened in Spain where traditional Catholicism acted as an outright opposition to the new scientific approaches as much as it struggled against liberal and socialist ideas. Accordingly, anticlericalism developed in Spain as a reactive secular progressive movement, a trend wholly absent in the American scene. And, in Spain, Catholic accommodations to modern science and to other

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6. "Modernity" and "modernization" are vaguely defined concepts. Closer remarks on their problematic use in late 19th century Spain are accurately exposed in Helen Graham and Jo Labanyi (1995), *Spanish Cultural Studies. An Introduction*. N.Y.: Oxford UP. 10-16.

7. See Sebastian Balfour "The Loss of Empire, Regenerationism, and the Forging of a Myth of National Identity" in Graham-Labanyi *Spanish Cultural Studies. An Introduction*, op.cit. 25-31.

8. See Cashdollar, Charles D. *The Transformation of Theology, 1830-1890: Positivism and Protestant Thought in Britain and America*. Princeton: Princeton UP, 1989.

than traditional conservative political outlooks belonged mainly to the history of the 20<sup>th</sup> century.

And, a final remark, the beginning of the 20th century is also critical in the sense that Positivism together with the ideas of order, progress and organic harmony were openly subject in Europe to widespread criticism both by neo-Kantiansm and all the new subjectivist strands of critical social thought, as well as to outright rejection by the indeterminist philosophies of contingency, as Alfred Fouillée so admirably sums up the philosophic climate in 1896 in *Le mouvement idéaliste et la réaction contre la science positive*. In the wake of the coming of a mass society different attitudes sprinkled into elitist and democratic standpoints. In addition fundamentalist Catholicism experienced a revival in Spain in the early 20th century contrariwise to what happened in other neighbouring countries. In those same years America witnessed the age of Populism and Progressivism as a reaction both to radical individualism and the “crux of Gold”, as big capitalism was depicted by a significant layer of American society.<sup>9</sup>

### 1. SCIENCE IN THE AMERICAN CULTURAL SETTING BEFORE THE PROGRESSIVE AGE

In the early years of the American Republic the ideas of Enlightenment, the protestant ethos, missionary nationalism and the impact of environment interacted on the making of the new society. A subsequent unsteady transition from the agrarian world of the Enlightenment to the modern world of science and technology -as it appeared by the end of the 19<sup>th</sup> century- had perforce to become a cumulus of contradictions and paradoxes. Nonetheless, in contrast to Europe, the concept of progress prevailed during this leap as a real and demonstrable fact rather than as a bare philosophical theory. Thus when romanticism from Jacksonian democracy to the eve of the Civil War supplanted Enlightenment as the new pattern of American thought it was of a special brand: “prospective rather than retrospective, optimistic rather than forlorn, constructive rather than destructive.”<sup>10</sup> And for all its emphasis on individualism, it spurred social reforms, foremost a daring democratization process. As R.B. Nye puts it “American reform was infused with the characteristically American tradition of “good works” and benevolence, compounded of Calvinism, Quakerism, Enlightenment deism, frontier democracy, and evangelical missionary zeal.”<sup>11</sup> Nevertheless American cultural identity was hereto almost

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9. Among the impressive literature both in volume and quality that framed the Progressive movement was Henry Demarest Lloyd's *Wealth against Commonwealth* (1894), Henry Demarest Lloyd's writings in *Atlantic Monthly* and Ida M. Tarbell's *History of the Standard Oil Company*, Lincoln Steffens' *Shame of the Cities* (1905), William T. Stead's *If Christ Came to Chicago* (1894) and James Bryce's *The American Commonwealth* (1888) exposing the deplorable condition and corrupt nature of political life specially in state and local governments, Jacob Riis' *How the Other Half Lives*, Gustavus Myer's *History of the Great American Fortunes*, Thorsten Veblen's *The Theory of the Leisure Class and Theory of Business Enterprise*, novelists like Frank Norris (*The Pit* and *The Octopus*) and Upton Sinclair (*The Jungle*).

10. Nye, R.B. *Society and Culture in America 1830-1860*. 1974. ix.

11. *Ibidem*. 33

entirely derivative, even though Americans put their cultural hallmark on imported ideas and values.<sup>12</sup> New England transcendentalism for example differed deeply from Kantian idealism and Emerson's romanticism was likewise dissimilar to Carlyle's.

American common sense pragmatism and utilitarianism acted as main agents when adapting European abstract thinking. In fact, early ties can be established between the founders of American sociology and pragmatic philosophers. Pragmatism, as William F. Fine underlines, "developed out of the Metaphysical Club at Harvard in the early 1870's, where Charles Peirce, Chauncy Wright, John Fiske, William James and others shared in the effort to work out the philosophical and social implications of evolutionary thinking,"<sup>13</sup> mainly reconciling Spencer's materialism with American religious sensibilities eventually leading to the complete banishment of biological evolutionism in social sciences and humanities. Thereby the moralistic social scientific determinism of human *free-will* replaced the reductionist constraints of biology and natural sciences. Pragmatists became thereafter, and until the 1960's, a central force in American philosophy, contesting materialism and idealism for supremacy in metaphysics, epistemology and value theory. Their functionalist views originated in the Chicago school of religion as well as of sociology, social psychology and symbolic interaction, all stemming from psychological standpoints.

Pragmatism was supplemented by the popular idea that Americans held a divinely ordained march toward human betterment. The very idea of the "national genius" belonged to the myth-system that has characterized so decisively American nationalist thought. A missionary concept that found concrete expression in the "Manifest Destiny" expansionism of the mid-century years. Actually much of the concept was tainted with romantic and religious overtones drawing heavily on myths. Unsurprisingly enough theology was still a common concern of the American mind at least all through most of the 19<sup>th</sup> century, at a time when religious thought essentially witnessed the transformation of Calvinism. The roots of this grand religious transformation go back to Benjamin Franklin and Jonathan Edwards and their concern to make religious ideas conform to the demands of rational rules and to the discoveries of modern science.<sup>14</sup> Nevertheless later new developments in the biological and physical sciences during the last third of the 19<sup>th</sup> century exerted an even more challenging blow to the doctrine of supernaturalism. Until then Newton's concept of a mechanistic universe under the spell of a growing scientific spirit and of rationalism had been gradually assimilated to Calvinism and Anglicanism. However, the full implications of scientism led a minority to become "free-thinkers" or deists while a larger popular following found in Unitarianism –a watered-down version of deism- a more suitable accommodation. After some resistance on the part of the orthodox leaders the new evolutionary scientific doctrines –those of Darwin, Lamarck and Lyell in particular- and supernaturalistic theism were more or less reconciled. The doctrine of "design" allowed this reconciliation as it saw in every new scientific fact, relationship or theory evidence of God's all-wise purpose. By the end of the century the march of science had been on the

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12. Bartlett, op.cit. 18.

13. Fine, W.F. *Progressive Evolutionism and American Sociology, 1890-1920*. UMI Research Press, 1979. 235.

14. Bartlett, Irving H. *The American Mind in the Mid-Nineteenth Century*. Illinois: AHM Pub. Corp., 1967. 7-8

whole adjusted by theologians to fit Christian doctrine.<sup>15</sup> Assumably because the idea of evolution was so safe by 1886 that the famous preacher Henry Ward Beecher could declare evolution consistent with Christianity.

In the post-Civil War years rapid industrialization and modernization was a particularly trying time for the US. Financial panics, agricultural crisis, the rise of the railroad and related industries like iron and steel had captured the American economic landscape. The concentration of ownership and predatory methods of the new industries –the trusts- raised concern. So did the agrarian crusades and radicalised trade unions which rose to meet new industrialism. Amidst these changing decades, and despite the severe depression years in the early 70's and 90's- optimism in progress seemed unassailable in the American scenario. Little attention was initially given to the effects of this process on American life as the physical expansion of the country absorbed completely the energies of the people. Populism and Progressivism<sup>16</sup> did so in the closing decades of the 19<sup>th</sup> century when they rose as potent reform movements, even if their direction was governed by the strongly individualistic pattern of American cultural thought. The progressive reform movement had indeed no intention of altering the framework of American society. Its main aim consisted in removing some crankerous growths from the industrial civilization as combinations, trusts and special interests, basically extending political democracy through direct control of government by the people. Such changes were thought to restore individual self-reliance in progress and equality of opportunities. It also meant enhancing the power of national government to curb the social inequalities brought forth by an unrestricted and socially biased *laissez-faire* doctrine. Henry George's *Progress and Poverty* (1879) -that by 1906 had reached more than a hundred editions and had been read by more than six million Americans- symbolizes best the prevailing reform mood. In his words "where population is densest, wealth greatest, and the machinery of production and exchange most highly developed –we find the deepest poverty, the sharpest struggle for existence, and the most of enforced idleness."<sup>17</sup> Similar contemporary indictments against unrestrained capitalism paved the way for unusual, even exotic, forms of social thought, parties and movements. In V.O Key's words "in the 1870's and 1880's exotic new parties and movements appeared on the American scene, symptomatic of the growing pains of the economy. Among farmers the Grangers, the Greenbackers, the Farmer's Alliance, and eventually the People's party arose to protest the subjection of the agrarians to industry and finance. The Knights of Labor held their first national convention in 1878 and by 1886 had over 700.000 members (...) In the same era trade unions, by a series of steps, merged into the American Federation of Labor. Socialist groups [.. and other labor parties] put forward candidates here and there (...) The single-taxers, inspired by Henry George's *Progress and Poverty* advocated their formula for social justice. Of panaceas there was no end.

15. Curti, Merle. *The Growth of American Thought*. 2<sup>nd</sup> ed. N.Y.: Harper, 1951. 531 et passim

16. See J.W. Chambers II. *The Tyranny of Change: America in the Progressive Era, 1890-1920*. N.Y.: St. Martins Press, 1992. A. Dawley, *Struggle for Justice: Social Responsibility and the Liberal State*. Cambridge: Harvard UP, 1991; and D. Rodgers, *Atlantic Crossings. Social Politics in a Progressive Age*, Cambridge: Harvard UP, 1999. Likewise, Gould, L.L. *America in the Progressive Era, 1890-1914*. N.Y.: Longman, Harlow, 2001.

17. Henry George, *Progress and Poverty*, Robert Schalkenbach Foundation, 1940. 8.

Businessmen, threatened by the rapid growth of combinations and trusts, feared the depredations of the industrial and financial buccaneers (...) Upstanding citizens read Edward Bellamy, and middle-class humanitarians and reformers pondered what might be done to cushion the impact of the new industrialism.”<sup>18</sup>

Social-Darwinists, as Yale sociologist and economist William Graham Sumner (1840-1910), held opposite ideas. The Darwinian and Spencerian concepts of the survival of the fittest led them to criticize efforts by reformers to intervene in the “natural” evolution of society, whereby any attempt to denaturalise this process was regarded as misguided.

All these disparate trends signalled a wavering, though significant intellectual and political departure from “self-help” visions, due to the felt hopeless insufficiency of the isolated individual, as well as from classical liberal opposition to state intervention. No wonder that formerly ignored philosophies as those of Hegel<sup>19</sup> and Kant, not to mention John Stuart Mill’s revised liberalism, became suddenly the hub of a relevant part of American late nineteenth century philosophical endeavours, but in any case far from the influence those philosophies exerted on European thinkers.

In the 1820-70 year period nearly all of the major scientific achievements<sup>20</sup> were European. That a young, undeveloped scientific culture in America could produce such men as Joseph Henry in physics, Asa Gray in botany, Matthew Maury in oceanography, Louis Agassiz in zoology and James Dwight Dana in geology was in itself significant even though they made no scientific breakthroughs of major importance.. To some the great burst of scientific endeavour in American society seemed to symbolize the advance of an insidious materialism that was slowly eroding humanistic, religious values. Nevertheless such opinions belonged to a minority, the majority put its confidence in the Newtonian-Baconian method assuming that science was empirical, avoiding metaphysical speculation.

The proliferation of scientific societies was also swift after 1840, and in 1846 the increase and diffusion of knowledge was entrusted to the Smithsonian Institution that by 1870 became America’s most powerful and prestigious scientific society. 1848 witnessed the foundation of the American Association for the Advancement of Science, and in 1863 a bill was passed that created the National Academy of Sciences. The 80’s and 90’s were even more prolific as the emergence of different, all the more specific, scientific associations, foundations and reviews punctuated the time period. Science in America became subsequently professionalized through increased specialization.

Science in America tended in general terms to be applied rather than theoretical, fulfilling thereby the aims of social usefulness. However, until the 20<sup>th</sup> century science and technology were considered to belong to separate fields. When science and technology came together Americans were easily among the most technologically advanced in the world. There were a number of practical reasons for the sudden bourgeoning of American

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18. V.O. Key, Jr. *Politics, Parties & Pressure Groups*. New York: Thoms Y. Crowell Company, 5<sup>th</sup> edition, 1964. 169.

19. American Hegelianism is epitomized by the St. Louis Hegelians as G.S. Morris and Henry Torrey. See DeArmev, M. & Good, J.A., Eds. *The St. Louis Hegelians*. 3 vols. Thoemmis Press. 2002.

20. See Numbers, R.I & Rosenberg, C.E., Eds. *The Scientific Enterprise in America*, Isis. Chicago: University of Chicago Press, 1996.

technology in the 19<sup>th</sup> century. America had a chronic labour shortage and an unparalleled abundance of natural resources. The working force had no entrenched craft or guild tradition nor did they feel that machinery threatened their jobs. In the last resort the need to compete with European products made constant technological innovation mandatory for American industries.

Closely related to the egalitarian currents, specially associated to Jacksonian democracy, was the continued progress and diffusion of natural science both in academic circles and among common people. In 1847 Benjamin Silliman of Yale –founder in 1818 of the *American Journal of Science*- proudly reported how vigorously science had evolved in the US. However, American science was still heavily indebted to Europe, mitigated though by increased immigration of European scientists and by a growing number of American students studying in German universities. Yet the traditional conflict between naturalism and supernaturalism had not been entirely resolved by 1880. Accordingly all the leading scientists accepted the basic doctrine of Christian theology making science accord with religious truths. The idea that science promoted progress for mans physical comfort and well-being gave rise to American fertility in technology and their sterility in abstract theoretical laws. Tocqueville depicted this genuine American feature assuming that amidst European permanent social inequality the scientific mind was prone to confine itself to “the arrogant and sterile researches of abstract truths, whilst [in America] the social condition and institutions of democracy prepare them to seek immediate and useful practical truths of the sciences”.

Throughout the last three decades of the 19th century common school awakening, the development of the Academy, lyceums, newspapers, reviews, scientific associations and public libraries promoted extensively the diffusion of scientific knowledge among common people. In short, increased scientific knowledge, diffusion and education enhanced in America a close relationship between society and the scientific community in contrast to Spain where science suffered the hardships of its divorce from society due to widespread illiteracy and a rudimentary educational system. Illustrative is the fact that while illiteracy declined in America from 17% in 1880 to 11% in 1900, in Spain the rates of illiteracy remained scandalously high: 68% in 1889 and 63.7% in 1900.

## **2. FROM METAPHYSICS TO POSITIVISM IN SPAIN**

August Comte’s prediction was holding true in the developed Western world. During the comparatively peaceful second half of the 19th century “scientism”, “sociologism” and “historicism” were successful enough to accommodate the passwords of order and progress into the social body plastered by “realpolitik” and national self-awareness, both following patterns of outright evolutionary determinism. Positivism was in that sense so successful in its strongholds that it trespassed its suitable national boundaries becoming a worldwide gospel, as Comte wanted it to be. The problem was how lagging societies such as the Spanish, still clinched to metaphysical and/or theological stages, could catch up to enshrine Positivism. In the Spanish orchard the theological features were still buoyant, although strongly exposed to liberal and radical thinkers and movements in the sway of metaphysical thinking, that is, about “what should be”.

Bentham’s early non-organic “Positivism” took only a look at the Spanish landscape but found it all too uninteresting to operate with Utilitarian calculus. America



became on the contrary Bentham's favourite playground after describing himself to Andrew Jackson as "more of a United-States-man than an Englishman".

Accidentally a rather unknown German idealist philosopher, Krause, became the mastermind of Spanish liberal reformers and early sociologists. Sanz del Río (1814-1869) - received a scholarship to attend Heidelberg University in 1843- and, together with not so reform-minded social thinkers as the early Positivist catholic thinker Jaime Balmes (1810-1848) and the pristine positivist and conservative Ramón de la Sagra (1798-1871) - formerly enticed with socialist reflections- were the importers of Krause's philosophy which, once adapted to Spanish soil, crystallised in an array of meanings, but mainly as Kant's heritage with strong ingredients shared by Hegel, Fichte and Schelling. Marcelino Menéndez Pelayo (1856-1912), who wrote the catholic liberal-conservative "Summa Theologica", *History of Spanish Heterodoxy* (1880-82) and in 1876, *Science in Spain*, ridiculed this election saying that "few know in Spain that we happen to be Krause's followers by accident, thanks to Sanz del Río's dullness and intellectual idleness."<sup>21</sup> As adversarial as this statement actually is, it seems also a rather unfair indictment as Krause's philosophy was probably the fittest to be embedded into Spanish social reality and cultural patterns: its "Alliance of Humanity"<sup>22</sup> promoted congenial individualism with organicism, rational mysticism, a positive religion and a social practical approach to modernization mainly by means of deep reforms, and, when these failed, by ushering a new moral education for society. Krause's followers in Spain embraced this metaphysical philosophy as more adequate than Hegel's State-fixation which could be wrongly attached to the old Spanish absolute State that had delivered the individual no freedom at all. Besides this Sanz del Río choose German philosophy as a reaction to the haughty attitude of French philosophy towards other cultures and because the words *Wissenschaft* and *Verstehen* were by then applied to social sciences in Germany and elsewhere, diminishing the French Enlightenment's past very cherished glories of critical reason. But rational thinking in the midst of Catholic fundamentalism had to go havoc unless religion in some way was reconciled with reason. The Krausists found in positive religion -a sort of Erasmian or puritan bend- a leeway to enshrine a lay society in Spain provided with an outward looking religion, strongly committed to moral values such as the sense of duty, moral integrity, loyalty and sociability, the latter understood as a way to evangelise society with the new spirit and thereby mould a "new human being."<sup>23</sup> This temper was institutionalised in what was to become the forefront of Spanish social, political and moral reform-thinking: the Institute of Free Education (1876-1939). Founded by liberal professors who had lost their University chairs in 1875, the Institute was intended to become a free University able to nurture the élite needed to modernize Spain. As R. Carr points out, in his very remarkable work on Spanish history, the Institute fulfilled its purpose "until its bourgeois, optimistic

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21. Quotation from Luis Saavedra, *El pensamiento sociológico español*. Madrid: Taurus, 1991. 79. More about Krausism in a radical socialist perspective, Luis Araquistáin, *El pensamiento español contemporáneo*. Buenos Aires: Ed. Losada, 1962. 17 and 22-57.

22. Sanz del Río translated two of Krause's works in 1860, *Metaphysics* and *The Ideal Life for Humanity*.

23. See Posada, Adolfo. *Breve historia del krausismo español*. Oviedo: Servicio de Publicaciones de la Universidad de Oviedo, 1981. Likewise Elías Díaz, *La filosofía social del krausismo español*. Valencia: Torres Ed., 1993.

reformism was swept aside by socialism [but] the Institute represented the most serious attempt to create the intellectual preconditions for a liberal democracy."<sup>24</sup> A Krausist, Francisco Giner de los Rios, and other significant liberal reformers like E. Salmerón, Cossío and Gumersindo de Azcárate, became the leading members of this new institution, soon a glittering meeting-point of Positivist thinking. Thereafter Krausism became even more eclectic.

This transition in Spain from metaphysical patterns of mind to positivism or its hybrid -Krauso-Positivism- needs some explanatory remarks, already largely and fruitfully made by different scholarly studies.<sup>25</sup> Most Krausists had cheered the short-lived Democratic Revolution of 1868 that introduced in Spain democratic government and universal suffrage and which shortly afterwards gave way to the proclamation of the First Spanish Republic. During those years of political turmoil German naturalism, Darwinism and scientific approaches to psychology, biology and anthropology began to be known and strongly debated, but the political milieu was not exactly promising for deep thoughts concerning their also revolutionary influence on scientific knowledge. Science and scientific knowledge, practically absent in the previous decades due to domestic political turmoil, came suddenly to the forefront in what may be labelled an "accumulative" approach to scientific knowledge in Spain.

However, the very short-lived republican experience in Spain bounced at a frenetic speed from a unitary government to a federalist structure eventually collapsing in sheer cantonalist fragmentation. In the best tradition of Spanish military praetorianism, a state coup re-established in 1875 monarchy and the lost status of the privileged classes in Spain. The short-lived Spanish republican regime can thus be understood as a backlash of 1848 revolutionary tide which Spain had not experienced at the time. However, the so called revolutionary six-year period (1868-1874), is also noteworthy because Anarchism and incipient Anarcho-Syndicalism attained their heydays, precisely in Spain, putting almost into practice the millenarian call for a stateless and egalitarian society based on the free association of free associations. Bakunin's message had previously spread as powder among the semi-servile peasants in southern Spain, most of which flocked to the insurgency calls in order to abolish the oppressive State and establish a new associative society with the redistribution and collectivisation of the big estates. Bakunin's call for rebellion attracted also the Catalan working-class -still in its infancy and mostly made up by recent immigrants from impoverished Southern regions- as it there displayed an Anarcho-Syndicalist creed that appealed to the emancipating blessings of the general strike and the building of a new free society, vaguely outlined as a free confederation of trade-unions. Anarchism won thus the battle in Spain, while Marx's supporters were both latecomers and too cautious. Their "moderate temper", as Anarchists put it, was based on the immaturity of objective conditions for a social revolution in Spain. This appreciation obliged them to undergo the hardships of an insignificant sectarian ghetto. Lafargue and Engels himself made vain attempts to disclose the Bakuninist "irresponsibility" in Spain, at a time when an embittered struggle was being fared between the two rival revolutionary movements inside the First International and when the European ruling classes were busy avoiding a re-

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24. Carr, Raymond. *Spain. 1808-1939*. Oxford: Clarendon Press, 1966. 469.

25. Núñez Ruiz, Diego. *La mentalidad positiva en España: desarrollo y crisis*. Madrid: Tucur Ed., 1975. An excellent pioneer study.

edition of the Paris Commune, a sort of epilogue to 1848, and the only serious social upheaval in Europe during this second half of the 19th century. No wonder that the "social question" became a felt priority in order to ensure order and progress. It would also intensify to a higher degree than before the meaning of science as social engineering provided with social responsibility. And that was also the main issue on the agenda of the International Institute of Sociology during its meeting in Paris in 1898.

This very summary portrayal of Spain's historical background serves the purpose to explain mainly two basic assumptions that are worthwhile to bear in mind. Firstly, and this is maybe a new way of understanding the very long-lasting regime of the Restoration (1875-1931), one is tempted to state that this new political order institutionalised Positivism as a guideline, intentionally or not, probably not, but the result is rather coincidental. Cánovas del Castillo, the architect of the new State -he was prone to underline that novelty- was besides being a politician a very cultivated conservative historian. He was also acquainted with the European currents of thought and very identified with British conservative ideas and, contrary to other Spanish conservatives, he almost relinquished all connections with French doctrinaire thought, not to speak of Catholic fundamentalism, although himself a catholic. Cánovas gave an imaginative solution as to how Positivism could find solace in the defaulting Spanish society and nonetheless guarantee order and progress. The first rule was that the natural oligarchic rule should not be based on the exclusion of its opponents but rather in their integration in order to form an organic society, where conflictive interests could harmonize.<sup>26</sup> Spain's recent turbulent history was but an endless pendulum movement based on the political displacement of the opponent by competing civil and military elites in a dormant rural society. Spain's very limited industrialization to Catalonia and some other doted minor foci -the contours of what would become an articulated national economy by 1900 - should be enhanced through a big social coalition able to merge the agrarian oligarchy with the industrial bourgeoisie within a common destiny: the catch-words were "order" and "progress", but not accountable to the people, at least as long as the people did not form a "real" civil society. Nonetheless these words were wrapped by nationalism as the driving force. This social hybrid fostered the ennoblement of the bourgeoisie and the bourgeoisment of the landed oligarchy with common financial operations as the meddling point, but each was awarded its own unabridged sphere of influence, at the expense of delaying unnecessarily the much demanded agrarian reform for further and faster development as so many Spanish regenerationists later earnestly requested. According to Cánovas, the connection between government and society would rely on the rooted patronage spoils system -envisaged also later once suffrage was made universal in 1890- in order to make the British inspired alternating two-party system workable in Spain. All the outsiders -Catholic fundamentalists, Republicans and Socialists- could participate, as they mostly did, as long as they abided to law and order (most Anarchists excepted as they had retreated to terrorism in the belief that it was an ultimate way to awaken mass consciousness and thereby accelerate the pace of history). On the whole, order, peace and progress within the oligarchic system hypnotised all layers of society, even if it rested on an artificial system that was later coined as a two-faced Spain: official and real. In Canovas' mind lay the

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26. Álvarez Rey, L. "El turno pacífico y los grupos marginados 1874-1898" in Paredes Alonso, J. *España siglo XIX*. Madrid: Ed. Actas, 1991. 353 et passim.

scientific bias to consider society a body subject to positive experimentation so that, in the long run, it would be able to care for itself once all the maladies had disappeared in his political laboratory highly influenced by a twisted Social-Darwinist outlook. And it seemed to work until what Pareto called circulation of the elites began in the eve of the 20<sup>th</sup> century to suffer a deep felt sclerosis coinciding with the emergence of a mass society demanding democratisation.

The other main theme is that 1875 can also be viewed as the formal public introduction of Positivism in Spain and the retreat of metaphysical thinking<sup>27</sup>. If so, there must be a common linkage between both coincidental Positivist expressions: the institutional and the scientific mood. A closer look at this founding period of Spanish sociology can illustrate this assumption.

### 3. THE POSITIVIST ASSAULT AGAINST METAPHYSICS IN SPAIN

By 1875 former romantic and metaphysical ways of thought became suddenly outmoded. Order and progress were now the keywords to understand and act in society. Both conservative and liberal intellectuals made Positivism their newly acquired territory in the Spanish very shallow, nearly absent, surrounding waters of feasible social experimentalism. Positivism became therefore more a jargon than an instrumentality, with the exception of Catalonia. In academic circles conservative spokesmen obviously paid more attention to Comtean statics and natural organics in order to stress order and to legitimate established society scientifically. Among the two main Catalan positivists, Pompeyo Gener and Pedro Estasén, much in contact with Emile Littré. Both had by 1875 attached Comte's doctrine to evolutionism and as such it was exhibited as devoid of a destructive nature, because, as Estasén remarked in 1877, "its scrupulous and moderate temper makes it anti-revolutionary and basically conservative, in the words best connotation."<sup>28</sup> Less moderate social reformers took gradualism for granted as synonymous to evolution, which meant working inside established society and dismissing the previous idealist and Jacobine revolutionary tradition as an experienced failure.

Put into a social perspective this new mental framework meant that Spanish society should be modernized according to rationalized organizational standards. Thus, both liberal and catholic social reformers became strongly devoted to the idea of institutionalising social reform. These attempts led to the foundation of the Commission of Social Reform in 1884 and later, in 1904, to the Institute of Social Reform, a unique European institution because of its twelve elected members half were chosen by workers representatives, in fact all socialists. The Commission of Social Reform became also

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27. Núñez Ruiz, *ibidem*, fixes before 1875 the first connection with Positivism among Spaniards living in Paris. José Segundo Flórez, a journalist and personal friend to Comte, published in Madrid in 1863 *Lessons on Religion and Moral*. The Cuban born Andrés Poey y Aguirre began publishing in Paris *Bibliothèque de Positivism* and was also a fervent conveyor of Positivist thought through works as *Le positivisme*, Paris 1876. But the reception of Comtean ideas was faulty to the extent that his works were not wholly translated until 1890. Positivism appeared then as Emile Littré -as often quoted in Spain as Comte- had purified it in connexion with evolutionism.

28. Estasén, P. *El positivismo o sistema de las ciencias experimentales*. Madrid, 1877. 37.

notorious because a leading socialist intellectual, Jaime Vera, delivered there in 1884 the first public official theoretical exposition of Marxism in a hundred page long speech. From the beginning of the century the mentioned Institute began, interestingly enough, to issue regular empirical social reports, a valuable instrument to be applied later in 1908 when the National Social Insurance Institute was created.

As an empirical social research method, Positivism paved the way to set the founding stones of Spanish sociology. This aroused of course fierce battles in academic circles. One of the main battlefields was the Madrid Athenaeum, founded in 1835 as a literary club, but by 1875 it was already a political, scientific and cultural forum for public informed debate that established the respectability of the intellectual.<sup>29</sup> One of the first debated questions in 1875-76, and in connection with Positivism, was "if the present evolution of natural sciences and philosophy in a Positivist direction endangers the basic moral, social and religious rules upon which civilization is based". Positivism aroused both rejection as a "materialist" creed and strong support as a great scientific achievement by University professors, secondary school teachers, publishers, physicians and the like, to the extent that the new scientific approach was thought to conquer not only the academic sphere but even all levels of the educational system and thus society and its moral patterns.

Positivism was from the beginning strongly and confusedly associated to Darwinism, German Naturalism, empirical psychology, positive philosophy of history and the like. The different approaches arrived almost simultaneously making strict affiliations to the different philosophical standpoints very difficult to establish. Francisco María Tubino, an outstanding anthropologist and entrusted to publish yearly reports on the cultural activities of the Athenaeum, was as most Positivist-Evolutionists active propagating all achievements in natural and social sciences. He also suggested that there was a dividing line between determinist evolutionary approaches as those of Büchner, Vogt, Moleschott and Haeckel and those that were usually divested of deterministic connotations when transformed into critical evolutionism and inspired in H. Spencer's ideas (but also in those of Mill, Bain, Lewes, Tyndall, Helmholtz, K. Fischer, Wundt and Ribot). A leading Kraus-Positivist, Gumersindo de Azcárate, summarized these two Positivist approaches as "critical Positivism" or neo-Kantism on one hand and "dogmatic or ontological Positivism" or German Naturalism on the other.<sup>30</sup>

Most of these discussions appeared in Madrid in the scientific review *Revista Contemporánea*. Meanwhile, Barcelona became the stronghold of Positivism with less metaphysical ingredients as it could be more firmly applied in Catalonia's industrializing environment. Prat de la Riba, founder of Catalan *Renaixença*, together with V. Almirall, J.M. Batrina, P. Estasén and others, soon evolved towards Spencer's evolutionary ideas, at times with a racial tinge, as these best legitimated scientifically Catalonia's national self-awareness and struggle for self-government. So, if according to Spencer, the course of development was from homogeneity towards heterogeneity, should Catalonia's demand for distinctiveness not be understood as a natural outcome of social development? The thus ensuing Castilian "essentialism" can be seen as a reaction to this outlook. Barcelona's

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29. Fox, Inman. *La invención de España: nacionalismo liberal e identidad nacional*. Madrid: Cátedra, 1997.

30. Azcárate, G. "Positivism and civilization" in *Estudios filosóficos y políticos*. Madrid, 1877.

Athenaeum, University and reviews as *El Porvenir* channelled these ideas together with a very active edition of books.

Another interesting Positivist focus was Seville where Antonio Machado y Núñez, a evolutionist forerunner, who already in 1843 lectured in geology following Lyell's theories, published *Revista de Filosofía, Literatura y Ciencias* and founded in 1871 the Anthropological Society of Seville, as well as Rafael Ariza, a physician, and one of the first to introduce Haeckel in Spain. Other Positivist conveyors could be found in Granada, in Malaga's *Revista de Andalucía*, and in Valencia's Athenaeum.

Kant's philosophy was on the other hand lately introduced in Spain and in a very scatter way. José María Rey Heredia and Matías Nieto Serrano were the only two Spanish followers of his philosophy before 1875. But José del Perojo can be rightly considered the first neo-Kantian. He obtained his PhD. degree from the University of Heidelberg under the direction of Kuno Fischer and published in 1875 *Essays on the Intellectual Movement in Germany* and founded that same year *Revista Crítica*, an important conveyor of neo-Kantian ideas but also a meeting point with Krauso-Positivist thinkers. Perojo began translating Kant's works and supported the critical neo-Kantian monistic thinking applied to experimental sciences, that is, critical positivism. This idea soon hatched into critical evolutionism very similar to Spencer's, with whose ideas Perojo found himself comfortable. In 1887 he also translated Darwin's *The Origin of Species*. Other neo-Kantians were Manuel de la Revilla, in charge of the book review sections of *Revista Crítica*, and very busy trying to convert aesthetics into a Positive-critical science, as well as the already mentioned Catalan Positivist Pompeyo Gener who in 1877 published a book on Spanish decadence: *Heresies. Essays on Inductive Critique of Spanish Affairs*.

Spencer's works were promptly translated into Spanish and his ideas soon became of common usage in the very embattled scientific queries of the 70's and 80's. His *First Principles* appeared in 1879, with re-editions in 1887 and 1905, *On Intellectual, Moral and Physic Education* in 1879 and *The Sources of Moral* in 1883. To understand why Spencer became so influential in Spanish Positivist circles is highly indebted to the Krausist legacy that acted in this case, as in so many others, as the pre-scientific precondition. The neo-Kantians regarded Spencer's "synthetic philosophy" as very similar to neo-Kantian critical monism. Soon the country witnessed too a Spanish-branded Spencerism such as *The Evolution of Nature* written in 1887 by Serrano y Fatigati, *The Evolution* (1881) by Gustavo Morales Díaz or *Spencer's Rational Idea or Reflexions on Spencer's Moral Philosophy* (1890) by Rafael González Janer. The latter together with the physicians Simarro and Corteza became the most outspoken supporters of Spencer in the Madrid Athenaeum. Early sociologists as Manuel Sales y Ferré, who occupied the first and only University chair in Sociology, wrote *A Treatise of Sociology* (1889-1897) in four volumes, deeply inspired by Spencer's *Social Statics* (1851).

Among Spanish natural scientists German Naturalism made an equally strong inroad as Positive philosophy had made among social scientists and philosophers. Büchner's book, *Force and Energy. Popular Studies on Natural History and Philosophy*, was published as early as in 1868 and *Science and Nature. Essays on Natural Philosophy and Science* in 1873. Büchner's works became a sort of materialist gospel that connected with the Spanish materialist tradition still nurtured by the remnants of the Enlightenment speculative materialism. K. Vogt's book *Lessons on the Human Being, His Place in the Creation and World History* was published in 1881, the same year as J. Moleschott's *The*

*Circuit of Life*. However, Ernest Haeckel was to be the most influential among German Naturalists in Spain.<sup>31</sup> All his works, with an average edition of 5.000 copies, were very read by urban educated layers and especially by Republicans, Socialists and Anarchists. Even the main publishing house -Francisco Sempere- in Valencia was somehow tutored by the republican cosmopolitan writer, Vicente Blasco Ibañez. The other publishers were home in Barcelona.

Haeckel's works were also subject to numerous comments in articles, books and especially among Krauso-Positivists and progressive physicians such as Gaspar Sentiñón (Barcelona), Rafael Ariza (Seville) and, in particular, Pereguer Casanova (Valencia), formerly Haeckel's pupil at Jena University, and a strong supporter of a monistic view with regard to the mechanical evolution of the universe. Haeckel's materialist evolutionary ideas won also support among the founders of modern Psychiatry, such as the socialist Julián Besteiro,<sup>32</sup> but especially Pedro Mata y Fontanet, who held a University chair in Legal Medicine in Madrid. Another interesting supporter was Manuel Crespo y Lerma, engineer Inspector of the Navy and author of *Matter and Energy in the Universe* (1890).

Recent scientific bibliography was available in scientific reviews such as *Revista Contemporánea* or *Revista de España*,<sup>33</sup> both of which made regular comments on Medical Congresses -such as the one held in Munich in 1877 that witnessed the important opening address of Vichow- or on J. Tyndall's book *Materialism and its Enemies in England* (1875), L. Dumonts *Positive Metaphysics in England* or W. Lissewitsch *Essays on Fundamental Criticism of Positive Philosophy* (1877, St. Petersburg).

#### 4. SOCIAL SCIENCES AND SCIENTIFIC KNOWLEDGE IN AMERICA DURING THE LATE 19TH CENTURY

The impact of science and above all of the new biology of Darwin and his disciples profoundly altered ideas of mind and society in the last quarter of the 19<sup>th</sup> century and the first decades of the 20<sup>th</sup>. In spite of traditional supernaturalism the American environment provided, as already underlined, congenial soil for the growth of scientific and evolutionary visions. But, in what sense? An overview of the founding years of American social sciences shows a rather unidirectional overall trend towards the complete overthrow of biological evolutionism and the enthronement of functional psychology emphasizing free-will as the source of progress. The breakthrough of sociology, economy, psychology and anthropology as distinct disciplines within the realm of American social sciences is strongly marked by that underlying philosophy.

Although Darwin's theory of evolution by natural selection stunned the halls of biology, anthropology and religion, its most profound repercussion in America was "Social

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31. Haeckel's main works were immediately translated into Spanish: *History of the Origin of Nature or Scientific Theory of Evolution* (1878-79, in two volumes, re-edited in 1905), *Essays on Cellular Psychology* (1882), *Evolution and Transformation* (1886), *The General Morphology of Organicism* (1887), *The Mysteries of the Universe* (1903, in three volumes) and *The Origin of Man* (1906).

32. Julián Besteiro published *Psycho-Physics* in 1897.

33. To illustrate this assertion *Revista de España* published in 1876 an article titled *Contemporary Scientific Literature: its main sources, nature and importance*.

Darwinism". Beginning in the 1880's, William Graham Sumner<sup>34</sup> and his successors pushed "survival of the fittest" beyond biology to justify power, wealth and even racial and gender superiority. Despite its widespread popularity Social Darwinism was by the end of the 19th century also challenged by a growing rank of philosophers, sociologists and economists as a way of thinking that, in their view, ebbed out in bigotry and bad science. However, in the meantime, Social-Darwinism managed to legitimise "scientifically" the changing American society under the aegis of "new industrialism."

As a proper discipline American economic science came into being in the 1870's following the heels of Francis A. Walker that posited a loose "orthodoxy" hovering between Classical and Neoclassical economic theory. But Simon Newcomb, Charles Dunbar, Frank Taussig, Arthur T. Hadley, William Graham Sumner, John Bates Clark and J. Laurence Laughlin belonged to the dominant group of early economists that stood for a strict arch-conservative apology for the *status quo*, a mood that prevailed during most of this period in the American university system, particularly in the East. The *American Apologists* had to explain to traditional America, still very puritanical, how the unrestrained greed, predatory practices and ostentatious displays of wealth by the "robber barons" could still be ethical. The argumentation followed basically the idea that evolution was subject to "natural laws", a "delicate organism" based on free contract, and led by "the fittest". Similar Social-Darwinist argumentations were superseded in the late 80's by a new generation of American economists educated in German universities. Richard T. Ely, E.R.A. Seligman, Simon N. Patten and Henry C. Adams belonged to the nucleus of the American Institutionalist school provided with a state-corporatist and historicist approach to economic policy. In 1885 they founded the *American Economic Association* as an American equivalent of the German *Verein für Sozialpolitik*. As reformers they voiced social change for democratic ends sustaining the belief that science is the necessary foundation for effective action. Social evolution was not viewed as governed by deterministic laws; instead the open-ended, possibilistic and progressive nature of evolution was emphasized stressing the role of the constructive human purpose within a distinctive socio-cultural world.

As Wundt's psychology won adherents in America evolutionary ideas were soon applied to the nature of mind. Chauncey Wright -who contrariwise to other members in the Metaphysical Club never modified Spencer's evolutionist ideas in writings as *Philosophic Discussions* (1877) and *Letters* (1878)- contributed decisively to view the mind as part of nature and thus subject to patterns of evolution although provided with self-consciousness. However, the pioneers in the field of the new-born psychology were William James through his monumental work *Principles of Psychology* (1890) and John Dewey, the outstanding American pragmatist influenced by Hegelian and post-Kantian ideas and

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34. See Bannister, R. *Sociology and Scientism: The American Quest for Objectivity 1880-1940*. Chapel Hill: University of North Carolina Press, 1987. Curtis, Bruce. *William Graham Sumner*. Boston, 1981; Hofstadter, Richard. *Social Darwinism in American Thought*. Philadelphia: University of Philadelphia Press, 1944; McClosky, Robert G. *American Conservatism in the Age of Enterprise. A Study of William Graham Sumner, Stephen J. Field and Andrew Carnegie*. Cambridge: Harvard UP, 1951; and O'Connor, William Thomas. *Naturalism and the Pioneers of American Sociology*, Washington D.C.: Catholic University of America Press, 1942.



author -among his early works- of *Psychology* (1887) and *School and Society* (1899). Both William James and John Dewey paved the way for instrumental experimentalism in social sciences and the reconstruction of philosophy along the tenets of Pragmatism. In short, they wished to demonstrate that human value, conscious purpose, intelligence and spirituality had a key role in the evolutionary process; and that an instrumentally oriented psychology could play an important role in the improvement of society. Functional psychology viewed ideas as a self-conscious part of a functional process of adaptation. Later on, the behaviorists handed out a further confirmation that biology was dead in mainstream American psychology.

Needless to say that Spencer's synthetic evolutionism had gathered an impressive following among the founders of American sociology and reached paramount influence in America before the end of the Civil War. Early ardent admirers of Spencerian ideas were John Fiske through writings as *A Century of Science and Other Essays* (1899), *Outlines of Cosmic Philosophy* (1872) and *The Destiny of Man* (1884), and Edward L. Youmans editor of *Popular Science Monthly*, the organ that popularised Spencerianism in America. William Graham Sumner stands though as the most representative American exponent of Spencerianism and Social-Darwinism.

Much of the early sociologists identification with Spencer's ideas was to a significant degree attributable to the apparent fitness of his social rationale to a moving and changing American society. Spencer's visit to the US in 1882 made an important headway for his ideas, so did the lectures of the visiting British naturalist Thomas Huxley. Moreover, Spencer's insistence upon the law of evolution as an inevitable corollary of belief in natural causation was equivalent to looking at *laissez faire capitalism* as a natural causation for progress. Such ideas were pugnaciously used against reformers, trade-unionism and socialism, whilst Spencer's fixation on the survival of the fittest admirably suited the needs of the great captains of industry as Vanderbilt, Gould, Carnegie, Mellon, Rockefeller and Guggenheim who were by that time crushing competitors off the scene.

Liberal social scientists and academicians did not like the political conservative implications of evolution as enthusiastically embraced by Spencer and Sumner. They argued against the conservative implications of *laissez-faire* capitalism by claiming a more liberal vision of government involvement in society. That is, once Spencerianism became disavowed, American liberal social scientists embraced reform Lamarckism, as the Lamarckian notion of the inheritance of acquired characteristics prompted a strictly socio-cultural explanation of human evolution avoiding biological or racial determinism. Sociologist Carroll Wright summarized in 1899 the lineages of American sociology as follows: it was drawing less on analogies and models from biology and concentrating instead on a more inductive examination of present social conditions; the social-psychological direction in theory was evidence of a turning away from socially harmful "biological and materialistic theory."<sup>35</sup> American social thinking was nonetheless undergoing a deep constitutive process, still too enmeshed, and confused, in the dichotomy "matter" and "spirit" in order to appear properly as sociology. That belonged to the early 20<sup>th</sup> century when American sociology eventually adopted a functionalist outlook.

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35. Carroll D. Wright. *Outline of Practical Sociology*. New York: Longman, Green & Co., 1899. 3 and 5-7.

Similar departures from biological determinism were also visible in other new disciplines of social science, as anthropology where. Franz Boas and his school challenged through the theory of diffusionism and convergence the Social-Darwinian- based theories on cultural evolution.