AUSTRALIAN ALMANAC

Educating the Mass Strike: Cosmic Radiation beats Green Fascism

Louis Pasteur

By Noelene Isherwood Part 2 of 4

The Positivists

Under the brand name of "positivism", Comte launched a crusade to destroy "metaphysics" by name—the same metaphysics which Leibniz had established as being the actual substance of man's knowledge of the Universe, as

Auguste Comte (1798—1857)

in his debate with the earlier positivists and reductionists, Newton and Clarke.

In all physical sciences we necessarily begin by collecting immediate and crucial data about natural phenomena, via the usual senses of sight, hearing, touch, smell or taste, with help from other artificial instruments such as telescopes or microscopes etc. For the Positivist though, this is where the truth about nature begins and ends. No conclusions can be drawn beyond direct personal experience. Max Planck

(who Elisa will talk about tomorrow) gave a great example of this Positivist problem.

He said, imagine you are looking up at the heavens, you see innumerable points and patterns of light which move in a kind of regular way through the sky. The intensity and colour of those light rays can be measured. For the positivists such impressions of sense certainty are the beginning and end of astronomy and astrophysics (celestial mechanics). Planck polemicized against them, saying that,

The mental constructions that we make in collating and selecting and systematizing the measurement data, and the theories which we advance to explain why they should be so and not otherwise, [for the positivists] are an unwarranted human intrusion on the scene. They are mere arbitrary inventions of human reason. They may be convenient, just as the habit of thinking in similes is a convenient help to the mind, but we have no right to put them forward as representing anything that really happens in nature. [emphasis added]—Planck, Where is Science Going?





You all know what happens when you put a pencil into a glass of water on an angle. It appears bent, but of course we know it isn't. The positivist does not allow us to draw any conclusions from this, other than it looks "as if" the pencil were bent.

Furthermore, no sentimental, aesthetical or moral considerations can be admitted. In the positivist view a bunch of flowers is nothing more than a complex of senseimpressions. We can note the colours, the perfumes, the arrangement etc., but if we take away all these sensory



impressions then nothing remains to correspond to what we name a "bunch of flowers". You can draw no conclusions as to why they are a certain colour and not another, or why they are arranged as they are, and not otherwise etc.

By contrast, in "metaphysics", we hypothesise that our sensory perceptions do not of themselves create the physical world around us, but rather they point to another world which lies outside of our sensory experience which is independent of us. This higher reality is where truth lies.

Louis Pasteur



Sociology—Social evolution

To advance his positivist doctrine, Comte founded a new pseudo-science which he called *sociology* in which he attempted to formalise social thinking based on the biological theory of evolution. If organisms could develop over time according to discernible, deterministic laws, then it seemed reasonable that societies could as well. Human society was compared to a biological organism, and social science equivalents of concepts like variation, natural selection, and inheritance were introduced as factors resulting in the progress of societies.

These social evolutionary theories, had a monumental impact on other key British Empire operatives including Comte's close friend and co-co nspirator John Stuart Mill (1806-1873), the Rothchilds' prodigy put in charge of the British East India Company, who was close to the same age and who supported Comte financially for many years. Mill's disciple Herbert Spencer who coined the term "survival of the fittest" and propagandised for "evolution" well before anyone had ever heard of Darwin, was also a devotee of Comte, and a devout believer in the quack science of "phrenology" which held that the human mind does not exist because you can't measure it, but only a physical brain.

Basically, Comte says that every social structure, every science and every individual goes through three successive stages corresponding to childhood, adolescence and adulthood. Each of these steps is a necessary and legitimate part of evolution, but only the positive state is final. In the theological (infantile) stage, man attempts to understand the universe by looking for causes for physical phenomena, but since the search is infinite and out of the reach of human intelligence, he looks to God for answers. It's a necessary stage in order for man to learn his limits.

The metaphysical (adol escent) stage is a transitional state in which abstract entities replace the gods and man looks for things beyond his reach, such as the origin and destination of things, the nature of the universe and the nature of beings. Comte said that the existence of such things can only be hypothetical—never proven, and therefore they're of no interest to "real" science.

In the positive (adult) stage, man finally becomes "reasonable" because he understands that true knowledge of the universe is impossible and that universal ideas are hopeless. He no longer seeks for causes of the appearances of sense certainty, but only mathematical formulas which merely describe them. The best example of positive law that Comte gives is Newton's law of gravitation: that man will never know the cause of the force by which bodies attract each other, only that this force is mathematically inversely

proportional to the square of the distance between the bodies. It is true because it can be measured, and therefore will remain true for all eternity. Amen.

In this final positive/utopian state there will be a separation of powers. Those who can most effectively run their own business affairs, especially industrialists and bankers, must necessarily also run the world because they clearly have the qualities of ambition and self-interest essential to create wealth and prosperity for the whole of society. [So now you know who to blame for the likes of Ross Garnaut and John Hewson having such high status in Australia's government for the past 30 years!]

Also, scientists must become the "priests" of a new "Religion of Humanity"; the Christian Trinity of "Father, Son, and Holy Spirit" should be replaced by the feminist version of "Mother, Wife, Daughter"; and the evil of war will be the inevitable and necessary state of humanity—because order comes from chaos. Listen to Comte preaching in his own words:

It is still in doubt whether violent destruction is generally an evil as great as it is supposed ... When the human soul loses its power through laziness, disbelief and infectious vices following an excess of civilization, it cannot be redeemed but by blood ... Humanity can be thought of as a tree which an invisible hand constantly prunes and which is beneficial. Sure, the tree can die if the trunk is cut or if it is pruned too much, but who knows the limits of the tree of humanity? What we know is that excessive carnage is often associated with an excessive population ... On the other hand the true fruits of human nature ... the arts, science, big business, noble designs, manly virtues ... are exclusively due to the state of war. We know that nations never reach the highest point of achievement of which they are capable, without long and bloody wars.

—Source: Comte, 1826 pamphlet "Considerations on the Spiritual Power", translated from Pierre Bonnefoy's article, August 26, 2008, "Auguste Comte: Sociology and Social Control".

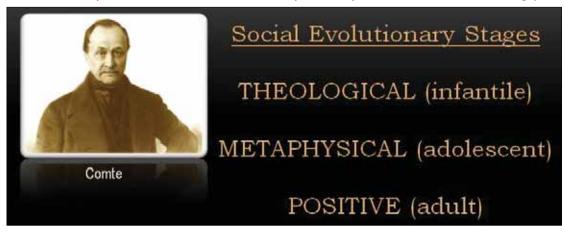
On Scientific Method

In his relentless effort to reduce everything into discrete individual "packets" of knowledge, Comte also developed a systematic and hierarchical classification of all sciences. They include mathematics, astronomy, physics, chemistry, biology, and sociology. The problem with this is that these classifications were totally static, while the sciences, even in Comte's day, were rapidly changing, and so were the boundaries of their fields.

He was also not big on scientific experimentation. It runs the risk of creating paradoxes after all. And para-

doxes cannot be explained without hypothesising! He did concede that some assumptions are necessary:

But the use of this powerful device [hypothesis] must be constantly subject to a fundamental requirement, without which it would tend necessarily, to hinder the development of our true knowledge. ... truly philosophical hypotheses must always have the character of



Louis Pasteur

simple anticipations of what we might know at once, by experiment and reasoning if the circumstances of the problem would have been more favorable.

—Comte, 28th Lesson of his Course on Positivism, translated from Pierre Bonnefoy's article, August 26, 2008, "Auguste Comte: Sociology and Social Control". In short, the role of the hypothesis is simply to save time on what is already obvious!

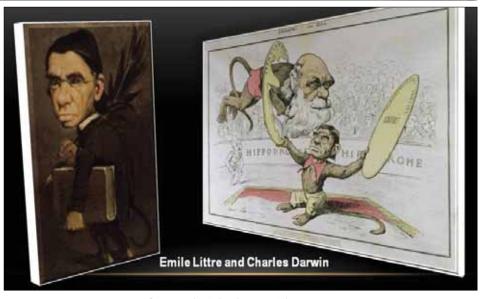
Pasteur blasted the concept which Comte and his disciple Emile Littré held of scientific experimentation. He said:

The error of Auguste Comte and M. Littré is to confuse this method with the restricted method of observation. Both unacquainted with experimentation, they use the word "experience" ... in the sense in which it is used in ordinary conversation,

where it has a completely different meaning than in scientific language. In the first case, an "experience" is no more than the simple observation of things and an induction that infers, more or less legitimately from what has been to what might be. The true "experimental" method must go all the way to incontrovertible proof. ... In order to judge the value of positivism, my first thought was to look for inventiveness. I did not find it. ... Since positivism does not offer me a single new idea, it leaves me reticent and distrustful.

—Source: Patrice Debré, Louis Pasteur (p.366)





Comte's Disciple—Littré

Now, the story is not complete without the next generation of Positivists—chief among Comte's disciples, was Émile Littré (1801-1881), a French lexicographer and philosopher, best known for his Dictionary of the French Language. Littré is often portrayed in cartoons of the day, endowed with a monkey's tail, due to his notorious promotion of all things "Darwin". But he was also what they called a "free-thinker", a concept cooked up by Venetians such as Antonio Conti and his stooge Voltaire, and it would appear he associated with the 1840s salon for London's "philosophical radicals" run by John Chapman, publisher of the Westminster Review, founded by Lord Shelburne's agent Jeremy Bentham. Apart from dominating the evolution debate, Chapman's salon was a hotbed for "freethinkers" of every kind of kookery you can imagine.

When Littré discovered the works of Auguste Comte, he was instantly converted. Not only did he become a close friend, but he devoted himself to popularising his ideas in works too numerous to list.

When Emile Littré died in 1881, he had been a member of the prestigious French Academy of Sciences for 10 years. He was to be replaced by his nemesis, Louis Pasteur. It was customary for new inductees to the Academy to present the Eulogy for the person whom they were replacing. This presented a profound challenge to the integrity of Pasteur the scientist, and to Pasteur the compassionate human being. He spent months formulating his response to not only Littré, but also Comte and his doctrine of Positivism:

Of M. Comte I have only read a few absurd passages; ... My philosophy is of the heart and not of the mind, and I give myself up, for instance, to those feelings about eternity which come naturally at the bedside of a cherished child drawing its last breath. At those supreme moments, there is something in the depths of our souls which tells us that the world may be more than a mere combination of phenomena proper to a mechanical equilibrium brought out of the chaos of the elements simply through the gradual action of the forces of matter.

-Source: René Vallery-Radot, The Life of Pasteur

What is beyond? the human mind, actuated by an invincible force, will never cease to ask itself: What is beyond? ... It is of no use to answer: Beyond is limitless space, limitless time or limitless grandeur; no one understands those words. He who proclaims the existence of the Infinite—and none can avoid it—accumulates in that affirmation more of the supernatural than is to be found

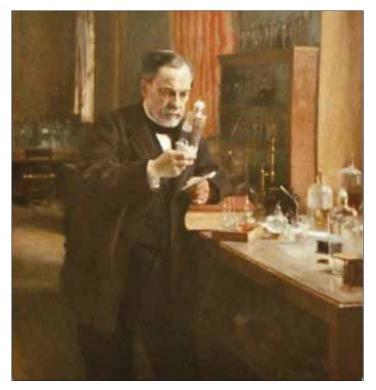
in all the miracles of all the religions; for the notion of the Infinite presents that double character that it forces itself upon us and yet is incomprehensible. When this notion seizes upon our understanding, we can but kneel. ... I see everywhere the inevitable expression of the Infinite in the world; through it, the supernatural is at the bottom of every heart. The idea of God is a form of the idea of the Infinite. As long as the mystery of the Infinite weighs on human thought, temples will be erected for the worship of the Infinite, whether God is called Brahma, Allah, Jehovah, or Jesus; and on the pavement of those temples, men will be seen kneeling, prostrated, annihilated in the thought of the Infinite.

—Pasteur, Speech delivered at his reception into the Académie Française, April 27, 1882.

So, at that time, when mindless Positivism was inspiring many so-called leaders, the very man who might have given himself up to what he called 'the enchantment of Science' proclaimed the Mystery of the universe; with his intellectual humility, Pasteur bowed before a Power greater than human power. He continued his speech, with the following words:

Blessed is he who carries within himself a God, an ideal, and who obeys it; ideal of art, ideal of science, ideal of the gospel virtues, therein lie the springs of great thoughts and great actions; they all reflect light from the Infinite.

—Pasteur, Speech delivered at his reception into the Académie Française, April 27, 1882.





Pasteur & his discoveries

So now you know something of the pitched philosophical and political battles that characterised the universe in which Pasteur lived and worked, let me tell you about his most important discoveries.

Pasteur's great-grandfather was a slave in France who bought his freedom in 1763 and his grandson, Jean-Joseph (Louis' father) was a tanner, who fought with Napoleon in Spain. Joseph's only son Louis was born in December, 1822 followed by three daughters. Joseph instilled in his son, a love of science, and played an enormous role in his education. Louis hated mathematics; his real love was science, especially chemistry. He was also a very talented artist and in his youth painted these portraits of his parents, but later on also studied the Renaissance masters and took frequent trips to the Louvre.

Eventually his studies gained him entrance to university at the Ecole Normale in Paris in 1844 where he excelled in Chemistry, Physics, and Teaching. He became the pupil of Jerome Balard who had discovered bromine in 1826 and it was he, who insisted that his students invent and create their own scientific apparatus, which Pasteur did throughout his life. Balard instantly recognized Pasteur's intuitive genius and had him work as an assistant in Chemistry.

A short while later, Auguste Laurent, a talented chemist, arrived in Paris to pursue his experiments in crystallography and took particular interest in Pasteur. It was about that time, in 1846, that Pasteur realised the importance of studying crystallography. He said:

When I began to pursue specific research, I sought to strengthen my abilities by studying crystals, anticipating that this would provide me with knowledge I could use in the study of Chemistry.

—Source: Patrice Debré, Louis Pasteur (p.33)

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