IJQE

International Journal of Quality in Education

Online, https://dergipark.org.tr/tr/pub/ijqe

Volume: 3, 2019

e-ISSN:2636-8412

A CRITICAL EXAMINATION OF PHILOSOPHICAL MODELS AND THEIR IMPACT ON NATURE AND MAN TODAY

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Abstract

This paper sets to examine how nature has been perceived by the past centuries, where philosophical models came up with new ideologies that had a large influence and impact on how Man perceives his natural environment. These models have impacted governments and their decisions regarding the exploitation of natural resources. Yet new technological development such as nanotechnology took a new turn intersecting paths with our surroundings. It has brought philosophical questions around ethics and the consequences that have arisen from government policy and modern advancements in science. With these issues at hand, our apprehension and judgments regarding nature need to experience a revision that is consciously aware, so as to be on par with the evolution of new scientific advancements, and new government policy to reach a better approach concerning our relation to Nature.

Keywords

Perceptions, philosophy of technology, nanotechnology, schools of philosophy, progress, perfectionism, modern philosophical models, techno-science, environment, mind concepts.

1. Introduction

Ever since industrial powers of multinational corporations created their own economical settings to engender development various fields to improve human conditions, and expand while exploiting nature, there has been questioning of their legitimacy and initial conception. Are there any good or bad model(s) or conceptions from which we can think of Nature and our relation to it? Which are the predominant ideologies?

It's evident that science has contributed to a great deal of progress in many fields discovering nature and its laws and improving Man's conditions by providing solutions in several domain that concern Man and his own environment. However, throughout the last century and ever since machines came into existence, notably at the beginning of the industrial revolution, the tendency to use science and technology for economical dynamics brought potential damage to nature and man's environment. We can nonetheless emphasize the natural evolution of Mankind throughout history in terms of progress and continuing contributions of many civilizations, to an extent that brought us to where we are now. This can be argued to be a positive result of human accomplishments and advancement, along with the natural stream of progress throughout time. Man discovered what resources Nature hides, taking advantage of it while discovering its laws step by step.

The other side of the coin concerns Man's responsibility and limited power to control the forces of Nature itself and his use of it. As constantly declared in the media, the misuse of nature brought instability in the climate and natural environment: Nature's revolt in a sense. Nature has not delivered all its secrets yet, but we can witness its reactions. Fortunately from the beginning there is an order in its cycle. If we observe that there are changes that govern the whole system of nature, it may occur to us that it has its own will. Nature operates in a sense that implicates innate potential throughout each of its compounds and properties, meaning that a living organism or inorganic substance, in both cases, behaves in a certain manner.

Except for biological changes within matter, where variations can occur, but maintain a certain order in its essence, something close to natural modification, yet it has an order to follow, though different from the inorganic. A living cell has its basic DNA from the start, but might change its natural form or characteristics through transmutations with other species, for reasons of its own, or even that of natural instabilities, beside its adaptation to a changing environment.

On the other hand, deliberate interventions can also alter organisms within their structure, through modified genetic experiences, as that of GMO biological experiments. Generally, any inorganic matter continues to exist in the same manner, maintaining its structure or" essence", which enables us to recognize its characteristics and its nature. Unless another force intervenes, a crystal occurring in nature with its own characteristics known by man has its white impure complexion; a strong but quite fragile structure close to glass, existing as a solid formed within rocks, yet it has an innate potential to take another form, through exterior causal factors. Aristotle referred to such potential in his theory of physical causes in the following statement: "the word natural is applied both to the innate potential of matter cause and the forms which the matter tends to become naturally" (Aristotle, Physics, 193b21).

During the 18th century, Rousseau proposed in his 'Second Discourse' that Man's essence, rational and endowed with a language capacity, is a result of historical accidents, integrating a process that implies progress in knowledge and learning that enables Man to advance intellectually and evolve. But to approach a possible response to our discourse, we can distinguish two different premises about nature that are opposite to each other, as in Rousseau's example– the first is based only on rational thinking and scientific observation of nature and its compounds, considering it as purely material and existing accidentally, and the second considers that there is a purpose in nature, which is closer to the metaphysical aspect of the Aristotelian approach to nature as quoted beforehand. The philosophical theory of Aristotle survived somehow and found a common ground with Asian philosophy, notably that of the Chinese. The term 'way of nature' appeared in Chinese literature, implying that there are in nature 'principle' and 'mind'. Confucianism went even further, believing that nature also has a 'will' (Dr. J.ZAI, 2001).

In much Chinese wisdom referring to nature and its secrets, we find many references giving elements of nature the status of a supreme entity: earth, sky, water and fire are the four basic entities, each with its own power, gathered together and interacting with Man's capacity to engage them for his own purpose, sort of osmosis in Man's existence within life and its mechanism (e.g. a unity in one). It's a central doctrine in the Chinese culture and belief, and a factor of serenity and stability. Here Man inspiration from it; 'mother nature', an idealistic theory, in a way where harmony between Man and Nature can join. For Kant man came to life with an already constituted mind, equipped with a linguistic capacity, capable of making sense of it. He gave nature the following character by writing: "By nature, in the empirical sense, we understand the connection of appearances as regards their existence according to

necessary rules, that is, according to laws. There are certain laws which first make a nature possible, and these laws are a priori. Empirical laws can exist and be discovered only through experience, and indeed in consequence of those original laws through which experience itself first becomes possible" Here he explains that laws of nature are to be discovered empirically by man's experience (a posteriori), given that these laws of nature can be discovered by a dynamical principle that involves causal appearance in order to apprehend them.

1.1. Darwin and his theory of nature and evolution

The controversy of the later subject is mostly found in figures adopting biblical beliefs, like those of Carl Linnaeus, who interpreted organic adaptations as evidence that the Creator had designed each species for a specific purpose. The Old Testament holds that species were individually designed by God and therefore perfect. But today many believe that Man as specie among other species evolved in a manner (intellectually) that brought him control over some other living beings in his environment. But his misuse of nature leads us to suppose that his intervention to modify his surroundings in his natural environment opposes natural evolution. Many imperfections in his modifications might reverse the process of evolution, and be instead a mere interference with natural evolution and its adaptation within its natural process.

Species evolve as we have learnt within a natural stream, through adaptation and modification bringing up new or different species, while adapting to the environment. We don't know exactly how this process takes place and in which way ─Man on the other hand disrupts this natural mechanism to fit his intentions by submitting subjects to experiments. They are often focused on mass product aims, without considering the outcome of nature's reaction to it. Man's own modification alters and disrupts the biological natural order within its own mechanism. Such artificial modification has its own mechanism that of one focused objective concerning matter. Hence it escapes a wider scale of perception of a whole living system, in view of operating on one compound of living organisms at a time. Darwin's theories might have given enormous freedom to tackle nature through modern science, notably in the biological field, believing that living organisms or subjects are perfectible or are to be perfected. Nonetheless, this has brought Man to make drastic alteration of organic species (e.g. GMO) from economically focused perspectives.

Given the latter discourse, it opens a legitimate interrogation on why man's intervention in nature sometimes leads him to destroy his essential environment, which he depends on,

for his own continuity and survival? Where is the logic in such actions and what are the philosophical backgrounds?

Today, there are dominant tendencies that can lead us to open a questioning of which ideology predominates most in our era, as a powerful system in our post-modern decade and measure its consequences.

According to our later interrogation, we can select a precise issue related to our topic. It is to distinguish an ideology that finds its bases in today's globalized modern world.

2. Nanotechnology: various impacts of technical innovations on humankind and the environment

Contemporary innovations despite the different advancements in various fields, nanotechnology today's usage can be an object of debates that leads us to study the concept from which such technology has all started from. Thus in accordance, we can open an interrogation that leads us to ascertain the category of approaches that can point out guidance to consider their perspectives.

1.2. Challenges and disadvantages of such innovations: underlining its model in a philosophical perspective

To begin with, we have to make a distinction between two separate notions about innovations; it would be interesting to underline what can be considered beneficial, meaning useful and contributing to science and mankind, and what can be considered profitable, that can directly satisfy economic aimed interests, fitting with the system of modern economy. One might find a foundation in our era's model of thoughts and representations, where science is meant to be an extension of either pure research activity or applied science, or in the other case, where science is meant for technology and economical perspectives. These notions often bring confusion, since both of them can be mixed depending on the use that humankind determines beforehand. If we focus on nanotechnology, the word already implies an industrial aspect of development according to economic standards or a contribution to progress in certain fields: medicine, chemistry, physics etc.

Nowadays, the word 'positive' probably implies an objective of improvement of the human condition or ambitious experimentations for certain specific aims. What is beneficial or not is always a matter of what is qualified as being so in the contemporary thinking model.

Contemporary standard of benefit implies an improvement of a matter of concern, with something considered as problematic or imperfect in a functional manner. We usually refer to science, when we mention the term 'function'; or the State of Art that includes observation and experiment and what both have yielded after research up to this day. In all manners, there is in this perspective a conception of a better world or a tendency for perfectionism, a perceived imaginative model of Man's world, integrating into it a notion of progress. On the other hand, profit seeking has initially as we can imagine an objective of common economic interest for a group of investors or for an individual, to an extent that such dynamics engender capital growth, or mere possession of materials and power. We can always observe often explicit needs to improve subjects in our environment for specific requirements, always more tools and products on the one hand. And create a model of an object for a certain use on the other hand, to perfect the imperfection of materials and improve the human conditions and life through materials. This also has a synonym defined as 'progress '. Putting another ingredient into it, progress participates in creating a better world according to modern standards, where comfort and well-being is an essential part in today's model of society. Yet through machines, technology had a role in creating a concept of a reality that enables it to promote a certain perception of an embodied world in our consciousness.

1.3. The role of technology and material shadowing nature's reality from a human perspective

There seems to be a unidirectional concept that shadows ontologically other entities and realities of nature, to an extent that it stands out as a principal existence of its own, beside man's entity. It resumes life through technology and its compounds as a concrete ontological veracity, thus occupying a central position above other realities, considering them indeed as secondary or fake. This has become so through audiovisual and ICT technologies.

Jean Baudrillard believes that our society has replaced reality with symbols and signs, and that in fact all that we know as real (all that is proposed as real through signs and symbols), is actually a simulation of reality of the world we live in. The simulacra that Baudrillard refers to are signs of culture and media that create the reality that we perceive; thus as a result,

our consciousness is misled and conceives the world according to a simulated reality (Jean Baudrillard, 1981). Physical elements and realities are nothing but matrices of illusionary concepts that replace concrete facts with fallacy, a mere creation of our mind.

One can witness external reality, and our minds just apprehend it: air, temperature, light, fire, objects, taste and smell. Thus Man's senses meant to function in order to feel and assimilate matters together with a mind made to recognize them as they are. Human beings' senses function uniformly in the same manner, more or less variable in efficiency, since they are constituted similarly for every human being, and the brain is biologically made to match and interpret substances as known in neurological science, which contradicts some of Descartes' arguments in a manner. Our five senses are there to interpret external influences in a determined manner, and mind unless seriously disturbed in its order, will interpret them strictly closer to reality, although they might vary mildly in general from one person to another due to better sensory capacities. Otherwise what's the use of their being from the beginning, and for what reason do they exist, if not to apprehend the living environment in the first place? Do Man's constant attempts throughout history for a better model of existence lead necessarily to a state of perfection of 'his' world, and what is perfection really?

The concept of perfect and perfection is a central notion in our discourse, a basic frame of reference, related to our issue of evolution and that of man's improved world. Perfect semantically can bare many significations: It can be given as a state of something without defect (flawlessness), the act of improving something or an ideal instance, or a perfect embodiment of a concept[1]. Thus Man's standards of perfection today rarely include a good notion of 'harmony' in its conception. In the ancient Greek, Roman and then Christian era, harmony was an integrated part of the philosophical view of perfection. It implies a state of consciousness and awareness of nature's equilibrium when exploiting its resources. The value of a natural resource was considered almost sacred and not just a matter to extract and exploit. The ethical question of perfection often creates great paradox and controversy; Plato makes the question of perfection referring to Man not necessarily whether he is perfect or not, but whether he should be.

1.4. The notion of perfect

The word "perfection" derives from the Latin "perfectio", and "perfect" from "perfectus". These expressions gave notions like: "to finish", "to bring to an end". "Perfectio"

literally means "a finishing", and "perfect (us)" signified "finished". The Greek equivalent of the Latin "perfectus" was "teleos." The latter Greek expression generally had effective references, such as a perfect physician or violinist, a perfect act of comedy or a perfect structure. Hence the Greek "teleiotes" was not yet as charged with abstract and superlative associations as would be the Latin "perfectio" or the modern "perfection". The oldest definition of "perfection", expressing different aspects of the concept, goes back to Aristotle. In 'Book Delta of the Metaphysics', he distinguishes three meanings of the term 'perfection', with three different concepts of perfect: 1. which is complete — which contains all the requisite parts or nothing to add or subtract; 2. which is so good that nothing of the kind could be better; 3.which has attained its purpose (e.g. completeness). One of the variants on the concept of perfection far back in centuries was the concept of that which is best: in Latin, "excellentia" (excellence). Nevertheless, these two expressions differ fundamentally: "excellentia" is a distinction among many others, and implies comparison; while "perfectio" involves no comparison, and if something is recognized as being perfect, it is so renowned in itself, without comparison to other things. Yet there is a paradox in other conceptions of perfection, given the controversy of Lucilio Vanini (1585-1619) who conceived perfection as imperfection. The argument was that if the world is perfect, it could not improve and so would lack "true perfectio", which depends on progress. To Aristotle, 'perfect' meant 'complete' with nothing to add or subtract. Thus, according to Vanini, perfection depends on incompleteness, since the latter possesses a potential for development and for complementing with new characteristics ''perfectio complementii''.

Regarding technology, imperfection is considered perfect. When irregularity appears in any compound of a device, like that of semiconductors, if it has a fault, then this imperfection leads to search for greater regularity, thus for a greater utility. The concept of perfection in technology, embraces a notion of improvement to add, a tendency towards unachieved completeness with new characteristics in a device, thus having a potential towards a never ending perfection.

The ethical question of perfection, often creates great paradox and controversy; Plato makes the question of perfection referring to Man not necessarily whether he is perfect or not, but whether he should be. And if he should be, then how is this to be attained? The essential question starts with the interrogative pronoun 'How'. We can in this case, focus on it, to allow it to become a central guide of our topic.

3. The ethical response

The philosophy of the Stoics surfaced with its founder Zeno of Citium, in the third century BC in Athens. He argued that the philosophy of life is to find harmony with nature, combining with it instead of contradicting it. This Hellenistic philosophy embraced the earlier Cynic school of philosophy, and proposed that nature has its fixed rules, and Man has a free will to behave in accordance with it; a notion of balance and moral engagement towards nature. The Stoics advanced that to live a good life; one had to understand the rules of the natural order, believing that everything was rooted in nature. Plato and the Stoics introduced another concept of perfection, an important notion to become outstanding in their philosophy, which introduced perfection into ethics expressly, describing it as harmony with nature. They held that such harmony for such perfection was attainable for anyone.

3.1. The turning point

The 18th century brought a big change to the moral idea of perfection. The adhesion to it remained, but it changed character from religious to secular. This secular conception of perfection appeared without excluding the moral essence of perfection, in the sense that it is to be considered as a source of accomplishment towards something balanced. Jean-Jacques Rousseau, unlike other philosophers who saw perfection as an approach through the greater advancements in man's knowledge and technology by industrial means, largely preferred a utopian vision as an alternative, emphasizing that it's not entirely chimerical. If we look anthropologically at some positive characteristics of certain societies far back in centuries, they might have approached a balanced form of life getting closer to what he considered as a utopian model. Rousseau emphasized that this form might have existed when matters were less confused and society was capable of combining good aspects of tradition through moral engagement towards man's responsibility to nature, while society continued to satisfy man's needs from it to acknowledge its laws. This supposes a notion of harmony and a balanced form of the natural stream of progress. Whilst witnessing the reality, the examples we have in our modern industrial model are far from such a concept.

The opposed conception is expressed through modification and alteration of elements of nature - congruent to the modern model of perfection that obeys economical and industrial criteria. The totality of these conceptual interpretations of perfection brings us to examine several views of perfection, adding the philosophical conception of nature's physics and man's interpretation of it, together with the modern ideology that frames the relationship

between Man and his environment. This brings us to focus on a contemporary example to related to our main topic in the subject of nanotechnology and its introduction in our modern era.

4. Nanotechnology: a techno-scientific innovation

Nanotechnologies first started during the seventies when Kim Eric Drexler, an MIT engineer specialized in nanotechnology, worked on the creation of metallic films with a density of a few tenths of a nanometer which were meant as a solar seal for NASA. Being an expert in the theory and the treatment of nanometric objects, he turned the term "nanotechnologies" to his own account during the eighties, when it was used to designate the measure of metallurgical preciseness. He gave it a totally different sense, when he evoked a future possibility to create through machines physical components by imitating ribosome[2]for example (a structure found in living cells). The help of advanced technologies to reach a microscopic scale enables a new type of technology. To give a better example, back in the 70's, computers or devices had much bigger dimensions for their components. Ever since electronic advances surfaced, thus electronic devices became much smaller and more efficient. Now, nano models are reduced for specific purposes or usage, where the scale of objects can be infinitely smaller to reach an invisible state.

4.1. Scale of measurements

Comparing a nanometer with a millimeter is like comparing a millimeter to one kilometer. A concrete comparison used frequently to make it easy to understand such a scale is the following: the volume of one nanoparticle is to an orange as an orange is to the earth. There are two steps that characterize the present nanotechnologies: The first, step called "top-down"or "descendent", characterizes the ultra-miniaturization of electronic components; the second step, "bottom-up" or "ascendant", concerns a controlled fabrication able to elaborate synthetically nano-objects and compose nanostructures.

The nanometric world escapes direct observation, but it has at least some outstanding aspects:

- It enjoys an important role in the intimate mechanical process of life: genetic, molecular synthesis, energy, etc.; -It provides the faculty to occupy the empty space of a material.

4.2. Nano machines

Their purpose is to work directly on atoms or molecules, to construct, put together, weave, or on the contrary, destroy other molecules or infinitely small objects. Some partial embodiment has been already witnessed. But its limits nonetheless are their autonomy in terms of energy supply efficiency and raw material. There is a sort of "molecular wheelbarrow" beneath which an atom, when encountered, can hang like a kind of "spider", to be deposited further ahead, composed of protein called "strepavidin" associated with four DNA fragments which serve as legs that can move alone in a unidirectional way along DNA molecules.

Those nanomachines don't have a motor or independence; an atom must be pushed with STM nanopoints either to make it move forward, or to put it on oriented molecular rails. But there is an ambition soon to witness autonomous nanorobots, with productive capacity, through a bottom-up process, that are able to accomplish specific chemical tasks (Joseph Wang, 2013).

Hence, in any scientific research or technological development we focus on the issue itself in termsof materials and of progress in nanotechnology regardless of its consequences. It's fundamentally a purely modern concept of creating a perfected model in accordance with today's standards of perfection for existing imperfections; therefore the essential aim for the latter system is that of project developments and outcome. Ethically, there are no notions of complementary perfection or considerations about Nature, but only of how to take advantage of it.

4.3. Nanotechnology and the enhanced man

Imitating nature to improve it or increase it has become a concept of modern scientific research. In relevance to our scientific topic, we can focus on man's enhancement and nanotechnology. The extent has gone so far as to exploit Man's micro biological system by introducing nanotechnology with the help of biotechnology in order to enhance him , or on the other hand, intervene on defective parts at a cellular level to treat medically cancer for example or heart diseases. Research programs are under development to introduce nanorobots, that can be used to deliver drugs to wall arteries plaque for example in case of heart diseases, or repair human DNA (e.g. research studies are carried on at California University of Santa Barbara for such technology). However, the most controversial part of nanotechnology is to do with human genome development, in an attempt to duplicate or clone patterns of atomic struc-

tures of the DNA after reading its chain. Thus assembling DNA sequences, will result after their reconstruction, in the termination of DNA replicate. If mastered, laboratories can proceed with treating some defective human chromosomes for medical treatment, or in a more delicate manner, engineering DNA structure and genomes through cloning, or even more ambitious, by literally enhancing man with better characteristics, and even extend his life range, but not without problematic consequences (Muniza,, 2013) .

5. About techno science

Today a reversed process of two concepts regarding science and technology started a new era. There is an ascendant technology taking place due to nanotechnologies in order to produce synthetic imitation of life, when biologists attempt to read the genetic code for the sake of writing it, thus introducing the concept of " re-engineering''.

If challenges of technological projects overcome awareness of unknown consequences of them for the sake of experiments or technological advancements, one can underline in this case a reversed process of actions, where the 'after effect' is not predicted or thought of beforehand, thus lacking foreseen possible consequences in the initial experimental program . This doesn't necessarily involve a good grasp of the functions of a technology through science in a holistic manner, rather than just focusing on the efficiency of a technical product or project. Such inversion has engendered a new type of relation of science to technology, where science is determined by technology, which has brought about the concept of techno science today (Alfred Nordmann, 2011) with its own ideology. That reminds us of modern philosophy based on a liberal form of rational self-interest alongside a bipolar vision of development and progress. It brought with it competition between advanced nations in a manner that engenders tensions in politics, economics and international relations between them in the name of power and wealth, inducing inequality and unbalanced distribution of wealth, and above all damage to the environment.

Nanotechnology is a pioneer field today of techno science; it is based on a purely technological advancement with science's assistance to develop devices and living organisms. Techno science usually operates and carries on experiments in an isolated manner with nothing to share, considering non specialist of technical or scientific field as outsiders; it's a closed world constrained with secrecy. Generally in technology we do not attempt to prove or justify inventions, apart from verifying whether devices, instruments, and products function suitably or not, while in science, knowledge, discoveries, and theories have to be justified

more openly in order to determine whether they are true or false. Techno science is a philosophy that follows an independent vision for its ventures. Its central aim is to perform advanced technological realizations in most fields (agriculture, medicine, devices etc.), largely influenced by economical challenge prospective. To put it clearly, philosopher Alfred Nordmann clarified the philosophy of technoscience by the following statement:" If the business of science is the eternal and immutable theoretical representation of a particular kind, and if the business of technology is to control the world, to intervene and change the natural course of events, techno is a hybrid where the theoretical representation becomes inextricably linked with the technical intervention " (Nordmann, 2006: 2).

Food industry can be an example to consider in our discourse regarding nanomaterials and nanotechnologies, which are already used in some food products, may be in a massive scale. It's moving out of the laboratory into subsectors of food production, which can be found in many packaging and food storage applications and agricultural chemicals (e.g. fertilizers and pesticides). There is even a secrecy that surrounds the commercial use of nanotechnology and nanomaterials by the food industry. Food manufacturers' reluctant to discuss their use of nanotechnology and nanomaterials made it worse by the absence of labeling laws that require manufacturers to identify nanofoods. This makes it very difficult to know whether or not a product contains nano-ingredients or not.

The attempts at life enhancement and well-being in the name of free market growth (e.g. various products for domestic and leisure consumption), have induced into nature and its environment an immeasurable amount of waste and toxins invading a wide range of lands, rivers, and oceans, along with air pollution. There is a strong tendency, when dealing with what we haven't mastered, to ignore ethical questions, such as thinking in a deontological manner while carrying out operations through science and technology regardless of outcomes, especially the outcome of the physical world. This can be looked at as a one way philosophy, where only techno science is considered valid as the initial cause. Artificial creation without nature to imitate it, is as Venter Craig has written, "a very important philosophical step in the history of our species.

We are going from reading our genetic code to the ability to write it. That gives us the hypothetical ability to do things never contemplated before". This quotation again may represent a particular concept of progress in a bipolar vision, focusing uniquely on challenge based prospective in a way, that the only thing that counts is scientific and technological advancement. We need to integrate in this process of progress environmental and public con-

cerns through consensus as much as possible, while bearing in mind that scientific communities should not be apart from the society but a constituent of it.

5.1. The value of techno scientific ventures

Nanotechnology tends to reflect a value through techno science's philosophy that promotes the ambitious pretensions of absolute control of what was mastered already (the technology or the knowhow). It's the case regarding molecular discoveries of the DNA structure, for example, and its manipulation in an infinitely micro level. A philosophy that finds its roots back in the late centuries in agreement with strict rationalism, considering that science is independent from nature's mysticism and its physical order, a belief that the only value recognized as true is the power of modern science and progressivism (i.e. that capable of elucidating any uncertainty through rational thinking).

Techno scientists operate through nano experiments on living cells structure to switch into the engineering of artificial cells, and back to modify nature in an accelerating manner, or imitate it by creating a synthetic life. Precursor of nano science like Graig Venter for example, aims to perform so with human micro genetic cells, affirming by this manner a techno science value.

We cannot foresee the consequences of such experiments performed in laboratories if scientific communities and potential investors continue taking decisions behind closed doors, and thus lack the input of democratic consensus about public and environmental interest.

6. Consequences of Man's enhancement

When examining the concept, how can we perceive it philosophically and ethically? There is little information to the public about the future of man's enhancement. Nanotechnology can contribute to man's improvement and enhancement through nano devices. It relies on the development of hybrids whether inside the body (the pervasive penetrating Man) or environmental (the pervasive

environmental hybridism). It's imagined as a combination of cybernetics, which is a mixture of electronics adapted to the human cognitive system through nano devices. They are introduced into man's body, thus integrating man's own parts enabling him to be improved or increased. The project is to imitate or to exceed nature, or surpass constraints to overcome biological limits with the addition of technological layout. It's at the interface of nature and of anthropo-technical integration, operating between the limits of nature and the artificial (i.e. devices interlinked with man's infinite components, including the brain). The danger of nano-

technology devices if introduced into the human body is linked with the degree of toxicity of the materials in the human organism.

Still, we can acknowledge the disastrous consequences of asbestos exposure, for example, an essential ingredient of nanoparticles, which has characterized conscious ethical debaters. Nanoparticles if used in medical treatment can directly enter the cells and disrupt the metabolism and interact with a molecular, enzymatic or genetic system. This field is today without any possible forecasting of such microbiological importance concerning the human biological order, since we don't have enough information about possible effects on the human body, given its extreme complexity and its biological order.

What if nanoparticles get out of control, or became defective, can the human body fully accept nanoparticles in living organisms?

As for the environment, there aren't enough significant studies to show the impact of nanoparticles to anticipate measures making it possible to protect or even prevent damaging it. Hence, we note that a controlled discharge of nanoparticles is being dropped freely in the agglomeration. This opened serious discussions of responsibilities, in a field where Law and Justice attempt to maintain grand principles that had been neglected by modern innovations and international competitive dynamics.

There are also discussions about essential issues and concerns towards poison, pollution, endangering innovations, and the intention behind the duty to intervene and encounter them.

6.1. Nanotechnology: two sides of a medal

Nanotechnology is a multidisciplinary field, which covers a vast and diverse group of devices derived from engineering, biology, physics and chemistry. Some devices include nanovectors for the targeted delivery of anticancer drugs and imaging contrast agents.

But the pharmakon effect is there to remind us, as with most technological innovations, that the outcome can be more harmful than beneficial, depending on its use and its former conception. Nanowires and nanocantileversare range of technologies that are among the principal approaches under development for the early detection of precancerous and malignant lesions. These and other nanodevices are supposed to provide a possible breakthrough in the fight against cancer. But if we attempt to achieve the balance, we can underline that at a macro level, ecological danger due to nanotechnology is to be expected. Such danger encoun-

ters scientific skepticism, since the amount of toxins generated from nanotechnology used in food is likely to cause big damage to the environment.

Nanodevices and the nanomaterials manufacturing process, like any industrial activity, will produce toxic waste of a new kind. If not controlled through a preventive pollution policy, ecotoxicological impacts of nanoparticles and the potential for bioaccumulation in plants and microorganisms can be easily expected. Moreover, the waste issue has already become a subject of current research, since nanoparticles are considered to present new impacts on the environment after their discharge in nature (chemical waste and its effects).

6.2. Possible consequences and results of nanomaterials

Since nanotechnology is an emerging field, there is great debate regarding to which extent industrial and commercial use of nanomaterials will affect organisms and ecosystems. The potential damage that nanotechno logical materials might cause if released into the environment is sufficient to raise questions about the sort of pollution that might affect the environment. Nanoparticles are nanomaterials that, if released freely, have the capacity to function as a transport mechanism, by incorporating other substances while present in any mass. Such a process raises concern about the transport of heavy metals and other environmental contaminants. Moreover, nanoparticles can be released into the air or water during production, or through production accidents, or as waste output, and can be at the end accumulated in the soil, water, or plant life.

Such particles in fixed form, as part of a manufactured substance or product, have to be recycled or disposed of as waste. There have been concerns raised about Silver nano technology used by Samsung in a range of appliances such as washing machines and air purifier. Samsung home appliances, such as refrigerators or air conditioners, have a silver nano coating on their inner surfaces for an overall anti-bacterial and anti-fungal effect. As air circulates, the coated surfaces contact the silver ions which can resist any airborne bacteria, which in turn suppress the respiration of bacteria, and adversely affects bacteria's cellular metabolism and inhibits cell growth. But environmental concerns such as the German branch of Friends of the Earth (Bund für Umwelt und Naturschutz Deutschland, BUND), has asked consumers not to buy a new type of washing machine that uses silver nanoparticles. BUND criticized the product, claiming that considerable amounts of silver could enter sewage plants and seriously trouble the biological purification process of waste water. Friends of the Earth have also

claimed that silver nanoparticles have a toxic effect on different kinds of living cells. Regarding the enhancement of Man, human beings can be contaminated by nanomachines. If we consider a loss of control from biotechnological compounds once inside the human body, then its effect is more harmful than what it is addressing. Nanotechnologies are designated for therapeutic purposes, although the inverse hypothesis is valid also. Incorporation of hydride elements or an uncontrolled flooding of it can be the origin of hybrid tumor, threatening man's survival, thus generating unpredictable or uncontrolled mutations.

7. The predominant influence of technology and the historical context

What changed the equation regarding the philosophical influence of technology tracks us back right after WW2, when an episode of scientific research, technological advancement, mechanical engineering, and energy resources (i.e. petrol, gas, uranium) led competitive powers (political, economic and commercial) to struggle for dominance, wealth and production power in the post war period. This course is definitely an important step for the supremacy of technology and science in the service of Man, and for the promotion of prosperous economical standards, inspired largely by philosophical such models as that of Adam Smith, not without serious and heavy impacts.

During the last decades, this model didn't permit seeing everything clearly at the beginning; it could not foresee the consequences such as : pollution, environmental effects, climate changes, disproportionate wealth gap and conflicts of interest, since it was projecting comfort and productivity in order to meet up with modern society's standards: a fabricated ideal in favor of progressivism and rationalism. This made it difficult in the last century to distinguish sufficiently the impact of such philosophical models behind such changes (i.e. techno science, rationalisms). It was mostly critical interests for a prosperous economy and political supremacy that dominated after WW2.

Then came the notion of '' new frontiers'', a concept that designated the realization of audacious scientific programs (space conquest and problem resolutions for unsolved issues: poverty, war, illiteracy etc…). President Kennedy in his famous investiture speech in 1960 engaged the renewal of the American economic development and the Apollo program for space conquest. Man's increasing can be seen in the "new frontiers" perspective, requiring as a result audaciousness, encouraging political support and ambitious expectations for some. We can define these types of technologies as 'futuristic technologies' (e.g. transhuman tech-

nologies, enhancement of living entities or cloning); still for potential investors, innovations and technologies are rationally economical and innovating, basically focused on market opportunities. Yet there is an ideal and a value behind such potent endowments for these types of projects, not to say a way to create a universal and uniform model in a globalized world.

Generally, increasing technologies presents a duality of possible threats and progress. It escapes from ethical values and cannot be denounced for their usage in the immediate range, unless proven counterproductive or useless. Unfortunately, social actions come later on due to rapid technological evolution and determined competition. A gap exists between the speed of which technological and industrial activities evolve on the scene and the time needed to solve their consequences in the social area, together with that environment, thus drifting social awareness to a state of permanent pursuit in order to catch up and tackle the ecological fallout.

What often occurs in the stage of technological or industrial development is a lack of adequate politics to take preventive measures, not only for the protection of the environment, but also to study the possible impact on society's overall well-being in a holistic approach through responsible engineering. Such a recurrent example of our modern era leads us to wonder what can be the solution for such a mode of proceeding ?

It would be necessary to reconsider the mode in which modern nations can reach better alternatives in their struggle for development and economic planning. Moreover, preventive methods should integrate decision making at the higher executive levels. The preventive concept relies on the possibility of studying the environmental impact of any decision making before putting into application the plan, and measuring their impact on Man and Nature. This will help to estimate whether a project might present potential risks in the short or long term scale.

There have been initiatives from governments and industries to take a step towards more environmental consciousness and actions to undertake on the stage of their activities. This has been so, under the pressure of important ecological and environment groups in Europe especially, and in world summits for environmental issues, with effective communication through worldwide campaigns (e.g. 'Planet Bleu'). Already, measures have been taken to abolish the use of asbestos as part of construction material in Europe, to reduce the amount of CO2 emission in order to protect the stratosphere layer, and to control chemical waste (e.g. modern filters, more ecological fuel for public transport, sustainable energy power units, waste recycling etc.). Still, drastic changes have to be forged regarding the thoughts of deci-

sion makers and in the consciousness and awareness of citizens, including institutes on a worldwide scale.

Reforms should be engaged to involve multinationals and heavy industries to produce differently or even reconvert their activities. But in our view, the most fundamental change that ought to be witnessed is the philosophical concept in the field of applied science and our vision of nature and man's relation to it. It's to view science and nature as complementary or two parallels, that could be combined in a harmonious manner, rather than to isolate science from nature, since it found its foundations through studying and understanding its laws and functions (e.g. science should consider itself as a tool to apprehend nature rather than the unique exterior power to determine what is nature, instead of letting nature speaks for itself). A new approach is required for scientific communities to rethink of alternative models and paradigms in a holistic manner that includes environmental science and ethics.

The second element is to review the concept of perfection to avoid confusing nature's irregularities or its mysterious behavior in some cases as imperfection. Nature delivers its secrets for any unsolved matter through time, and time is necessary in order to demystify its properties and wonders. There are no notions of perfection or imperfection in Nature's properties; it exists as it is with a purpose and harmony in its essence, which isn't always understood in the first place. This doesn't imply that we cannot find solutions to change some of its undesirable components to suit our means or needs.

In the last centuries, intellectuals and philosophers each attempted to give their vision and apprehension of the physical world, thus presenting notions about the elements of nature and man's. They also followed it with philosophical concepts through meditation and outlined perceptions, theories and logic on how life and nature were thought and understood. It gave great debates and enlightened our inquisitive souls from the shadows of doubts, remained suspended for almost an eternity, while in quest for possible answers that our intellect can finally admit. But human perceptions tend to fail when proved wrong after nature has delivered its own response and secrets over time.

Considerable influence of philosophical concepts has been performed in our modern era, that of Cartesian, Newtonian, or reductionist paradigms for the understanding of elements of physics through science regarding the forces of nature. However, man tends to insist upon certain paradigms, in order to present convincing approaches to existing environments, thus fitting them to 'standards' of human notions and conceptions, while indicating in which manner Man can perceive the world.

It's also natural to improve elements of nature towards specific needs (e.g. find efficient methods for better agricultural production, or invent means to eliminate detrimental elements of nature), but that doesn't mean that nature functions incorrectly and has to be 'fixed'.

What we do to living organism through chemicals and production procedures for cost and profit effectiveness and better consumption, had to go through damaging procedures for both the soil and the environment, not to mention the result on human health (cancerous potential risks).

7.1. Do we consider modification of nature a process of improvement or adding perfection to the existent matter?

Man mostly tends to operate on Nature to fit nature to his own standards through modification, instead of trying to find a harmonious manner of modifying certain characters of organisms or conceive them differently, which might endanger them not because they aren't perfect, since they function in a system that is theirs, with their own value and mode of operation. Our system is that of models and standards. These models are originally products of our thoughts and conception that might be imperfect or, even worse, dangerous, although very convincing─ Models can be changed and replaced with better ones, perhaps with less aggressiveness and more harmony in their essence.

7.1. Building awareness

We do use nature and what it offers; without it we cannot proceed. We cannot control it, except in a possible micro scale (e.g. agriculture, animal breeding and raw material transformation).On a larger scale, the macro world has all the power to destroy or deprive us of its resources if it runs out of them (e.g. petrol, gold, coal etc.). The upheaval can be of unforeseen natural catastrophic events: in this case, we can witness the actual climate disorder the causes of which we are totally ignorant. Nature has its own powers that we cannot predict or understand. Nevertheless the outcomes of predictable reactions due to several phenomena are already there to witness: global warming, biodiversity loss, ocean ecosystem disorder, climate irregularities etc...

The responsibility is ours, since we are dominant over other creatures with intellectual superiority, materials, energy and technological means to produce, build and shape our environment. But we are so dependent on our surroundings and resources that without them we cannot proceed

or operate or even survive. Our research, intelligence and transcendent information can be combined for a 'better' comprehension of the world.

In order to consider a step towards a prominent harmony in our modern philosophy, it's inevitable that difficulties may occur in admitting a contrasting type of philosophy, not commonly considered in traditional Western philosophy, while conceiving thoughts or notions on subjects about the ingredients of nature and our proper environment. Western philosophical doctrines have a skeptical view of another order than that of traditional renaissance theories, but the time has come to indicate that some of these doctrines can be harmful to nature's order.

The world isn't made in line with one linear philosophical tradition. If other philosophies might well elucidate matters differently, a complementary tradition of thoughts is to be considered, perhaps with less rigidity in its logic, in making sense of matters that really count today.

We need to avoid the rigid patterns in western philosophy and move a step towards esoteric aspects found in eastern philosophy.

It will enable us to recognize the legitimacy and the importance of transcendent knowledge, rather than focusing only on the material to apprehend the world, strictly rationalistically and assisted by a certain logic that has its limits, instead finding one's true divine inner nature and one's place in the universe. Moreover, correctness in logics or philosophical arguments is luckily a subject of consensus and debate. They can be multiform and sufficiently diversified to offer the best or most appropriate proposals to elucidate philosophical problems concerning various subjects, those especially dealing with nature and its essence and, man's position and his limits and role in this universe. Some philosophers contributed largely to a better apprehension of nature and our relation to it, and came with plausible patterns.

The point is not to completely deny rationalism and influential philosophies, but rather the way we treat matters or problems in a purely material minded perception of our environment and our apprehension of nature in general, which can be completely apart from the real world that englobes both nature's mechanism and man's role within it.

7.2. Two modes of reasoning

Western philosophy was developed first by ancient Greek philosophy. Such a model tends to focus on parts of matter, while the eastern philosophy focuses on issues as a whole.

Rather than deconstructing notions and concepts into categories, eastern philosophy aims to unify schemes and thoughts and show how they all reflect the same truths.
Western philosophy focuses on the differences, but eastern philosophy focuses on the similarities. Where one can be linear, the other can be cyclical in its logical construction.

Given the later elements, we can underline two major differences between the two philosophies:

- Eastern philosophy can be understood as universal, it does not exclude the soul from the intellect, and both are considered as a whole and interrelated with each other. Harmony and unification are essential components of eastern philosophy: it aims not to separate different notions and entities from one another (nature's system and man's system).

-When inspecting fields of concern, eastern philosophy involves external reality, whereas western philosophy has an individual demarche in its approach, seeking an accumulation of knowledge, after submitting it to an epistemological path to prove theories, claims or truths. While wanting at the same time to master and control reality by an internal perception, the tendency is often to think matters apart from the universe. We have to be fully conscious of the existence of external realities in our perception of nature; it's not simply a product of our mind that we apprehend according to our ideology or a form of archetypical contemplation. Being aware of other consciousness, although it escapes our comprehensiveness, might reduce the gap between man and nature while dealing with it.

What escapes us completely, but is essential to our concern, falls in from transcendental knowledge, through metaphysical sources not always understood at first sight. Probably it will not mislead us, but instead guide and inform us for a better comprehension of our universe. Yet, recent western philosophy has decided in many cases to ignore concerns about the essence of nature and the universe. This can be applied in the micro level to nature's mysteries, described through transcendental informations (e.g. 1-the stages of human embryos only discovered in the 19th century; 2-the discovery of the separation of fresh water and sea water by an invisible barrier, which was demystified during the exploration of the late oceanographer Jacques-Yves Cousteau); or on the macro level (earth's components and the cosmos). It happens that discoveries brought these informations of another order to the surface, which were already found in some divine transcriptions.

Our research, intelligence and transcendent information can be combined for a 'better' comprehension of the world. In order to consider a step towards a prominent harmony in our modern philosophy, it's inevitable that difficulties may occur in admitting a contrasting type

of philosophy, not commonly considered in traditional western philosophy, while conceiving thoughts or notions on subjects about the ingredients of nature and our proper environment. Western philosophical doctrines have a skeptical view of another order than that of traditional renaissance theories, but the time has come to indicate that some of these doctrines can be harmful to nature's order.

The world isn't made in line with one linear philosophical tradition. If other philosophies might well elucidate matters differently, a complementary tradition of thoughts is to be considered, perhaps with less rigidity in its logic, in making sense of matters that really count today. We need to avoid inflexible patterns in western philosophy and move a step towards esoteric aspects found in eastern philosophy. It will enable us to recognize the legitimacy and the importance of transcendent knowledge, rather than focusing only on the material to apprehend the world, strictly rationalistically and assisted by a certain logic that has its limits, instead finding one's true divine inner nature and one's place in the universe. Moreover, correctness in logics or philosophical arguments is luckily a subject of consensus and debate.

They can be multiform and sufficiently diversified to offer the best or most appropriate proposals to elucidate philosophical problems concerning various subjects, those especially dealing with nature and its essence and, man's position and his limits and role in this universe. Some philosophers' contributed largely to a better apprehension of nature and our relation to it, and came with plausible patterns.

The point is not to completely deny rationalism and influential philosophies, but rather the way we treat matters or problems in a purely material minded perception of our environment and our apprehension of nature in general, which can be completely apart from the real world that englobes both nature's mechanism and man's role within it. Mind doesn't create reality but it apprehends it with thought and perception, which can either be illusionary or coincide with the physical reality or start from its example-: "What corresponds in the mind to what is outside it'', this quotation from Ibn Sina's (Avicenna) belief related to the truth of reality and perception.

Hence escaping the truth of reality will not make sense of it, as it presents itself, but rather create an introspective cosmos of our thoughts, which are not probably representative of the whole of humanity, but a proposition that can be taken into consideration or left aside. The idea that life and our perception of it is a product of our thoughts, as Descartes put it, is simply a hypothetical virtual reality that has been taken very seriously.

The possible answers towards harmony, in respect to science and philosophy are to be found in balanced philosophical propositions. We might have good answers in oriental philosophy which allows both harmony and science (i.e. a balanced method and perception, different from irrational mystical products of thoughts, which are too esoteric or far too introspective). Such an approach will enable mankind to find a righteousness and a greater advance in treating matters that concern the world we live in, which means that philosophies should be improved and rethought, whether in correcting some forms of their logics, or some exaggerations in their rationalist approach. In the past, the works of al-Farabi, Avicenna, and al-Ghazali, who were logicians, criticized and corrected some of the Aristotelian logics, and introduced different forms, which played a central role in the subsequent development of European logic during the Renaissance. This was due to Avicenna's system of logic that was responsible for the introduction of the hypothetical syllogism, temporal modal logic, and inductive logic, in which premises are viewed as offering strong evidence for the truth of the conclusion.

8. Islamic philosophy

During the 9th century, Islamic philosophy had a crucial influence in the development of modern philosophy and science; especially for the Renaissance period in Europe, the influence was represented as one of the largest transfers of science and knowledge in history. The period of Islamic philosophy started with al-Kindi and ended at the end of the 12th century with Averroes (Ibn Rushd).

Nevertheless, Islamic philosophy recognized that science and philosophy are both subordinate to morality, and that moral choices are prior to any investigation or concern through a law order that derived its bases from Holy Scriptures (The Quran). To sum up the essence from which the Islamic philosophy emanates, it consists in a holistic approach to prospective questions relative to life on earth, the universe, ethics, society, nature, and so forth. From it, two branches came to surface later on , one is (Kalam) which mainly dealt with Islamic theological questions, and the other is Falsafa (Philosophy) , which was founded on interpretations of Aristotelian and Neo-Platonist views of the world. Falsafa enhanced and corrected some fundamentals about metaphysics and logic, since arguments brought from divine sources helped to better understand essential questions of existence and creations, undermining the traditional Aristotelian notions of God, and demonstrating the existence of a 'first cause'. This made a

drastic difference from the Greek philosophy, but on the other hand it inspired a great heritage that Islamic philosophy adopted in many aspects from the Greek philosophy.

Such an example is crucial for understanding that in order to approach truth of human philosophical concepts and schools of thoughts, it's fundamental and even necessary to revise or transcend philosophies no matter how influential they may be or how much impact on humanity and life they may have had over time. Early Islamic political philosophy accorded a strong link between science and religion, and adopted the process of independent reasoning to find truth.

This combination is necessary to find a balanced approach to reach truth and elaborate theories through analytical critics to understand elements of life and nature and our role in it. Ibn al-Haytham (Alhacen) reasoned that to discover the truth about nature, it is necessary to eliminate human opinion and error, and allow the universe to speak for itself. In his aporia against Ptolemy, (although he had great respect for his work and his philosophy), Ibn al-Haytham wrote the following comments on truth: "Truth is sought for itself , but the truths, he warns, are immersed in uncertainties and the scientific authorities are not immune from error, therefore, the seeker after the truth is not one who studies the writings of the ancients and, following his natural disposition, puts his trust in them, but rather the one who suspects his faith in them and questions what he gathers from them, the one who submits to argument and demonstration, and not to the sayings of a human being whose nature is fraught with all kinds of imperfection and deficiency. Thus the duty of the man who investigates the writings of scientists, if learning the truth is his goal, is to make himself an enemy of all that he reads, and, applying his mind to the core and margins of its content, attack it from every side. "He should also suspect himself as he performs his critical exquoted from Ibn al-Haytham.

8.1. Environmental philosophy and ethics

Environmental philosophy is a branch of philosophy that focuses on the natural environment and humans' place within it. It interrogates man and his relation to the environment: What is the value of the natural that is non-human environment to us, and in itself? How should we respond to environmental challenges such as environmental degradation, pollution and climate change? How can we best understand the relationship between the natural world and human technology and development? And what is our place in the natural environment?

By these types of questions it positions itself as a field set to deal with the challenges of the 21st century. Environmental philosophy includes multidisciplinary fields such as environmental ethics, environmental aesthetics, and environmental theology, this to list some of them. These fields are complementary to each other to assist humankind to gain a better comprehension of harmony with nature, a better alternative to classical philosophical ideas, strictly materialist and rationalist by essence, underlining the consequences of focusing solely on humankind and its activities, without considering forces of nature and the environmental questions sufficiently.

Ethics is part of environmental philosophy : it doesn't deny the need for development, or rational thinking, but rather brings an awareness to adapting technological needs in an appropriate manner: 1- Philosophically, it places the non-human world (nature and environment) to the equations of philosophical tradition, and even attempts to reframe the idea of ethics concerning the environment; 2- It applies fields of interest to examine philosophically issues concerning nature and man in a holistic manner, when exploiting nature and consider environmental protection to propose better alternatives and solutions, (e.g. Environmental , environmental sociology, eco theology, ecological economics, ecology and environmental geography) all of which are meant to help man take suitable decisions concerning his civil and industrial activities while respecting the environment and nature.

3- It draws attention through environmental scientists to the necessity to integrate and incorporate alternative energies, sustainable development, and different types of engineering. Moreover, such engineering can integrate social science, environmental science, and environmental studies to improve the management of natural resources and their preservation, while maintaining a proper system of sustainable development. It's not just a proposal but a crucial need in methods of engineering, already applied by governments and public authorities in the developed countries, conceivable in terms of costs and feasibility. But in the rapidly developing regions (South America, Far East Asia), lots of efforts have to be made. The essential obstacle in most cases is that the range of application of environmental engineering and science has not yet reached all the sectors of activities, that are most concerned: agriculture, heavy industry, nuclear power plants, merchant transportation (maritime, air transport, and land space), the impact of war on regions and the environment, waste recycling, petrol, and all sort of technological products, including nanotechnologies. This means there is lots to be done, and it must be done much more quickly, before it's too late. If political and economic power still drag their feet to change a system that is influenced by aggressive tendencies

and irrational goals to control and exploit nature, purely for the struggle to survive and expand, the equation won't change that much.

Conclusion

There is a crucial need to reexamine the philosophical models behind such modern systems, and propose changes and alternatives sufficient to have an impact on a globalized race for economical wealth and power. Governments and global institutions can become involved through their educational programs and teaching units in order to implement sensitized learning on environmental issues in an efficient and pedagogical manner, whether in schools, universities and higher education institutes in the disciplinary fields that include engineering and above all philosophy. State policies should involve corporations by engaging decision makers, from executives to high ranking managers and employees for a better perception and information concerning their responsibility towards nature and the environment.

This will enable them to change strategies, taking into account another interest besides the strictly productive and economical, namely that of environmental preservation. All this means a perceptible evolution in frame of mind. Our discourse is meant to display the impact of classical schools of thought on our vision regarding the relationship between man and nature. The dominant role that man has exercised on nature was influenced throughout the last centuries by philosophical doctrines. The impact of philosophical premises during the Renaissance period, notably in Cartesian,

Newtonian and reductionist paradigms, gave a partial apprehension of the world, and distanced man from nature. They gave him a purely materialistic view of reality. Although enormous progress in science and economics, with positive evolution in several spheres in our contemporary societies came about, nonetheless a pharmakon effect had been endured. Meaning that with one hand, this effect offered technical solutions, while with the other hand it brought serious problems, some irreversible. This was so in consequence of drastic changes in our perception of the physical world and natural environment.

We need different ways to look on nature, technology, science, modern society, and what they represent, by adding a new approach in the system of values and theories (Fritjof Capra, 1982). It is possible by introducing what is best and balanced in treating questions, without denying the benefit of classical schools of thoughts, by integrating harmony and holistic pattern in philosophical concepts into the system of theories. Changes are necessary in

human behavior and sense of wisdom in order to apply the later solutions to solve today's critical and complex issues of our modern society.

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