### ECOLOGY VERSUS ENVIRONMENTALISM OR HOW GLOBAL WARMING BECAME A RELIGIOUS PHENOMENON

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Abstract. Whereas delimitations between science and ideology are still possible due to the Popperian criteria of fallibility, the growing trend towards interdisciplinarity makes things harder and harder. The encounter between disparate domains pose challenges for methodological rigor in science, as incommensurability of paradigms, difference between experimental techniques of incompatible mind-frame of contrasting scientific communities forced to come together may end up not in dialogue but in cacophony. Environmental issue give a sample about the predicaments of finding the common denominator between social sciences (sociology, economics) and the passion for nature. More so, the peril grows when ecology morphs into ecologism, an outright ideology bent on manipulation the general public with doctored half-truths. Therefore, the present article argues for a careful babystep approach that might facilitate social science become acquainted with ecology and fashion moderate, fact-based solutions.

Key words: science, ideology, Karl Popper, Thomas Kuhn, ecology, ecologism, environmentalism, pressure groups

#### 1. INTRODUCTION

An irony of present times is that science often manages to acquire features that, throughout history, have been exclusively associated with religious movements. The above statement may seem strange, but only if our perception of the modern age remains shallow: at school we learn that religion and science are inversely proportional – more science equals less religion and superstition! Far from being static worlds, the relationship between religion and science is much more complex. The ideology or better said the ideologies- the reallife century-long creeds of modernity, have made use of science to such an extent as to pervert it at the interest of many utopian purposes. Eugenics, Holocaust, concentration camps are examples where ideology and the progress of medicine joined hands in order to change society (-ies) from the roots up.

At present one of the most discussed scientific fields, environmental protection (whose base is ecology, a branch of science studying the interdependent relationships between live organisms and the components of their environment), is getting assaulted and suffocated more and more frequently by successive waves of environmental and political activists. Each of them trying to promote and impose their own view on how the human civilization should interact with its environment.

This article distinguishes clearly between ecology (a neutral field, studying the relationship between humans - environment) and environmentalism (an ideology, constantly trying to fit humans into its point of view about nature).

The question of environmentalism cuts through one of the most sensitive and seldom problematic questions of our times in science, namely the push towards interdisciplinarity. As it has become a buzzword in recent decades, interdisciplinarity entails the risk of tossing away deeper methodological considerations about the character of scientific inquiry. Jointness or fusion of plural domains, it is not and it cannot be organized in a simplistic additional fashion (science A + science B) without taking into account the contrasting or even incommensurable paradigms from which they stem. Therefore, interdisciplinarity in general, and sociological environmentalism as an example, are in peril of either ending up as a mere postmodern hotchpotch or to be hijacked by ideology and sheer demagoguery.

#### 2. TO BELIEVE VERSUS TO KNOW

Before going further, a clarification of terms is necessary. What is "science" and what is "ideology"? Graham C. Kinlock and Raj Mohan consider that "ideologies are systems of evaluation that try experiences in terms that are logical and full of understanding. They try to stimulate and precede action, and in this way they become indispensable in dealing with human reality."[1]

Ideologies develop as society's complexity develops, and their very existence embodies group conflicts that cannot be reconciled [2]. However, Roger Eatwell cautions attention that we should not mistake a doctrine with those movements acting on behalf of it [3].

The difference between science and ideology is marked by fallibility/falsification, to quote Karl Popper's already legendary formula. Therefore, the character of scientific theories resides in their match to measurable facts. Validity of a scientific statement or otherlasts until it is disproved, or replaced by something better. [4]By comparison, ideologies are never wrong, no matter what empiric reality shows.

They justify by changing "*the significance of significance*", as the above quoted Kinloch and Mohan righteously observe [5].

#### 3. THE JOURNEY TOWARDS A SEMANTIC ABUSE

With human care towards nature becoming an increasing component of public speech, many of us are starting to fail to see the difference between ecology (defined as an effort to understand the world) and environmentalism (as an effort to change it, not taking into account if we actually understand the world enough to change it for the better). Therefore, bearing in mind the Popperian requirements for evaluating scientific endeavour, one should be careful first to give clear purpose to the terms employed and draw differences between the connotations those terms may acquire in time.

One of the first definitions of ecology appears in Bruce Russett's works, an influential author on foreign affairs: "As ecology is defined as the relationship between organisms or groups of organisms and their environment, I also tried to explore the relationship between political systems and their social and physical environment." (1967). In 1987 Blakie and Blackfield provided a wider definition, and label political ecology as a pioneering field which combines: "preoccupation towards ecology with general preoccupation towards political economy. Together, the two include dialectics between society and resources of (sub)soil, as well as between social classes and groups."[6] - the latter has the merit to emphasize that relating to the environment is not uniform within the human society/species, it depends on social class, culture, nationality or employment of the individual. Even if saving the planet is something with which all of us can agree upon, the devil always lays in the details, which seldom are apparent to untrained eyes and can therefore be instrumentalised for various partisan lobbyists or profit seekers.

#### 4. THROUGH THE "GREEN" JUNGLE

No one is estranged from the ideological war that took place throughout the historical eras and continues to take place within fields such as politics, religion and culture.

Less known to the public is the infiltration of ideology and propaganda into the world of science, sometimes so deep that it endangers the scientific process in itself. From The Flat Earth and Geocentric Solar System promoted by the Catholic Church for centuries, to the myth of The "Virgin" Yellowstone Park and, more recently, to global warming, ideology has a habit of defeating science and bending the "truth" in order to fashion it according to market-centric standards or gather public attention.

For the last two decades, various political and activist forces have slowly transformed subjects such as global warming (supposedly resulting solely from human activities) and climate change (supposedly resulting solely from human activities) from studies, scientific debates and polemics, into propaganda with a pseudoscientific backing. We make a distinction between geo-climate activities taking place in natural and the ones produced by human/anthropic activities. However, for those who choose to look deeper into the realm of details, there is no consensus in the scientific community with regards to these much heated subjects, both in the "for" and in the "against" camps. And from here things become much more complicated than the simple story that "global warming and climate change are caused solely by human activity, there is no doubt" that is currently served to the public by all possible mass-media channels [7].

The idea battle is incredibly sharp and varied. A few examples from both camps are given bellow:

# I. The increase of solar radiation would be the real cause of global warming and climate change that we notice at present, **not** man-made CO<sub>2</sub>.

The theory removes not one, but two bricks from the foundation of the greenhouse effect of human origin: firstly it designates the Sun as the dominant (close to monopoly) factor in climate variations, secondly it dethrones CO<sub>2</sub>, affirming that the Sun (directly and indirectly) controls the way clouds are formed, as clouds actually represent over 90% of the greenhouse effect (gases such as  $CO_2$  and  $CH_4$  finding themselves in the 10% left).

II. Increase in the quantity of heat released into the atmosphere due to human activities would be the real cause for global warming and climate change that we notice at present, therefore **not** man-made  $CO_2$ .

As global energy demand increased, we started burning increasingly higher quantities of fossil and nuclear fuels. Of the resulting energy: 60% is lost directly to the atmosphere

through the chimneys of power plants, as it is well known that only 40% gets transformed to electricity. From these 40%, only 25% reach consumers, the rest is lost again to the atmosphere as heat released by high voltage lines. And out of those 25%, almost all come back as heat to the atmosphere (your TV set, your laptop and your light bulbs generate more heat than that what they were designed to do).

Conclusion: 90% of the energy produced by humans globally, (one way or another) reaches the atmosphere as heat; and energy demand seems to increase continuously.

Low and high altitude atmospheric measurements, as well as satellite atmospheric mapping, both give the same conclusion: the atmosphere is getting warmer, but not where we would expect it! Temperatures have increased more rapidly and by more degrees at Earth's **surface**, than at 10-12 km above the ground where we actually find the highest concentration of greenhouse gases (such as  $CO_2$ ).

III. Change of albedo (reflectivity) of Terra due to human activities would be the real cause of global warming and climate change that we notice at present, therefore **not** manmade  $CO_{2}$ .

The same atmospheric measurements, as the ones for the above theory, can also affirm that the cause of global warming is likely to be the change in Earth's reflectivity, due to activities such as deforestation and urbanisation: cutting forests leaves behind bare soil which absorbs much more solar energy than the leaves of trees, and asphalt and tall concrete buildings absorb even more heat than bare soil/initial vegetation.

IV.It is not the increase in atmospheric  $CO_2$  concentration that leads to global temperature increase, but it is the increase in global temperature that leads to an increase in atmospheric  $CO_2$  concentration.

There are scientists out there that agree with Al Gore's famous graph, but they think that the CO<sub>2</sub>-temperature relationship is the other way around.

V. Global warming is a good thing: in a warmer world, atmospheric catastrophes would be less frequent and carry less strength.

The atmosphere is a thermal engine, continuously transporting heat from the equatorial area to the poles. Global warming would warm not only the equatorial area, but the polar areas also, and the equations of thermodynamics predict that, in this scenario, the Earth's atmosphere would become calmer and calmer as global temperatures would increase.

The main idea that connects global warming and current society is climate change. This idea is being paraded so much and so far beyond the limits of absurdity, that the authors of the current text are amazed that the public has not reached conclusions such as: either climate has never changed before humans appeared on Earth, or the only factor leading to climate change is human activity. Both variants are not only with very unlikely, but actually just plain ridiculous. On one hand, we cannot consider such a massive, complex and diverse system as being completely static by its own internal mechanisms, on the other hand we cannot ignore the influence of other factors which are much bigger than humans (such as the cyclic variation and the variation along geological times of solar radiation; the role of carbon buffers played by the oceans, by the organic matter within all ecosystems and by carbonated rock formation; gas emissions from tectonic processes, etc.). Carbon buffering represents the propriety of certain natural or artificial systems to decrease the variations of atmospheric CO<sub>2</sub> concentration

(by means of its absorption from the atmosphere, storage and subsequently it is release back to atmosphere).

The "devotees to global warming" movement has become The Inquisition for the current scientific world, influencing socio-economical decisions without scientific basis, ignoring scientific basis or even going against it.

Ecology versus environmentalism follows the old story of reason versus interest: ideological groups (of any kind, including environmentalists) must create problems or project the illusion of problems in order to propagate their own ideas or to achieve certain goals. Thus global warming is an "industry" in itself, at the moment the existence of tens of thousands of jobs depends on the "existence" of global warming. And on the whole, what guarantees do we have that if we do follow what we are being told (we actually do decrease or fully stop  $CO_2$  emissions), that the climate will not go through a "catastrophic change" for the human civilization anyway?

Let us say that tomorrow we completely stop releasing  $CO_2$ into the atmosphere (and we also absorb all that we have released so far), and then the day after tomorrow (pun intended) we enter a new ice age, for a very simple reason: climate continues its natural evolution by means of its own internal mechanisms. And, more than that, what if it's exactly the  $CO_2$  emissions we stopped, that would have been the method by which us, humans could have prevented that ice age? In this scenario  $CO_2$  emissions would have been a good thing.

So "CO<sub>2</sub>"is nothing else but a battle of ideas, whose only tactics are: demonizing the adversary and adulation of our own stand on things (and, in the scenario above, even placing it on a pedestal). For further details, one is invited to see the documentary: *The Great Global Warming Swindle*.

The global warming idea is a socio-economic vicious circle, as more and more scientists are becoming interested in the subject, the field of study starts to see more and more funds and move more and more money. This was and continues to be solid motivation for the new scientists that get involved to publicly support the idea, even before putting it through the test of scientific study. Scientists are more interested in spectacular prophecies than precise/exact/ correct predictions, another example through which human nature/the human factor can influence the scientific process.

## 5. CONCLUDING REMARKS. A POSSIBLE DIALOGUE BETWEEN POPPER AND KUHN?

For ages, mathesis universalis- a science of all sciences able to grasp a common language for all walks of knowledge has been a beautiful dream, seldom bordering utopia. In medieval times Scholastics claimed to play such role. With a life span much longer and a wider geographical range, Alchemy's pretence to give a summa sapientia brought together Christian and Arab thinkers. Isaac Newton himself, from many points of view the father of modern science, was, at least later in his life, a consummate alchemist, doubled by an astute reader of the *Kabbala* [8].

Recently, with the advent of the industrial revolution same mantle would be assumed not necessarily by one science, but by different paradigms (courtesy Thomas Kuhn): positivism, behaviourism, quantum physics, bio-ethics and so on. Given all the above, is environmentalism the new grand paradigm to chart the praxis in the  $21^{st}$  century? And if this is so, then how

can one channel it, in order to remain within the borders or reason, empiric inquiry and fact-based conclusions?

This article sketched a few thoughts about the perils of using environmentalism as a political instrument. The red thread to underpin the whole argument states that an interdisciplinary rendezvous between environmental studies/ ecology and social sciences, as fashioned by Al Gore's "An inconvenient truth" and "The Great Global Warming Swindle" documentary, shows how a debate may be oversimplified and deformed by manipulation.

Social scientists are rarely prepared to grapple with the specificity of the natural environment not to mention their lack of knowledge in chemistry or physics. On the other side, those with and ecological background might be ignorant with regards to social theories, school of thoughts, unwanted consequences of assuming one ideology or the other due to some fancy slogan or catchy flag. At the same time, mutual ignorance may deceive those who venture into the realm of interdisciplinarity and lead them to mistake lies with credible results [9].

How to avoid doctaignorantia and bridge a substantial dialogue between disciplines in order to craft sound policy oriented solutions? One answer - sketched here as food for future thought - might imply fusing Karl Popper with Thomas Kuhn. Although their world views have been presented as incompatible [10], both of them strive to find how knowledge is produced through the interaction of academic communities. While Popper repeated that scientists should be careful to maintain a free society among themselves and periodically mistrust their own research; Kuhn spoke more about how group established mentalities (namely paradigms) drive the pursuit of truth.

Given the nowadays interdisciplinary makeshift between social sciences <-> ecology <-> public awareness towards the environment, probably we should first confess a paradigm crisis (the first step towards redemption is to confess one's mistakes and limits) and only thereafter work to mend whatever differences and semantic misunderstanding may still be separating us, all within the boundaries of pluralism. To discipline the inter-disciplinarity is not an easy task at all, and its reward will not be the much craved *mathesisuniversalis*, but a *lingua franca* for the age to come.

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