

Short Communication

Portae Inferi Non Praevalebunt* (music, click on the star)

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Abstract

To believe that a latent and very discrete process continuously improves the quality of life all around is called "to have a positive attitude". However, there is enough matter all-around for generating some stress and misunderstanding. We need air-conditioners and the more the climate is warming, the faster we will be in the hell. Worrysome data are available about biodiversity. Our earliest ancestor *Sahelanthropus tchadensis* was living about 7 million years ago. Compared to other species, we are relatively young.

A site characterized by low biodiversity may be incompatible with a species (*Homo sapiens*) born in a very biodiverse space-time. Are we sure that system Earth will be sensible to our will and respond to our influence keeping us in its evolving germination forever? As every species in an expansion phase, humans are experiencing a collective, optimistic, unconscious prospect of immortality. On this point, why do not ask our peers for advice and consider a worldwide organized riposte for:

- a) Have less impacting actions on the climate, or at least try to stem those too impacting in progress;
- b) Better use the natural and human resources we own, avoiding excessive losses of time and money;
- c) Planning the continuity of the humankind, following common hopeful rules. Easier to say than to do, of course.

Keywords: Biodiversity; Co-evolution; Evolution; Global change; Humankind; Humusica; Mars; Warming climate

Short Communication

For the first time in our life, we are walking into the future with some hesitation. "This sentiment is just prevailing at your age", suggested my wife. Side by side for more than 30 years, we believed that a subjacent unknown process continuously and automatically improves the quality of life all around (our ancestors had harsher lives that is). Coming from an Alpine region, I never feel cold. Born at the seaside, my wife likes fair weathers. Now that the climate is growing warmer, I feel uneasy, fancying for fresh air in summer. She effortlessly supports hot days, but conditioned air may cause allergic reactions in her body. We feel morally guilty to live in climatized rooms at work. The use of air-conditioners consumes energy and increases the external air temperature. Worse: the more the climate is warming, the more we will apply air-conditioners and the faster we will be in the hell [1]. These minor inconveniences may be enough matter for generating stress.

In addition, worrysome data are available about biodiversity. Among very numerous scientific papers [2-10].

What is biodiversity? On this topic too, there is a delicate divergence of sentiments.

Many people like exotic plants and animals. For example, in our garden, we have two exotic trees (*Pinus sylvestris*, and *Cercis siliquastrum*), and many bushes as *Euonymus japonicus*, *Syringa vulgaris*, *Ceanothus tyrsiflorus*, *Buddleia davidii*, *Phyllostachis humilis*, *Hibiscus syriacus* and *Campsis radicans*. All these plants were

there when we bought the house. None of these plants is naturally born there. They compose a very common human-made garden. I purposely avoid mowing the lawn, which becomes a miscellaneous meadow (*Poa trivialis*, *Dactylis glomerata*, *Lolium perenne*, *Trisetum flavescens*) with a seasonal dominance of invasive herbs like *Chelidonium majus*, *Taraxacum officinale*, or even trees plantlets (*Acer pseudoplatanus*, *Ailanthus altissima*); among these plants my wife sets campanula clumps, winter hyacinths, violets, primroses, sometimes even tulips or iris. Ecologically speaking, our garden is effectively a disaster. *Pinus sylvestris* should be in cold northern forests, *Cercis siliquastrum* in southern Mediterranean areas. Our garden shrubs are sold all over the world and constitute a growing army of invasive species. Artificially diffused trees, shrubs and grasses cheerfully overstep the artificial boundaries that humans build around their properties and assault the whole planet, standardizing the urban green areas everywhere.

I introduced *Lumbricus terrestris*, an anec earthworms (there were none) that my friend Bernard caught in his garden and brought me. However, the biodiversity of my garden is not the one of a natural ecosystem [11].

At the beginning, our planet was a nude ball of rock in the fire, in a very harsh environment (climate and air), unsupportable for the present day living organisms. Then, slowly, in nearly 4 billion years, planet Earth became a full of life ecosystem. The process that generated all the existing biodiversity occurs even at present days and does not need any human intervention. It corresponds to a cosmic

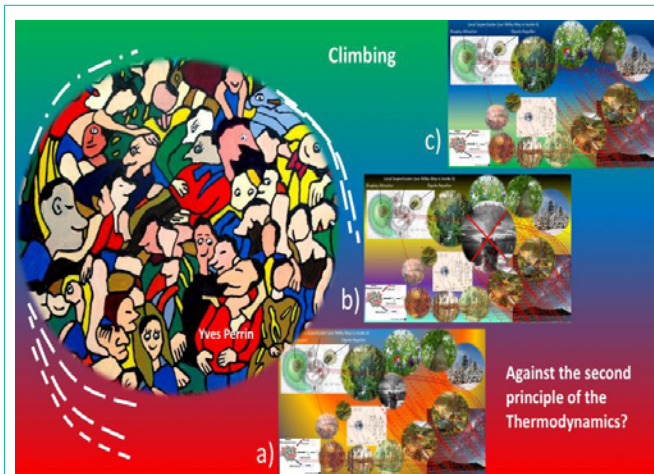


Figure 1: A Yves Perrin painting (<https://www.artmajeur.com/it/art-gallery/yves-perrin/260620/foule/7577632a>) confined in a globe rolling against the gravity force, is representing the Humanity climbing the steps of the civilization. a) Stop the atmosphere from warming; b) ban nuclear weapon from our planet; c) like the "Infinito".

journey, a consequence of the inexorable expansion of the universe [12], which allows a localized decreasing entropy, with the building of complex regular structures (molecules, macromolecules, tissues, organs, organisms, ecosystems...) that characterizes the living systems. On planet Earth, each local arrangement of species forms a functional construction, because the species interact and become inter depending. The more the system evolves, the more it becomes biodiverse, enlarging and modifying the volume in which it develops [13]. Our earliest ancestor *Sahelanthropus tchadensis* was living about 7 million years ago; *Homo sapiens* (humans, as we are today) appeared from this same line about 200,000 years ago [14]. Compared to other species, we are relatively young. All the species of common gardens were on Earth long before *Sahelanthropus tchadensis*.

A site characterized by low biodiversity may be incompatible with a species (*Homo sapiens*) born in a very biodiverse habitat. *Homo sapiens* is a recent species generated in a highly biodiverse planet Earth (melting pot). This biodiversity may inhabit *Homo sapiens*. Undoubtedly, the original Earth ecosystem contained *Homo sapiens* as a gear in a functional system, as a piece of a tridimensional puzzle [15-17]. And this biodiverse structure was in living equilibrium with the external environment (our Milky galaxy, the further space) that includes the solar system and its planets [18,19]. The soil ecosystem evolved, losing part of its original genetic edifices but preserving what was still necessary for continuing to exist as a whole equilibrated ecosystem [20-25]. Let us imagine that *Homo sapiens* could continue to behave for diminishing the planet biodiversity [26]; let's suppose that planet Earth could maintain its equilibrium even in a less biodiverse condition. Are we sure that *Homo sapiens* could remain alive/functional in a pauperized planet ecosystem? The microorganisms in which we are bathing, and all the other visible living beings, may continue to follow an unknown general principle that instead seems to want an increasing biodiversity for planet Earth. Are we sure that system Earth will be more responding to our influence and keep us in its evolving germination forever? At the moment, Earth system seems to follow the human will, and supports an increasing *Homo sapiens*'

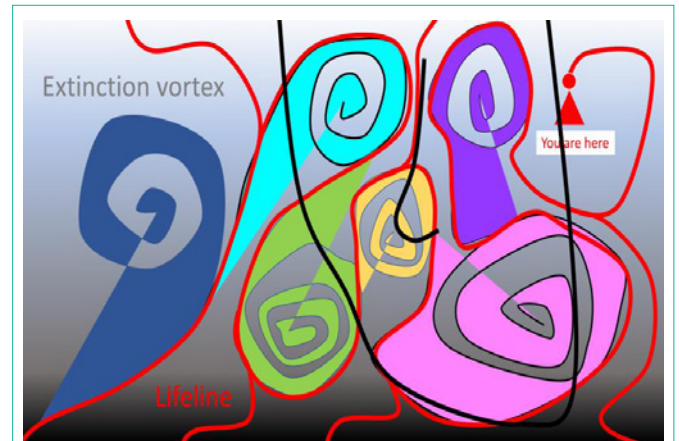


Figure 2: Evolution. Life is a single line that continuously grows and periodically loses biodiversity. As it was a train that cannot be stopped but that can lose part of its interconnected and inter depending wagons. These wagons generate new lifelines, which together draw the ramous structure of a tree (How beautiful is the Klimt's tree of Life?: https://upload.wikimedia.org/wikipedia/commons/5/5d/Klimt_Tree_of_Life_1909.jpg). The future of life on planet Earth could be without the *Homo sapiens* branch, if we fall with our habitat and depending species in an extinction vortex. The relationship between evolution and extinction has been recently and clearly developed by Dr. Robert Alexander Pyron (Robert F. Griggs Assistant Professor of Biology), in the Washington Post: We don't need to save endangered species. Extinction is part of evolution (https://www.washingtonpost.com/outlook/we-dont-need-to-save-endangered-species-extinction-is-part-of-evolution/2017/11/21/57fc5658-cdb4-11e7-a1a3-0d1e45a6de3d_story.html?utm_term=.d8cef377db92). And in Plos/Blogs, Dr. Santiago Claramunt (Associate Curator at the Royal Ontario Museum) specifies Pyron's statement as following (<http://blogs.plos.org/ecology/2017/12/01/saving-species-from-ourselves/>): "The idea that all species eventually go extinct is only partially true because there are two different meanings of "extinction." In its most fundamental meaning, extinction is the disappearance of all individuals of a species, the irreversible end of a lineage. This kind of extinction is the one that we fear we are increasing among today's species . . . today's biodiversity is the result of the survival of lineages, lineages that coalesce in common ancestors that can be traced back to the origin of life. In other words, today's biodiversity is the result of the absence of extinction (in its fundamental meaning) along those lineages over the entire history of life on Earth." - From "Extinction, macroevolution, and biodiversity conservation" posted on November 26, 2017.

population (<https://www.unfpa.org/world-population-trends>). How long will be this trend sustainable?

In a movie (The Martian, directed by Ridley Scott), Matt Damon grew potatoes on Mars, as in a novel [27]. Is to grow potatoes on Mars possible? Only if we are able to artificially reproduce the habitat that naturally exists on planet Earth around a potatoes plant. Each organism follows an inherited cycle of life (What is soil? In [28-31]) and paradoxically has to die for continuing to stay alive, single cells continuing to die even in healthy bodies (What is apoptosis? In [32]). A plant can produce enough organic matter for feeding even other living beings [33-36]. Life starts as a low biodiverse soil, called "primordial soup" or prebiotic soup" [37-39], and becomes a very interconnected, hyper-biodiverse living ecosystem [7,9,13, 40-47]. But we would like to grow potatoes now and fast on a nude earth. *Homo sapiens* will build a greenhouse for starting a functional ecosystem on Mars, will he? [30].

None knows how many biodiversity planet Earth can lose before the process could negatively influence the existence of *Homo sapiens*.

There should be a limit. We are not able to artificially build all the molecules we need for being in good health.

Investigating about 3000 years of the Chinese multi-ethnic history, Fei [48] concludes that a) the weaker a society is, the less its members have choices about how to live, and b) the wealthier a society becomes, the higher chance that members of that society develop a collective personality. However, during the process of modernization of a multi-ethnic human community, through the spirit of unity and mutual assistance among all ethnic groups, prosperity tends to increase and converge. And the society may achieve the purpose of universal welfare, without losing its multi-ethnic constitution.

How many humans can be living on a “warmer planet Earth” in 2100? Why not to consider the possibility to organize a referendum and clarify everything with our peers before is too late?

- 1) During a tremendous well-known manifestation that could be seen all over the world (Olympic games?);
- 2) Using a mean of communication simple and well diffused among humans all over the globe (cell-phone?);
- 3) Plan a referendum on a crucial question concerning the biological future of our species, and communicate the score as it was humankind will? Yes, No, A = abstention answers;

In fact, we should (Figure 1):

1 - Have less impacting actions on the climate (Figure: 1a):

1) E-Democracy: 1) Stop the atmosphere from warming; 2).....

A SIGN OF GLOBAL DEMOCRACY DURING THE OLYMPIC GAMES IN TOKYO 2020

https://secure.avaaz.org/it/petition/Toshiro_Muto_Tokyo_Organising_Committee_of_the_Olympic_Games_2020_As_planet_Earth_citizens_will_you_stop_the_climate_fro/

2 - Better use the inherited natural and human resources, and at least avoid massive destructions (Figure 1b):

2) E-Democracy: 2) Ban nuclear weapon from our planet; 3).....

A SIGN OF GLOBAL DEMOCRACY DURING THE OLYMPIC GAMES IN PARIS 2024

https://secure.avaaz.org/en/petition/Tony_Estanguet_President_of_the_Organizing_Committee_of_the_Olympic_Games_Ban_nuclear_weapons_from_the_planet_Earth/

3 - Plan the continuity of the humankind, establishing universal civil and penal codes (Figure 1c):

3) E-Democracy: 3) Do you like the “Infinito”?

A SIGN OF GLOBAL DEMOCRACY DURING THE OLYMPIC GAMES IN LOS ANGELES 2028

https://secure.avaaz.org/en/petition/All_humans_Should_we_act_as_members_of_a_real_single_Humanity/

Can humanity go on without climbing at least these forced steps?

1 - A temperate climate is a mandatory condition for life [38,49].

This first step (Figure 1a) would like to induce a wise sentiment

of precaution. If the system is racing, we could not be able to stop it. Voluminous unexpected migrations of hungry humans could generate insurmountable conflicts. Mars is not habitable: is there a valid reason to take the risk to transform our Earth into a Martian desert?

For Palestinians and Syrians, which are currently living under exploding bombs, the climate is something so far from their daily needs that they could even hope to end up in hell with all of us. Countries in the world today at war (<https://www.guerrenelmondo.it/?page=static1258218333>): 29 in Africa, 16 in Asia, 9 in Europa, 7 in the Middle-East, 6 in America. The same reasoning is held by people who are hungry or have no mean for gaining their bread, mothers and fathers in pain for their children, lost people, those who live in unhealthy environments or work for a misery more than 10 hours a day. We are talking about more than half the humans. These people could vote “NO” in a referendum, in spite of the predicted “YES” of informed scientists. One might think that it is better not to carry out the referendum. Three hopeful words figure the top of every French institutional monuments: “Liberté, Egalité et Fraternité”. A fourth word that more than the formers influenced this revolutionary period could give more meaning to the epithet, making it even more meditative/predictive: “Liberté, Egalité, Fraternité et Guillotine”. It would take away a bit of brilliance from the French pride, but it would make the message much more realistic. Student, I was shocked to read that they decapitated even Antoine Lavoisier, the genial father of the modern chemistry. In our day, religious extremism finds in this evident widespread injustice a reasonable claim that should not be underestimated by the rulers. The correct answer would not be a truckload of bombs, but a real fight against injustice. Surely, it would have the voice of all the mamma of the world. Easier to say than to do, of course.

2 - Atomic weapons are not only destructive arms (<http://www.icanw.org>), they consume a lot of energy and money (<https://www.ucsusa.org/publications/ask/2013/nuclear-weapon-cost.html#.Wugk6S-B0Wo>) that humanity should spend for rescue its natural habitat (planet biodiversity). Before the sun is too old, we need to leave our solar system with our planet (or at least part of it) and be able to survive and travel in a space at minus 270°C. No doubts, we have to evolve all together at least for the coming few millions of years. The suggested second step (Figure 1b) is the fruit of pure common sense. Nuclear bombs can destroy and make the soil unworkable, when instead we would like to have more soil for producing more healthy food to eat and water to drink. We just have to decide all together not to make atomic bombs anymore. It would be enough for the Americans, Russians and Chinese to decide it, the others will be forced to follow the movement. And we would have all this saved money (and later that one freed from the expenses of every kind of armor?) to spend and boost the economy: schools, researches, hospitals, means of communication and transport, sport and artistic equipment, healthy environment for having a lot of fun. All these actions need a new spirit of cooperation. Even if it resembles to an outdated religious program, it may generate employment, goods and new financial resources, and it may give hope to win resignation. Everything must die, even our civilization.

3 - The third step (Figure 1c) is necessary to continue living together and maintain a lifeline (Figure 2). With internet and solar airplanes (<http://www.dhakacourier.com.bd/swiss-solar-powered-plane-flies-over-bangladesh/>), planet Earth will become smaller and easier to travel.

Take the time for reading a last-minute Andrew Winston's news: <https://medium.com/@AndrewWinston/why-i-believe-in-climate-change-and-why-it-doesnt-matter-650bf3e45a9f>

Natural resources are a heritage [50-54; 12]. They have been made by the past living organisms (example: What is an oil reservoir? [https://web.archive.org/web/20041221121649 http://www.seed.slb.com:80/en/scictr/watch/makingoi/birth/birth.htm](https://web.archive.org/web/20041221121649/http://www.seed.slb.com:80/en/scictr/watch/makingoi/birth/birth.htm)) for surviving on a living planet Earth (http://wwf.panda.org/about_our_earth/biodiversity/what_is_biodiversity2/). We should use the resources respecting a project of (humanity + living planet) survival. A not programmed regression of this living system should be avoided. We should create and respect universal laws. Civil and penal rules should be the same all over our planet. The sun is not an everlasting system. It is already halfway through his life. We need a project that goes beyond the life of the sun.

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