

Full Length Research Paper

A cosmically whole ethical system: How to attain a sustainable energy consumption and development, and a most stable world peace?

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Herein a concise, thoroughly scientific ethical system is presented, based on the author's life lasting scientific research, condensed in basically two books (Yarman 1997; 2010), published respectively by Editions Quorum, Brussels, and by Nova Publishers, New York. We would like to call it, "Cosmic Wholeness", leading to our creation in the universe, throughout a most striking "universal matter architecture". The cosmic wholeness we disclose, can ultimately be considered, as the basis for the definition of the "good" and, that of the "bad", and amongst other things, the basis for a "sustainable energy consumption and development", a "healthy environment", and a "most stable World Peace".

Key words: Ethics, sustainable energy, world peace, chaos, cosmic wholeness.

INTRODUCTION

The quest of whether ethics can be derived out of pure scientific knowledge, certainly occupied philosophers throughout many centuries. Even the discussion of the past of such a vocation would amply fill up many books. It cannot be, though, advocated that, the related efforts led to the goal, in a widely accepted manner.

At any rate, one can, as a first approach, think, as follows: Man is a product of our universe. His body functions, according to the laws of this universe. So does his brain. But human rights, democracy, the good and the bad, as a whole, ethics, is a product of human brain. Thus, there must be a way to derive ethics from the laws of the universe.

In this short article, we propose to undertake such a task. In fact, herein we will basically present a short summary of the book, the author had written in 1997 (Yarman, 1997). The reason we do this, is to try to bring to the attention of an English reading, thus comparatively wide scientific community, the essence of this book, all the more that this book was written in French. We would, further, like to mention that, the approach we will present herein, is rooted to some of the scientific findings, the author bears the honour of having disclosed (Yarman, 2010). We will report few of them for the first time, along

the context of the ideas we convey along with this article. In any case, it seems exciting to try to summarize in less than few pages, if one could ever, some ten billion years of cosmic struggle and formation, together with the mankind history, on Earth, and to derive from here on, an ethics, framed by the past of concern.

Here are the basic principles of our approach; it consists in three phases. At the end we will accordingly draw a definition for the "good" and the "bad", and a recipe on how to attain a sustainable energy consumption and development, and a most stable world peace.

UNDERSTANDING THE EVOLUTION OF AN "UNCONSCIOUS CONSCIOUSNESS", TOWARD A "CONSCIOUS CONSCIOUSNESS"

This section embodies the understanding of billions years of evolution, through which, matter was organized out of an otherwise, eternally deteriorating – chaos, gradually, into galactic, stellar, planetary, geological and biological "supreme order", which, in this corner of the universe, happens to be our cradle, Earth, and finally ourselves.

This is, as if, a magnificent "unconscious

consciousness”, which we can call, the “universal knowledge”, that is, for instance, the intrinsic ability of two hydrogen atoms to manufacture a hydrogen molecule, gets transformed, step by step, onto a “conscious consciousness”, which is, at an ultimate level, fascinatingly, “us”.

How is this achieved? The answer is, “getting built, owing to the universal laws”. In the case of two hydrogen atoms composing a hydrogen molecule, for example, these laws consist in, especially the Coulomb's Force law (Coulomb, 1950), reigning between electric charges, and the de Broglie relationship (de Broglie, 1925). These two fundamental rules are based on universal constants, particularly, the electric charges of electron and proton, and the Planck Constant (Planck, 1901). The constancy of the speed of light in empty space, with regards to all inertial frames, accounts further, for the relativistic aspects (Einstein, 1905), including the spatial dependency of Coulomb force, which appears as a relativistic must, as $1/r^2$, r being the distance between electric charges of concern (Yarman, 2009).

The Universe is not just a storage of energy

In other words, the universe is not just a storage of energy. In here, there is an acquaintance. This lies, in the self organizational patterns of matter. More profoundly, matter, that is, as we will detail a little bit, soon, “mass”, “space” and “time”, is at all complication levels, assembled in a unique way:¹ We like to call it, “universal matter architecture” (UMA) (Yarman, 1999; Yarman, 2004a, b, c,

¹ It was, in effect, the author's original idea that the *Special Theory of Relativity* (STR) imposes the following, regardless how complex the object we visualize, may be. Already at rest, the “period of time” T_0 , the “characteristic length”

\mathcal{R}_0 , the “clock mass” \mathcal{M}_0 , to be associated with the “internal dynamics” of a quantum mechanical object, and the “electronic energy” E_0 , constituting the base of the dynamics in question, ought to relate, to each other, in just a given manner, which is given by $T_0 \sim \mathcal{M}_0 \mathcal{R}_0^2 / h$, where h is the Planck Constant. Say, for a diatomic molecule, the outcome is to appear as

$$T_0 = \frac{4\pi^2}{h \sqrt{\frac{\mathcal{R}_0}{\mathcal{R}_{00}}}} \sqrt{M_0 m_e \mathcal{R}_0^2} \quad (i)$$

And

$$T_0 \sim 2\pi \sqrt{\frac{M_0}{|E_0|}} \mathcal{R}_0 \quad (ii)$$

here M_0 is the reduced mass of the atoms making the diatomic molecule, m_e is the electron mass, \mathcal{R}_{00} is a reference size, chosen for the set of objects in question. We have on purpose, left \mathcal{R}_0 , under the square root, in the denominator of Equation (i), for the construction $T_0 \sim \mathcal{M}_0 \mathcal{R}_0^2$, happens to draw a special, Lorentz invariant cast.

d; Yarman 2006; 2010 a). To illustrate this, along with Equations (i) and (ii) of the footnote outlined right below, we provide two Figures, taken respectively from Yarman 2004d and 2010a. Figure 1 shows, how the lowest classical vibrational period of time (T_0) of diatomic molecules is structured with regards to the “clock mass” $(M_0 m_e)^{(1/2)}$ (composed out of the product of, nuclei reduced mass M_0 , by electron mass m_e), and the internuclear distance \mathcal{R}_0 , for all diatomic molecules, thus, for the case we consider herein, especially for alkali molecules (H_2 , Li_2 , $LiNa$, Na_2 , NaK , K_2 , KRb , Rb_2 , Cs_2), for which the constancy appearing in Equation (i) of the footnote, is expected to remain the same, throughout.

The next Figure 2 similarly shows, how the lowest classical vibrational period of time (T_0) of diatomic molecules is structured with regards to the “clock mass” $(M_0 m_e)^{(1/2)}$, the internuclear distance \mathcal{R}_0 , and the magnitude of the electronic energy of the molecule, still for alkali molecules, for which the constancy appearing in Equation (ii) of the footnote (below), is here again, expected to remain the same, throughout.

In other words, “mass” (that is, the mass in a given entity, carrying the labor of the internal dynamics, this entity delineates), “space” (that is, the size of space in which this dynamics takes place), and “time” (that is, the period of time of the internal motion in consideration), are structured with respect to each other, and this already at rest, in such a manner that, they display interrelated transformations, in full conformity, with the end results of the special theory of relativity (STR), were the entity at hand, brought to a uniform translational motion; this condition, further, insures that, the entity in question, would undergo transformations in full compliance with the end results of the general theory of relativity (GTR), when embedded in a gravitational field, in fact any field, the object can interact with (Yarman, 2010b, c).

We can put this assertion, as well, the other way around: That is, in order to cope, primarily with the end results of the STR, matter must be built in just a given way. One can further reveal that, the matter architecture cast we discover, is nailed to the square of the Planck constant [Yarman, 2010b, c]. It seems to ascend itself to higher and higher order organizational levels, though based on (in order to cope, at the outset, with the end results of the STR), necessarily, the same fundamental framework, we just summarized.

It seems that, the originally unconscious cosmic inclination, and progression, has created us, but at the same time, lives in “us”, and is “us”

We thus anticipate, we are presently a “categorical goal” of perhaps, the originally unconscious cosmic inclination and progression. It seems that, this created us, but at the same time, lives in “us”, and is “us”.

No divine attribute is made here; yet we see no obstacles, why there should not be any. However,

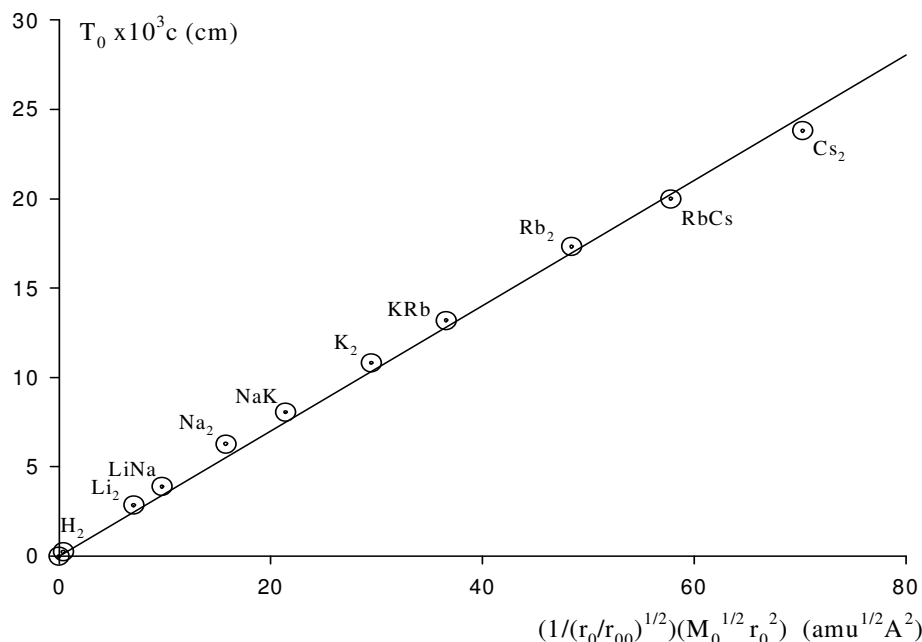


Figure 1. Period of alkali molecules versus $(1/(r_0/r_{00})^{1/2})(M_0^{1/2} r_0^2)$ r_{00} : Internuclear distance of H₂ (Excerpt from Yarman, 2004 d)

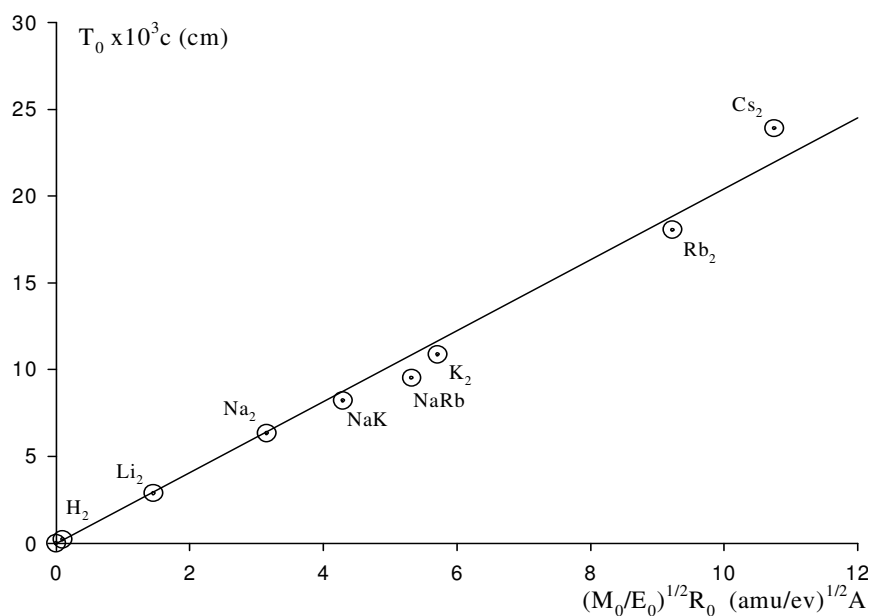


Figure 2. Classical vibration Period, versus $(M_0/E_0)^{1/2} R_0$ for Alkali molecules. (Excerpt from Yarman, 2010 a)

according to our reasoning, one is not at all forced to assume it.

This whole process defines, a visible cosmological tendency, all the way from the “Big Bang”, burgeoning a presumably “unaware consciousness”, into a “Conscious Intelligence” (on Earth and perhaps elsewhere), which constantly organizes the matter and the universe, the

way we underlined, out of (an otherwise eternally desperate) “chaos”, into the current “universal order”.

Thence, the first phase of our Cosmic Wholeness approach, requires the understanding of the universal evolution from the Big Bang up to the present; and this, as we will soon show, strikingly defines, a fundamental construction of the value system of our being and

behaviour on Earth.

UNDERSTANDING THE CREATION OF “SOCIAL ORDER” OUT OF “ANTHROPOLOGICAL CHAOS”

This section our approach, consists, specifically, in the grasp of “history of mankind on Earth”. This latter process of most likely, millions of years of evolution, through all the pain, suffering, torture and bloodshed, and despite so very many backward steps, in any case, still seems to distill, and this gorgeously, the conventional human rights, with all the related institutions, which is nothing else, but the production of “social order” out of “anthropological chaos”.

It is extremely cheering that, this whole struggle fits so well, with the previous tendency of the “cosmic creation of universal order out of, an otherwise, eternally desperate chaos”. It is as though, the “cosmic unaware consciousness” ascends enduringly; through the galactic, planetary and biological processes, as well as the human history, towards an “ultimate awareness”, which had created us, and “became us”, impressively, as the “creators of the human rights”.

THE GOOD AND THE BAD

This section of our “Cosmic Wholeness approach”, involves a derivation of “ethics” based on the perception of the endlessly successive struggles we sketched, that is, the “cosmic trends” giving rise to our cradle in the universe, and ourselves in this cradle, followed by the prevailing “driving force of human history”, which ultimately yields, today’s human rights.

Man’s act in that “direction”, should thus be classified, as “good”.

Any reverse behaviour, hereafter, transforming the “Ultimate Cosmic Order” into “Chaos”, should be classified as “bad”.

It is comforting that this assertion – again, without any divine attribute - is well, in consistency with the essence of the good and the bad, taught by the religions, and can be checked easily with regards to common acts delineated by mankind.

Killing is bad (unless one has to defend himself against a murderer’s attack), because it transforms a supreme order, that is, life into chaos. Thus, saving a life is good.

Peace is good, war is bad, unless oppressed people have to fight for their peace.

Freedom is good, because people there after, can achieve their cosmic mission; they can mate and build. Thus, slavery is bad.

Solidarity is good, despotism is bad.

Democracy is good, provided that it works with its all established institutions, that is, fair distribution of wealth, free expression, free discussion, free election, etc.,

whereas fascism is bad.

Already a living being represents a supreme order. “Love” further, induces the reunion of at least two living beings. In this respect, one can classify love, as the mechanism of creation of an even superior order.

RESULTS AND DISCUSSION

Herein, we have pinned down that the Universe is not, just a storage of Energy. In here, there is an acquaintance. This lies, in the self organizational patterns of matter.

More profoundly, matter is assembled in a unique way, which we called “universal matter architecture” (UMA). Thereby it seems that, the originally unconscious cosmic inclination, and progression, has got more and more organized, on higher and higher levels of self organization, and has finally created us, but at the same time, lives in “us”, and is “us”. The analysis of the long lasting, tiring and bloody struggles, followed by the distillation of human rights, on the basis of the history of mankind on Earth, fits so well, with the previous tendency of the “cosmic creation of universal order out of, an otherwise, eternally desperate chaos”. It is as if a “cosmic unaware consciousness”, ascends continuously, towards an “ultimate awareness”, which had created us, and “became us”, impressively, as the “creators of the human rights”. This observation constitutes the background for an efficient definition of “good” and “bad”, furthermore, democracy, social democracy, world peace, as well as a sustainable energy consumption, along with an overall environmental peace, on Earth. We are going to conclude this article, by emphasizing the related framework.

CONCLUSION

A sustainable energy consumption and development, and a most stable world peace

We have started to note that, man is a product of our universe. Thus his body, functions, according to the laws of this universe. So does his brain. On the other hand, human rights, democracy, the good and the bad, as a whole, ethics, is a product of human brain. Thus, there must be a way to derive ethics from the laws of the universe.

In other words, one should be able to bridge the cosmological, nuclear, atomic and molecular formation of matter and the universe, on the one side, and ethics, on the other side, for ethics is established by the human brain, which is after all, a product of the universe, in fact an utmost biological product, of the universal manufacturing trends.

In order to attain such a goal, we have quickly reviewed the evolutionary phases, right, from the cosmological beginning, up to our era, including life on Earth, and

human history. Thus we determined that, "Our mission on Earth", ought to be to comprehend the "Cosmic Trends" that have created order out of chaos, and given birth to "Mother Nature" and "us", and carry these trends, onward.

In any case, the universe is not, just an amorphous pile of energy. In here, there is a know-how. This lies in the self organizational patterns of matter.

In other words, "mass" (that is, the mass in a given entity, carrying the labour of the internal dynamics, this entity delineates), "space" (that is, the size of space in which this dynamics takes place), and "time" (that is, the period of time of the internal motion in consideration), are structured with respect to each other, and this already at rest, in such a manner that, they delineate interrelated transformations in full conformity, with the end results of the STR.

The matter architecture we discover seems to ascend itself to higher and higher order, though based on (in order to cope first of all with the end results of the STR), necessarily, the same fundamental framework, we just summarized...

It seems that, the originally unconscious cosmic inclination and progression, has created us, but at the same time, lives in "us", and is "us".

All actions in this respect can be classified as good. All opposite actions can be classified as bad.

The good and the bad defined that way, is well in accord with (away from any divine attribute), the essence of the good and the bad, taught by the religions.

We can further draw a conclusion toward establishing a sustainable energy consumption and development, and a most stable peace on Earth.

One has to realize that nature, through her routine cycles, does not at all pollute, through its living mechanisms; only human beings do. As long as we have our own star, that is, our sun, on Earth, we possess necessary means of energy for survival, just like all other living beings.

Earth, in effect, is an open system; it receives energy from the sun. This means that, "rational ways" of production on Earth should not pollute; on the contrary, they could bring further and further order, on Earth.

Thus, those who think that, we will necessarily pollute the environment, due to the second law of thermodynamics, are mistaking.

If we pollute, it is because we do not use the "right means" of energy, or we do not use them, in the "right way".

Thus, we should struggle:

1. To remove from Earth, mechanisms of industrial production, incompatible with the Earth's natural cycles.
2. And at the same time, to establish manufacturing mechanisms, in full compatibility with the natural cycles, thus, to reach more and more, an improved, healthy and sustainable a environment.

3. In that respect, to remove all war machines, and mass destruction weapons,

4. Hence, to establish a social and economic order, accordingly.

5. Thus, to primarily institutionalize, love and human rights.

6. To establish the reign of a permanent World Peace, on Earth, together with all necessary implications, and working tools.

The cosmic trends that gave birth to us, need us, to get bettered. And this (without any theological evocation), is, we believe, already "divine".

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