

Remodeling Thinking Patterns For A Sustainable World: Sustainable Leadership, Systems Thinking And Greek Paideia

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Abstract: *At the dawn of the 21st century, the world is experiencing a reality of cataclysmic developments at all levels from the renowned climate change, to the increasing income inequality especially in large cities, the merciless terrorist attacks in every corner of the Earth and the massive migration waves. At the same time, the developed economies have experienced the fourth industrial revolution, a revolution of scale, scope, complexity and changes unprecedented in the history of mankind, also with uncertain predictions for the future: governments, businesses, universities and citizens all in embarrassment. The predominant linear thinking failed to understand these challenges and therefore to offer viable solutions. This alternative proposal is based on two principles: first, on the principle of sustainability and second, on the systems theory and its application in all fields of public policy. The omnipresent ancient Greek Paideia provides the framework for the development of an intelligent and socially sensitive sustainable leadership.*

Key words: *Sustainable Leadership, Greek Paideia, Systems Thinking, Public Policy*

I. A new world: threats and challenges

At the dawn of the 21st century, our world is experiencing cataclysmic developments at all levels. In nature, the climate change and uncontrolled environmental disasters are behind from the more frequent and intense natural disasters. Hyper consumerism and excessive use of limited resources, and yet, “ancient Greek philosophers, particularly Plato and Aristotle, were more than sensitive to the relationship between population and resources, when postulating the ideal size for the city-state of their day”. The global health threats confirm the fragility of human existence, resulting perhaps from an increased confusion among standards of values of modern civilization, ignoring what the ancient Greeks had set as a condition of a balanced life: “the need for harmony between the individual, social and natural environment”.

In the economy, enormous disparities of opportunity, wealth and power, within and across countries, and the level of unemployment, especially youth unemployment, continuously undermine any attempt of peace in the world, while gender inequality still remains a barrier to economic development. We are not far from Plato, who considered the economic inequality between the citizens of a state as the source of harmful situations, stating that “in an ideal society the income of the richest person would be no more than four times the income of the poorest person”. In demographic terms, mass migration threatens world peace and creates new models of social organization, while billions of citizens continue to live in poverty and are denied a life of dignity. This melancholic landscape is complemented with spiralling conflicts, violent extremism, terrorism and related humanitarian crises. Pythagorean tradition (“abstinence from beans” (*«κνύμων απέχεσθαι»*, i.e., stay away from political wrangles) is imprisoned in the cage of human selfishness. Not only are the survival of many societies at risk but also the biological support systems of the planet.

Meanwhile, developed economies seem to have moved to the fourth industrial revolution with uncertain forecasts for the future. Governments, companies, universities and the civil society are in embarrassment. In the first industrial revolution, man, as another Prometheus, was harnessing water and steam. In the 19th century the second industrial revolution, man was bridling electricity. And in the 20th century, the third industrial revolution was arrived, with the inventions of electronic and information technology: automation across the entire spectrum of the production process. In the late 20th century, the fourth industrial revolution has built a digital world and millions of possible combinations of technology to connect the physical to digital, and the two together with biology. But this time the difference is huge: the first three technological revolutions have had affinity and kinship, were historical continuity, each a kind of enhanced version of the previous, the mother, daughter and granddaughter.

Late in the 20th century, this sequel was disrupted causing widespread disturbances in societies, developed or not, for at least three reasons. Firstly, the speed of change is historically unprecedented and unimaginable to the average person: impossibility of understanding leads to weak forecast evaluations which compose the picture of unrestrained. Secondly, the fourth industrial revolution is everywhere and has no geographic boundaries or time commitments. Globalization is no longer a vague idea of newspapers or a construct of academia, but a solid framework of rational principles that emerged immediately after the Cold War, and arguably rooted in the rich economies of the West, but with offshoots everywhere, from the African wilderness and bustling ports of America and from modern Asian megacities to the gray old socialist economies. Today the Earth is small! Thirdly, both the content and the impact of the fourth industrial revolution spread from the economy and political governance to ethics, cultures and traditions, shaping values and attitudes. These complex challenges are far from routine. They are adaptive challenges and appropriate responses require new approaches and more intelligent systems of thinking.

The objective of this study is to show that instead of the using traditional economic models, which are unable to understand and deal with the current global crises, public policy should advance alternative thinking systems inspired by the Ancient Greek philosophy thinking and aiming at a more sustainable world. The plan of the paper is as follows. Section II outlines the eight reasons why the dominant economic policy/analysis is unable to understand the new world and interpret current global economic, social and environmental crises and consequently to inspire public policy. Section III contains our novel proposal which is the adoption of the principle of sustainability and the change from linear thinking to systemic, both based on the wise tradition of Ancient Greek Paideia.

II. The dominant policy is unable to understand the new world

“For we do not think that we know a thing until we are acquainted with its primary conditions or first principles, and have carried our analysis as far as its simplest elements”. So where is the starting point? This world of multiple crises of unparalleled speed, range and impact globally is not a random result of economic and social development, but the outcome of an obsolete and weak thinking tool unable to overcome the crisis. Hyper-specialization and selfishness of the economic vision of the life on Earth have dislocated all the social sciences, claiming a unique possibility of interpretation, understanding and evaluation. The empire of economic analysis was constructed on unfortunate scientific conjectures, monopolized the social sciences, relegating the human soul and ignoring contemptuously, but so dangerously, the natural environment.

We identify eight reasons for which traditional economic analysis was unable to interpret current global economic, social and environmental crises and consequently failed to inspire public policy.

1. The illusion of economic forecasts

The credit rating of Lehman Brothers from Moody's, a week before its bankruptcy on September 15, 2008, was A2, or the second best reviewed! As a result, a week earlier, Moody's urged investors, private and public alike, to invest their savings in a bankrupt company! As the well-known economist Milton Friedman had stated, *“a useful economic theory should be judged by its simplicity in being able to predict at least as much as an alternate theory”.* We are vainly trying to recall a valid forecast in the area of the economy! Lars Peter Hansen, the 2013 recipient of the Nobel Memorial Prize in Economics, was clear: *«models are simplifications; they are abstractions. And they are wrong»*, and Niels Bohr, the eminent physicist (received the Nobel Prize in 1922) was even more assertive: *“prediction is very difficult, especially about the future”.* The prediction as hubris!

2. The supposed superiority of financial versus other social sciences

Ronald Coase, the 1991 recipient of the Nobel Memorial Prize in Economics, warned: *“saving economics from the economists”*, while growing increasingly voices for the enlargement of economics with the aid of philosophy and art: *“most business schools ignore philosophy, though by pondering the questions which are beyond the scope of business, philosophy can broaden the reflectivity-horizon of future business leaders to help them manage complexity and make sound decisions, not only in the purview of good business, but also in accordance with the needs of society”.* Again, the Greek Paideia is surprisingly modern: *“conceptions of liberal education are rooted in the teaching methods of Ancient Greece.”*

3. The supremacy of homo economicus

Homo economicus, ignorant of history but foundation stone of economic science, cannot inspire enlightened namely, sustainable leadership, in a society that respects its citizens and, above all, the weak, and protect the natural environment. *«Human behaviour has more complex properties, such as a tendency for collaboration, creative thinking and idealism and humans can be sacrificed for the collective good, qualities that complement the economic life”* and Xenophon, the ancient Greek historian, emphasized the necessary

altruistic behaviour of rich men to the poor in a society. Undoubtedly, the *homo economicus* hypothesis is far from the ancient Greek *Paideia* ideal “*to seek for utility everywhere is entirely unsuited to men that are great-souled and free.*” Marathon and Salamis were not the result of *homines oeconomici*.

4. The attempted analysis of natural environment in terms of economic theory

Classic, but so modern, is the illusion that we could reduce environmental contamination simply and only with the introduction of economic sanctions, believing that nature obeys simplistic equations. Environmental pollution cannot disappear when you can negotiate the "infection" rights in a stock exchange! Gaia, the great mother of all, the primal Greek Mother Goddess, creator and giver of birth to the Earth and the Universe, was forgotten amid a frenzied economization of life.

5. Ignoring the social and environmental costs of economic decisions

Who should pay for the social cost of implementing an 'unfortunate' or 'deficient' economic theory? In our days, ostracism is not fashionable.

6. The illusion for the “universal” value of the principles of supply and demand

How much is the air we breathe? Has the cost of production been incorporated in its price? What is the market price of a sunset? What is the market price of Acropolis? Do the Elgin marbles have value? And if yes, then who can determine their price?

7. The illusion of perfect information

Economic theories insist on the ineffectiveness of monopolies, while politics is dominated by powerful monopolies. Once again, the human mistake of ignoring harmony, in a race of obtaining the most we can beyond any measure, running after the absolute, despite the tradition of Ancient Greek that only the gods have knowledge of the absolute is at its pinnacle.

8. The fallacy of productivity

Economic theory argues that productivity determines the salary: “golden boys” deserve ' bonuses, preferential shares and grants, while doctors, nuclear physicists, teachers, social workers, nurses are all degraded! Who is more productive in our society? How much do the prices of shares, bonds and contracts correspond with reality? Plato was clear when arguing that only through “*learning and effort*” we can increase labour productivity, and Aristotle put another brick in ethics, relating the function of learning and teaching to the virtue of men.

Behold the “deficit” of economic theories against nature, biodiversity, and our planet's climate: artistic and intellectual personalities and their works are not priced, and even more importantly, virtues cannot be negotiated on any stock exchange market or affected by “bad” business news.

III. Sustainable Leadership and Systems Analysis: The Greek Paideia

Unfortunately, the truth is that this multi-faceted crisis that afflicts us in all aspects of our lives such as environmental, economic, social, political, and, above all, in our core values, can be viewed in two ways. Either as the beginning of the end of a world of low intelligence and poor in values, or as a challenge to improve our society through our thinking. The second option presents us with a choice, both collectively and individually, both consciously and at the deeper level of our dreams: will we educate for the global marketplace, or will we educate for peace, social justice, diversity and sustainable development?” The ability of governments, businesses, academia and civil society to adapt to the new requirements will determine their survival. If they prove to be intelligent and able to embrace the constant change, adapting their structures to the required levels of transparency, efficiency and social justice, then indeed we may have to share tomorrow. If they do not succeed or do not seek to adapt, then they are sure to disappear and be replaced by other organizations more effective and intelligent to understand the changes. Man, as a mammal of higher intelligence bears great responsibility for preserving and protecting Earth's biodiversity, and his options will determine the variety of genes, species and ecosystems that will survive into the future. We, therefore, support the recognition of ethos in ancient Greek culture as a starting point of an alternative form of thinking: nothing less than moral education or ethos, with the Socratic dialectic as an eternal lighthouse. We also support that the means for this change of course, are two: the adoption of the principle of sustainability in practice and in each field and the change from linear thinking to systemic.

The first concern is the adoption of the principle of sustainability in practice and in each field: economic growth is meaningless if it endangers the future of our children, the historical tradition, the weak social groups and of course the natural environment. “*To secure the good of one person only is better than*

nothing; but to secure the good of a nation or a state is a nobler and more divine achievement" Aristotle would say. Human beings are part of nature. They were always, or at least they ought. And therefore, every form of social organization should be reflected in sustainability, i.e. conservation, protection and promotion of natural ecosystems.

Officially, the debut of "sustainable development" was made in 1987 by the World Commission on Environment and Development (WCED), known as Brundtland Commission, by the name of Norwegian Prime Minister (Gro Harlem Brundtland) who was appointed chairman of the Commission by Javier Pérez de Cuéllar, former Secretary General of the United Nations. In its Report, *Our Common Future*, Brundtland Commission gave an oft-quoted definition of sustainable development as *"the development that meets the needs of the present without compromising the ability of future generations to meet their own needs."* Re-discovering the ancient Greek wisdom, since *"the virtues promoted by Plato and Aristotle, which result in happiness, reflect the mission of social care"*.

The concept of sustainable development was endorsed by the world's Governments at the 1992 Earth Summit in Rio de Janeiro and reaffirmed at the United Nations Conference on Sustainable Development in 2012 (Rio+20). Therefore, sustainability is a concept, a goal, and a strategy. The concept speaks to the reconciliation of social justice, ecological integrity, and the well-being of all living systems on the planet: The Triple Bottom Dimension or the 3Ps, people, planet and profits. The goal is to create an ecologically and socially just world within the means of nature without compromising future generations. Sustainable leadership refers to the process or strategy of moving toward a sustainable future. The 2030 Agenda that was adopted by the UN Member States in September 2015 for the period 2016-2030 is a plan of action for people, planet and prosperity. However, the most important determinant of economic growth is the "knowledge capital" of nations, i.e. education. Thus, the Thessaloniki Declaration (1997) affirmed that *"all subject disciplines must address issues related to the environment and sustainable development and that university curriculum must be reoriented towards a holistic approach to education."*

The second priority is the change from linear thinking to systemic. Systems theory, a well-kept secret for those who were familiar in the field of interdisciplinary cooperation on large and complex projects, since the 1960s, should be the web which will support the principles of sustainability, in a change of our vision, and this is primarily a product of Greek Paideia. Components of systemic thinking are the following.

From the parts to the whole. *"The totality is not, as it were, a mere heap, but the whole is something besides the parts."*

From the picture of the hive of bees, to the garden hosts! The smallest disruption in any part of the whole affects its function, visibly or not for human perception, but definitely decisive over time. The request for a holistic education, in terms of Greek Paideia, is obvious, since any unilateral effort and development expertise is in vain. *"The learning of many things teaches not understanding"* (*«πολυμαθῆν νόον <ἔχειν> οὐ διδάσκειν»*) of Heraclitus is as relevant as ever; and such a holistic education should inspire leadership and public policy for a more mature attitude to life, just like many of the leaders of antiquity, were inspired by the holistic education of their time: Hercules, Achilles, Patroclus, Phoenix, Ajax, and Telamon, Theseus and Asclepius, were students of Chiron, famous professor of music, law, medicine, archery, hunting, and prophecy.

From things to relations. In systems, relations between the parts are more important than the parts themselves. As in the human body, it is not the status of an organ but its relationship with the other organs. So, the ecosystem isn't just a well-put-together collection of species but a set of beings in constant interdependence among themselves and with their non-living environment. For Posidonius of Apameia, cosmic *"sympathy"* (*συμπάθεια, sympatheia*) *is the organic interrelation of all appearances in the world, from the sky to the earth, as part of a rational design uniting humanity and all things in the universe."* The study of complex system of biodiversity highlights useful principles of harmonious social development, such as cooperation, coordination and mutual concessions.

From quantity to quality. Many times in its history, Western science has focused her interest into measurable data, suggesting perhaps that the phenomena that defy quantitative measurement have greater weight, reaching even to challenge the existence of what is not quantified. Unfortunately for quantified knowledge, certain elements of the systems cannot be traced such as the quality of the synapse of neurons in the human body or relationships in the food chain. In the history of leadership, quality rather than quantity was proved decisive in the choices of society: the Persian wars and the campaign of Alexander the Great is the proof. In our days, quality takes precedence over quantity in education and scientific research.

From structures to procedures. Living systems grow and evolve. That is why an understanding of their function requires a shifting of the analysis from their structures to the process of their development, change and renewal. Experience shows that the process of solving a problem rather than the solution is of greater importance and this knowledge is inspiring sustainable leadership. As in the educational process, the frame of reference must be changed according to the demands of the society, so at the level of public policy and leadership, decision-making process has to be recognized on an equal footing with its own decisions.

From contents to patterns. During operation of the systems, some standard patterns appear constantly and alternated. The study and understanding of the operation of these patterns in natural or social systems can help the understanding of other systems where the same patterns appear. By studying the way the impact of energy flows in an ecosystem function, we can understand how the flow of information affects the social systems.

IV. Epilogue for a sustainable development education in ancient Greek models

Sustainable leadership inspired by Greek Paideia does not waste scarce human and natural resources, but strives to minimize losses and costs resulting from interaction with an ever-changing environment. At the same time, it is committed to values that build communities' development, respecting differences and caring for the cultivation of good ideas, positive proposals, moral attitudes and practices in a society of learning and progress. And all this, by taking advantage of the virtues of communication available to offer vision, to inspire and to lead the way, since the leader knows that the society must exist also after his death: the great lesson of the ancient Greek wisdom. Productivity without moral values is an empty shell, as policy without a values system is pointless because consumption of forces will exhaust the productive possibilities of society. The need to stop the increasing global rates of human-caused environmental and social degradation must be based on the two pillars of the holistic thinking: the sustainability principle and systems theory, and this is exactly the Greek Paideia paradigm.

"Happiness does not dwell in herd nor in gold, the soul is the dwelling place of the daimon" Democritus

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