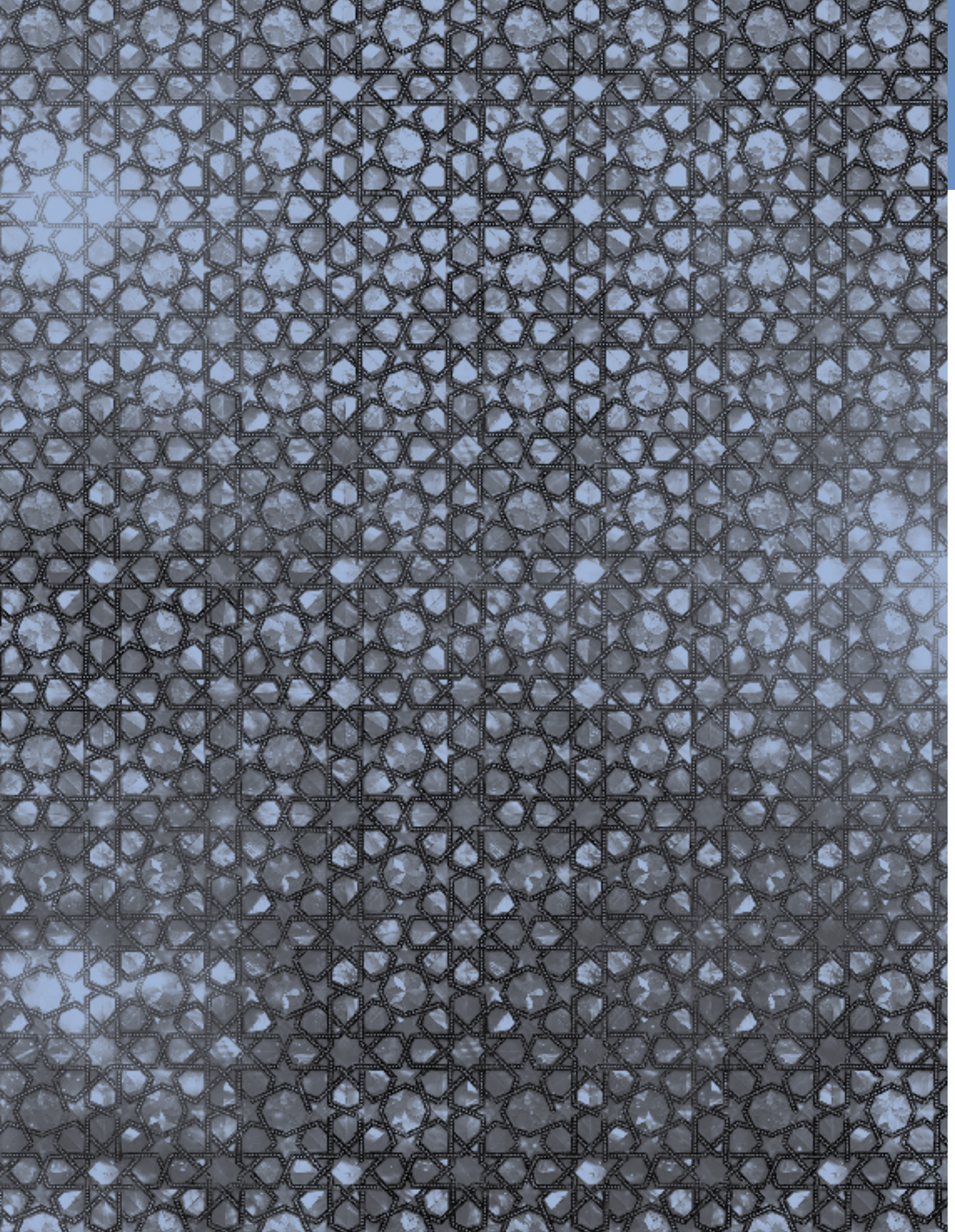

KNOWLEDGE, REALITY AND EDUCATION (AN EPISTEMIC PERSPECTIVE)

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ABSTRACT

The attractiveness of knowledge is mainly constituted from our long time consideration of it as the representation of the true picture of reality. This is what compelled Plato to differ episteme from doxa, and the modern period, to discard metaphysics from the list of sciences and, differentiate scientific knowledge from other kinds of it. Is the concept scientific the right adjective in order to qualify knowledge, as the best of its kind and as that which fits reality, or an obstacle which has to be replaced by another more fruitful concept in this context. Is the act of labeling true knowledge as scientific, a result of scientist's good intention for human approximation to reality, as it is usually proclaimed? Let us suppose that this was the case for its first time users, which is nothing more than a presupposition for, no one of us is sure of it, is it still retaining this purpose. This is the first issue that we discuss in the paper and argue that, the concept "scientific knowledge", has become a canonic trick in the hands of scientists in order to, preserve their already well established untouchable authority in the field and, require public's blind commitment to what they say. The second discussion topic of the paper is the essential part of the first one, i.e., education. Are our educational system and educational institutions, of any use in the context of preserving Aristotle's right purpose of knowledge for the sake of knowledge? In fact, the paper argues that, they are just another wall which strengthens the first, already great obstacle, in the way of youngster's active participation in knowledge yielding procedure.

Keywords: Epistemology, reality, truth, educational philosophy, belief, doxa.

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Only immature people continue to live under the pressure of the understandings of their elders. "Thought leads to social systems, and nothing dictates the future as ruthlessly as an established thought infrastructure. The most effective way of chancing the future is to create a new system of thought".[1] Creating a new system of thought means entering into trouble with the existing one, which is ready to do everything in order to retain its position. I don't think people are going to change their hard-earned views for less. Every established system of thought is full of fancies ready to die for it, because the personal interests of most of them are closely linked to the existing system of thought. Knowing and the ability to think are not enough for the establishment of the required atmosphere for the appearance of new thoughts, courage is necessary. Understanding is not enough for man's emergence from his self-imposed immaturity, what we need in this context is what Kant called "resolve and courage".[2] We are those who decide about: what it is, how it is and, why it is. Observation, according to contemporary physics, is part of reality. Since for Einstein and other classical physicists there is a reality that exists prior to our observation of it, For Bohr and Heisenberg, "the uncertainty that applies to sub-atomic particles is not just a feature of our observation, but is a fundamental feature of reality itself. It is not just that we cannot simultaneously know the position and momentum of a particle, but that the particle does not have these two qualities simultaneously. Thus physics is really about what we can talk about … if something cannot be observed, it cannot be part of our reality. Our observation creates the reality we are observing."[3] We live in this universe and we are part of it with all what we possess. We are at the same time the only creatures, at least till now, that may observe, study, understand and claim what we observe and understand i.e., interpret. There is no objective and stable reality independent of us. Reality as a whole is a process that includes our learning, understanding and interpreting it. In 1967 Barthes proclaimed the death of the author; He maintained that readers create their own meanings, regardless of the author's intentions: the texts they use to do so are ever-shifting, unstable and open to question.

An objective reality which is not subject to our learning and interpreting makes no sense at all. If we would be so brave as to doubt in Aristotle's sayings, before Copernicus, we would not lose 2000 years on the development of science. So that, we would be in much better position today, compared to where we are. If we would be so hard working as to more seriously

1 Bodil Johnson. *Ten Thoughts About Time* (London: Robinson, 2003), 70.
2 Immanuel Kant. "What is Enlightenment?" in *Perpetual Peace and Other Essays*, trans. by Ted Huphrey (Indianapolis: Hackett Publishing Company, 1983), 41.
3 Mel Thompson. *Philosophy of Science* (London: Hodder Headline, 2001), 90.

analyze and suspiciously look at Darwinian evolution, right from the beginning, we would not lose more than one century transmitting Darwinism to new generations in our educational system as scientifically true, which in essence, is not more than a myth. Evolution as the only valid scientific theory of our becoming into existence, and chance as the only reason of our existence in this world i.e. (Darwinism and Marxism), were the two myths upon which the secular creed was build.

Growth cannot happen without change; change is that which makes possible the process of growing and getting smaller. All what we do in the field of science are changes, i.e. corrections, its corrections all the way dawn. The difference between previous and contemporary science, in this context, is that contemporary science is facing a more rapid change. So we have growth in change and not growth in reliable knowledge concerning reality. Thus, contemporary science is not growing rapidly, but is just changing rapidly; in fact, it is becoming less reliable than before. Whatever we do in the field of knowledge presses us to do more or gives us the impression that we can do more and better, of course, if we work more on the field. Only those who are not familiar with science and knowledge in general believe in scientific knowledge. Science people can find and construct everything, but they can never establish a ground which will attract our confidence in scientific knowledge. So our decisions in knowledge yielding procedure are the necessary ground for further and better solutions, not the ground on which we can rely concerning reality. Thales considered all substances as ultimately reducible to a single element. This fundamental element was water. For him, water was the only real and primary substance and the fundamental component of everything of the world, i.e. the fundamental constituent of reality. Leucippus and Democritus hold atoms as the essential constituents of everything. For Aristotle, on the other hand, the atomic theory was unacceptable because continuity, according to him necessarily implies infinite divisibility. The concept of an atom, on the other hand, is that of a not-further divisible particle (a-tomos, "uncuttable"). Aristotle maintained that *"Nature (physics) in the primary and proper sense is the being (ousia) of things which have in themselves as such a source of motion (kinesis)."*[4] A body, for Aristotle, is one single and ultimate entity, it is substance. Aristotle defines substance as ultimate reality. Substance does not belong to any other category of being, and on it every other category of being is based. He defines substance as an underlying reality, or as the substratum of all existing things. Individual thing is defined by what it is, i.e. by its substance. Substance is both essence (form) and substratum (matter), and may combine form and matter.

4 Aristotle, *Metaphysics*, 10-15-314-16.

Substance constitutes the reality of individual things. The substance of each individual thing is that which does not belong to other individual things. A simple substance may consist of only one element. A composite substance may consist of many elements. According to Aristotle wisdom is knowledge of the causes and principles of things. Substances are particular things. While universal principles are common to many things.

The modern conception of physics brought again into the scene the atomic theory. Atoms for the modern period were the constituents of matter, thus, a body is a compound i.e. it is not a substance but that which contains substances in itself. Descartes, on the other hand, differentiated between matter and body, in the sense that, matter is not identical with body; matter for him is not corporeal, matter, according to him, is extension, *"a body comes into existence when a part of matter moves differentially from other parts"*.[5] For the modern physical (XVIIth century) theory a body is not a single and ultimate entity, it is an aggregate which is composed of elements, thus, for the modern theory, the constituent elements are the ultimate entities i.e. substances. Although we think that we have done a lot of progress in the field of science and, of course, in our way of comprehending reality, we must not forget the fact that only one oxygen atom separates Thales from modern physics, as far as reality is concerned, for we now consider all substances ultimately to be derived from hydrogen.

Substance considered as passive matter is not enough for the explanation of reality. It does not make sense at all. Newton, Henry More, Descartes, Gassendi insisted on the "… *insufficiency for physics of a purely passive matter, that some "active force" had to be acknowledged as necessary"*[6]. Newton, Henry More and Descartes, maintained that this active principle comes from outside matter. Leibniz, on the other hand, agreed with Newton that matter is in need of some active principle but, for him *"this active force must be found within matter and not be something brought in from the outside"*. [7] We are not confronted with this problem in the Aristotelian theory of matter i.e., substance. Aristotle's division of things as potentially and actually in motion entailed that a body has the source of change in itself, which is not the case with the modern (XVIIth century) conception of matter. For the modern period "Since matter was inert, i.e. without any acting or agency, it followed that matter was only capable of being moved, not of moving itself. This meant that "motion" was in no respect derivable from matter, and accordingly motion had to be acknowledged as a second, quite distinct, ultimate datum".[8]

5 Ivor Leclerc. *The Philosophy of Nature* (Washington D.C.: Catholic University of America Press, 1986), 71.
6 Ivor Leclerc, op. cit., 83.
7 Ibid, 84.
8 Ibid, 140.

In contemporary physics the conception of physical as matter in the Newtonian sense (modern sense) which means "matter… as solid, massy, hard, impenetrable, movable particles completely without any inherent activity"[9] has been entirely abandoned.

For contemporary physics, physical existents are "conceived as active as centers of energy producing effects on other entities"[10]; this in a way is a revival of "Aristotelian theory of the elements as changing into each other,"[11] and a "contra- version of the seventeenth-century concept of changeless primary entity",[12] i.e., substance. According to Heisenberg "All the elementary particles can, at sufficiently high energies be transmuted into other particles, or they can simply be created from kinetic energy and can be annihilated into energy, for instance into radiation".[13] Unlike the predictable world of Newtonian physics, quantum theory claimed that you could not predict the action of individual particles. Heisenberg introduced the uncertainty principle in science. The anthropic principle suggests that human consciousness is somehow fitted to the universe, not only as a component but as an observation necessary to give the universe meaning.

Quantum physicist Niels Bohr proposed that no phenomenon can be said to exist unless it is an observed phenomenon. [14] Science is not the same thing as the world it investigates, science is, as Wittgenstein would say, the totality of propositions. Science is a human construct; it is a network of words, ideas, mathematical calculations, formulas and theories. This dispute among modern and contemporary physics over the nature of science and its relation to reality is nothing more than a repetition of the same controversy happened long ago between, Protagoras, who argued that all we could know where the sensations we received and, we could know nothing of what was out there causing those sensations, by contrast, Democritus insisted that things existed separately from our perception of them. We always speak proudly about the beginning of modern science thinking that modernity is a time with specific characteristics; time when humanity got rid of prejudices and superstitions of the medieval and ancient time. But we have not to forget that "the idea that a sociological or a psychological or an anthropological or any other study of prejudices may help us to rid ourselves of them

9 Isaac Newton. *Optikcs*, (Mineola, N.Y.: Dover Publications, 1979), 400.
10 Leclerc, 141.
11 Ibid, 135.
12 Ibid, 135.
13 12 Werner Heisenberg. *Physics and Philosophy* (New York: Harper and Row, 1958), 160.
14 Richard Appignanesi, ZiauddinSardar, Patrick Curry and Christ Garratt. *Introducing Postmodernism* (New York: Totem Books, 1995), 110.

is quiet mistaken; for many who pursue this studies are full of prejudices".[15] We have not to forget the fact that modern science was built on doubt. Doubting is a necessary characteristic of modern thinking, let us continue be modern and honest and not surrender to the false opinion that we possess any "true and reliable knowledge". Let us not repeat the same mistake that Descartes and his followers did, "To start with doubt and end up with absolute certainty". Doubting is a process and an inherent characteristic of human race, it has no limits, and it makes possible the emergence of infinite possibilities, it never leaves room for the prevalence of absolute certainties. Wittgenstein's conception, of the function of language as to picture the world and, natural sciences, as the totality of true propositions, led the west to Logocentricism, which desires a perfectly rational language that perfectly represents the world. It was this western's philosophy's central assumption of reason which constituted Derrida's target point. In fact, "Such a language of reason would absolutely guarantee that the presence of the world -the essence of everything in the world- would be transparently presented to an observing subject who could speak of it with complete certainty. Words would literally be the truth of things –Word made flesh- as St. John puts it".[16]

The behavior of modern mentality with science does not differ from the behavior of religious mentality with religion. Modern mentality blindly believes in what is scientific and religious mentality blindly believes in what is religious. There is no difference between science as it is comprehended by modern mind, and religion as it is comprehended by religious mind. Both are religions, in the sense that, both are indubitable foundations for their fancies. Knowledge for modern Europe had lost its sense as mere knowledge, it was considered as an instrument for power. It was this branding of knowledge as power, a Baconian model, not love for knowledge, which accelerated European advance in science and technology. It is exactly this model of knowledge which shaped modern European mind and was later sharply criticized by Foucault and Derrida. Bacon considered knowledge as an instrument for power, Foucault maintained that the goals of power and the goals knowledge cannot be separated i.e. in knowing we control and in controlling we know.[17] Foucault, by the mid 70's, came up with his concept of power- knowledge and he focused on micro physics and showed how power and knowledge fundamentally depend on each other, so that the extension of one is simultaneously the extension of the other. Foucault's primary focus in this context

15 Karl Popper. *The Open Society and its Enemies* (Princeton and Oxford: Princeton University Press, 2013), 2: 223.

16 15 Richard Appignanesi, et. al., 85.

17 For more see, Foucault, *Discipline and Punish*, trans. by Alan Sheridan (New York: Vintage Books, 1995).

is modern human sciences attempt to offer universal scientific truth, which in essence, are not more than mere expressions of ethical and political commitments of a particular society. Foucault undermines such claims maintaining that they are just the outcome of contingent historical forces, and are not scientifically grounded truths. Modern power, or what he called disciplinary control, is concerned with what people have not done, i.e. with person's failure to reach required standards. A good example of this is the examination procedure in our schools and universities, a method of control that represents a good combination of power and knowledge which puts into a unified whole "the deployment of force and the establishment of truth."[18] The force is that which elicits the truth about those who undergo the exam, with telling them what they know and controlling their behavior.

We are left with the relic of the modern era; the dominance of method and certainty in knowledge, which is a pseudo-science of old fashioned modern European mind. The emergence of new sciences, such as Eugenics, a pseudo- science of "*rational improvement*" based on Darwin's idea of natural selection, and Anthropocentricism, an applied branch of anthropology, enabled Europe to measure the shapes of countless human heads, noses, ears and limbs in order to classify the superior human types and the degenerate sub-types and, distinguish the fit from the unfit. "*In the subtypes belonged the savage (non-European) races, the insane criminals and prostitutes, all classifiable asymmetrical features*".[19] Modernity's conception of science and its system of dominant knowledge created social categories and, were at the same time, the source of inspiration for Nazism's final solution of mass extermination of unfit types.

Knowledge for European mind was and remains a post- industrial force of production. Knowledge is and will be produced in order to be sold; it is and will be consumed in order to be valorized in a new production: in both cases, the goal is exchange. Knowledge has ceased to be an end in itself; it has lost its "use-value". The irreversible change "*from knower to consumer of knowledge*" is the cornerstone of modernity and post- modernity. This is the real historic change that "*knowledge for the sake of knowledge*", with the purpose of serving God, inherited from Muslims, lost its face-value, when it became the prone of Europe, and the consequences, I think, are more than obvious for all of us.

It seems to me that human being cannot find the right path without guidance from the haven. It is an instinct need of humans to find something or someone for obedience. It is

18 Ibid, 184.

19 Richard Appignanesi, et. al., 85.

the weakness of human nature which is reflected with its quest for a master to whom or to which he will absolutely trust and obey. This is what happened with the modern west, after not so long of gaining its freedom from the church as the absolute source of truth, which was considered as the biggest obstacle of reason in its way of searching for other possible alternatives of understanding the world. They came up with another more dangerous absolute source of certainty called reason. Everyday changes, of scientific achievements, represent the collapse of modernity's Logocentric reason, which is serving modern men of Europe, for a very long time, as a temple of obedience. With centuries the west is doing its utmost, using every possible way of pressure, to compel other parts of the world, to turn their attention and, fully surrender, to modernity's conception of absolute but, in essence, very fallible God, called reason. Western attempts, branded as scientific and rational, to turn the world in a temple, where humanity as a whole, will obey its only most perfect and modern God called *"Logocentric-Reason"*, considered by the modern mind, as the only authority that deserves our absolute trust and obedience and, at the same time, will serve the west very well for its domination and use of the others, have become all in vain. These totalizing tendencies, proclaimed as scientific and rational, have been attacked by many critiques of science from several disciplines. The notion of scientific truth and rationality, as well as the alleged objectivity of scientific conclusion and its method, are nothing more than a fabricated myth, which is still serving the west for the realization of its aims.

I think Feyerabend is right in his suggestion that science's "social authority …has now become so overpowering that political interference is necessary to restore a balanced development."[20] Postmodern thinkers consider science as subjective and as a social process; scientific method as little short of a myth and scientific knowledge as manufactured. In fact, postmodern science can be said to be in a condition of anarchy, a position affirmed as a good thing by the Dadaist philosopher of science, Paul Feyerabend:

> The only principle that does not inhibit progress is: anything goes…Without chaos, no change. Without a frequent dismissal of reason, no progress …For what appears as sloppiness, chaos, or opportunism …has a most important function in the development of those very theories which we today regard as essential parts of our knowledge…These deviations, these errors, are preconditions of progress.[21]

20 Paul Feyerabend. *Against Method* (New York: Schocken Books, 1975), 216.
21 Ibid, 109.

For modernity, scientific explanations played the role of the instrument for legitimizing the status quo of the scientists, and the concept of scientific truth became "an artificially constructed reality that projects an image of harmony to sell a brand name, while reproducing the stereotypes of western culture".[22] The concept of modern science as capable of yielding perfectly rational conclusions about the world expressed with a perfectly rational language is in essence a replacement of God and revelation with science and scientific language and scientists were given the chair of the prophets. The concept of official science was a step towards officialization of the new religion called logocentricism and the duty of sponsoring the needs, and protecting the authority, of logocentricism was given to the ministry of education. The ministry as part of the power will do everything in order to assure society's surrender to the dicta's of logocentricism and whatever the expense of the power he needs, in order to realize this duty, he will by it with the money collected from people. So the ministry has given to itself the right of using people's money in compelling them to obey the ministries and official scientists God of interest called logocentricism. Having once accepted the biblical accounts literally, we now accept science's finding literally "Science is no longer a particular institution; it is now part of the basic fabric of democracy just as the Church was once a part of the basic fabric of society".[23]

Derrida is outraged by the totalitarian arrogance implicit in the claims of Reason and, His anger does not seem eccentric at all, when we recall the shameful history of atrocities committed by rationalist Western cultures, a specially, the systematic rationality of mass extermination in the Nazi era, the scientific rationalism of the A-bomb and the Hiroshima holocaust.

> Rationalism is an attitude of readiness to listen to critical arguments and to learn from experience. It is fundamentally an attitude of admitting that; I may be wrong, and you may be right, and by an effort, we may get nearer to the truth. [24]

Progress in knowing happens with the improvement of what we know, improvement means change, progress comes with change, and those in favorite positions, are always against it, because change may cause them loose their positions. Stability is a sign of authority's

22 Richard Appignanesi, et. al., 139.
23 Paul Feyerabend. *Science in a Free Society* (New York: LNB, 1978), 74.
24 Popper, Open Society, 2: 225.

successful ruling not a mirror of a developed society. Running behind stable knowledge brings no improvement in our educational system; it only strengthens the authority of the teacher. The old fashioned Latin conception of repetition as the mother of learning (repetitio mater studiorum est), which still dominates our educational mentality, keeps the students minds busy with what the books and teachers say, so that the teacher becomes an untouchable authority; it never gives the students the chance of feeling as a participant in knowledge. This is why our educational system is not productive at all; it has always focused on repetition in the process of teaching and learning. We must be aware that:

> In spite of the widespread belief that repetition is the key to learning, it is in fact only a partial truth. Repetition is an aid to focusing. By repeating we get a stable platform for the constantly changing perspectives that are essential to real learning.[25]

Our educational institutions should focus on bringing into existence a more progressive and civilized society which can be achieved only with the efforts of the creative individuals. All what we do in our educational institutions is, we teach the views of different individuals, thus, thoughts that contribute to the progress of society come from individuals and, there is no individual who is not tradition and culture bound. Traditions and cultures may be oriented to contribute to a better society, if we so wish and, this is possible with the philosophy of mutual respect and help. Family, tribal and national societies restrict the contribution of individual within families, tribes and nations, and this paves the way for conflicts and wars among tribes and nations, with the purpose of domination. The philosophy of mutual respect can be build up only in individualistic societies, which is hard to achieve. If we talk about peace and progress with the hidden intention of domination, as we usually do, we cannot achieve peace. Humanities main treasure is our being different, and the formula that we run up for, with our thoughts, in order to have a peaceful and quite life, lies in our respect of the differences. "The belief that there is nothing more important in our life than other individual men, the appeal to men to respect one another and themselves, appears to be due to Socrates".[26]

The establishment of the philosophy of respecting the others is a hard work but, not impossible. Peace has no meaning without differences; it is the harmony among diversities. If not the differences we would not need the establishment of peace, in fact, without the

25 Bodil Johnson, op. cit., 64.
26 Popper, *Open Society*, 190.

differences peace would have no meaning at all. The process of transformation of a backward, feudal, agrarian middle ages minded European community into a rational society coasted Europe very much, but it coasted Muslims much more. Without the believe in the Koran-ic principle that *service to humanity equals service to God* it wouldn't pay for Muslims to spend so much efforts for the change of Europe, when they knew for sure that Europe possessed nothing to offer them in return, or as exchange. If not the Koran-ic order of respecting differences and serving humanity, Muslims would not work with full capacity of changing dark Europe, nor would Europeans have the chance of benefiting unconditionally from a very prosperous society. Europe did not possess petroleum resources, in order to attract Muslim attention, and make them play the role of its redeemer, with the hidden intention of using its resources, as the west is behaving today, with the Muslim world, for the sake of oil. Why should people care about humanity if they don't realize some kind of interest in it? No one comes to life with the purpose of serving humanity. Humans do not establish relationships in order to care about each other, but on the contrary, in order to gain from, and use each other. All human relationships are based on personal interests. The primary purpose of the great, Muslim service, to Europe was not humanity as such, it was not done for no-interest, their primordial concern was human salvation, which in itself contains the only interest for which believers have to strive in their lives, if they want to gain Gods pleasure, and this represents the only reason of every single believer's being in life. Humanity is enough as our identity; the differences we possess are, in essence, different capacities of the same identity which we need for our commonwealth.

> Most important of all, it is in this century that we discovered how to release enough energy from the atom to destroy our civilization in minutes, this before we learned how to live together on the same planet. This is the century in which technology advance outstripped social advance.[27]

Everything depends on the purpose. Most of the inventions are done for some good reason, and the danger comes when the result of a good aim becomes a tool of interest of other reasons. TV's impact on determining political leadership and indoctrinating our children was not foreseen when television first emerged as feasible. Reason is useful, only when it serves its right master, otherwise, it becomes a catastrophe, a specially, when it serves other reasons. It

27 Simon Ramo. *The Business of Science* (New York: Hill and Wang, 1988), 3.

is the purpose which may determine whether technological advances will happen because of us or to us. It is a fact that we are born and grown up in a society that is totally oriented by the philosophy of cause and effect in its way of thinking. Causes and effects are not independent natural phenomena but, categories put into our experience by our minds, as Kant would say. We are not sure whether a cause of some effect is its cause, because it causes it, or because it serves somebody's purpose.

> The telephone was invented because we defined the wish to call other people. Railways were built because we had people to visit. Clocks would not have been devised if human encounters did not demand agreed timekeeping.[28]

Causes are counted as causes, not because we are sure that they cause the effects, but because somebody chooses them as causes, in order to achieve some end or purpose, and we are not able to prove otherwise. This does not mean that cause-effect physics was totally useless for humanity, but we may achieve more useful things if we get rid of cause- effect way of thinking, which is orienting our minds for a very long time. Everything acts with a purpose. We do claim that matter has no purpose but we are not scientifically sure about it. We just are unable to make it a scientific reality. Our inability to scientifically penetrate more into the deepness's of matter does not demonstrate that it has no purpose. Furthermore, every scientific reality is nothing more than a possibility. Possessing or not possessing scientific evidence about a phenomenon does not remove it from being or becoming possible, it just shows that, it is a possibility that can, or cannot be scientific, which is very possible from a scientific perspective.

The questioning and marking systems that are going on in our examination procedures, in our Universities, promotes memorization as the way of acquiring knowledge. Memorization contributes nothing to the progress in knowing, it just cuts creativity in essence. Teaching is not filling the heads of the students with what is out there in books and then checking out with the process of examination if they are good followers of the text. The memorization method that is going on in our Universities is blocking the way of the inculcation of open mindedness and critical behavior in students which is the only constituent of knowledge yielding procedure. We must not forget the fact that "It isn't Nature that evolves slowly and peacefully but science

28 Bodil Johnson, op. cit., 35.

itself: That theory of uniformity is a projection of academia unto nature."[29] That which is the most necessary for what we aim in knowledge we block it with our behavior and the old fashioned methods of education. The most important things are changes in the meaning of education, which requires changing both: goals and curriculum. The process of acquiring knowledge in our universities consist of:

1. Memorizing what is in the text, texts are absolute sources of truth;
2. Not- referring to the teacher with why and how questions, because in communist mentality something is as it is, because the text says so, and the teacher interprets it that way, and that is enough and the only absolute reason for the student to feel convinced about the truthfulness of what he or she reads or hears.

A good student is the one who claims only what is in the text and never adds something to it nor interpret it. This is the essential difference between rational and emotional societies. Respect and obedience, not associated with critical analyses and understanding, are the characteristics of emotional societies. For emotional societies progress does not depend on individuals, but on the commitment of their leaders and officials for the wellbeing of society, and the most dangerous is the fact that, they never or rarely doubt in them. Progress for them is not the effort of successful individuals within society, but the result of society's unconditional devotion to what is been assigned by their leaders. Closed societies are chronically infected by the disease of immaturity. Emotions are the suitable targets of post-communist officials and leaders for strengthening their positions. The life's of people, in these societies, is directly oriented by the public preachers, politicians, teachers, journals, newspapers and other media tools. In closed societies all these are agents that orient the public how to think behave and live. It is in the interests of these agents to keep society closed, so that, these agents remain models and not servants of the public. In closed societies governments and other institutions act as privileged supervisors and not as public servants.

Closed societies strive to imitate their models, because they think, their success depends on how smart they will be in imitating them. They do not possess the conscious that models are not for imitation but they are subject to public inspection, we keep them as long as we like them, of course if we like them, and when we do not like them, we through them away and replace them with other models, that we like. The communists were successful in remaining

29 Philip Slater. *The Wayward Gate* (Boston: Beacon Press, 1977), 67.

models forever with the method of forbidding by force the appearance of different and new models. In communist societies every new model, in every aspect of human live, was subject to the authorities consent. This is the general characteristic of all backward societies; the fate of the public lies in the hands of their superiors and leaders, it is the necessary duty of the public to serve their leaders and official institutions. Whatever and whoever is official deserves absolute and unconditional respect. The new post-communist intellectuals, academicians, preachers, teachers, as is the case in our society, cannot so easily release themselves from the narrow mindedness of communist philosophy of thinking, which sounds as "*who do not think the way we think is our enemy*".

People feel secure in continuity, persistence and uniformity of their thought and behavior, change is a risk for them. Only few people take the risk of seeking prosperity in change. Progress comes with change, change requires something to be changed and, you can change something if you have it, if you don't have it, how can you change it. If progress comes through change, and what has to be changed is that which we possess, how we can claim that we have reliable knowledge .We cannot rely on something upon whose change our progress depends. What we need for progress is not what we possess but the change of what we possess. So what we possess is not something true, rational and justified or useful but just an obstacle in our way of progressing towards more useful. Thus, to progress means to find ways of how to get rid of the existing. Popper's advice is very useful in this context, I wish to end with this advice:

> However happy you may be with a solution, never think of it as final. There are great solutions, but a final solution does not exist. All solutions are fallible.[30]

We must keep in mind the obvious fact that, "Scientists, like all organisms, work with the method of trial and error.[31] If somebody considers you as progressive or conservative, it is because of what you possess. The path of progress is the path of getting rid from the existing, which is possible only with its change or replacement, with something new and, of course, more beneficial than the existing one. So, we either will be able to change what we have and enter history as progressive, or will obey what we have and remain regressive. You are the way you are because of what you possess, if you want to become different, change what you possess. A progressive man in a society is a man who differs from others, the one who, does more and has

30 Karl Popper. *All Life is Problem Solving* (London: Routledge, 2003), 161.
31 Ibid, 38.

more than the others. It is very hard to become progressive, it demands efforts and not every effort makes you progressive, only the efforts that bring you more useful changes can qualify you as progressive in society. Every new act or thought is, in essence, an attempt to change something or some idea, and if you succeed, it becomes a successful attempt or progress. There cannot be human work or thought, which in a way does not contain shortcomings in it, this is why critical approach to any solution is necessary, even if the decision may seem to work, if we would be able to grasp the shortages of the solution, we may arrive at a solution that can work better, which is a progress.

The emphasis on the encouragement of thinking and the development of thinkology may overturn the matter and may orient us to who knows how many yet unexplored ways of approaching reality which is humanities perennial dream. Mathematics is the only program till now, that our brain possesses, and can apply to its relation with nature. Whether a different and more useful program will emerge, in human brain, and turn things differently, we don't know. We are not even sure whether this program may emerge naturally or waits for our exploration of it, but for further serious discussion of the problem, we are in urgent need of getting rid from the existing objective guidelines that stay as the biggest obstacle orienting the new and fresh minds towards obedience, which is the most successful way of harming creativity.