“Expansion of the Mind” – An Implementation of Human Intellectual Progress to Understand Human History

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Abstract

According to the idea presented in the article, there is a correlation between the amount of education in society and social progress. Therefore, researchers in the future need to turn education into a motivator. This means that the increase in education in society is a factor rather than a result. Modern thought began in ancient Greece with the establishment of the Plato Academy, stopped in the Middle Ages, continued slowly in the Renaissance and entered its intended pace in the 20th century, when most of the population was exposed to education. This new way of thinking brings historical thinking to the understanding that human history is a very small part of the real pace of development of mankind, because most of history has had very few educated people. This new way of thinking brings humanity to understand that human history as it was until now is a very small part of the true human history, as it should be when all human beings were exposed to education. So in fact, the modern age is not the culmination of human progress but rather is just the beginning. The beginning that was delayed by the failure of most of the population to be exposed to education for most of the existence of human society. The acceptance of this new way of thinking leads the historian to realize that the smaller the number of educated people, the smaller the number of inventions in the period under discussion.

Keywords: philosophy of history, human history.

1. Introduction

Historical reality itself includes all the facts about the human past; on a general basis, we use the term “history” not only to denote the human past (or historical as it calls itself), but also all of the historical past as we know it.

That is, the attempt to know the past and to account for what happened in it: to describe it, to explain it and to reveal its meaning. Moreover, as a basic need of every individual and every society, the attempt to know the past enables the individual and the society at large to shape their historical consciousness.

One must distinguish between two types of accountability in researching the past: a mere record of the past, and a scholarly record. The historian Hester explains that contemporary professional historians write when they systematically study the remains of the past in order to expand the limits of historical knowledge (Walsh, 1967).
2. Two ways of philosophical thinking about history

The philosopher can direct his attention to history itself and philosophize about it. But he can also look at the work of historians, their ways of questioning and describing the historical past, and philosophize about their way of writing. The first research option is called – speculative philosophy of history, and the second – an analytical philosophy of history.

We have thus distinguished between the speculative philosophy of history, which builds theories about the past, and the critical philosophy of history, which investigates the work of historians and attempts to uncover the methodological principles underlying it by analyzing the language of historians. This article deals with speculative philosophy of history.

2.1 Speculative philosophy of history

The “speculative” philosopher of history philosophizes about the historical reality. It examines the events that took place in the past and seeks to discover the basic laws that apply to historical development and guide it. Moreover, the speculative philosopher of history believes that the discovery of historical human legality also allows him to predict the future and thus sees “history” as not only understanding the past but also the present and the future.

Speculative historiographers attempt to determine the general pattern of human historical development, and that the nature of this development is of a purposeful nature and thus gives meaning to the entire historical process. In order to achieve the purpose of discovering the meaning of history as a whole (the past-present-future), the speculative philosopher of history usually anchors his teachings with general metaphysical considerations about the nature of the universe and the place of man in it.

Examples of philosophers who have tried to achieve this goal are Hegel, Marx and Toynbee. Hegel believed that the historical process is essentially spiritual and leads according to a certain pattern towards full freedom, whereas Marx believed that rulers have economic factors controls human history until the creation of a communist society, and Toynbee found that certain psychological mechanisms determine the rise and fall of civilizations.

Such theories are sometimes called “meta-histories” (“meta” in Greek, meaning “about” and/or “beyond”) (Marwick, 1970; Weinreb, 1987).

2.2 The research hypothesis – An attempt to build a new historical law

The research hypothesis is the claim that there is a relationship between the accessibility of higher education and the development of human society. In other words, this study views education as the key to social development and not as a result. Thus, the more people in society that are exposed to education (expanding the circle of social education), the higher the pace of the social progress.

The purpose of the study is to construct a theory that shows the relationship between the number of educated people and the pace of social development throughout human history.

In order to check the hypothesis, the study will examine 5 different periods in human history (focusing on Europe). The study will show the relationship between the number of educated people in the population and the pace of their progress.

Many researchers of human history have understood the importance of education as a direct result of that progress. But this theory argues that education is not a product of progress in commerce or industry, but is the primary and only factor in human progress.
If the world’s scientific community looks at education as the key to progress in human history, then we can develop a new and more expansive conception of human progress, and beyond that, we can develop a concept that is so extended that it also includes the future.

3. Literary review and rationality – The importance of the level of exposure to education as a factor for human progress.

In the age of enlightenment, European self-confidence has grown and the idea of progress has become increasingly popular. During this period seeds of thought were planted, of what will later be called “social evolution” or “cultural evolution”.

Then, in the 19th century, three classical theories of social and historical change were created: sociocultural evolution, social cycle theory and Marxist historical materialism. These theories had one common denominator: they all agreed that the history of mankind was in one fixed pattern, probably by way of social progress. Thus, any event in the past is related to the present and future events. These theories assumed that by discovering this sequence of events, it would be possible to discover the human historical law (Commager, 1950).

Anthropologists Edward Taylor in England and Lewis Henry Morgan in the United States started to develop their theoretical ideas following empirical data from tribes in Africa, which they claimed represented the early stages of human cultural development. Taylor and Morgan developed the theory of linear (linear) evolution, determining categories to define cultures according to their place within the fixed structure of humanity as a whole, and an examination of the modes and mechanisms of this growth. They were mostly concerned with cultures as a whole, rather than with specific cultures. In other words, a single-line theory that claims that all human societies undergo the same stages of development, but at a different pace (Morgan, 1877; Tylor, 1871).

A number of theories have examined the relationship between education in society and its progression.

The enlightenment thinkers of the 18th and 19th centuries often argued that societies go through stages of development and gradual progress, and sought the logic and order of the scientific truths that determine the course of human history. The argument was that everything that was good and civilized was the result of slow development from this inferior situation. Even rationalist philosophers like Walter assumed that education was the result of gradual progress of humanity (Sztompka, 2002).

There is a number of scientific theories have argued that education is a phenomenon that follows the improvement of trade and economy in human society.

Many scholars have attempted to predict future developments of human societies with the help of evolutionary theory. These experiments created theories of post-industrial societies, which claim that the current period of industrial society is coming to an end, and that information and services are becoming more important than industry and its products.

In 1974 Daniel Bell, author of *The Coming of Post-Industrial Society*, introduced the concept of post-industrial society. Like many before him, he divided the history of mankind into three periods: pre-industrial, industrial and post-industrial. He predicted that by the end of the 20th century, the United States, Japan and Western Europe would reach the post-industrial stage.

This will be expressed, among other things, in the importance of increasing information technologies and as highly educated experts and scientists become more important than the traditional bourgeoisie (Bell, 1974).
Moreover, the theory of modernization that evolved from the theories of classical social evolution emphasizes the factor of modernization: the theory of modernization is a theory that believed that after the economic development, the level of education would improve. According to the theory of modernization, the index of education consists of the level of adult literacy and the gross enrollment rate.

The theory also states that non-Western societies have the ability to imitate Western societies. In that way, the theory supports social engineering ideas and thus the developed countries can and are committed to helping the developing countries, directly or indirectly (Bernstein, 1971).

Among the scientists who contributed greatly to this theory are Walt Rostow, who in his book *Stages of Economic Growth: A Non-Communist Manifesto* (1960) focused on the economic aspect of modernization and tried to show the factors that a country needs to achieve the “growth” (Rostow, 1960).

In contrast, the theory of sociology of education argued that expanding the circle of education in society leads to more social mobility, social dynamics, creating more technological devices and raising the level of income in the public.

The theory of sociology of education asks – what is the relationship between inputs and outputs? Or, in other words, what is the relationship between cost and benefit of education? Inputs or costs will be defined as financial investment, improvement of buildings, payment to teachers, preparation of physical infrastructure and more. The outputs or benefits will be defined by the achievement of scholars and social achievements (Marshall, 1998).

The starting point of the structural-functional model the theory of sociology of education is the identification of factors contributing to the stability of society and its institutions. This theoretical model sees an analogy between society (body) and a living organism and assumes that society is a system in which every part of it (organ) is related to its other parts.

The existence and continuity of the company depends on the coordinated operation of the parts. The systemic concept is: Each social system has functional needs which it must ensure to fulfill their existence: adaptation to physical factors, setting goals and achieving them, interacting and coordinating between citizens and adopting the basic values of society. Filling the needs requires a division of roles when each part contributes to the fulfillment of needs. Those who do not contribute considers to be a saboteur and therefore will be removed.

The liberal view of this theory views egoism as part of a coin, and the socialist conception sees altruism as part of human nature. Capitalist society leaves the concern for the existence of the individual and his well-being in his hands. Therefore, in order to ensure its existence, every individual in a society is forced to act for his own sake, on his own, sometimes in a state of competition with others.

The basic assumption in the capitalist liberal thought of the theory is that education and a profession are a major resource for the well-being of the individual and for society. Education must therefore be regarded as a major resource in social life and investment in human capital should be as great and qualitative as possible (Heath, 2000).

4. The implementation of the education factor in the speculative philosophy of human history

According to the idea express in the article, since the establishment of the Academy in ancient Greece, the pace of human progress has come to the fore in the number of people who have been educated. It can be also deterrent that learning from experience has value in the
examination of human progress, but higher education developed the factor of “learning from experience” into human wisdom and knowledge.

If the number of people receiving education in the population causes the multiplication of people who develop the human population, thus human society progresses faster.

According to this thesis, there is two periods of Pre-human evolution:

The pre-historical period: From the beginning of life on earth to living beings, the wondrous ability to learn how to live and develop has been phenomenal. This study was not expressed in the development of thought. The study of survival that was repeated and characterized by every generation of an animal in every ancient period, so were the early varieties of man. The way that characterized the animal need to survive in the natural world was the learning of experience. The wisdom of every animal in nature is measured by its experience. The early varieties of man were able to develop through events characterized by great disasters or a desperate way of survival.

The pre-human period: From the beginning of life on Earth to living beings, the wondrous ability to learn how to adapt to their surroundings was phenomenal. This adaptation was expressed in the study of survival that was repeated and characterized by every generation of animals, including the ancient species of man. The learning method of each generation was learning from actions, or, in other words, experience. Therefore, the wisdom of an animal in nature is measured by its experience.

The pre-modern period: According to scientific literature, the human race called Homo-Sapiens succeeded in developing a brain whose size exceeded the brain size of other animals in nature. The invention of writing gave the human race the opportunity to document the information they learned from experience. Writing can receive, document and concentrate experimental quantities of information and transmit it to other people. This process has created a new element of learning in the human being – education (Harari, 2011).

The meaning of “education” is the study of knowledge gathered by previous generations for future reuse. With the establishment of educational institutions, it was possible to teach knowledge that was recorded and recorded by previous generations to a large number of people. Therefore, the rationale for the article argues that the modern period began with the establishment of the Platonic Academy but progressed slowly because of the fact that very few people of the general population exposed to education.

4.1 The rate of progress since the days of Plato

From the days of Plato, human history has progressed “in slow motion” due to the few people who have been educated since then in every human society. According to the idea presented in the article, the natural state of human society is expressed in the fact that all people in society are exposed and are accessible to education.

The perspective presented in this article is important because of its claim that the intellectual progress of the population and the development of humanity is a relative factor that is determined by the number of educated people in the population.

It is certainly possible to view the source of every negative historical event since the establishment of the Plato’s Academy as an expression of the lack of human progress due to the low number of educated people in the population.

Even if selfish and sometimes cruel acts were committed by well-educated people, it could be said that their actions stemmed from the lack of adequate social progress resulting from the exclusion of those individuals from education and the avoidance of criticism from society or
other educated people in the society as a result of limiting the education to a limited number of people over time.

One of the conclusions derived from the idea in this article is the need for a broader view of human history. Meaning, events in history are permanent and repetitive because human history is still at the beginning of its progress (the period when most people were exposed to education is short relatively to all of human history).

In other words, human history shows signs of repeating events in the past because human history has not progressed fast enough and has not been able to change and develop enough. In most periods, the population was not fully educated and therefore could not implement its “natural” rate of progress.

5. Ancient Greece

5.1 The amount of education in society

The gymnasium is a special educational institution that was widely found in Ancient Greece and in the continuation in the Hellenist world. The gymnasium was where the sons of the citizens were educated. In this institution, special emphasis was placed on the balance and the harmonious integration between the body (branches of sports) and the mind (music, which included the liberal arts). The gymnasium students were educated towards the degree of citizenship in the polis.

The ancient Greeks set education in general as a necessary and special objective, and thus it should be initiated, planned, and funded by the authorities of the polis. The Athenians aspired to inculcate the perfect balance and ideal harmony between body and spirit, between physical strength and mental health (which included wisdom, intelligence, and manners) (Martin, 2000).

The Platonic Academy was a school of philosophy established by Plato in Athens around 385 BCE. Plato’s friends acquired for him an olive grove situated about one kilometer outside of the walls of ancient Athens, where according to tradition there was the grave of Academus, the mythological Greek hero, and thus the name academy. This grove (the exact location of which was discovered in archaeological excavations in the 20th century) was dedicated to Athena, the Goddess of Wisdom, and for many generations religious ceremonies were held, associated with the worship of the muses.

In the academy of Plato, his students did not pay tuition, and most belonged to the upper classes that supported the academy financially. The inscription on the gate of the academy said “No entry to anybody who does not know geometry”. This program included astronomy, music, law, and apparently literature and history. Plato and his assistants conducted the studies through lectures and in the form of the presentation of the questions during conversation according to Socrates’ method of dialectics (Lindberg, 2010; Myungjoon, 1994).

5.2 The pace of human progress

In prehistoric times, knowledge was conveyed from generation to generation through oral tradition. The development of writing enabled the public to accumulate knowledge and to transfer it from generation to generation in a far clearer manner. However, with the development of agriculture, which led to certain surpluses in food, cultures could develop and invest greater time in things other than survival, such as the search for knowledge for its own sake.
An important characteristic of pre-scientific research (in the West or in other places) was the lack of willingness to engage in experiments. For instance, Aristotle, one of the most productive natural philosophers in the ancient era, conducted many observations in nature, especially regarding the practices and attributes of the plants and animals around him. He focused on the division of nature into different categories and reached different conclusions about the way the universe works. Until the scientific revolution, these theories were never examined in experiments. Until this period, this tool was barely used. Some believed that the artificial conditions in an experiment could not lead to results through which it would be possible to understand the true natural world (Lynch, 1972).

Another example is Thales. Thales, who lived in Miletus on the shore of Turkey to today around 600 BCE, asked the first scientific methodical question we know: “What is the universe made of?” His argument is that the world is made at the basis from water, from which all phenomena are created, and the basis is that the solid ice is created from water, and steam, which is gas.

In the continuation, a discussion was conducted over the years in Greece, perhaps the first documented scientific discourse, in which opinions that differ with those of Heraclitus, Pythagoras, Plato, and others were heard, when among the other proposals there was the argument that the world is made of air, numbers, ideas, that the world is made from undifferentiated material and even made of atoms.

In this stage, there are already clear scientific characteristics, such as the engagement in theoretical questions that do not have apparent economic benefit, the willingness of the people who are discussing to differ with one another, and even a student daring to dispute with his teacher, and the development of methods and arguments so as to examine this and to search for the truth underpinning what is apparent.

At the basis of the process there were primarily wealthy people who had time, people who lived in port cities to which people and knowledge from other cultures came. They were exposed to the knowledge that was collected and stored by sages of early kingdoms, such as Egypt and Babylon.

This knowledge inspired them to think, opened before them new possibilities of thinking, and these possibilities were beyond what can happen in countries from where this knowledge came. They grew up in ancient Greece, an open political environment in which the citizens were partners in the governing process, thus developing their rhetoric and logical abilities, Greece, where the religion was not zealous and people were free to think in a more open manner.

The gods did not have authority; the stories about them were sometimes amusing and often reflected as petty and childish, and thus knowledge came from around the world, and people had the time, freedom of thought, and developed thinking, so as to take the same step forward to places that seemed completely impractical and to invent new ways how to advance onwards (Russell, 1945).

6. Middle Ages in Europe

6.1 The amount of education in society

Although the Byzantine Empire still had centers of learning in Alexandria and Constantinople, knowledge in Western Europe was primarily concentrated in the monasteries. With the fall of the Western Roman Empire, in most Europe a disconnection was created from the knowledge caches of the past. In parallel, the Christian doctrine maintained that people live in a low and inferior world in relation to heaven. The number of educated people was low. Human society did not succeed in advancing and did not aspire to advance beyond its existing situation.
Knowledge remained concentrated in the hands of a small group of people; most knowledge in essence was not common among most of the population. Thus, human progress remained in very slow motion.

Following the lack of medical knowledge, Europe suffered plagues, which eliminated one-third of its population in less than one hundred years. It was a poor and desolate continent (as a result of lack of trade), filled with wild forest and swamps, subject to invasions, divided and conflicted politically and backwards technologically, which had not yet discovered science and scientific thinking (Brown, 1971).

Higher education did not exist until the development of universities in the 12th and 13th centuries. At first, these universities only taught theology, but people like Roger Bacon also encouraged the study of the sciences. The scientific instruction was based on copies of ancient texts that remained in Western Europe, and thus in the Christian world there was a strange phenomenon: classic Greek philosophy (along with Roman and Grecian art, literature, and religious iconography) was repressed but nevertheless preserved (Backman, 2003).

### 6.2 The pace of human progress

The Church established the relationship of man to God primarily on a mystical belief based on the stories of miracles, superstitions, and pagan rituals in Christian garb. This was made possible because the population of believers was devoid of education (including the feudal nobles). Attempts were not made to convince the potential audience to believe through reason. Expression of this attitude can be seen in the words of St. Augustine, “There is no need to shout if the Christian believer is ignorant regarding the power and number of the elements … it is enough for the Christian to believe that the only reason of all the things created [...] is the good of the Creator.” (Lindberg, 1986)

As stated, in the early Middle Ages, the education institutions existed only in the monasteries, and therefore the group of educated people consisted only of people of the Church. Some of these holy men devoted their energies and time to the review of theological issues, so as to form a doctrine for the improvement of the relationships between man and God and the redemption of the soul in the world to come. The study of natural philosophy is considered by the Church a secondary occupation at best.

Therefore, the number of scientific inventions or theories in Europe was relatively low. The inventions of this period in Europe pertained only to the improvement of trade and manufacturing, but all scientific theory that contradicted Christian theology was rejected out of hand.

Europe did not succeed in advancing in terms of thinking, like the ancient cultures of Greece and Rome did. This is in contrast to the Age of Enlightenment, when in this era the European self-confidence increased and the idea of progress became more popular and widespread among the masses. Consequently, the number of scientific inventions and theories increased, and human progress became more rapid (Backman, 2003).

### 7. The renaissance in Europe

#### 7.1 The amount of education in society

A new reality was created in Europe in the 12th century: because of the development of the cities, trade, and university centers of education, there was increased contact between the different parts of Europe and between Europe and the world of Islam and Byzantium, and the European educated people were exposed to the knowledge that had developed in the Islamic
culture. Consequently, the interest in acquiring knowledge in the natural sciences, medicine, and alchemy and desire to do so increased, and the philosophers searched for a logical methodology for the creation of the dogmatic structure of the Christian faith. The men of the time aspired to collect and to concentrate the knowledge in all areas and to present in a methodical manner both the law and the tenet of the faith. The universities met these needs (Backman, 2003).

On this background, humanistic perceptions developed. They first appeared in Italy in the 14th century, and during the 15th and 16th centuries they spread to the countries of North Europe. These perceptions put the person at the center of the world and returned to him his lost respect. As a source of inspiration, the humanistic educated men turned to the classic period of Greece and Rome, which we saw as the “Golden Age” of humanity. In their aspiration to again revive the Golden Age, they turned to the writers of the ancient era and translated many works of literature and philosophy to the languages of Europe so as to make them into a source of inspiration (Johnson, 2000).

The studies in the university and the placement at the center of education the learning of rhetoric, grammar, and history relied on the heritage of the classic sources, including poetry and the philosophy of morality. Writings were translated from Latin to the languages spoken in the different countries, such as German and French. A major revolution was the technique of printing, which was introduced from China into Europe in the 15th century. The combination of translation and printing enabled humanistic ideas to be disseminated throughout Europe and to reach educated people who were not necessarily clergymen and did not learn Latin and thus to expand their education.

Humanists were cosmopolitans who supported the dissemination of education for the masses. Their desire to learn Latin derived from the possibility of creating communication and bridging over barriers. They were men of the world also in the aspect of their training of their students for the life they are supposed to lead. The humanists did not see themselves as belonging to a nation but to humanity (Hause & Maltby, 2001).

Thus, for instance, Erasmus asked his students to question “not where I live but with what degree of nobility I live. It is good to love your homeland, but it is important to also see the homeland of all.” In humanist education there was no room for specialization (Naeuert, 2009).

Another example is John Milton, who is considered one of the important thinkers of the 17th century. In his opinion, the goal of humanist education is to provide a graduate in society with a complete and generous education, which will allow him to function correctly, with skill and nobility in all types of positions in public service and in the private market, in times of peace and in times of war. Milton struggled in his generation with reductionists, like Erasmus struggled before him. They did not see the school as a tool for the supply of instruments in all areas but as the fulfilment of the specific talent of every student. The study of classic literature was a means and not an end.

John Milton was one of the prominent objectors to the emphasis placed on Latin, and like Rousseau, Ben Franklin, and other educators in the 18th century he called for the subjects of study to be chosen according to their suitability to the students’ world. For example, he taught his students Latin through texts engaging in agriculture (Milton, 1644).

7.2 The pace of human progress

Modern science in Europe began in a period of a great upheaval. The Protestant Reformation, the discovery of America by Christopher Columbus, the fall of Constantinople, and the Spanish Inquisition, as well as the re-discovery of Aristotle in the 12th and 13th centuries, caused great social and political changes. Thus, an environment suited to the challenging of the scientific
doctrine was created. It was found that the writings of Ptolemy (in astronomy), Galen (in medicine), and Aristotle (in physics) are not always commensurate with the reality. For instance, an arrow that flies in the air after it was shot contradicts the determination of Aristotle that its natural situation of everything is to be at rest. The research studies of Vesalius on corpses discovered problems with the viewpoint of Galen in anatomy (Debus, 1978).

The desire to put truths in question and seek new answers led to a period of significant scientific progress, which today is known by the name of the scientific revolution. Most historians indicate the year 1543, when De Revolutionibus of Copernicus was published as the beginning of this revolution. The thesis of this book was that the earth revolves around the sun. The year 1687 can be seen as the end of the era, when the book of Newton, Philosophiae Naturalis Principia Mathematica, was published (Butterfield, 1997).

Other significant advances were undertaken at this time by Galileo Galilei, Christian Huygens, Johannes Kepler, and Blaise Pascal. The foundations of the scientific method were developed at this time: the new manner of thinking emphasized the experiment and logic over traditional forms of thinking.

The Renaissance began with the rediscovery of the writings of many philosophers from the ancient era, alongside the intellectual revival through Europe. These constituted an important basis for future scientific research. A relationship with the Muslim world in Sicily and Spain allowed the Europeans access to good copies of Greek and Roman works and to the writings of Muslim philosophers. Translations and interpretations of Aristotle by the Muslim scholar Averroes (Ibn Rushd) were most influential in Europe. The writings of Marco Polo, which describe his journeys in Asia, and the Crusades led to renewed interest in geography. Beyond all these, the development of the printing press around 1450 enabled the rapid dissemination of new and old ideas to many people (Shapin, 1996).

8. The age of Enlightenment in Europe

8.1 The amount of education in society

From the 17th century to the 19th century, in the West there was a struggle or the establishment of a comprehensive and uniform education system, directed at the reduction of social gaps. In parallel, there was a struggle to compare between the humanistic, scientific, and vocational studies. These changes in education were formulated by reformers who believed in the value of democratic freedom and aspired to a regime in which every citizen is responsible for wise civil activity. They understood that a democratic regime depends on the education of citizens (Outram, 2006).

Religious groups (Catholics, Protestants, and Jews) worked to develop private and public schools. The commitment of these groups derived from the fear that without education faith would disappear and from the belief that education is important to the development of the personality. Without education, it is difficult to develop a character/personality (Butts, 1955).

Elements of bourgeoisie economics appeared in the 18th-20th centuries. Capitalism, which was supported in the United States and the countries of North Europe by the “Protestant ethics”, called for productivity and with the Industrial Revolution called for the extension of education and supported it through the supply of the practical reason as well as the supply of the necessary capital (Cook, 1974).

Rulers recognized the power inherent in uniform and centralized education. The dictatorships that existed in the first half of the 18th century in most nations of Europe resulted in rulers who had centralized control and could command the establishment a uniform public system.
for compulsory elementary education. The bureaucracy established to enforce this regulation and implement it was the outcome of the ruler’s directive (Cubberley, 1920).

As a byproduct of the Industrial Revolution, the lives of the lower classes were so miserable that the attention of many, not only educators, shifted to them. Pressure was exerted on governments to legislate laws that instructed local communities to see to food, clothing, and shelter and to teach them an occupation.

The schools that were established following this law were called ‘charity schools’. These schools created stigma of the elementary school in the 19th century as education of charity intended for the children of the poor. Many years passed before the schools in the United States and Europe were freed of this stigma. The humanitarian approach focused on vocational education not as a means of philanthropy or the handling of delinquency or care of orphans but as training suited for young men and women who would need to go to work after the completion of the elementary school and certainly after the completion of high school (Melton, 2006).

8.2 The pace of human progress

The 18th century is considered the Age of Enlightenment. For the people of this era the words “wisdom” and “nature” were synonymous: wisdom illuminated, in their opinion, the darkness of magic, the prejudices, the superstitions, and the baseless metaphysical assumptions that accompanied in the past the philosophical discussion of nature. All these derived in their opinion from the influence of religion, which had ruled for centuries and subordinated philosophy to its own needs. The great task of the scientific endeavor in this period was to eradicate any trace of those occult entities from the philosophy of nature.

The enthusiasm with the scientific endeavors of the modern era and its impressive achievements was tremendous. Indeed, the research of nature, which for hundreds of years had not at all been on the agenda, became a central occupation of the time. The researchers of nature revealed hidden worlds using the microscope, while bold sailors sailed around the world and discovered new countries and continents (Cohen, 1982).

The thinkers of the Enlightenment believed that the solution to all the problems of the world was found in rational thinking. Rationalism was supposed to take the place of religion, and truths based on aristocracy and social structures were to be replaced by truths defined by rationalism and common sense. Consequently, social structures began to be defined by the loss of faith in the traditional religious sources of authority and adopted sources such as deism, natural law, the philosophy of nature, and the scientific method and other methodical ways of thinking. In addition, theocracies and aristocracies that were passed by inheritance were replaced by democracies and republics led by people who saw themselves to be the “elite people of the Enlightenment” because of the rationality and common sense with which they were endowed.

The view of man as a rational creature undermined the justifications used as a basis for inequality among people. Many people of the enlightenment called for the legislation of laws that would limit the monarchy and that would arrange the rational order of the government. When it became clear that this attempt is not successful, statesmen who were influenced by the Enlightenment in France and America chose rebellion and revolution. The upheavals of the Age of Enlightenment led to the War of Independence of the United States and significantly influenced the Industrial Revolution. The ideas from the Enlightenment greatly influenced the constitution of the United States.

Following intensive and multidisciplinary research, a tremendous amount of information accumulated in a relatively short period of time. Already at the end of the 17th century, the Royal Society was established in London, and the Royal Academy of Sciences in Paris. These
institutions, and others like them established throughout Europe in the 18th century, were intended to promote scientific research.

At this period, important endeavors were established intended to catalogue, organize, and classify the knowledge that had been accumulated. The largest and most important of them was the joint venture of groups of French philosophers, so as to organize the knowledge through an encyclopedia. The people of the time felt that the scientific venture leads to progress. The period was marked by the humanistic spirit, expressed in social and political terms. This spirit was also reflected in religion and in the study of nature (Zafirovski, 2010).

The idea of progress was one of the motives for the revolutions and was a main idea in the perception of the Enlightenment, or in other words, the perception that maintains that humanity is advancing towards better living conditions, both in moral and political terms and in technological terms. The idea of progress developed on the background of the optimism that created important social phenomena that strengthened in this period, such as capitalism, industrialization, and bourgeoisie.

As aforementioned, the Enlightenment also indicated the rise of capitalism and a broader distribution of printed materials. The French Encyclopedia (Encyclopédie) published at this time incorporated articles that reflected liberal thinking and technological information. The Encyclopedia was edited by Denis Diderot and Jean le Rond d’Alembert at the end of the 18th century. Important thinkers such as Voltaire and Rousseau participated in the production of the Encyclopedia. The Encyclopedia was not only a product of scientific research but also an instrument for the political criticism of the government. Therefore, the connection between education and revolution was evident.

Another characteristic of some of the philosophers of the Enlightenment (although not all of them) was critical attitude towards the Church. Some were really anti-clerical (primarily in France, where the Church was part of the corrupt governing mechanism), while others adopted deist perceptions, which saw God to be a kind of artist, who created the world as a mechanical mechanism, like a complicated mechanism of a clock. This emphasis emphasized the moral controversies associated with religion. This approach contributed to the popularity of the Enlightenment, because of the heavy price that Europe paid in the wars of religion waged there since the 16th century following the Reformation (Black, 1992).

9. The twentieth century

9.1 The amount of education in society

In the middle of the 20th century, England led the change in European education following World War II. In 1944, England promulgated a regulation that called for education for all, according to scholastic ability and not financial ability. At the end of the elementary school, tests were held and those who failed these tests were sent to schools called “modern schools”.

The abundant increase in the population in areas of high income in North America and Europe led to a tremendous demand for high school and higher education, especially after World War II. Most children remained in school until ages sixteen, seventeen, or eighteen, and many spent at least two years at college. The number of universities in many countries doubled between the years 1950 and 1970, or continued to the tertiary phase.

This increase was continued in part by the industrial demands of modern scientific technology. New methods, processes, and machines were brought in without stop. Old skills became irrelevant; new industries grew. In addition, the quantity of scientific information – as opposed to purely technical information – steadily increased. Skilled workers and high level professionals were in steadily increasing demand. The processing of information underwent a
revolutionary change. The educational response was primarily to develop professional colleges, to promote adult education at all levels, to direct the attention to courses for part-time and evening education, and to provide additional training and education in the industrial factories themselves (Schofer & Meyer, 2005).

9.2 The pace of human progress

The scientific revolution institutionalized science as the main source of the development of knowledge. During the 19th century, science became an orderly profession, and it was established in ways that would continue during the 20th century, when the role of scientific knowledge became more important and assumed a main place in the building of the new nation states.

The pace of technological development advanced at a rapid pace during the 20th century in many areas: the significant developments in the field of transportation include the invention of the airplane (both fixed wing planes and helicopters) and the beginning of the mass use of the car and roads, trains powered by internal combustion engines and electrical engines, and fast trains.

The significant developments in the field of space sciences include the space race, and in its framework the Apollo program (including the moon landing) and the construction of satellites (Agar, 2012). The significant developments in the field of information include the invention of the movie camera, television, the Internet, and cellular communications. The significant developments in the field of energy include extensive use of the internal combustion engine, the development of the nuclear reactor, and the use of solar energy. The significant developments in the field of military technology include the development of missiles, tanks, fighter planes, combat helicopters, aircraft carriers, unconventional weaponry, and submarines. Because of the scientific benefits directly related to military research and development, different technologies developed at an accelerated pace, because of the wars that were waged, such as computerization, the radio, radar, audio recording, all groundbreaking technologies that led in the continuation to the development of the telephone, the fax machine, and magnetic media for data storage. In particular, important technological developments were created in World War II (Kranzberg, 1967; Olby, 1996; Singer, 1978).

10. Conclusion

According to the idea presented in the article, there is a correlation between the amount of education in society and social progress. Therefore, researchers in the future need to turn education into a motivator. This means that the increase in education in society is a factor rather than a result.

Modern thought began in ancient Greece with the establishment of the Plato Academy, stopped in the Middle Ages, continued slowly in the Renaissance and entered its intended pace in the 20th century, when most of the population was exposed to education.

This new way of thinking brings historical thinking to the understanding that human history is a very small part of the real pace of development of mankind, because most of history has had very few educated people. This new way of thinking brings humanity to understand that human history as it was until now is a very small part of the true human history, as it should be when all human beings were exposed to education.

So in fact, the modern age is not the culmination of human progress but rather is just the beginning. The beginning that was delayed by the failure of most of the population to be
exposed to education for most of the existence of human society. The acceptance of this new way of thinking leads the historian to realize that the smaller the number of educated people, the smaller the number of inventions in the period under discussion.

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