



EDUCATION AS UNIQUE SURVIVAL ALTERNATIVE ON HOMO SAPIENS EVOLUTION

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Abstract:

Human evolution is the lengthy progression of changes. Scientific evidence shows that the physical and behavioral traits shared by all people originated from apelike ancestors and evolved over a period of approximately six million years. The intellect, the magnitude of which divorces the human from all other animals, advanced slowly over the entire four million years or more of the human development. The intellect is not unique to the human; it is quite well developed in a number of the other higher animals. The intellect developed as a control over instincts to provide adaptable behavior. Education fulfilled in the past a decisive role in the survival of our species. The arrival of Homo sapiens sapiens, their link to the development of culture, the rise of teaching and education and the relevance or irrelevance of the educational process in human survival, are some of the topics covered in this paper.

Keywords: human evolution, survival education, scientific knowledge, social development

Introduction

Moore (1999: 60) states that "*Teaching is intending that someone learn something*" and Savater (1997: 41) referring to the teaching and education it states "*The fact that anyone is able to teach something to someone in your life... does not mean anyone is able to teach anything*"

For Moore (1999: 62) "*Not all education is education. Teaching is a necessary condition for education, but not enough*" and Savater (1997: 41) indicates about "*The educational*

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institution appears when what is to be taught, not merely empirical and traditional scientific knowledge” and then adds, also regarding education “...the process of teaching is never a simple transmission of factual knowledge or practical skills, but is accompanied by an ideal of life and a social project” (Savater, 1997: 145).

For its part Camps (1997) states that the function education *“is not only to instruct or transmit knowledge, but integrated into a culture that has different dimensions, language, traditions, beliefs, attitudes, and ways of life... ”*

Also, we assume hereinafter the concept of culture that *“...means the process by which a willingness and ability of behaviour passed from one generation to another through processes social learning” (Garcia and Garcia, 2001: 370)*

How to define the scientific knowledge over other kinds of knowledge is a problem definitely not resolved. While the rationalist position holds that the difference between science and other types of systematic knowledge is likely to be rejected by the data of reality; the inductive empirical approach suggests that a statement is scientific to the extent that their reliability it can be confirmed by experience. In any case, scientific knowledge is characterized as systematic, according to Ortiz (1997) its validity claims are defined by the potential reasons they make it acceptable.

Meanwhile, technology is a concept usually linked to science and therefore under construction and according to Acevedo (1998) is not synonymous with applied science. In technology have survived some specific characteristics of traditional crafts, tacit knowledge and skills techniques, that have responded to some human needs (Acevedo, 1998).

Referring to sapiens sapiens, Garcia & Garcia (2001: 374) note that *“... adaptation of human species has been the ability to objectify the experience and preserve the culture... and become project and incorporation process of cultural property to the activity mental....”*

In the definition of Lowy (1999) of culture, valid only for our species, it incorporates an important element: *“It is the need and the ability to express itself through the evolution attribute imagination, exclusive of the species.”*

1. Roots of Education

Homo sapiens sapiens is just one of the several million species on the planet cohabiting and therefore, is no stranger to the evolutionary laws governing the survival, depending on the adaptability to the ecosystem and formation of an ecological niche.

In the second chapter of *On the Origin of Species*, Darwin (1859) said the variations, slight as they are, if to some extent are profitable for individuals, in general, they will be inherited by the offspring. Also, *“The environment selects those individuals’*

best adapted to survive, while individual variants less adapted will capitulate" (Savage, 1987: 36).

In Europe and Africa were developed almost simultaneously, two parallel lines of homo sapiens: Neanderthals (250,000 years ago) and Homo sapiens sapiens (150,000 years ago) respectively, *"...to respond to environmental demands of select individuals endowed with larger brains, able to improve survival itself through greater intelligence, organization and language..."* (Angela and Angela, 1999: 648).

Homo sapiens sapiens emerged with the appearance the ability of imagination, whose best-documented cultural expression is art. Homo sapiens sapiens as a species and subject educable, has survived and progressed due to the research brainpower, whose realization has endowed humanity with greater resources and more effective defense against all types of adversaries, means of overcoming obstacles and conquest achievement to perfect ways of feeding and human coexistence, which has had its genesis in the manufacturing and handling tools.

In small human groups and in primitive societies the transmission process of knowledge is presented through primary socialization processes including participation in the activities of adult life through primary cells coexistence: the family, the peer group, centers or workgroups and production.

But in complex societies, man (Homo sapiens sapiens) requires knowledge science and technology, developing for it (Gimeno Sacristan and Pérez Gómez, 1998: 17) *"...different forms of specialization that led to the process of education or secondary socialization"*

Thus explained it fully justifies the emergence and existence of education, linked to the production process, based on the requirement of the teaching of scientific knowledge and technology.

3. The Human Is the Membership Sapiens Species

Resistance to recognize that the meaning of education is the survival of the human species stems from the presumption of superior intelligence product of significant size of the human brain.

With regard to the brain capabilities, Garcia and Garcia (2001: 199) write: *"From the evolutionary point of view the brain developed to ensure the survival body and not to perform algebraic calculations, make rational decisions or keep memories ineradicable. When the brains evolved to produce thought he found advantageous to think of the situation to act on it"*.

Sagan & Druyan (1993: 353) observed that *"...almost every major Western thinkers; Plato, Aristotle, Marcus Aurelius, Augustine, Thomas Aquinas, Leibniz, Kant, Comte, Hegel,*

Rousseau, and many others; they have argued that Homo sapiens sapiens is fundamentally different from other living forms."

This approach is reflected, on the one hand, in the central position that man has in conceptions religious, justified in the belief that we are the highest product of creation and, on the other hand, in the terminal place was given to man in traditional evolutionary conception considered by far time, the end of evolution is man, and can have its *raison d'être* in the search for an argument justifying crush the rest of beings to our will. The above argument is confirmed by Sagan and Druyan (1993: 354) that *"...our quiet conscience can extinguish entire species on behalf of a benefit."*

One of the more ancient attempts to characterize the humanity was given by Plato who came to argue that man is a *"biped without feathers"*. *"Plato's definition, in substance, argues that it is the bipedal condition that makes us different, however, this, although it is a necessary condition, is not enough. In fact, "...we require the bipedalism to have a free hand to develop technology"* (Savage, 1987: 187).

Sagan and Druyan (1993: 355) confirm the opinion some other authors, from the perspective of the economy recapitulate: *"Adam Smith in his justification of free enterprise capitalism says that the proneness treatment, barter, to exchange one thing for another... is common to all men and not given in animals' any race. Martin Luther in the sixteenth century proposed that private property was the essentially distinguished men from animals and similar reasoning presented the Pope Leo XIII in the nineteenth century. As counterargument as proposed by Smith and Luther, you can refer to the chimpanzees who like to trade: food in exchange for sex, back rubs to change sex, betraying the leader in exchange for sex, do not kill my son in exchange for sex. The food and some rudimentary tools involved the concept of private property"* (Sagan, and Druyan, 1993: 357)

In Henriquez (2003) found a thesis supported in cognitive abilities, relative to specifically human: *"What distinguishes us from other living beings is our ability to use and transmit knowledge. Neanderthal man becomes an endangered species at the time homo sapiens sapiens begins to draw on cave walls, thus initiating the transmission of knowledge in a non-abstract alphabet, very difficult to standardize, not portable, which differed from tribe to tribe and clan to clan, but transmitting enough information so that we can tell their children, their grandchildren, "This is one way of seeing the world" and was a way effective to transmit knowledge"*.

Lozano (2003), in a similar direction adds *"...really advantage of the human subject is the ability to have self-awareness, which it does through the instrument or of objectification of language, built according to the cultural reference "*.

However, the skills identified by Henriquez (2003) and Lozano (2003) arising from our condition of belonging to a species: Homo sapiens, sub species: sapiens

sapiens. Ridley (2000: 57) properly said that humans are unique and have advanced natural equipment, the brain; although the complexity is not objective of evolution and every species is unique, therefore it concludes that all is something that is very abundant.

4. Learning, Emotions and Imitation

Martinez (1999) states that *"...education establishes links between symbols source material thought, marked a decisive step in the evolution of Homo sapiens with what changed all our psychological structure"*.

It is, then, the newest creation of communication systems, product development of a rational-emotional brain which enabled the accumulation of experience and transmission knowledge in order to modulate certain behavior, linked to survival, as the origin of education.

On this point Garcia and Garcia (1997: 372) observed (referring to Homo sapiens sapiens) that *"The configuration mode of behavior in the situation, the decision of action, the mental system that evolution has prepared operates predominantly adaptive purpose and integration with living environment where you have to survive..."* And Gonzales (2004) is blunt when referring to the role of education as *"...the tool that the human being has to fulfil its purpose as all living things: survive; both in a physical environment (nature) and in a social environment (society) by providing intelligence (ability to think and feel)"* and although it should be noted that education is not a evolutionary event is to be noted that *"... education as a necessity and activity of structures. It is the result of evolution, and as event, is an individual event with social mediations without trace in the genetic code..."*(Garcia and Garcia, 2001: 122)

Savage (1987: 190) is relevant when we remember that cultural evolution is not biological *"...Every generation of humanity passes its predecessor information related to the environment, social relations and technology. In its purest expression, cultural evolution in human is by imitation."*

And, as a conclusion, the roots of learning are both rational and emotional, which is confirmed by *"...the affective component is essential in shaping all kinds of attitudes, and skills, including intellectuals"* (Garcia and Garcia, 2001: 326) it reveals that there are primates (including sapiens sapiens) that they learn (modifying behavior patterns) because they want to be like the kinship relations determine, depending on bonding and emotional attachment, which is stronger where the relationship mother son.

Meanwhile, the study of mental processes from the point of view of individual development from embryo to adulthood (ontogenetic domain) is mediated by the

cultural and historical development, which has a systematic structure formation resulting from the assimilation of human culture products: "...the mental or psychological functions that initially are elemental (natural) are mediated in the process of activity and social contact with other human beings, through an elaborate system of signs." (Vila, 1985)

In cultural development, instruments are created, without biological consequences, amplifying the (biological) natural abilities that each individual is gifted.

Therefore, the passage of the natural (biological) to the cultural is mediated by the set of devices, developed arbitrary and conventional by humans (and other species of hominids) in the course of social relations and exchanges of its members.

The human activity is characterized by changes and transforming of environment, going beyond a simple passive adaptation.

It is for this that, although some behavior can be described as responses organism to different stimuli, but behaviors that involve a principle of activity are regulated by the higher psychological processes beyond this conception and to his explanation, that requires introducing the notion of meaning.

Vila (1985) asserts that the signs are established in social relations, accessible from outside, through another and each child acquires them to regulate their social exchanges, while going internalizing progressively until being instruments to plan and regulate exchanges social become instruments to plan and regulate their own behavior

5. Education and the Threat to Our Survival

Savater (1996) when referring to a possible teleology of education writes that his aim "... is form human beings and human beings are above all rational beings. The reason is not an automatic layout, but a social achievement, made possible by a natural and evolving capacities."

But, we must remember that our mental structure in addition to the rational component has an inherent emotional component. Garcia and Garcia (2001: 327) state that "... we must take into account the emotional regulatory system is at the origin of development as a primary mechanism to guide attention."

Furthermore, education is a specifically human action, therefore conscious, that is intended to develop its own potential; and by developing of these potentials, it allowed us to overcome constant obstacles on our evolution. This it is not incompatible with assert that education is a process, outcome and project (simultaneously) of behavioral changes, cultural, social and personal fulfillment.

Under the same line of thought is consistent with that "*Education does not create man but it helps you create itself*" (Debesse, cited by Mondragon, 1997).

The human is a living unit whose *raison d'être* is the survival, which has been achieved, so far, therefore largely processes education; hence Plato's claim that educating is to give the body and soul beauty that are susceptible, it is not consistent with the purpose of education (survival of the species), but these are a collateral consequence.

More appropriate, from our perspective, is the position of Valle (1829, in collection Bardales, 1994) that "*... education purpose is to form a rational human being ...to give useful knowledge and moral habits that requires preservation and perfection*",

On this last point, Garcia and Garcia (2001: 125) warn that we, *Homo sapiens sapiens*, "*... we are not a kind of workers within a production system, but a kind of living organisms that has capacity to produce... so that the curriculum should not be biased towards satisfaction of the demands of human capital from scientific and technological system.*"

Also, Gorostiaga (2000) regarding the issue of technological development aims: "*The meaning of progress based on unlimited material growth is questionable for ecological implications and social and impossible generalization of this progress to all human beings.*"

Lozano (2003) adds "*Human beings can still harboring dreams of control and power of prediction, but the chaos, uncertainty, chance says that most self-organizing systems are linked to countless butterflies... "and we must remember that "...man is, according to Nietzsche (Cited by Jaspers, in Soriano, 2002 :: 246) an animal with its evolutionary course not finished ... Man, you cannot be as your essence ... He needs salvation, healing, freedom and the return to himself.*"

Then, following García and García (2001: 369) "*The survival of the species and the construction of the human subject do not depend exclusively on the reproduction and feeding, but also the process of cultural assimilation call education*"

Meanwhile, Fenstermacher and Soltis (1998: 86) point out that in order to counter the dangerous man impact of technology in the eco system is required that the moral virtues and intellectuals to be part of the whole teaching-learning process, indicating that within the virtues it can include moral honesty, integrity, impartial and fair treatment available; while between the intellectual virtues are rationality, broadmindedness, the assessment of the evidence, the curiosity, a mental habit thoughtful and prudent skepticism.

To survive as a species, *homo sapiens sapiens* has to mold his behavior and frame within a non-anthropocentric, but of belonging to an ecosystem conception, so that no longer just about the liberation of the exploited men, but also the ecosystem over-exploited.

Pérez (1998) states "*...education is to help to establish governed convenience; it is about the concept of efficiency, taking into account the implications for both, to a given community to the whole of humanity and our planet.*"

All expressions of culture, of which homo sapiens sapiens appropriates through educational process, should force him to reveal himself "*the tyranny of reality*" of the exploitation of man and overexploitation of the ecosystem by man. Referring to the economic aspects Bautista (2001) notes that "*inequality among human beings is one of the incongruities of planet, within the story*"... "*having those who have pointed out (and even, unfortunately do) that the economic inequality is inherent in the human condition and essence of humanity, source of progress, civilization and history.*"

Botkin et al (1992: 30) state that "*Throughout its cultural evolution man has adapted to their environment, although often unconsciously, configuring whereby it is guaranteed survival of the species*". "*But to survive (Barbosa, 2004)*" ...*require information because it complex and changing ecosystem and social life. This situation is all the more acute in current society* "... *as a result of the rapid pace of change in all spheres of life ...*"

Conclusions

Homo sapiens sapiens has to assimilate the notion of the impossibility of development technology that results in abhorrent acts against him same and / or destabilization of the ecosystem. In order to correct such orientation, regardless of the concept we have on threats to mankind (as the result of technological scientific development referral), we must agree that education plays and will continue to play a significant role in the survival of the species. Then, through culture, through the education process, a unique characteristic of the Homo sapiens sapiens, we must continue our developmental path by seeking new meanings, creating works that transcend us and questioning our achievements in pursuit of survival as a species.

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