

Environmental Education: the Italian perspective

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PREFACE

The teaching of environmentalism is still not wide-spread enough and it isn't in a homogeneous way in all countries. The environment became an urgent problem, even before we had the means to manage it, on the contrary, as Odum (1973) says: «man's possibility and will to modify the environment have developed more quickly than his capacity to understand its nature. This lack of knowledge is tied to an insufficient and not generalised teaching of science, even in the more developed countries, for a series of reasons: the teaching of sciences is difficult; it needs investment, it is stopped by cultural, or political and religious restraints.

1. DEVELOPMENT OF SOCIETY AND OPINION MOVEMENTS

Each century is pervaded with an essential question which mobilises its living forces: in the 18th century it was the political question, in the 19th the social question and in the 20th the environmental one.

History has gone from a phase of exploiting human beings to a phase of exploiting nature, now it sees transfer of energy and tension from the field of human relations to the relations between people and the material universe. This has occurred because a link exists between science and technology, technology and industry, industry and society, society and science... (Moscovici, 1968). Science is, therefore, the new frame which has developed and continually develops the dialectical rotation. In this sense it tends to determine

more and more the human destiny of modern becoming, so that the complexity of science which has developed since the 18th century, has reduced the primary place given to the human being on the globe (Morin, p. 166).

To solve the environmental question we need a new vision of problems, a profound scientific knowledge which should be integrated and extended to all people and a new system of education.

If the environmental question has a great priority, though, as in all the battles or revolutions, this centrality can lead to extremist positions, caused by ignorance, which create negative or apocalyptic visions, in which the universe's end, human destruction, the disappearing of animal and vegetal species are envisaged. Man is accused, if only for the fact of being a meat eater and he is paying today all his past faults, because we have passed the phase of attributing the fault generically to industrialisation. The responsibilities are researched at the origin and they are attributed to the egoistic human attitude towards the complexity of living, the history of human exploitation of each aspect of the natural world.

We find it strange that this love of nature has imposed itself so late, in one sense, yet in another sense so early: late because the respect and love for the world in its totality shouldn't come in at a specific moment; it has to be included in man's genes: on the other hand this love has imposed itself very early; because we are at the point to take a stance in favour of animal and plant world, when we haven't yet gained the extension of fundamental rights to all the members of the human race. An exponent of an African country has reported to the UN the great amount of money spent in the world to buy refined canned fish and meat for animals, while the children of the African continent aren't assured a daily portion of rice or milk. One third of the world's population is living below subsistence level, illiteracy rages where the more dangerous infantile illnesses have been recently defeated, the children are valued by poor families for their number, not for their quality. Capital punishment hasn't been eliminated, nor torture has, dictatorship, slavery and oppression.

Shouldn't we ask ourselves why ideology doesn't proceed on a linear and consequential track, in which, before gaining the rights for all forms of existence, as is it to be hoped for and necessary, seeks to assure the welfare and the happiness of each person? The answer induces us to suspect a tinged form of human egocentricity in the struggle for environmentalism, which finalises environmental problems to man's welfare. Actually the importance of the environmental question stands high in developed countries, where the menace of the negative impact of industrialisation is greatest and where many natural goods, removed from the direct fruition, are commodified into economic goods, which imply maintenance costs and requires fruition prices.

The richer people are, the more they are anxious about health and psychophysical well-being. Above all the people don't want to lose any opportunity the nature offers. Therefore environmental defence changes into self defence. Hall (1983) asserts that man started to worry about what could happen to him only when he noticed the power of nuclear weapons. Philip Stott too affirmed that the concept of sustainable development is a western white man's conception. This is confirmed by the fact that in the areas where people are still now fighting against famine, this crusade is limited only to the wealthiest. We can judge politics to be most responsible for this situation. Politics is dividing the world into blocks, in governments even more regional, so it isn't possible to reach global solutions.

Economy and technology have reached globalisation, the politics of international aid, on the other hand, is lacking in co-ordination, but what is worse, in the developing countries themselves, more elements of fracture than cohesiveness are intervening.

2. PHILOSOPHICAL AND POLITICAL MOVEMENTS

In the past centuries, since the age of the great scientific revolutions, when science studies seemed to assert themselves irresistibly, an obstacle to equality and to the scientific observation of problems, as to their connection, has been represented by nationalist politics, which have had a narrow focus on the single country's interest. Many countries focused their efforts on independent movements both in the Old and in the New world, then, after reaching political autonomy, they fought for economic independence which was more pressing in those countries that had not been oppressed and that had the opportunity to proceed by way of economic revolution and were reaching a prosperity that outdistanced them from the other countries.

After solving the political problem, the national interest concentrated on imposing the country's superiority. Economic prosperity brought a consumer society which implies pressure on resources and consequent threat of their exhaustion.

A more profound reflection and an attempt of co-ordination of international relations has taken place with the Conference of Rio (1992) which described the general situation requesting and imposing a new ethic until it is possible to have generalised laws. But this Conference, in spite of its environmental purposes, has always insisted on the concept of development, in its sustainable sense, as it had already been put forward by the Bruntland's Commission Report, organised in 1987 by UN. The attention continued to be focused on development, because it is considered the only thing that can bring

all humanity to economic prosperity. Nevertheless it is not only and not so much a matter of cumulative growth: it is a matter of distribution and of quality of prosperity. The headway towards equality, though, seems held back by the persistence of nationalism, which, instead of ripening in a more evolved concept of humanitarism, withdraws more into itself, in the affirmation of regionalism and sectarian particularism.

3. POLITICS AND EDUCATION

Problems connected to political and social tensions permeated every single aspect of countries' existence, more than the environmentalism issue affects nowadays and they surely marked school education.

Since Plato's age, education's purpose was to train a social élite to statesmanship; it is necessary to reach the 19th century in order to see everywhere a cultural élite as the alternative to the one built on social privilege. As Greece, even Rome was not able to make science become the basis of a popular education. Nowadays we realise that teaching must be completely reformed and that modern societies have absolutely not integrated science with general culture.

The centrality which politics has always had in history determined the course of people's education. This has occurred in two directions: on one hand there was the prince's education, that it is to say the education of privileged classes who would send their representatives in power after an education aimed to do so, on the other hand, in the second direction, the masses were kept in a state of inferiority, in order to prevent them from affecting the absolute power and from enjoying the privilege of contestation and criticism. In the first case, education was structured on philosophical foundations, in the other case it was supplier of elements strictly essential to everyday work. Therefore, in the past, there was a division in students' preparation, based on what they were going to become, so that cultural knowledge was given to those «who deserved», but cultural knowledge seemed to derive only from humanistic disciplines. For these reasons in the past, the sciences couldn't justify being taught. Now educational needs have completely changed because the development of society has led us to an age in which scientific, technical and social development are more and more linked in many inter-relationships that involve also political and educational issues.

In Bateson's (1941) opinion we have just started to see some epistemological mistakes of Western civilisation and to realise that the structure of teaching is based on the split, in addition to the predominance given to the humanistic disciplines. If we continue to act in a Cartesian dualism

mind-substance, we will continue to see the world in terms of opposition: God-Man, aristocracy-people, chosen races-inferior races, people-environment, so —Bateson says (1984)— it is doubtful if a species, which possesses this sort of mental boundary and a very advanced technology, can survive.

Just recently we've tried to fill the typically medieval gap that separates brain work from handiwork, or erudite from producers. This gap, indeed, in some countries, included ours, was never filled completely, so wisdom doesn't yet mean experience.

Comte had already affirmed towards the middle of the last century, that everything was ready for a great revolution, that natural knowledge in the end became and would have become more and more the main object of teaching. Unfortunately we must underline that this hasn't happened yet in general. This gap, especially between acting and learning caused great disturbing of world human order because we have neglected the fundamental link between sciences, but above all, between science and politics. In 1924 Haldane (1924, p. 36) advanced the thesis on the required inter-penetration between science and life, science and politics, which represents the only condition able to permit the survival of the Western world, because the lack of integration between science and politics generates revolutions and wars. He also wished for a higher control of scientists on issues of general interest. To Haldane the scientist's figure should be dominant because it is source of rationality and progress. Even Gregory claimed human completeness and the fact that the scientist, compared to the man of letters, is superior because he has an open attitude on life which derives from the contact with nature and the study of its laws. Only with science social interests will definitely overturn: society will be suitable for school and not school for society.

4. NATIONALITY AND EDUCATION

In Europe, where natural disciplines were neglected by Humanism, the priority of the study of Man derives from the Christian view of creation. The centrality of Mankind doesn't come only from religious teachings. To Christian religion and to its medieval obscurant concept we have to add the fundamentals of Humanism and Renaissance which were surpassed by the 17th century scientific discoveries and by the Enlightenment movement. These fundamentals were recovered by the independence movements that arose with Romanticism and grew with Idealism, both of which are connected to a movement to regain the past.

The beginning of the Romantic movement produced the propagation of liberty concepts, moral spontaneity, education as solicitation and liberation of

latent capabilities. The principle of nationality started to assert in Europe, so pedagogy became more and more involved by the movements of national education. After the scientific revolutions the perspective happened to focus again on man. Humanity was reduced to the single «people», in contrast with the general perspective of science.

The germ of nationalism, originating in the struggles for independence and by Romanticism, was a burden to the didactic system based on the assumption of Hegel's idealism.

Nationalism, which degenerated in the two world wars that presented, for the first time, the possibility of the total disappearance of mankind, contributed to link man more and more to his destiny and removed his interest from scientific problems which were increasing so much that it was always more difficult to manage them.

The isolationist nationalism interrupted the eighteenth-century Enlightenment movement and lived down some of the French revolution principles, moreover it was leading to the will of domination, while population growth and industrialisation drove towards colonial expansion. Even the values of Irredentism focused on the strengthening of the concept of man. This led to an interest in philosophical problems and therefore science and technical subjects faded into the background.

According to liberals, the concept of nationality contained the idea of sovereignty of the people, conservatives thought it meant faithfulness to local traditions and to the old social order, spiritual community of language, culture, blood, and homeland, so the study of history and philosophy became a reason to reconsider national ideals. The nationalistic vision had also positive sides: in politics it helped to find a national stability, which bore fruit both in the economic and the social field and led, on one hand, to freedom from foreign interference, on the other to the overcoming of inequalities that still persisted among the remaining strata of society and working careers.

5. KNOWLEDGE AND SCIENCE

Although involved in their Romantic ideology, only some countries realised that knowledge and scientific research were vital for their survival and so they conferred on scientist a pre-eminent position in the state and in society. German universities produced scientific research which spread then in USA, in France and in Great Britain in order to stimulate industry towards new developments through pure research and its applications because rich countries acknowledged the importance of the link between science, industrial efficiency and progress.

Hall (cit.) believes that modern age, which is characterised by the technological predominance of science, began at the end of the nineteenth century, when scientific research, which was sanctioned by experimentation and observation and founded on mathematical logic, extended its sphere of action in space and time and was set free from the limits that formal logic and theological dogmatism imposed. At the end of the past century in fact, almost all aspects of life were influenced somehow by scientific evolution, but except for some countries, the didactic practice delayed a lot; in Germany the laboratory of Liebig in Giessen was exemplary while the foundation of the University of London and the beginning of reforms in the oldest English universities, after the Royal Commission report (1850), boosted the teaching of scientific subjects. Also in France, Napoleon the Third, thanks to Pasteur's successes, acknowledged the necessity of the sciences. This proves that the technology which science has produced transforms society, but also that the technologic society in a retroactive way transforms science (Haldane, cit. p. 36).

These considerations can lead us to affirm that the quickening to the predominance of sciences was generated by the Industrial Revolution more than by the political revolutions which simply replace one power with another one.

Nevertheless, European society, in spite of its rapid progress, also preserved a nationalistic character thanks to the Peace treaties of 1919, which marked borders that corresponded to the principle of nationality. Moreover the economic hardship caused by the First World War, aggravated social breakdown and the economic conflicts which generated political ideologies that forecast the dictatorship.

Afterwards the attention focused on the increase in population which was considered the determining characteristic of planetary crisis. This crisis moved the focus once again from science to human problems which, while they are still waiting for a solution, they contributed to neglect the treatment of natural science. Many countries took note of the split of teaching or of the mainly classical course of studies and several criticisms were expressed in the United States where specialisation is linked to a strong separation (Ehrlich, Ehrlich, 1994). While in the past in many environments only humanistic subjects were considered important for education, nowadays we probably attribute to sciences a higher educational value. It's Morin who first meditated on the idea of anthropo-cosmology which considered a perspective of comparison and of mutual explanation between human and natural sciences. According to him science was proceeding inexorably, in such an uncontrollable way that it was exploding, causing the greatest menace that Man had built with his own hands: the atomic bomb. Koestler affirms that Man, who until 1945 lived with the perspective of his death as an individual, after Hiroshima faced death as a species. This reason and Einstein's theories reduced the position and the

dimension that man embraced to himself and that Descartes contributed to strengthen. Only the impending danger slowly moves the focus of interest from the man to the world, so the main problem of our age has become environmentalism.

6. THE HUMANISTIC TEACHING IN ITALY

In the countries more involved in the movements of national merging and in those in which the struggles for independence were more bloody, the interest for man and for the soul persisted for a long time. For this reason the world of reality and of the applied sciences was abandoned. In Italy too, as in Germany, idealistic movements were established and later they degenerated in nationalism. In Germany, in the philosophical field, the nations' genius reached the highest conquest, so no other aim was left «for men who want to rise to the most outstanding meditations»(Roach, 1968, p. 250).

In Italy the battles for national independence have been very long and the conflicts of the emergent industrial society more intense. The territorial loss, caused by the war, together with the scarcity of economic resources necessary for a large industrialisation, generated the strengthening of national sentiments, which found in eminent intellects of idealistic philosophers a voice to uphold the new-born fascist party. The support to the government gave to Giovanni Gentile, an idealistic philosopher, the prestigious office of minister of education from 1922 until 1924 and of president of the Fascist Institute of Culture in 1925. He was the conceiver of the educational reform in 1926, which is still today the basis of all our educational system. The following legislation hasn't weakened its structure, it simply brought sectorial or instrumental changes, leaving the same structure of the system. School was for the minister the main instrument in order to realise the loved national conscience. The particular situation in Italy, which came out from the First World War in detrimental conditions, was the basis of his ideology, because he wished for its dignity among the other nations.

Educational reform was meant to be a moral reform, able to pull down the agnosticism and the neutralism of pre-war school. In an anti-historical direction, among the reform's primary objectives, there was the reduction of the number of students in the schools of culture and in the universities, accordingly to Gentile's line of cultural aristocracy (Loschiavo, 1986).

This élite principle affirms that culture isn't generally something deriving from the outside, that we put in our mind, but it is what we have in our soul: the world, the nature, all the things we represent, have their roots in us, the real «us» with which we think and we concur in a global thought.

According to Gentile, the foundation of education is the «shaping of the spirit» or the realisation of the «concept of man»: for this reason he trusted in the philosophical teaching, as an essential element of the training process. The science, as representation of the mind, shouldn't exhaust in itself, it doesn't prescind from philosophy to which it is strictly connected, both on the formal and critical level of method and on the level of contents (*Difesa della Filosofia*, 1921). The philosophy itself «isn't to know things, but to know knowledge», it isn't a science among the sciences, but conscience of all the sciences. Gentile derived Hegels' principle of identity of being and thinking and in his work: «*Teoria generale dello spirito come atto puro*» (1916) he confirmed that thinking is the same as the cosmogony.

If we deepen this thought, we can understand the role not only marginal and secondary attributed to the sciences in the education, but also how they were banished on the inferior level of knowledge, or judged as mere images.

So what permeates today's Italian school is the superiority granted to the humanistic studies, the necessity of starting from an humanistic basis before starting the study of sciences. The abstract thought prevails over the concrete experience and the reflection over experientialism. We insist on a division of important or not important disciplines based on class; among these the most important are philosophy, literature and ancient languages. As a consequence we can give different weight to disciplines; we keep giving an exclusive place to Christian religion teaching, even in a society becoming more and more multi-ethnic.

Idealism gave the prevalence to wisdom instead of to science, as a matter of fact the secrets of nature seem interesting to philosophers only if they become an occasion of speculation. Education itself is identified with wisdom, so the lasting condition of education is the breaking, as Moscovici (1968) affirms. He also suggests that the mind is formed by turning the back on natural sciences.

7. CONCLUSION

If in the economic world we gained a globalisation process, in the political world the efforts and the studies in each countries aim at specific interests, which aren't able to solve the universal problems, as well as the disconnected teaching isn't able to solve them. Only the globalisation of science, international co-operation, a mature relation between science-politics and the integration of disciplines, as the generalisation of their teaching would lead us to solve existing problems of the Earth. The general system of sciences is leading to a new scientific approach, named : TOE (Theory of Everything). TOE

should, according to some cosmologues, lead us to a unitary representation of all laws of nature, from which the whole universe system could be explained, in the frame of a rigorous logic, towards the theory of the great unification: GUT (Hack, 1993).

Training for a social and civil engagement in the protection-defence-safeguard of the natural and social environment, as a temple of resources and values, means to sensitize the citizen to the global responsibility, through an ecological practice, which stands for a civic global behaviour towards the unity of all living forms.

If politics caused a break between human and natural science, we must assign to geography the merit of a continual research to fill this gap as an ultimate goal of its method. Geography, more than other sciences, has great potentiality to place itself as a discipline that gets over the fractures among the branches of knowledge.

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