

WORLD ASSOCIATION FOR EDUCATION RESEARCH

10th INTERNATIONAL CONGRESS

PRAGUE 28-8 2-9 1989

SOCIAL MACROTRENDS AND EDUCATION

Dr. JOSEP DOMENECH I MIRA

Province Chief Inspector of E.G.B. for Lleida in the
Autonomous Community of Catalonia -Spain-

Aquesta conferència vaig donar-la a Praga l'any 1989 quan encara no s'havien produït els grans canvis polítics. Va produir un considerable interès i debat especialment entre els participants de l'Europa de l'Est. Fou publicada en les actes del congrés.

UNIVERSITY OF PRAGUE

" If any remedy can be brought to the
corruption of human kind, it will be
only by a wise and far-seeing education
of youth "

JAN AMOS COMENIUS

Ladies and Gentlemen :

It is twicely touching for a man who comes from Spain, to talk about education in the mother country of Jan Amos Comenius, because in my country the work of the famous Czech pedagogue is well known and admired. He was a great educator, and his fourth centenary will be soon celebrated, he was also an extraordinary innovator in the didactic field, and with this I would like to pay homage to his universal figure.

It is also touching to discover in this beautiful city there are notorious remembrances of old historical relationships with my country. In the impressive Castle of Prague I have remembered, among many others, the image of Fernando I, the Emperor born in Alcalá de Henares, who was the grandson of Isabel and Fernando of Spain.

It has been surprising as well, to check the high level of quality and in - depth analysis in the publications made in Castillian in the Caroline University, and above all, it has been decisive to know that in this University the Catalan language was also taught, the beautiful language spoken in the community where I come from.

By the historical roots of the past and the sensibility before the cultural present realities, I am very glad to take part in this Congress of Prague, dedicated to the future education.

THE AGE OF GREAT CHANCES

In the age we are living the deepest transformations in society are taking place. The incidence of technological innovations, the axiological changes, the economical world - wide development, the multiplication and variety of the human interactions, the cultural development, etc., everything conveys upon society and modifies basic aspects at rapid and decisive rhythm.

For this reason, educators must now, more than ever, planify what they are doing with regards to the sense and the features of the future society, because we must take into account that the young generation being educated in our schools will not integrate in the nowadays society but in what society will have become in a few years. We must apply ourselves in trying to picture the shape the horizon is showing us already to make our pedagogical task really performant.

It is impossible to guess correctly the traits of the future. There are too many variables which influence in the human development, so as to make a good prediction. There is not only one future. There are different futures, and all of them depend on our present behaviour. However, as a way of general anticipation, we are able to observe some of the new tendencies in our society, in order to foresee some aspects of the education in the future. Nevertheless, we must take into account that all the tendencies can be modified and, moreover, they can change completely. So all the possible observations have to be done with precaution and discretion.

It is already known that the analysis of the macrotendencies is one of the prospective ways, fairly spread and used in the developed countries.

In the U.S.A., the Naisbitt group is well known because of their studies, which are widely consulted by the managers, businessmen and, in general, by the whole American society. The same happens with other works of this kind, such as the Foresight in Sweden and other countries. The macrotendencies are the lines that show in the society, its development towards the future. An adequate perception and analysis can help us to anticipate many general situations. There are a lot of macrotendencies falling upon education, but as it is not possible to make a deeper and exhaustive study, we are just going to explain some of these macrotendencies.

THE TENDENCIES OF THE DEMOGRAPHY

The growth of the world - wide population was slow until the middle of the Eighteenth Century. But, with the sanitary, scientific and technological advances introduced since the Industrial Revolution, the demographic growth experienced a mighty increase. From 1900 to 1950, that is to say in the first half of this century, the world - wide growth standard was of a 0.8 %. But between 1950 and 1985, this standadr experienced an important increase, being of a 1.9 % (1).

This spectacular advance of the demographic growth underlies, however, important differences when it is examined from a regional point of view, because while there are some areas where the natality grows between a 2.5 and a 3 % being double every 25 years, as in Algeria, Bangladesh, Iran or Nigeria, there are some others with a slightly inferior increase, where the population grows about a 2 %, as in Brazil, Indonesia, India and Mexico.

(1) Department of Economical, Social and International Affairs.
Perspectives of the World population : estimations and projection (

In Europe, the increase of the last forty years has been more reduced, being the index of a 0.7 %. The future tendencies point out even bigger regional differences, because in Europe the growth standard will be of a 0.3 % until the end of the century, while in the African countries the standard will be of a 3.1 %. Obviously, these different tendencies will create different educative problems. In the countries with a population explosion, there will be serious economical and organizative problems to maintain the present standard of schooling and the level of quality in their teaching institutions.

In Europe, the growth standard for the next years will be very low, so the problems will be different. There will be a reduction in the necessities of schools, equipment and new teachers. The ratios will improve and it will be necessary a sort of reconversion in the educational places. At the same time, the release of material and personal resources permits more ambitious educative reforms, referring to the extension of the compulsory schooling and to the improvement in the quality of the system.

THE TRANSFORMATION OF THE EDUCATIONAL SYSTEMS

Another tendency, important towards the future, is given by the changes experienced by the different educational systems. This is the Spanish case, a country in which during the last years we have changed from a highly centralized educational system to a decentralized and autonomous one. I think that the Spanish case is not the only one, because in Belgium, Japan, Australia, and even in New Zealand, considerable advances have taken place towards the decentralization. In Czechoslovakia - the country that is so courteously our host in this congress-, there are two autonomous educational systems, the Czech and the Slovak. In a parallel way, some countries with a decentralized tradition such as Switzerland, Germany, the U.S.A. or Great Britain, seem to advance to a higher convergence.

In Switzerland and Germany, by means of the periodical meetings of coordination, that the educational authorities have in a spontaneous and free way. In Great Britain, with the changes introduced by the Reform proposed by the Government on Mrs. Thatcher, in which the Local authorities, the L.E.A., seem to lose some of their functions. In the U.S., with the progressive concentration of the autonomous school districts of the States. There were 100.000 districts sixty years ago, and now there are less than 15.000. It is said that the countries with a great centralizing tradition seem to move towards the decentralization, whereas the countries with a great decentralizing tradition advance to a convergence and coordination, accepted in a free and spontaneous way. These tendencies will have some effects on the education of the future.

THE ASCENT OF THE MINORITY CULTURES

In the formation of the European states and other parts of the World, specially after the pattern of the French Revolution, it became normal that the majority culture imposed itself in an educative and political way to the minority cultures of a certain country. The report that the abbot Gregoire read to the French Convention in 1790, where he advised the disappearance of all the autochthonous languages of the country for the benefit of the French language, it is enough to understand the process that many countries have followed from then on. Now, however, the tendencies are of an opposite sense. We are in the antipodes of the XVIIIth Century. The present tendency favours the ascent of the minority cultures that have been during the centuries under the dominion of other cultures, that were more powerful and more widespread. In Catalonia, the place where I come from, we have lived this process in the last few years. The catalan culture has very ancient roots, in fact we are celebrating the historical millennium of our community, and it has had all through the centuries pieces of different kind and of great quality, in Law, Arts, Politics or Literature. The catalan nature has

left an indelible trace in the History. For instance, the Catalan medieval literature has been, in my opinion, the best literature written in the Iberian Peninsula during the Middle Ages. Neither the Castilian literature nor the Portuguese, excel in the category of their writers nor in the quality of their works.

The Catalan medieval literature is a real jewel of the European literature of that time. However, the noble Catalan culture was during the last centuries, educative and politically frustrated by the crushing supremacy of the official and majority culture of the country. The restoration of the democracy in Spain in the last years has changed this unfair situation. From then on, the culture and Catalan language have played an important role in the schools of the country. Catalonia is not the only Spanish community with an autochthonous culture. There are many other similar situations around the world, too. There is a tendency to vindicate all the peculiarities of a certain community, in the educational field or in other fields. This tendency has and will have a great importance in the future. Those countries having this problem unsolved, will have to solve it according to socioeconomical development, when the question of the peculiar identity of the different communities will arise.

THE EUROPEAN DIMENSION

In a parallel way, there is the tendency to create macroidentities of a wider field, together with the reappearance of the minority cultural identities. This is evident in Europe and other continental areas. In Europe, apart from the great processes of integration which are in motion, we frequently hear favourable opinions to the United Europe, as it was recently expressed by the Pope John Paul II in Santiago de Compostela, in the presence of hundreds of thousands of young people, or as it is expressed by important political leaders referring to the common cause of all the European people.

This new dimension will have a great importance in the education of the future. In fact, it is being important by now, because of the growing study of modern languages, the revision of historical education, the multiplicity of cultural contacts and with the considerable increase of relationships and interchanges of different types, between countries that used to live rather isolated in the past. The importance of these facts will be bigger in the future, not only in Europe, but in other big areas of the World.

THE TECHNOLOGICAL IMPACT

Since the neolithical revolution with the discovery of the agricultural, livestock and artisan techniques, until the industrial revolution developed in different stages in the last two centuries, going by the nautical techniques of the XVth Century that provided great geographical discoveries, or the printing techniques which made an important cultural spreading, the technology has been of a decisive importance in the social and cultural changes produced all through the human History. The technology has always been a significant factor of the social change.

It is worthwhile to bear in mind all these facts, because in our age, we are living a new and powerful stage of technological revolution, that is having and will have incalculable effects in the future. In the developed countries the evolution of society, with its progressive incidence of the new technologies, it is shaping a standard of society, different from the one in force not long ago. Some authors have tried to define the standard with diverse names. Daniel Bell talked of the "post - industrial" society. Dahrendorf referred to the "technological" society. Alvin Toffler uses the metaphor of the "third wave". Ellul, the "post - literary"

society, and John Naisbitt " the society of the information ". In all these cases, we are sure that a new situation is before us, a situation in which the technology plays a very important part.

There are a lot of modern technologies which are affecting the advanced societies, but microelectronics has been the spearhead of the changes, due to its extraordinary progresses. Education is being affected through the new didactic bases, that enrich the school activity: computers, computer assistance to teaching, videos, interactive videos, etc. These technologies concern directly to the teaching methods, opening new horizons with enormous possibilities.

But, moreover, the education is indirectly affected by the new technologies, because they change the society in many aspects, particularly in the working field. For instance, we can think of the effects of the information science or the robotics - a word which origin is in the work of a Czech writer, Karel Capek. The computers and the information technologies are changing the way of working of many enterprises, while the robots substitute the workmen in the mechanical tasks, or even in the more difficult and intelligent tasks. In an industry, the robot can substitute the painters, mechanics or other workmen, but at the same time, the robot requires good engineers and a highly qualified technical staff.

According to the study made by the Nobel prize Wassily Leontief, made for the " National Science Foundation " and titled " The impact of the automation ", he estimates that in the year 2000, the robots will have eliminated in the United States about two million working places, but at the same time other two million place will be created to produce the equipment, the " hardware " and " software " necessities for the new technologies. There will be, according to this prediction, a working displacement that will require an education of a better and higher quality.

In France, according to the conclusions of a group of scientists, met for some days in the " Centre National de la Recherche Scientifique " in Paris, in twenty years time there will be in France about one hundred thousand robots in two thousand workshops completely automatic, being now the number of robots of a few thousands.

The incidence of robotics and other technologies permits the existence of flexible workshops, in which the designed pieces will be manufactured much more quickly, without the long and expensive processes of elaboration required in the traditional enterprises. The design and the manufacture assisted by computer, and the flexible workshops introduce a new creativity not existant before. Obviously this will influence in the educative systems.

Together with the information science and the robotics, we must add other important technological advances, which are having and will have great importance in the society, in fields like telecommunications, bionics or transports. The incredible advances will powerfully modify our society. The economy world - wide development, together with the development of the information and relationships is creating a new situation that education will have to confront.

LIBERTY AND PLURALITY

The society, specially the most developed society, shows a tendency to advance towards levels of liberty that each time are bigger, understanding liberty as the possibility that people have to take autonomous decisions, to achieve them and to choose between multiple choices, without external coercions. In other times, the possibilities to choose and to act were rather limited by the general lack of resources, by the familiar structures, by the cultural reality of the agrarian communities where a great part of the

population used to live and by the existence of every type of despotism. Nowadays, the modern man born in other families, living in urban means, having a better education and with bigger economical and social resources, has the possibilities of personal fulfilment as never before. In the advanced societies, the levels of liberty have considerably progressed, and this tendency will continue in the future.

However, the right use of this liberty is not easy to achieve, because although many of the external coercions that used to limit the man's liberty have disappeared or have weakened, our society generates many indirect pressures, sometimes subliminal, that limit the liberty of the person when the education is not enough to confront the pressures. For example, this is the case of the consumption in the societies with a market economy. The publicity of innecessary or damaging products is so big, that it is not surprising that a lot of people with lower education consume in a crazy way. Although they are free to determine their acts, the indirect pressures that they receive from different angles, tend to condition their behaviours. In Spain, for instance, the publicity expenses of the last year were of 680,000 million pesetas, that is to say, a nearer quantity to 6,000 million dollars. This quantity is similar to the annual budget of the Ministry of Education and Science.

Taking into account that in our society these publicity tendencies will increase in the future, the schools will have to assume the protagonism in this subject, preparing the younger generations for a more correct and intelligent consumption.

At the same time in this advanced society, new political, ideological or sectarian groups are established, and with their projects try to press on the individuals conditioning their behaviours. Education will have to prepare the younger generations, to make the adherence to one of these groups the consequence of a

personal decision, completely free and reasoned.

At the same time that the advanced societies increase their level of liberty, it also increases the level of insecurity. If the present tendencies do not change, the society of the future will tend to be more competitive and insecure. The competitiveness will be given by the great number of enterprises with a great capacity to penetrate in different grounds. This growing competitiveness will be very demanding with the levels of preparation and efficiency in the working places. In a parallel way, the level of security in the working place is changing, the economical crisis, the flexibility of the working market, the desregularized tendencies and the crisis of the welfare state, everything will convey to create a higher working insecurity.

On the other hand, the growing development of the society in a free system is the origin of important marginal groups, that are kept apart from the rest, creating poorness and marginalization. At the same time, the extension of drugs of hedonist values, in which people look for an easy and rapid success are the causes of the considerable increase of the delinquency and the physical insecurity of the citizens.

These aspects will continue in the future, and it will be necessary to consider in Europe the growing tendency to create broad sectors of multiracial population due to the continuous stream of people who come from other continents looking for a job. All this will have greatest importance in the future education. The new generation being educated in our schools at present will live in a free, flexible and plural world where the individual's decisions will have enormous importance in directing one's own life. Such society will be likely to cause a large number of indirect pressures which might lead to confusion. Mankind will not be just passive passengers anymore in ship that used to drive their existence along and will start handling their own sail boats. They will have to learn to sail in troubled waters avoiding danger in order to prevent shipwreck and get to port.

The education for freedom will demand on the new generations the development of responsibility, the capacity of decision, personal initiative, enterprising ability and good civic preparation in order to take an efficient part in the democratic institutions.

THE ECOLOGY

In the future, education will have to take increasing interest in the environment. Developed countries have shown a growing concern about the ecology of the planet. Thus every continued development of any kind will have to take into account the necessary ecological measures.

Man's aggressive performance with technological means is damaging seriously the Earth. Phenomena such as the progressive decrease of ozone in the atmosphere, the acid rain, the greenhouse effect, the desertization, the extinction of species, etc. are already important nowadays but they will tend to get worse in the future since, because of the demographic growth, the world population which is now 5,000 million inhabitants, is likely to double up in the next few years. This growth will bring an increase in industrialization and consumption in a large number of countries. Obviously the aggression against nature will reach an extremely dangerous degree in the coming decades. The ecological problems we already have, will tend to get worse and, in some cases, they will turn into irreversible damage. A recent report carried out by the "Environment and development World Committee" at the U.N.'s request and directed by the present Norwegian Prime Minister, Gro Harlem Brundtland, provides a precise break down of this important subject. (2)

(2) Our Common Future - Oxford University Press 1988

(3) The spirit of conquest an usurpation 1815

EDUCATION FOR PEACE

Education must make mankind behave with the maximum rationality. This aim is, however, very difficult to achieve, because the irrational components of man are enormous. This is evident when examining the armament subject. 175 years ago, Benjamin Constant, a liberal thinker, pointed out in a memorable piece of work (3) the irrationality of wars, proclaiming that the development of the World trade would soon finish with the wars. Constant was wrong in his prediction, because in the age he was living, the worst warlike catastrophes hadn't happened yet. However, he was right to believe that the peaceful interchanges will finish with the war.

The irrationality of the armament culture that has survived until our days, it is made evident when, taking into account the alimentary, educative and sanitary lacks that humanity suffers, people examines the monstrous economical quantities set aside for the world armamentism. Moreover, when the destructive power of some guns is totally fatal for the life in this planet.

According to R.L.Sivard (4), in 1985 the world military expenses were superior to 900,000 million dollars. This numbers is higher than the general incomes of the poorest half of the humanity. Nowadays, there are some positive conducts that might lead to disarmament. Fortunately, there have been important international proposals, and some initiatives are becoming true. Some countries like Peru, Argentina or China have made important reductions in their military budgets. The most powerful countries seem to discuss the subject. By these facts, we can wish that the educative efforts being done by different countries for the benefit of peace, cooperation and peaceful coexistence of the nations will increase in the future.

(4) R.L.Sivard - World Military and Social Expenditures - Washington D.C. World Priorities, Inc., 1986.

(5) A Nation at Risk 1983

REFORMATORY TENDENCIES

There is a generalized dissatisfaction in the world, about the efficiency of the different educative systems. This dissatisfaction is represented by the proliferation of reforms, that sometimes do not achieve a consolidated state.

In some countries, e.g. the U.S., the critics against the educative system are very strong. The report presented to President Reagan concluded with these words:

" The graduate of the nowadays schools and universities has not the same level as the graduate twenty - five or thirty years ago. " (6)

This sensation, expressed with the typical American clarity is the same in other countries with less autocritical capacity. A deterioration in the academical achievements is taking place, although the human and material resources are, at present, superior to any other age.

Due to this dissatisfaction, in the U.S. there are radical reformatory tendencies, e.g. the one defended by the well known and discussed economist Milton Friedman who is in favour of the idea that the whole state teaching system, must go to a regime of economy of market, by means of a system of school bonus. A similar idea has been put into practise this year in Minnesota, a community of about 6 million inhabitants, where all the school have developed a system of free competence. By now, no great displacements of pupils have taken place, but the teachers and responsables have changed their attitudes, showing a major interest in their jobs.

These experiences are typical in the U.S., and they are not easy to trespass to another countries, but a part of the philosophy will arrive to other countries, in a short time.

Many other tendencies are nowadays observed, and they would enable us to know some trends of the future education. The brevity of this communication does not allow us to make a deeper study, but what it is important is that the pedagogues have to take care about the times coming. It can depend on our vigilance, that similar to Jan Amos Komensky's wish, the wise and preventive education of the young people will decisively contribute to the improvement of the human nature.

PRAGUE AUGUST 1989

B I B L I O G R A P H Y

- BELLIUCCI, Paolo, and others. "The futures of peace" - Futures, October 1988 pag. 561.
- BOWMAN, Richard F. "Teaching in Tomorrow's Classrooms". The Educational Forum. Vol. 49. Nº 2. 1985.
- COOMBS, Philip H. "La crisis mundial en la educación. Perspectivas actuales". Santillana. Madrid, 1985.
- FRIEDMAN, M. "Free to choose" . Hartcourt. New York, 1980.
- id . "Tyranny of the Status Quo". Hartcourt. New York, 1983.
- GARCIA Garrido, José Luis. "Problemas mundiales de la educación". Dickinson Madrid, 1986.
- GODET, Michel. "Worldwide challenges and crises in education systems" . Future, June 1988. Pg. 241 - 251.
- KOGANE, Yoshihiro. "Technological revolution and social trends in Japan" - Futures, February 1987.
- KOLMAKOVA, M. N. "The Leninist Doctrine on the Nationality Question and the Development of the Multinational School in the USSR". Soviet Education, March-April 1986. Pag 17-34.
- MULLER Shulz, Anneli, and Frank B. "Excellence in Education: Some reflections on the concept of excellence and recent educational policies". The High School Journal. January, 1986.
- SHAKER, Paul. "Education in the coming century: a vision". The Educational Forum. Vol. 49, nº 2. 1985.
-
- "Issues in international bilingual education. The rol of the vernacular." Edited by Hartford and Valdman - Plenum Press- New York 1982.
- "La montée des incertitudes". Le Monde de l'Education. nº 112, 1985.
- Statistical Year book. United Nations. 1988.
- Statistical Year book. UNESCO, 1987.
- World Commission on environment and development. Our common future. Oxford University Press, 1988.
- "Propositions pour l'Enseignement de l'Avenir" . Collège de France. Paris 1985.