Committee IV
Crisis in Education in the 1980's:
A Survey of Educ. Values and Systems

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ECOLOGICAL VS. PURELY FUNCTIONAL CONCEPTS IN EDUCATION AND EDUCATIONAL POLICY

by

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C O N T E N T S

INTRODUCTION:

1. ENVIRONMENTAL CHANGE AND UNCHANGED BEHAVIOUR:

There has never been a period of social and economic as well as environmental and technological development which in any respect compares to the **rate of change** after the Second World War. Today economic productivity, world-wide communication, and scientific progress have become "the dominating factors in all conditions of life" (BUCHHOLZ,A., 1978; OECD, 1974).

At the same time, however, neither educational procedures nor social and individual behaviour have changed accordingly. Generally the man-made environment seems to be getting out of touch with the **anthropological matrix** of man (PECCEI, A., 1979).

In future, societies will have to counteract the tremendous cleavage between two almost contradictory psycho-social developments. On the one hand industrialized societies live in the spirit of - and somehow depend on - a high level of **success-orientated self-confidence** as far as the functional scientific, the technological and economic progress is concerned. On the other hand there exists an **increasing awareness of insecurity or even fear**, because people are confronted with their own destructive capacities, with attitudes of social refusal and with a strong feeling of senselessness. The critical and resigning attitudes are particularly wide spread among the younger generation (JUGENDWERK DER DEUTSCHEN SHELL, 1981).

While **success** is all the easier, the more goals and tasks are limited to cause-effect related aspects in **subsectors of life** (e.g. in engineering, surgery or functional education), tremendous **insecurity** exists, because of man's **fragmented identity:**

- in the face of increasing 'second-hand experiences' e.g. from social sciences or media,
- in the face of little agreement about what values are relevant,
- and in the face of missing holistic health, education and welfare concepts.

So, in spite of some great technical successes and outstanding social developments of highly industrialized societies, particularly young people feel threatened by the scientific and technological advance.

Thus, educational as well as social systems are confronted with **unresolvable tensions and dichotomies.** On the one hand the survival of industrialized societies depends more and more on the success of science, economy and social planning (KAHN,H. 1975 a,b), on the other hand they are confronted with manifold **ecological crises** in terms of pollution (air and water), in terms of social breakdowns (within innerurban or large-school structures) and in terms of human deformations (by thalodimides and other drugs - if not by education).

Altogether large **elements of European culture tend to be more and more incompatible with their own aims and values** (SCHELER, M., 1960,2), since religious, scientific and humanistic dimensions

are generally no longer interrelated as in earlier concepts like e.g. that of G.E. Leibniz in the 17th Century or in world views of R. Steiner or C.FR. v. Weizsäcker in the 20th Century.

In this situation, quite **incompatible demands are made on education.** On the one hand education is to prepare children to 'function' within adult society (e.g. in terms of vocational or computer competence), on the other hand it is expected to 'safeguard' children against utilitarian and alienating forces in societies and in the politics of the day (e.g. by means of critical media or political education).

In so far the **European problems** in education are not very different from those of other industrialized countries. But these problems exist in a cultural and educational different context, and they are reflected and acted upon quite differently in European education:

- since education is still strongly obliged to neo-humanistic traditions and their interpretative patterns;
- since educational systems encompass strong organizational and curriculum structures of the past - particularly so in the secondary school systems;
- and since there exists a dichotomy between national education concepts and compulsions for an European integration, which favours as well as hinders new orientations in education (KOMMISSION DER EUROPÄISCHEN GEMEINSCHAFTEN, 1973).

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2. EUROPEAN REFLECTIONS AND ACTIONS ON EDUCATIONAL PROBLEMS:

However, **in the early 70ies** most European countries reacted to these educational problems rather inconsistently with their educational traditions and social circumstances. In those days most European countries were strongly influenced by American approaches in educational planning and by linear concepts in psychological and sociological research, which were en vogue. According to such research concepts - particularly to demands from learning theory, educational economy and social policy - many European countries tried to cope with their educational crises in a rather **functional and additive way.**

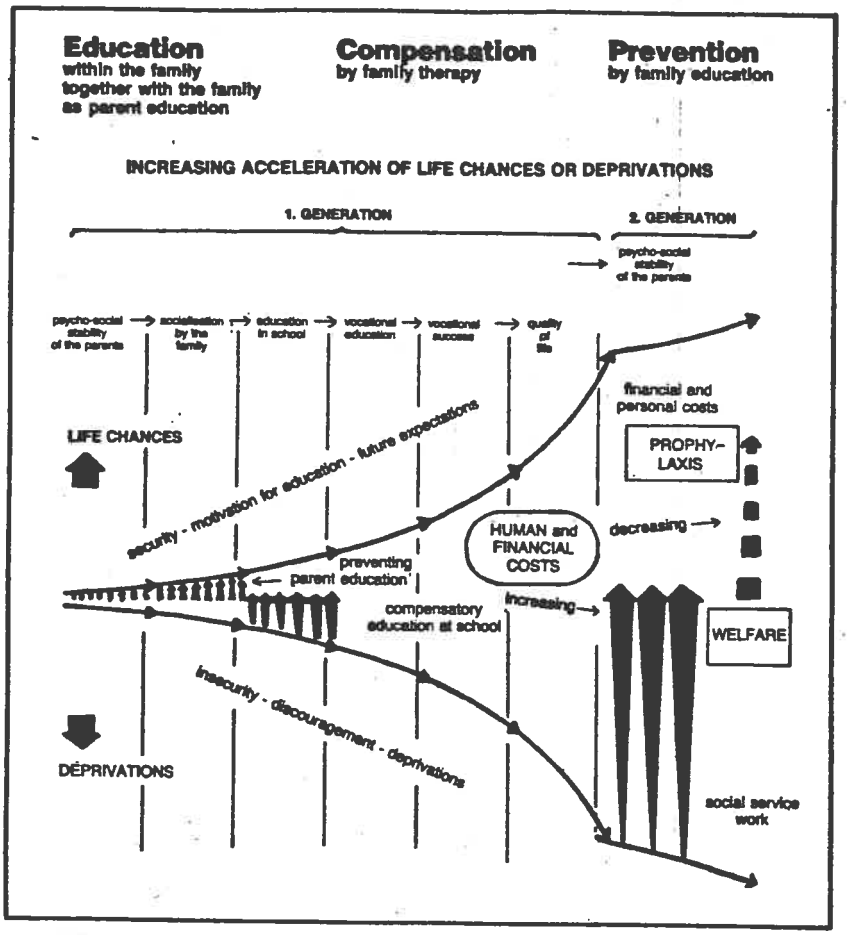
Some consequences were, that the educational reforms resulted in a rather quick expansion and in a learning orientated reorganization of the >educational system<, while the >educative process< became increasingly depersonalized, fragmented and less motivating.

Quite often **educational policy** in the 70-ies made education dependent on social and economic demands instead directing it towards human and child development.

But, in the meantime there is increasing awareness that prevention of psycho-social malformations may be better economic and social investments than an accelerated learning, a training in new maths or a specific vocational education - as the following graph indicates (SCHLEICHER,K., 1979).

1. Impairments of children as a burden to society:

The *acceleration of the deprivation of life chances* will easily be seen from a flow-chart, which demonstrates, why it is difficult to break the vicious circle of inequality.

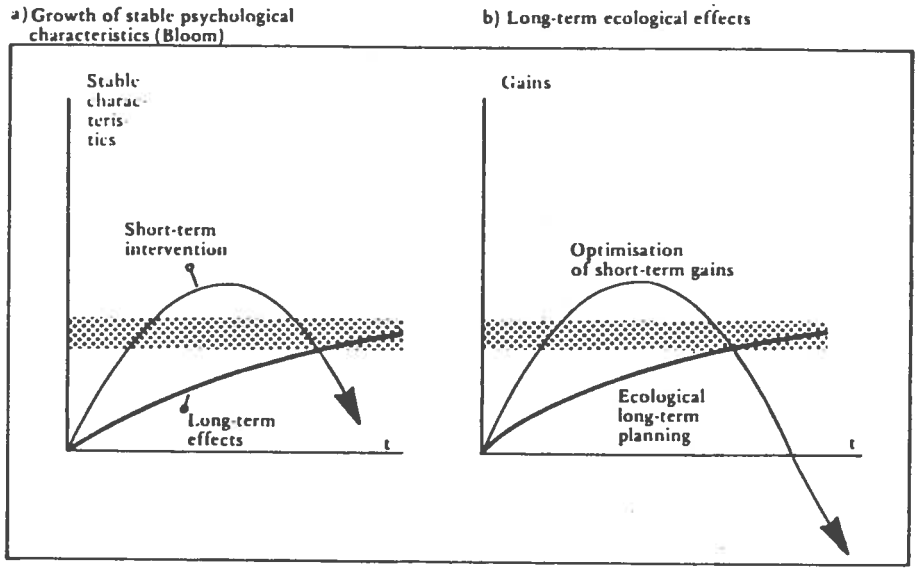


In addition **scientific reasoning** in the early 70ies was dominated by neo-posivistic, linear-causal paradigms and by strong interests in short-term gains, which tended to subordinate the child to rather simple input-output concepts or to instructional technology and often disregarded side- or long-term effects. But meanwhile educational reforms are subjected to more careful examinations of their anthropo-ecological implications. For example psycho-physical side-effects of medicines and food ingredients or social and ecological after-effects of economic and social policy warrant increasing consideration.

Already in the early 60ies psycho-physical hints were given, which pointed towards the dubiousness of rather selective and ephemeral intervention strategies, mentioning:

"... we believe that relatively superficial characteristics which the individual may develop in a short time (are) characteristics which refer to highly conscious and easily controlled behaviours and mannerisms ... are not likely to be very stable. ... stable characteristics are more likely to be based on interactional processes, ways of relating to phenomena, life style, etc." (BLOOM, B.S., 1964,p.4).

Hypothetical Short and Long-term Effects



Generally **there is growing awareness** that scientific paradigms, which were dominating in the 70-ies, cannot develop integrated educational concepts, since they largely missed an anthropological and ecological dimension. Instead rather additive curriculum-elements were designed by researchers and taught by teachers,

while the coordination and integration of different subject areas was left to the children.

In addition it became quite obvious, that most of the short-term and rather partial investments end up with counterproductive social and ecological problems and tend to increase the crises instead of decreasing them.

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3. INCREASING AWARENESS OF ECOLOGICAL PROBLEMS:

So, **from the mid-70ies onwards** frustration emerged with the functional ecclecticism and an **ecological way of looking at the crises** appeared to be essential, as examples - from the pre-school and school area - may highlight:

After **>pre-school planning<** had been strongly geared to school success in the early 70ies, it became increasingly clear at the end of the decade, that isolated training in the cognitive domain had little lasting effects (BRONFENBRENNER, U.,1972) and that a more integrated and long term orientated education (for the whole life span) and a more interrelated, compound planning of social and educational policy was needed (OECD, CERI/ECE 1977, p.3). It now is argued e.g., that a personal stabilization and the development of personal interest are of utmost importance in view of an unstable world and an increasing leisure time, or that educational policy can only be effective if backed up by a matching family policy and a supportive social systems.

On the whole, increasing attention is paid to the **>ecology of the child<**.

At the **>school level<** it became obvious, that the concentration on learning hierarchies and curricula did not come to terms with major learning and behavioural problems (e.g. the drop out problem or certain anti-social school structures) (PLOWDEN, 1973). Furthermore these concepts did not prove relevant for the students' later success at university level (HELDMANN, W., 1984; - HOCHSCHUL-INFORMATIONSSYSTEM, 1983) or for vocational competencies. Therefore it is increasingly stressed, that education has to be more relevant to the children, has to integrate school and out-of-school experiences (e.g. in terms of home-school relations), has to strengthen extra-vocational and extra-functional capacities (e.g. the abilities to concentrate, communicate and cooperate), and that it has to stimulate a synthesizing besides an analytical way of thinking.

Thus, the **>ecology of learning and development<** becomes an important field of educational research and policy.

On the whole it has become quite obvious, that the **fundamental problems in education require a more holistic, integrated and life-relevant concept.** Therefore schools urgently need an approach:

- to interrelate their activities to the bio- and sociotope of the children and to the environment;
- to strive for the enhancement of self-directed learning and the psycho-social stability of children;
- to cope with the cummulative expansion of knowledge in a synthesizing way;

- and to reconcile a scientific-rational thinking with a basic value orientation.

Today, a **>human ecological approach<** in education appears to be the most promising point of departure for future orientated education in Europe (SCHLEICHER, K., 1975, pp. 231-260), since this concept enables us:

- to employ the potential of the neo-humanistic tradition in todays context;
- to interrelate or restructure dissociated subject areas (e.g. by extending the poly-technical dimension to a poly-human concept);
- to transcend national parochialism in education (e.g. by a European and global perspective);
- and above all, to come to terms with the fundamental value crises in education.

Such **a human-ecological approach seems to be indispensible** because the overall >strain on children< tends to be similar to that on environment. - Furthermore this approach interrelates education to the socio-economic and cultural environment, but does not limit the ecological dimension to environmental problems and repair-strategies. Instead it recognizes that human demands and ways of thinking are at the heart of all ecological problems. - And finally the approach offers a human value orientation, which transcends competing ideologies, since it is directly connected with an **>ethic for survival<** (ROHRMOSER, G., 1974,2). Such

an >ethic< seems to be mandatory, since the environmental, social and individual problems are increasingly predictable.

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In view of the sketched challenges and European traditions in education **this paper will discuss:** first to what extent the educational crises have been enlarged (beyond the well known influences from economic and social structures) by the media, by research paradigms and by the educational systems themselves. Then it will be explained, why there are increasing demands for a more holistic, integrated, and life relevant concept of education - respectively for another period of educational reform. Finally it will be pointed out, that there exists little chance at the moment to cope with the underlying value crises in education, unless one starts from an 'human ecological' perception. Such a perception not only favours the development of personal, social and human identity but also interrelates an 'ethic for survival' with a 'self-directed behaviour'. And all these aspects appear to be indispensible for the maintenance of human and democratic societies (SCHAEFER, H.,1978).

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I. CRISIS IN EUROPEAN EDUCATION

Educational **crises are** in fact **no unusual phenomena in history.** They usually arise because educational systems tend to lag behind social developments (SCHLEICHER,K.,1984,a) and because these systems are confronted with the dichotomy: that school subjects are dominated by paradigms of the past, that the teaching is tied

to present day demands and that children are to be prepared for an unknown future.

The educational **crises are usually the greater**, the quicker societies and their social consciousness change. Therefore educational reforms have been linked to periods of social unrest and change as the developments after 1798, 1848, 1919, 1945 and 1968 or the intentions of educational reformers - e.g. of Humboldt, Freinet or Plowden quite clearly show.

But, although the educational reformers and reforms intend to bridge the cleavages between socio-economic developments and educatioal philosophies or structures, the educational systems have become so complex and inflexible, and the social as well as technological changes so rapid, that the educational crisis appears to be a continuous one and almost unsolvable.

Generally, **todays educational reforms** tend to be either too partial or too short-lived attempts as that they would be able to 'adjust' (not to 'adapt') education to the social and political as well as to technological developments - e.g. after the Sputnik shock in the late 50-ies or after the social and student revolt in the late 60-ies.

Beyond these rather traditional challenges to education there are important new inputs that increase and accelerate the educational crises today. On the one hand the amplitudes of educational crises are intensified, on the other hand they have become more

transnational (European), and finally they are now no longer related to subject areas or school systems only, but influence all areas of education at the same time, i.e. home and school education as well as media and adult education (INTERNATIONAL BUREAU OF EDUCATION, 1970).

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1. PROBLEMS WHICH RESULT FROM EDUCATIONAL DEVELOPMENTS:

Although there are still different **national educational crises** - e.g. with public schools in Britain, with sex education in Sweden, with migrant workers' education in Germany, and with university staffing in Italy - the more general educational problems however are common to most European countries.

Today most **European education systems** suffer from the fact, that educational research and policy of the 70-ies were too much concerned with traditional school subjects and with educational structures and **hardly succeeded in developing educational concepts:**

- which motivate the majority of children (LEGRAND, L.,1983; HUSEN,T./ et al, 1974) and support them in their search for a meaningful life (HABERMAS,J., 1974);
- which help the children to develop self-learning strategies and to come to terms with their own and social problems (SCHLEICHER, K. 1984,b; RAVEN,J., 1984);
- which link environmental and school experience or prepare the pupils for out-of-school life (e.g. in terms of media education or career awareness) (DEFORGE,Y., 1980);

- which foster extra-functional study-capacities of older students most relevant for success at the university or vocational level (HELDMANN, W., 1984, pp. 382-392, cf. pp 58ff);
- and which help to bridge the increasing dichotomy between educational theory, school practice and the attitudes of the children.

But, after some problems of the educational systems have been sketched, it now has to be made quite clear, that educational crises result to a large extent from disintegrated social demands on education and from the media's impact too.

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2. PROBLEMS WHICH RESULT FROM SOCIAL DEMANDS AND FROM MEDIA DEVELOPMENTS:

Generally educational crises are strongly provoked by **incongruent social demands on education.** Over the last 25 years education has been confronted with quite contradictory and quickly changing tasks to deal with.

In the late **60-ies** e.g. demands for 'equal educational opportunity' collided with increased possibilities in subject choice and early specialization (DEUTSCHER BILDUNGSRAT, 1971), since children from lower economic strata largely preferred practical subjects, which often reduced their long-term career opportunities (SCHOOLS COUNCIL, 1969).

On top of these problems other conflicts emerged since the early **70-ies**, when centralized curriculum planning clashed with extended parent cooperation(SCHLEICHER,K., 1972) and with the insight, that individualized and life-related teaching had by far the greatest influence.

And since the **80-ies** additional conflicts arose in view of the decreasing birthrate, increasing decentralization in education, and the financial recession. On the one hand schools were burdened e.g. with an accelerated generation gap having a disproportionate number of old teachers on their staff while on the other hand the traditional right of parents - to opt for different schools - led to their indirect control, which schools remain open in view of falling school roles (FOWLER, G., 1983, pp 21,35).

Finally, **today's concurring demands** for a better technological education (in the face of the new media) and for an increased ecological education (because of the increasing technological damages) add to the established conflicts.

Due to all these - quick changing and often contradictory - goals the **educational 'output' never corresponded with the changing social expectations.** Instead tremendous conflicts are produced, e.g. by dichotomies between equality and quality of education, between comprehensive and competitive education, or between university expansion and academic unemployment.

But, if teachers, parents and students are never able to meet public expectations, then considerable **distrust** emerges from the

public towards educational planning, and respectively from educational policy towards the educational system. And even worse, the quick changing social demands limit educational reforms to what can quickly be put into practice and they tend to turn education into a 'function' of short-lived impulses of the day.

Thus, **the education crises in Europe can only be limited:**

- if concepts for educational reform become more congruent within themselves and have more of a long range orientation so that too much patchwork can be avoided;
- if schools are not primarily geared towards teaching content, but are more concerned with the learner and his competency to cope with social and media developments (BECKWITH, D.,1983;1984);
- and if educational reforms are not one-sidedly enforced by specialists and governmental agencies in power (NIESER,B.,1984), but if they also involve teachers as well as parents and are made more acceptable to the public.

Until now, Austria appears to be the only country which has at least a certain mechanism to prevent fashionable and partial educational trends, since legislation for educational change needs a qualified parliamentary majority.

However, educational problems do not only result from concurring social demands but also from certain political or technological developments as will be exemplified by the media's impact on education.

Of all the technological developments the media perhaps have the

largest influence on education. Since the invention of printing, **media have produced or intensified educational crises.** Today's crises are e.g. intensified by the development of television, video-games and computers (SCHLEICHER,K.,1984,a). Generally 'new media' have such an impact because education tends to react to their effects in a threefold way:

First, **educational awareness of technological developments** or of their impact on social developments **is subject to a time-lag.** Newspapers e.g. led to the development of public opinion, television to changing leisure attitudes, and computers to new forms of control and active participation. But, all these developments have been realized by education with considerable delay. Consequently education tends to 're-act' on the developments instead of influencing them according to educational goals.

Second, **education** often **adapts itself too much to technological structures.** It is not only, that early mechanical problems of typewriters led and - because of the existing equipment - still lead to rather inappropriate arrangements of the typing keys and to typing courses, which adjust to hardware demands (QWERTZ - effect), but in a similar way software structures of computers (as e.g. Pascal or Fortran) determine today's learning procedures and structures, since they are geared to functional demands (either technological or administrative demands) but hardly care for the psychology of learning or the needs of the user. Even in the area of early childhood education there has scarcely been any

relevant educational influence on programme structures of the media or on the content offered by them - perhaps with the exception of some preschool television shows or Logo (PAPERT, S., 1980). Generally technical structures tend to dominate educational procedures instead of educational expertise influencing media structures, media programmes or the didactics of content presentation.

And third, schools follow the **socialization of children by the media**, i.e. education comes too late to be effective. According to the overall attitude in education schools do not offer 'media education' earlier than at the secondary school. However this is too late, because important media attitudes and behavioural patterns have already been established in early childhood or in the primary school years (HAVLICEK,D./et al,1980; HILL,C.,1983).

Thus, if parents, schools and societies want to **cope more successfully with the media's impact on education** - which not only influences the children's learning attitudes, but also has an impact on the children's out-of-school activities and their concepts of life (SALOMON,G.,1981,pp. 89ff) - **then it follows:**

- education has to be more aware of media developments,
- it has to participate in the develop ent of the software,
- and it has to start with media education in the early grades and it has to cooperate with the home.

On the whole educational crises are considerably determined by an overlap of technological developments, competing social demands, and educational structures.
After some of these aspects have been sketched their wider **context** will be analyzed now.

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3. REPERCUSSIONS OF CONFLICTING VALUES AND RESEARCH PARADIGMS:

The educational crises are strongly influenced by controversial value concepts and research paradigms, which find their repercussions in a missing common sense as far as educational philosophy is concerned and in the widespread feeling, that education hardly fosters the children's identity.

As far as the **value conflicts** are concerned, educational problems are almost unsolvable, for pluralistic societies are at loggerheads with any philosophy of life. It is not only that the medieval cosmic order has been secularized, personalized and negatively interpreted through the 'enlightenment', 'existentialism' and the 'negative theory' but also, that most **value patterns have been fragmented** by economic liberalism, scientific specialization and competing international value systems.

Therefore pluralistic democracies are increasingly based on **formalistic symbols** (as e.g. 'equality of opportunity') and on a **'cult of normalcy'** (as analyzed by public opinion polls) (BENNE, K.D.,1969) . But at the same time there is an increasing demand for a 'post-conventional' ethic, although schools offer little

opportunity for a corresponding education (RAVEN, J.,1984, pp. 431-443).

So, if one views the loss of the cosmic outlook in relation to today's inclination towards formal regulations or behavioral trends, then one understands:

- why education is forced to restrict itself to additively 'curricularized' dysfunctional tasks of socialization,
- and why education hardly includes a search for meaning in its aims.

In addition it was the **scientific analytical approach**, which first demystified value concepts by its reasoning, and which meanwhile tends to demystify reasoning itself (first through the sociology of knowledge and then through the theory of sciences) (JONAS,H., 1980 2; - HABERMAS,J., 1974, pp. 23-84). Moreover, science is based on convergent logical interpretations, while life and education involve divergent exposures and contradictions too. And finally - although science offers important knowledge on psychic traits and on partial education problems - it has neither come up with synthesized educational concepts (RETTER,H., 1978, pp. 135-150) nor can it produce wisdom and ethics.

Thus, although school subjects are strongly geared towards the sciences and although education is strongly influenced by them, **educators get limited help from the sciences** beyond rather functional strategies and concepts. Therefore one wonders, whether the 'Centre for Educational Research and Innovation' does not

expect too much from research, if it stresses the need for the development of a common value system in the face of todays economic and social menaces (DEPARTMENT OF EDUCATION AND SCIENCE, 1981, p. 4).

These are at least some of the reasons, why schools and educators have difficulties to explain what they intend beyond a functional training and beyond social demands of the day.

However, it has never been as **important to come to terms with the educational crises** in Europe as it is today:

- since there has been an enormous increase in the children's **psychological instability** (e.g. in the case of migrant, one-parent, or handicapped children) (NEWSOM REPORT, 1963; - LEMPP, R., 1975,pp. 180ff);
- since large **bureaucratic education** systems are inimical to learning motivation, personal relations, and educational flexibility (e.g. with their formalized curricula and with the continuous examinations, that have little prognostic relevance anaway) (VERNON, P.E., 1949 3, and 1960);
- since the educational **reform euphoria** has made the public believe (particularly in Sweden and Germany) that social problems can be solved by education (e.g. by compensatory, pre-school or comprehensive schooling);
- and since educational and social **value contradictions**, which in the 70-ies were concealed by economic expansion, educational extension and technological installations, are no

longer hidden since the freeze.

Thus the European **public is confronted today with aggregate educational problems** after it had become obvious: schooling is less effective than expected (POSTLETHWAITE, N., 1974), curriculum development did little to increase the learning motivation, and educational planning often reinforced the inflexibility of the system and did not match with the individual or social demands in terms of educational qualifications.

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II. NEED FOR CHANGE IN EDUCATIONAL STRATEGIES

In most European countries the educational **crises increased over the last decade** inspite of the financial investment in educational reforms and all the goodwill of parents, teachers and administrators.

Today more or less all European countries suffer from shortcomings of the earlier planning mentality, which quite often started from the assumption:

- that educational systems and learning procedures could be set up to produce motivation and socially adequate behaviour;
- and that social life (i.e. an integrated society or a neighbourhood could be planned according to all the different needs.

Generally the **concepts of the 70-ies were too mono-causal and**

linear to deal adequately with the social complexity and dynamism. If one considers e.g.: the tremendous mis-investment in school buildings, the large numbers of unemployed teachers, and the consequences of inadequate curricula - i.e. if one examines the large investments in the meanwhile often unused resources (DEPARTMENT OF EDUCATION AND SCIENCE, 1982, p.6) - then the educational reform period appears to be one of the most ineffective planning periods ever. Obviously a different concept of education and social planning is needed to cope with today's problems.

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1. DEMANDS FOR CHANGE IN EDUCATIONAL POLICY AND PRACTICE:

Because societies have to cope with quickly changing economic, social and media developments, linear educational planning has to be substituted by **more open-ended strategies.** In addition education has to be safeguarded against too partial demands of the day - they may be social demands or those of certain subject areas.

Accordingly new French initiatives aim at less specialization in the fifth grade (seconde indifferenciee) and at a broader orientation period at the beginning of university studies (un semstre d'orientation) in order to avoid too early channelling into particular career opportunities. And similar measures are directed against the dominance of some subjects (such as mathematics), which constricted the development of differentiated interests and competencies in the past (LE MONDE DE L'EDUCATION, 1984).

In several countries **broader and more child-orientated educational goals** are stressed to combat a fixation on specialized knowledge in limited areas.

> In Britain e.g. 'a framework for the school curriculum' draws attention to the need "to help pupils to develop lively enquiring minds, the ability to question and argue rationally and to apply themselves to tasks, and physical skills..." (DEPARTMENT OF EDUCATION AND SCIENCE, 1981,p.3).

To achieve these goals some countries favour strategies for more **subject-overlap or integrated learning activities** (either in terms of project learning as in Poland respectively 'resources-based learning' as in Britain) or by setting up 'learning principles' which are mandatory to all subject areas (as e.g. in Austria) (BUNDESMINISTERIUM FÜR UNTERRICHT UND KUNST, 1970,78,82). Such activities have particularly been stressed with regard to environmental and prevocational orientation, or with regard to home economics and media eduation. Obviously it does not appear reasonable to enforce an even larger spectrum of unrelated subjects on children.

And finally there is an overall swing in educational policy away from early childhood and university education towards **in-service training**, since socialization theories are no longer taken for granted and since university expansion does not meet social problems. Instead in-service or lifelong education appear to be more effective to cope with the social and economic dynamism.

However, all in all educational strategies are more concerned with limiting disadvantages of earlier educational reforms than with searching for a wider - perhaps ecological - educational concept. And above all, these policies are not even ready yet to come to terms with developments of the new media.

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2. DEMANDS ON EDUCATION BECAUSE OF MEDIA DEVELOPMENTS:

The rapid change in the perceivable environment and the new demands on human attitudes result to a great extent from developments in **communications technologies** (HAEFNER, K., 1982). The media - which were originally developed for mastering the outside world - are meanwhile **the third most important socialization agent** in society next to home and school. Nevertheless educational policy pays comparatively little attention to them, and the curricula still see them more as teaching aids than as agents which shape the means for communicative action, the attitudes of communication, and the consciousness of the public.

Although a large amount of input-outpur **research** exists, e.g. concerned with communication structures, with aggressive behaviour, with learning of the recipient and with changes in leisure-time habits, the socialization influence of the media is much less subject to research than the influences of home and school. Thus it is hardly surprising that education is very litlle concerned with the media as 'concurring socialization agents'.

However, **education urgently needs a different perception of the media** if it wants: to understand their impact on education, to influence the soft-ware production, and to educate children for an adequate use of the media.

Generally a complex perspective of the media's impact is needed, somehow similar to that in health education, where physical, psychological and social developments are regarded as interrelated dimensions of health (WHO definition in 1948). If this were so with regard to the media, then education would not only be concerned with the cognitive or social learning from the media (e.g. from television or computers), or with the sometimes questionable content of programs or the reinforcement of problematic attitudes (e.g. by tele-games and videos), but education would also care for the **mediation effect**, for the **digitalization of the thinking** and for the **emotional arousal** (STURM,H./et al 1972; 1982).

Until now, schools are hardly in a position to produce any relevant **media literacy** although a large number of children spend as much time with the media as in school. In case schools offer any 'media education' at all (e.g. as projects or special subjects), then this happens primarily at the secondary school level although the media's impact is strongest on young children. Furthermore the 'media education' either tends to explain or to criticize the media (MASTERMAN, 1983), but hardly helps the children to use the media in their own interest beyond entertain-

ment, to come to terms with the emotional effects, or to develop alternative life interests.

> Therefore Austria rightly demands that media education should be an integrative didactic principle throughout all subjects.

All in all, the media contribute considerably to the educational crises, but education has neither a chance of influencing them nor has it any integrated **didactic concepts** at its disposal for a complex 'media literacy' (SCHLEICHER, K.,1984,a). - Educational research is really challenged by the accelerated development of the media.

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3. DEMANDS FOR CHANGE IN RESEARCH PARADIGMS:

Generally **educational crises are closely related to research developments.** On the one hand research detects and inspects educational problems. But on the other hand it tends to increase the educational problems: since it offers more specialized knowledge than synthesized concepts; since it produces more critical evaluations than it develops practical alternatives; and since research results are all the more popularized, the more they fall in line with demands of educational policy or with the spirit of the times. On top of this, a strong dichotomy exists in Europe between hermeneutic (e.g. Piaget's) and empirical (e.g. the IEA's) studies, which not only follow different modes of reasoning and specific types of discourse but have also complementary strongholds in education.

On the whole, **European education suffers considerably from research paradigms.** Only a small minority of research programs is interdisciplinary and comparative in its approach or longitudinal and ecological in its scope.

First, a **change towards interdisciplinarity** is needed, to limit the rather one-dimensional demands on education as made by the socialization and learning theory in the 60-ies (e.g. in terms of compensatory concepts and learning materials) or by the achievement evaluations in the 70-ies (e.g. by measuring subject knowledge with little reflection about the relevance of the content or its meaningfulness to children). On the whole more reciprocal supplementation between different perspectives is needed:

- e.g. between educational and medical perspectives in view of the psychosomatic strain of schooling (LEMPP, R.,1975);
- or between educational, environmental and work research in view of the psycho-social aspects of leisure or work (LOOSE,G., 1983).

Second, more **long-term research** is needed (WALL,W.D./et al. 1970), since too many educational reforms are based on concepts which hardly cared adequately for side- or after-effects as curricula development shows quite clearly (MEYER,H.L., 1972). Here long-term research would not only help to see education as an ongoing life-long process, but it could also point to the more lasting impacts of education and on education (DOUGLAS,J.B.W., 1964; SEGLOW, J./et al. 1972). To a certain extent it could even

save children from being subjected to a continual stream of partial educational reforms.

And thirdly, cross-national **comparative analyses** are needed in Europe, since all the education systems socialize children rather subconsciously in national preconceptions and stereotypes (cf. STUDIEN ZUR INTERNATIONALEN SCHULBUCHFORSCHUNG, 1982), which hinder a European integration and an international understanding. In addition, comparative dimensions can help to prevent foreign education concepts (e.g. Sesame Street) from being transferred with little regard to the difference in the environmental conditions. Furthermore comparative evaluations of different educational concepts are needed at the national level, so that the pros and cons of different educational strategies could be weighed up, and that school systems as well as teachers could choose from alternatives according to their problems.

Finally, **more integrated and ecological research** of the kind is necessary, which coordinates different theory, variable, model, and measurement aspects (STOTT,L., 1970,2), or respectively, which cares simultaneously: for in- and out-of-school activities (KIFER,E., 1975), for formal, non-formal, and informal learning procedures (DAVE,R.H.,1973), and for ecological conditions of learning and development (e.g. the importance of school climate, teaching styles, learning groups, or self-learning strategies) (RUTTER,M./et al., 1980 2 pp.24f,49,175f,179).

On the whole, too much unrelatable research exists in Europe

today, because there has been too little coordination in research planning and financing in view of more synthesized concepts of education. Probably the amplitudes of the educational crises will increase until research (and educational policy) come to terms with the problems sketched out above.

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Today Europe is confronted with aggregate educational problems that were partly concealed until the late 70-ies. Therefore **great efforts are necessary:** to change research paradigms, to come to terms with media development, and to conceptualize a more holistic as well as learner-orientated educational policy. These efforts have to be greater than in the early 70-ies:

- since **parents and teachers** are hardly ready to accept another period of large-scale educational reform;
- since **research** cannot offer simple solutions as in the past but has to come up with more complex and integrated concepts for education;
- since the **media** have an increasing impact on education and will offer educational alternatives;
- and finally, since **educational policy** cannot rely to the same extent on centralized planning and uniform strategies, because there are strong demands for regional as well as cultural diversifications and for increased participation and self-directed learning.

But educational **crises are extremely difficult to cope with**

because considerable resistance exists towards another period of educational unrest and particularly towards purely functional and fragmented reforms. Furthermore European integration demands an increasing mutual adaptation of educational systems, but neither the states nor the public are ready to give up their educational traditions. The consequence seems to be: either a **new educational 'common sense'** will be developed or the nations will stagger from one educational crisis into the next.

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III. STARTING POINTS FOR A VALUE-ORIENTATED EDUCATION

In spite of a variety of conceptual, didactic and organizational alterations which have been made on the existing systems over the last years, little progress has been achieved in **developing an integrated concept** of education.

Perhaps **education could learn from the natural sciences** (e.g. physics and biology), where two complementary trends of development might be observed. On the one hand there is a tendency to analyse the 'composite' in its part structures - particularly so at the micro level.

This development led from mechanics to atom physics, respectively from plant anatomy to molecular biology.

The countermovement on the other hand is concerned with fundamental principles of the 'composite', i.e. with the formative dynamism that created the world at large and the structures of elementary particles too.

Such concepts are concerned e.g. with the quantum ladder or biological ecology.

Both these frontiers of science are closely interrelated and the most creative insights result where they are interrelated (cf. HEISENBERG, W., 1968; - BORN, M., 1969; - WEINBERG, A.M., 1984).

If one now compares those complementary developments in the natural sciences with the situation **in education**, then a certain lopsidedness in education is obvious. The forefront of theoretical discussions and practical experiences have been greatly extended as far as correlations of certain variables (e.g.learning components and teaching methods) are concerned. But, these insights can be used for almost contradictory purposes (e.g. for indoctrination as well as self directed learning) because **fundamental insights** - which guide an adequate use of the educational strategies - are **missing at the macro- or ecological level.** It is this missing macro-frame of reference which is really at the heart of today's educational crises.

Until now European education has proved rather incapable of coming to terms with interrelated dimensions at the macro-level as the following aspects show:

The human being is anthropologically open to different developments but it has no instinctive sense to select an adequate 'biotope' for life and education (TINBERGEN,N., 1972,5,p.107),

= therefore education **depends on value orientations.**

And social systems are all the more threatened, the less they support the psycho-physical stability of children (e.g. SCHAEFER,H., 1977),

= therefore it is of prime importance that education fosters an **integrated personality.**

And finally, man never had to assume as much responsibility for the future of his species and environment as today (LORENZ,K., 1974,7),

= therefore education needs an ecological perspective and has to be orientated towards a **global human identity.**

Thus education not only depends on - but also has to work for - a complementary development of an individual as well as a global identity (HABERMAS,J., 1974): since it is only the individual who can realize responsibility, and it is the global identity which increasingly turns to be a conditio sine qua non for human survival (JONAS, H., 1982,2).

How these **fundamental conditions of education and for education** may be used as **starting points** for coping with the educational crises will be sketched out in conclusion.

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1. STARTING FROM AN 'ETHIC FOR SURVIVAL':

Today **'nature'** is regarded in any European economy as the fourth decisive factor for production next to labour, capital and land (MEADOWS, D.H./et al., 1972). In a similar way educational policy

should pay more attention to the psycho-physical nature of the learner - beyond the traditional components such as the learning environment (i.a. schools), the learning process (i.a. didactics), and learning results (i.e. certificates or achievement results. Such a widened perspective is unavoidable, since more and more children are faced with psycho-social impairments, since a large amount of developmental energy is used up before children leave school (ROGERS, C.R., 1969) and since an increasing number of adolescents tend to be 'drop-outs' or unemployed.

Thus **education needs an ecological perspective**, a perspective which is not only concerned with crises of the 'outer world' (e.g. with pollution) but also with the crises of the **'inner world'** (e.g. with psychic disturbances). And if we are conscious that man has brought these impairments upon his environment and upon himself through a short-sighted and partial functionalism, (WEIZSÄCKER,C.FR.v., 1972 4) then there is a chance of **developing an 'ethic of survival'** (ROHRMOSER,G.,1974,2,pp.47), which may be used as a basis for handling the educational crises more adequately.

Such an ethic is needed, since the ecological and value crises can hardly be mastered by traditional educational means or scientific methods, which have been amongst the causes and sources for the existing malformations. So, neither established school subjects nor the scientific reasoning can be put up as the only - or even most important - standards for the children's education and life.

Instead **education has to start more distinctly from a concept:**

= which reintegrates man into the unity of **nature** and works for a global human identity,

= which sees all life stages in their own right and regards **children as human beings** from the very beginning (and not only as human beings in the making),

= which stimulates the individual's **search for his own meaning**, since in future he has to cope with more alienating forces and with more leisure time than ever before,

= which regards human self-realization as an **integrated experience** of body, spirit and mind,

= and which demarcates the **'tolerance limits'** of environmental and socialization strain that can only be transgressed at high human and social cost.

In view of this concept **any education will somehow fail:** if it falls too much in line with >social and economic demands<, if it neglects the hidden curricula of the >media<, or if it simply reacts to >psychological lability<, to missing motivation and to insufficient self-realizations either with punishment and pedagogical over-stimulation or with functional training and curricularized learning steps.

Altogether **a human-ecological dimension can be perceived as a**

possibility to regain an overall framework for human self-interpretation at the macro level. It can help to develop a 'post-conventional' dimension of >ethics for survival<, which gives guidance beyond the repairing of the existing systems.

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2. STIMULATING SELF-DIRECTED LEARNING AND A SEARCH FOR A MEANINGFUL LIFE:

If human ecology is to be an important basis for education and educational reform, then the orientation towards a >global human identity< has to be supplemented by learning experiences, which favour the development of >personal identity< (MASLOW,A.H., 1959). Such a personal identity is indispensible, because a post-conventional ethic cannot be enforced upon someone but it has to be approved by a person (KOHLBERG,L./et al.,1978).

In addition such **self-directed learning and the search for a meaningful life** are urgently needed:

= because the social changes and leisure extensions demand **continuous re-orientations** and increased self-assurance,

= because the 'information society' will offer **new learning opportunities** as well as alienating dangers,

= because the **younger generation** has to learn more simultaneously with the older generation and less from it (MEAD,M., 1974),

= and because **learning is more effective** and transferable if

it is closely linked with personal interests and dispositions (RUTTER, M./et al.,1980 2 pp. 14f,130ff).

So, if education wants to increase the development of enquiring minds, self-responsibility and a search for a meaningful life - respectively if it wants to decrease deprivational effects of the educational institutions - then:

= **education** has to be more learner and process than subject or institution orientated (e.g. using a communication oriented instead of a learning-based didactic);

= then the **learner** needs more opportunities to link his life experiences, needs and interests with learning (e.g. in terms of project or community related work);

= then **teachers** have to fulfil a tutoring and guidance function beyond instruction (to make selfdirected-learning possible on a more informal basis);

= and then more flexible as well as smaller **school structures** are needed (e.g. structures which are less tied down by state control and formal examinations).

Although all such aspects have been well discussed in Europe since the 20-ies and although they are partly realized in today's schools, they have not yet been really integrated in a theoretical and practical education concept, which is geared to self-directed learning, global identity, and human ecology.

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SUMMARY

Although educational crises have been a normal phenomenon in European history of education, **they are reaching a different quality** and dimension today:

- because education is often more related to administrative, economic, and political demands than to the needs of children;
- because the traditional value systems are disputed in the face of global communication and the development towards multicultural societies;
- and because the change of the environment, of the society, and of the scientific knowledge have reached a dynamism which exceeds the human capacity needed to cope with them.

But, beyond these developments, which challenge education almost everywhere in the world, particular aspects of the educational **crises** have become apparent **in industrialized countries.** Among other things they stem:

- from the concurring socialization effects of home, school and the 'new media';
- from the limited flexibility of the bureaucratized and rather state controlled school systems;
- and from the lopsidedness of educational research, which extended its insight in some components of teaching and learning but could not put forward a fundamental frame for interrelating the different research results.

Although all those challenges exist in Europe as in other industrialized countries, the **European conditions for the management of the problems** are somehow different from those of other countries. Until the mid-70ies relatively little attention had been paid in Europe to the dichotomy between the accelerated social, economic and media developments on the one hand and the limited increase in the individuals' capacity on the other, to cope with the environmental developments and themselves under changing circumstances.

Meanwhile the aggregated **problems are increasingly reflected from humanistic traditions and/or ecological perspectives.** To the extent these problems were realized, frustration with the earlier reforms in education emerged. Generally it has become obvious that education requires a more holistic, integrated and life-relevant concept than approved in the 70-ies. Therefore cautious demands are made ever since:

- for a **broader**, more learner-orientated and life-relevant **education** which interrelates in- and out-of-school experiences;
- for a **'media literacy'** that starts parallel to the childrens' use of the media and leads to a critical as well as competent use of them;
- and for **more synthesizing research paradigms at the macro level** which are more ecological in their scope and favour at the same time a personal, social, and human identity.

However, there is little opportunity to cope with those fundamental demands in education, unless Western societies orientate education simultaneously towards a human **'ethic for survival'** and towards **'self-directed learning'**.

Until now the **'human ecological approach'** may be considered as the most promising dimension for such a holistic concept, because it enables us:

= to employ the potential of the humanistic tradition in todays context;

= to transcend the widespread national parochialism in education;

= and above all, to come to terms with the fundamental value crises in education.

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All in all, > **AN ECOLOGICAL INSTEAD OF A PURELY FUNCTIONAL DIMENSION IS NEEDED** < in education, to avoid Copernicus' criticism of his contemporary astronomers, which otherwise may apply as well to educational research and reform. Copernicus critized the eclectic interpretations of his period in the following way:

> Those who have devised the eccentric systems, though they might have calculated some constellations according to their assumptions, have not been "able thereby to discern or deduce the principle thing - namely the shape of the universe and the unchangeable symmetry of its parts.

With them it is as though an artist were to gather the hands, feet, head and other members for his images from diverse models, each part excellently drawn, but not related to a single body, and since they in no way match each other, **the result would be a monster rather than man**" (COPERNICUS,N., 1959).

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