EDUCATIONAL SCIENCES OR EDUCATIONAL SCIENCE?
Some Considerations on a Basic Issue

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1. Introductory remarks: Legitimating the subject

In the retrospect we can notice a continuous discussion about the position Comparative Education holds within the structure given by the dichotomy of humanities and social sciences. All the promoters of our discipline have — more or less systematically — reflected upon this issue whereby nature, scope and extent of its relation to the other branches (or disciplines) dealing with "education" have played a predominant role.

These are the essential questions: Is Comparative Education to be considered as a subdiscipline of an Educational Science which is conceived as an independent academic discipline within the framework of humanities or, according to the today's prevalent interpretation, of social sciences? This is one of the views being taken. It is contrasted by the definition that Comparative Education is an independent discipline characterised by an interdisciplinary structure itself. It is not surprising that this controversy which has been going on for years, points to a further question: How should we define and classify structure and coherence of the discipline (or: disciplines) which is (or: are) focussed on "education", this term being presented here in its widest meaning? Asking this question, we find ourselves involved in the tricky debate concerning not only Comparative Education, but the whole of Education in its meaning as an academic discipline.

At this point I should like to insert the remark that the usage of the term "education" causes difficulties, when being translated into other languages, e.g. French or German, as, among others, M.L. LANGEVELD argued more than twenty years ago (LANGEVELD, p. 51). I hope I may evade this semantic problem by using the terms "Education" for educational reality and "Educational Science" ("Educational Sciences") for the theoretical discipline examining this section of reality (cf. NORDENBO, p. 440).
Singular versus plural — this is the crucial issue I want to focus my attention on. It confronts us with what H. VON HENTING has called the "danger" of indulging oneself "in a highly diffuse and intricate quarrel between the schools dealing with science theory". I do not want to suppress the conclusion he draws from his own statement: "One has to be a paramount artist, if one wishes to present the arguments in an understandable and just way and not to bore the audience — an (also) rather a fanatic to be interested" in this debate oneself (V. HENTING, p. 498). VON HENTING's repugnance against this kind of highly sophisticated arguing on the abstract level deserves to be respected the more so as it is motivated by a strong commitment to an educational science which is dedicated to the improvement of the educational practice.

It is this practice-orientation I had in my mind when I made the proposal to include the theme of my presentation into the programme of this Congress. Let me, therefore, put forward three reasons which, I hope, may be accepted as a legitimation of my choice.

a) The controversy "Educational Science versus Educational Sciences" has a pragmatic aspect in so far, as the organisation and nomenclature of research and teaching at universities and other higher educational institutions reveal a diversified picture — within both the international spectrum and national frameworks.

b) Discussing this controversy may guide us to a better understanding of how it is tackled in various national or language-bound societies, with regard to terminology, definition, argumentation and problem-solving. It seems to me that this is a genuine task for comparing educationists and a means to reduce misunderstanding and — what perhaps is even more obstructive to the progress of our discipline — apparent understanding. The problematique raised by the ambiguity of the English term "Education" may serve as one, though significant, example in this context, since it covers not only theory and practice which I have already mentioned, but also facts and processes which have to be defined by specific terms in other languages, such as French and German: éducation — enseignement resp. Erziehung — Bildung. (It proves the complexity of this problematique that the French and German classifications are not identical either.)

c) Finally, by considering this controversy we are directly pushed to the fundamental theoretical problem which may be formulated like this: Does the concept "Education" (standing as a name for certain facts and processes to be described later) offer a solid base to build an academic discipline upon?
2. Descent of Educational Science(s)

Looking for a plausible answer I think a retrospect into the history of “Educational Science(s)” may be helpful, because it turns our minds to its academic descent.

a) Up to the end of the 19th century “Pedagogics”, the historic ancestor and, as we may add, contemporary rival of Educational Science(s), were totally embedded in Philosophy, whereby their dependence on ethics has played the essential role. This alignment explains to a good deal the normative core of Pedagogics and points, at the same time, to the theological component and heritage of European philosophy which I do not want to deal with here. In the 19th century the philosophic approach was completed by a historical one. The linkage of Philosophy and History, though far from being harmonious or fully accepted, has laid the ground for that branch of Pedagogics, which, to give an example, in Germany constructed the “Geisteswissenschaftliche Pädagogik” (i.e. the philosophy- and history-bound Pedagogics, institutionalised in the faculties of humanities/philosophy). The historical and hermeneutic methods provided this approach with an adequate methodology. In T. HUSEN’s constructive and stimulating article, published in the “Jubilee Number” on the occasion of the 25th anniversary of the International Review of Education, we are reminded of the fact that Philosophy and History have been the background of many educationalists (HUSEN, p. 328) — I should add: up to the present time.

b) While in Western Germany the “realistic turn in pedagogic research” (ROTH, pp. 109-119) signalled the entry of empiric-analytical methods into the re-named “Erziehungswissenschaft” (Educational Science), this discipline had been under the “undisputable sway” of Psychology (BOWEN, p. 316) in the Anglo-Saxon countries for a few decades already. Contrary to Germany again, in those countries Psychology as an academic discipline had separated or “liberated” itself from its philosophic roots long before.

c) Competing with Philosophy and Psychology in their role as “mother discipline”, Sociology has gained increasing influence on the theory building and empirical research in the area of education. To describe this stream, the development in American and British social sciences has to be studied again, but in a comparative consideration it is as important to pay explicit attention to the impact of sociologists like E. DURKHEIM and A. FISCHER. In the recent history of social sciences sociology seemed to occupy the whole area of education and to include in its own research area, referring among other arguments, to the thesis that “education” has to be subsumed in the superior concept of “socialisation” Comparative
Education has been strongly taken into this controversial debate. Together with Sociology other social sciences, such as Political Science and Economics, have got access to the area of education as well; their contribution, however, has been more of an enriching and complementary kind than of a dominating one.

d) In this historical retrospect one must not forget the fourth root which is marked by the academic disciplines the subjects taught at academic secondary schools have been derived from. Although teachers of those schools have been trained in the faculties of arts/humanities and sciences for centuries it has taken a gradual, lasting and conflicting process until the conviction has gained ground that transferring the contents of academic disciplines from university to school needs being subject to methodical and didactic considerations. The impact of this process on modern Educational Science(s) has been materialised in didactic and curriculum theory.

3. Educational Science as the discipline comprising fundamental education

After this historical outline it is time to consider the central question itself: "Educational Science or Educational Sciences?". To start the inquiry, let us catch a glimpse of how research and teaching in this area are academically organised. This pragmatic aspect is, of course, interrelated with fundamental theoretical reflections upon determining scope and content of subdisciplines resp. branches and drawing borderlines as well as with training and qualification requirements which can often be traced back to conventional regulations and individual particularities. Looking at "chairs" or "departments" one can, therefore, notice how much the philosophic, psychological or sociological orientation of Educational Science(s) is (are) dependent on the appointment of a renowned scholar and the "school" he has founded.

Having this oscillating picture in mind, we should not be surprised at finding multifarious combinations. There seems to be, however, a trend towards diversification, in that previous "Chairs of Education" (of "Pedagogics") have developed into "Schools of Education", "Departments of Education" or "Fachbereiche Erziehungswissenschaften", whereby, more or less under the impact of external (political, financial, training-bound) influence, the "singular" has been replaced by the "plural". The expansion of Colleges of Education in Lower Saxony (Western Germany) in the sixties— to give an example from my own teaching background — was primarily characterised by the fact that the "Professor of Pedagogics", who, though in rather a fragmentary way, had included areas of educational psychology and sociology of education in his lecturing up to then, was confronted with the
appointment of colleagues who, as trained specialists, occupied these areas and, thereby, laid the base for their "promotion" within academic community of the respective institution.

Summing up this observation: The present academic map shows, in most European countries, the predominance of the "plural". This expansion could be given approval, unless it implied the neglect or even disappearance of the "focal point", namely "education". Looking for an explanation of this tendency, one is reminded of the sociologising vogue I have mentioned before, on the one hand. On the other hand one can notice the manifestation of an over-specialisation at the cost of the leading concept and, thereby, of the sense of this kind of research which H. VON HENTIG exactly had in his mind when formulating his critical comment.

It is not the expansion of Educational Science (or Pedagogics) into Educational Sciences which requires primary attention, but the maintenance or re-establishment of an Educational Science as the focus of the new community of educational disciplines. The core content of this focal discipline is to be defined by the concept "Fundamental Education". I will try to explain without delay. Before I want to express the thesis that the alternative question posed by the title of this presentation ought to be replaced by the complementary question concerning the interrelationship between educational sciences and educational science.

There is a topical interest in handling the "plural versus singular" issue. T. HUSEN, in his "vulgar" article (mentioned above) "would submit that there is not such a thing as a clear-cut, distinct and defined discipline of education ... in the same sense as we talk about physics or history" (HUSEN, p. 332). His doubt has been raised by the dense interrelation between education and other disciplines. On the other hand "for the sake of convenience" (HUSEN defines education "operationally as a discipline, as sets of theories and methods that educational researchers employ in studying educational problems" (HUSEN, p. 333).

A second representative example is offered by the definitions M. DEBESSE and G. MIALARET have formulated in their foreword to the introductory volume of their Traité des sciences pédagogiques. They make a fundamental distinction between "Sciences de l'éducation" comprising psychology, sociology, ethnology and biology, as far as these disciplines deal with educational matters, and "Sciences pédagogiques" which are focused on the "educator's work and on the means and adequate methods to assure this education" (Traité, p. 7). Continuing their considerations they allocate History of Education and Comparative Education as well as educational planning (plannification) to the "Sciences pédagogiques".

The third — and, in this context, last — example is offered by H. PASCHEN'S recent book Logik der Erziehungswissenschaft. It is based on a very sophisti-
icated system of interrelating and allocating structures and paradigms which
results in a grouping round the super-categories of "Allgemeine Erziehungswissenschaft" (Science of General Education) and "spezielle Erziehungswissenschaft(en)" (special educational science(s)) (PASCHEN, 1981, p. 33).

Without identifying my conception with any of those offered in the ex-
amples just given, I think them to be particularly stimulating because they testi-
fy to the topical interest I have been pointing to.

Let us now turn to considering the functions which are to be allocated to
"Educational Science" — as the focal point of the whole group of " Educa-
tional Sciences". Proposing the following attempt to circumscribe this area
of functions I do not intend at all to offer a new system. I feel rather motiva-
ted by the wish to identify the "state of the art" by summarising essential
issues and arguments to be noticed and studied in the contemporary litera-
ture.

3.1. Core Function

The first function points to the core of Educational Science in the very mean-
ing of the academic disciplines dealing with "Fundamental Education". It
is to be divided into three subfunctions, namely

a) inquiring into content and scope of the fundamental concepts constituting
the discipline (i.e. the area of educational theory);

b) reasoning about the coherence of the educational processes which, ac-
cording to the German terminology, is the primary task of "systematische
Erziehungswissenschaft" (systematic analysis of education);

c) constructing, applying and testing methods of educational research (i.e.
methodology of educational research).

Inquiring into content and scope of concepts immediately points to the de-
inition of what "education" really is. At this point the language-bound diver-
sification comes into the scene which I am only exemplifying here.

L. CREMIN has, in 1978, defined "education" as "the deliberate, systematic,
and sustained effort to transmit, awake, or acquire knowledge, attitudes,
values, skills, and sensibilities, and any learning that results from the effort,
direct and indirect, intended or unintended" (CREMIN, pp. 683-704; cited
from HUSEN, p. 335).

R. HUBERT, to choose a French authority, restricts his definition to the
"action exercised by one human being on another" (action exercée par un
être sur un autre) (R. HUBERT, Traité de pédagogie générale, 6th ed. 1965,
p. 5). His definition is not only quoted as a representative one in the Traité
des Sciences pédagogiques (p. 25), but also appears in treatises written by
German educationists, such as W. BREZINKA (BREZINKA, pp. 128-133).
Without indulging into details I want to underline the action-based and social reference of HUBERT's definition which is completed by the process-oriented character of "education", in that he conceives its aim "to a lesser degree in the possession of certain positive benefits than in the acquisition of certain general dispositions which facilitate the acquisition of these benefits" (HUBERT, ibid.). This process-oriented item points the way for understanding the interactive quality of "education" which has been increasingly emphasised in recent definitions. In this context M. DEBESSE even speaks of "intereducation" (interéducation) which "transforms the educator, at the same time, into the educated person" (Traité, p. 11).

To sum up this tentative concept analysis I want to include two further qualities which are associated with "education":

a) the "deliberate, systematic and sustained effort", to return to L. CREMIN's definition which appears in many treatises, though it is not uncontested at all;

b) the extension from a process limited to childhood and adolescence to the whole life in the sense of lifelong learning and lifelong education.

As for the reasoning about the coherence of the educational process I am sympathising with H. PASCHEN'S argumentation saying that Educational Science cannot be systematically described or represented. He goes on suggesting to conceive it as a "problem-oriented science" and to construct it on the principle of a "combinative systemic structure" (PASCHEN 1981, p. 29) consisting of paradigms (i.e. normative instructions how to regulate and systematise educational practice), arguments, problems and foci and being institutionalised in certain educational subdisciplines. In such a combinative structure the interrelation between the fundamental concept of "education" with its complements, such as "learning", "instruction" and "upbringing", to think of the English terminology, plays a significant role.

Concerning the methodological subfunction I should like to remind you of what I have outlined about the history of Educational Science(s) with special regard to the competition between the historical and hermeneutic methods on one hand and the empirico-analytical on the other. While the dominating position of the empirico-analytical research procedures culminated in the sixties, the seventies have been increasingly characterised by a certain renaissance of hermeneutic and also phenomenological approaches, the latter also being distinguished by a long tradition (cf. BOWEN, p. 319; HUSEN, p. 333). The recent development seems to indicate endeavours to overcome one-sided applications and to conceive research projects to be built upon various approaches. "Action research" can be called as a striking example of this recent trend. As this methodological issue is directly linked with the overall debate about the position of Educational Science in the light of science theory, I will come back to it later.
3.2. Integrating function

The second function of Educational Science is determined by integrating the special educational disciplines. Thereby the integrative task has to be seen in a double direction, namely to relate these individual disciplines (or subdisciplines) to each other and to tie them to the core issues we have dealt with just now.

Without claiming any perfection with the following enumeration it seems to me the interrelationship can be allocated to five levels:

a) The first level comprises the subdisciplines which are derived from the “neighbours” — or, historically speaking, “competitors of Educational Science. At this point we are reminded of the concept “Sciences de l’éducation” set by M. DEBESSE and G. MIALARET against “Sciences pédagogiques” as the subject to be analysed in the series of their treatise. Beside the educational components of Psychology, Sociology, Ethnology and Biology one has to pay further attention to Economics (which the French educationists are likely to have included in “planification” as part of Sciences pédagogiques (Traité, p. 7) and Political Science whose importance counterpart has to be underlined; it can hardly be underestimated both for the theory and practice of education in a period which is marked by a global trend towards an increasing influence exercised by state agencies.

The list, of course, is not yet complete. I am thinking, among other disciplines, of medicine and also of architecture when realising the damage education has to suffer from the fact that many school buildings have been built in total neglect of educational requirements.

b) On the second level we find the special didactic and curricular areas which deal with transferring the contents of academic disciplines to school subjects. If these areas are not interrelated and focussed on a central discipline, such as General Didactics or Curriculum Theory, they are in the permanent danger of drifting along separately at the cost of conceptual clarity and practical coherence with regard to the school curriculum.

c) The third level, being in a particularly tight linkage with the second, indicates the interrelationship between the individual parts of the educational system (understood in its wide meaning and, therefore, comprising formal, non-formal and informal education). This level is the place of the individual subdisciplines dealing with pre-school education, school education (diversified according to the components and stages to be found in the respective countries, e.g. primary, secondary, further education), vocational education, leisure education etc.

d) The fourth level is reserved for the History of Education and Comparative Education. I am skipping it here in order to come back to it in a separate consideration (vd. 4.).
e) The last level is the domain of Educational Philosophy, whereby my attention is less attracted by that branch being preoccupied with "logical analysis of terms, concepts and slogans" (BOWEN, p. 317) which ought to be rather subsumed in the first and second level, than by the value-centred philosophy rooted in anthropological and ethical foundations. In this meaning Educational Philosophy transcends and, at the same time, percolates its counterparts my inquiry has been devoted to up to now.

3.3. Communicating function

There is a direct road from trying to outline the position of Educational Philosophy within the framework of Educational Sciences to explaining the third function of Educational Science. I am calling this function a communicating one, because I think it to be determined by active communicating the controversial positions occupied in science theory to educational theory and its implications with all the functions and levels of Educational Science.

The controversial positions of the past decades have become manifest in form of methodological debates ("Methodenstreit") which, however, signalled divergent views in the domain of science theory and lastly reflected various standpoints of philosophical and ideological nature. Thus in the Western countries the challenge to the positivistic and deterministic view of how to conceive and practice educational research was highly excited by Neo-Marxist thinking, as proposed, among others, by the promoters of "Critical Theory", i.e. the Frankfurt School of social sciences which has exerted considerable influence on the discussions about educational theory (and practice) in Western Germany and other countries.

We should misinterpret the relations between philosophy/Ideology and science theory as a one-road movement from the first to the second. They seem, instead, to include stimulating forces in science theory too, which, again, are caused by discoveries in scientific research. In this context educationists and — generally speaking — social scientists ought to take a great interest in the "paradigm revolution" which has taken place in the natural sciences of the post-relativity period (HOLMES, pp. 41-49; LASSAHN, pp. 65-77). The recent trend towards what T. HUSEN calls "methodological catholicism" (HUSEN, p. 333) does certainly not justify the assumption of a convenergy or even "reconciliation" of opposed theoretical positions. It is, however, likely to further the clarification of standpoints and the initiation of combined methodic approaches in concrete research projects, provided that the discussion takes place in an open climate and avoids stopping argumentations by simplistic reference to the conception of "pluralism" (cf. TENORTH, p. 102).
4. The particular contribution of the historical and comparative approach to education

It is not astonishing that M. DEBESSE and G. MIALARET allocate History of Education and Comparative Education to the "Sciences pédagogiques" which, as already suggested, show considerable accordance with the conception of "Educational Science" I have tried to explicate in the preceding part. The two educational disciplines investigate the fundamental themes posed by Educational Science in view of their historical resp. geographical range. Realising this task they contribute to the clarification of fundamental conceptual and relational problems.

Moreover they deal with themes too, which are the primary domain of all the disciplines (or subdisciplines) I mentioned before when trying to define the functions and subfunctions of Educational Science. Therefore their attention may be directed to issues of curriculum development, school structure and leisure education with the same legitimisation as to testing procedures and social stratification in various periods and in various national or cultural units. Summing up this consideration I should say that History of Education and Comparative Education reflect the problematique "singular versus plural" I have spoken of at the beginning of this discourse (cf. ROEHRS, p. 88).

Finally, science theory and value-oriented philosophy can derive great benefit from both disciplines in so far, as studying how theories and value systems have been built in the past and in cultural, religious and moral environment, different from our own, widens the base for reasoning about overall educational aims and norms. In this context the construction of "ideal-typical normative models", as recently presented by B. HOLMES in such a convincing manner (HOLMES, pp. 111-175), deserves particular interest. It is not only the exemplary selection of three models (PLATO, DEWEY, Soviet education) which explains this appraisal, but also HOLMES' successfully integrating the historical and comparative approach to standards of judging educational patterns with regard to their dependence on changing socio-cultural determinants.

5. Concluding remarks: Educational reality as the essential legitimisation factor

Concluding my presentation I should like to return to the end of my introductory remarks where I asked the question of whether the concept "Education" offers a solid base to build an academic discipline upon. The argument that this question is far from being purely academic (in the sense of a
game with glass pearls) already came up for consideration when I pointed to recent attempts, mainly initiated by sociologists, to deny the legitimacy to Educational Science. The counter-position I have in mind now has a wider range, since it affects the existence and desirability of education as the "deliberate effort", to refer to L. CREMIN once more (CREMIN, ibid.)

This is not the opportunity to inquire into the "anti-educational" vogue which has become manifest in a good number of pamphlets and also sophisticated writings. In such an inquiry the descent of "anti-educational" thinking, with its liberal, socialist and anarchic main streams, ought to be paid the same attention as the degree of this radical position (LEHMANN/OELKERS, pp. 105-125). I. ILLICH, to quote the most prominent example, has gradually moved from "deschooling" to "non-education" (I remember his lecture given at the last Congress of the German Society for Educational Science, held at Göttingen in March 1980).

Let me generalise my comment, whereby I ask your permission to leave the analyst's position in order to propose a few personal views concerning "education". The "anti-educationists" deserve respect in that they put their fingers on serious deficiencies and destructive patterns or activities in the area of education. They cannot, however, refute those who go on regarding education from a substantially positive point of view. I should like to outline this positive view in these three theses.

Firstly, education is one of the fundamental actions man needs for his survival as a human being (cf. Röhrs, p. 85). The modern conceptions emphasising the interactive character of education have laid the ground for a democratic understanding of the educational process and for its extension to a lifelong sequence of actions. There is no doubt about the increase of complexity resulting from this modified interpretation. I am thinking, above all, of making distinctions between child, youth- and adult education with regard to the peculiarities characterising the relationship between the counterparts. This is why the modern conceptions have necessitated new considerations and new inquiries, but they have not refuted the thesis itself.

Secondly, even the "anti-educationist" must realise the fact that education is practised and made the subject of considerations, definitions and theories. Unless he withdraws to the glass-pearl game or turns to anarchic action he must cope with educational reality, irrespective of what he aims at. Here we get aware of the dilemma inherent in the "anti-educational" vogue which actually tends to disclose itself as a protest against existing educational theories and patterns. It is the antithetic character of "anti-educationalism", however, which has exerted a highly stimulating impact on educational thinking in so far, as it underlines the fact that, to quote K. MOLLENHAUER, the educationist "is a component part of the socio-cultural system within which 'education' is being defined in one or another way". The conclusion he draws from this argument is worth quoting too: "formulae, such as
'education as display of individuality', 'education as societal reproduction', 'education as symbolically imparted interaction', 'education as change of behaviour', do not only express the particular historical place of the educationist applying these formulae, and the abstractions he forms, but also accentuate the subject-matter of this science' (MOLLENHAUER, p. 201).

Thirdly, while the two preceding theses comprise the factual range of education, the third and last one is related to what education is to aim at. Hereby I am articulating the domain of aims, perspectives and postulates which links anthropological foundations, science-based predictions and philosophical doctrines, as recently exemplified by the educational report of the Club of Rome (cf. BOTKIN/ELMANDJRA/MALITZA).

It is these three theses which, I think, may serve as a sufficient justification of the necessity for Educational Science as the focal educational disciplines dealing with fundamental issues, as I have tried to identify. There are, however, two provisos concerning the educationist's work which I do not want to conceal either. You may conclude from them a warning against any form of striving for perfectibility. With regard to educational practice it should make educationists beware of overorganising educational processes and neglecting the principles of liberty and diversity (cf. TREML, p. 143). With regard to educational theory educationists should contribute to optimally exploring their own possibilities, but also respect the limit these possibilities are set by man's intellectual and moral capacity. In this context. H. VON HENTIG's warning deserves to be quoted as the final statement of this presentation: "Science, having worked for centuries on displaying its effects and reinforcing its validity in an unchallenged way, could, from now on, begin to think of what it has to do in order to withdraw its own growth and to correct its false effects" (V. HENTIG, p. 514).

REFERENCES


