

PARADIGMS LOST. EROSION OF PARADIGMS AND SENSE OF CRISIS IN THE CONTEMPORARY SCIENCE OF EDUCATION. THE CASE OF THE FEDERAL REPUBLIC OF GERMANY

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1. Preliminary Remarks

I would like to start my article with the following hypothesis: Educational science has changed within the last fifteen years in a remarkable way. Prior to that time the leading paradigms were relatively clearly defined. Nowadays these theories have lost most of their value or have been replaced by a number of theories with more smallgrained validity claims in scope and magnitude. I am calling this development «Erosion of Paradigms». In trying to explain the underlying mechanisms I am drawing from three main sources which document the development and the respective crises:

- Epistemologically motivated devaluations of the possibility of the progress of science in general,
- the intraparadigmatic usage of central pedagogical examples, and
- postmodern attempts to destroy the dignity of scientific knowledge.

In a certain way this discussion can be viewed as another chapter of the «Dialectics of Enlightenment». However, there are signs that one does not have to give up in light of this crisis, as crisis always has two meanings: Danger on the one hand, and opportunity on the other. As an example for the latter there is the program of «critical-constructive-educational science» which I will talk about in more detail at the end of my article.

2. *Statement of the Problem*

The pedagogical world seemed to be still in perfect order when Wolfgang Klafki presented his publication «Erziehungswissenschaft als kritisch-konstruktive Theorie» in 1971. The scientific positions presented as 1) «geisteswissenschaftliche Pädagogik», 2) empirical and 3) critical educational science quite adequately covered the spectrum of theories in our field (Klafki, 1971, pp. 351-384). Following Klafki's ideas, the «geisteswissenschaftliche Pädagogik» succeeded in regaining dominance as university-pedagogy after 1945 and in maintaining that dominance until the late fifties. This position was challenged especially by Heinrich Roth (1962). Roth's «realistic turn» (Realistische Wendung), tried to dismiss the seemingly unscientific and worn out paradigm of the «geisteswissenschaftliche Pädagogik» and to give room to predominantly Anglo-American approaches of an empirical and methodological nature.

The so-called «Realistische Wendung» was very soon succeeded by «the critical educational science» «deliberately opposing "geisteswissenschaftliche Pädagogik" as well as empirical educational science» (Wulf, 1977, p. 137). This trend was supported by former protagonists of «geisteswissenschaftliche Pädagogik» and their students. They proposed on the basis of the so-called «emancipatory interest of knowledge» (Habermas) that the social environment and the inherent social and economic restrictions attached to it, should lead to much stronger educational-scientific reflection.

This assessment formulated by Klafki, was not a singular judgment at all. Comparisons with some major proposals concerning the theoretical foundation and general theories of educational science (Benner 1973 [1] 1978, Dickopp 1983, König 1975, Lassahn 1974/1988, Wulf 1977 and Zenke 1972) do confirm this outlook as well as the fact that Klafki could publish his unchanged text 5 years later again with the exception of literary references (cf. Klafki 1976, p. 13 ff.)

Now, following the arguments proposed by Thomas S. Kuhn, namely that textbooks used in formal training of students do constitute the tradition of scientific knowledge [2], it becomes obvious that a well organized «theoretical cosmos» is of utmost value. However, today, only 10 to 15 years later, it seems that this allegedly stable and by the majority accepted theoretical constellation is in disarray or maybe doomed to failure altogether. I shall call this development—which I am going to comment on in more detail later—a «Paradigm Erosion»: The three main foundations of theory construction in educational science have more or less evaporated and in turn given room to quite a number of approaches of a more or less smaller scale.

First of all, I shall explain what I understand as the concept of «Paradigm Erosion» in a discipline that —according to Kuhn— can only be in a preparadigmatic situation. I have to emphasize that Kuhn and with him the «New Philosophy of Science» are basing their theories on the natural sciences. Though social science and humanities are supposed to follow a different «logic of science».

It was Wilhelm Dilthey (1833-1911), «founding father» of the «geisteswissenschaftliche Pädagogik», who did already stress that our «relationship toward society and toward nature» is different (1833/1973, p. 36). These different modi of experience do have implications for the structure of scientific knowledge. Dilthey talks of «basic features that distinguish the study of society and the study of nature» (p. 37) and postulates:

«The play of (to us) soulless efficient causes is here (that is in society-D.G.) replaced by that of ideas, feelings and motives. And there is no limit to the singularity, the wealth in the play of interaction, which is here revealed» (p. 37; as translated in Hodges, 1944, p. 146).

In this respect the idea of a limited number of simultaneously existing paradigms in the sense of research leading presuppositions or «Weltbilder» is not anomaly but normality for these sciences, as Ludwik Fleck, *the* predecessor of Thomas Kuhn, has shown as early as 1935. For now it is not important whether this variety of paradigms can be considered as mirroring a democratic lifestyle (cf. Krause 1984) or whether there are scientific arguments for this concept. It is more important to demonstrate that the social sciences and the humanities as well draw upon common assumptions and expectations regarding the goals, methods and conditions that could adequately describe a theory. Consequently it is indeed «far more likely that for the social sciences and education, the coexistence of competing schools of thought is a natural and quite mature state» (Shulman 1986, p. 5). These forms of «theoretical pluralism» (Shulman; cf. also Alexander 1982, p. 37 f.) and «disciplined eclecticism» (Merton 1957/1972), however, must be further elaborated on, if one is not to accept the consequences of «anything goes» put forth by Feyerabend. I am going to refer to that again later.

There is a variety of evidence documenting the problems of theoreticians facing the described situation, even when solely concentrating on educational science and not getting distracted by general sociological-political slogans like «Neue Unübersichtlichkeit» (Habermas). Examples of desperate semantics are more the rule than the exception, as soon as questions concerning the theoretical foundation of educational science are discussed: König/Zedler (1982, p. 7) talk of «difficulties», Terhart sees «distress» (1983), Neumann/Oelkers talk of «insecurity of the discipline» (1981, p. 60)

and Tenorth hints that «the crises of the theoreticians is not the crisis of the theory» (1983) [3].

How could such a crisis develop and how are educational scientists dealing with it? I will give a preliminary answer. If one is to ask for reasons or causes of a development, generally, internal reasons can be named [4]. This is also true for the diagnosed crisis. Internal (intra-scientific) reasons are the far reaching disputes and the results of the «New Philosophy of Science». This discourse is well-known by now, so that it is sufficient to remember the situation «After the Wake» (Phillips 1983), following Kuhns awakening. These results have influenced and partly destroyed the works of the whole scientific community, and not only the area of analytical philosophy which they were previously formulated for.

I want to name the two major points:

1. Truth as a *goal* of scientific research is no longer as absolute as it was according to logical positivism, nor is a cumulative approach to truth conceivable as is the case in «critical rationalism» sensu Popper (verisimilitude). Truth is, instead, relative in respect to the underlying explicit or implicit paradigm to be applied.

2. In this context emphasis is laid upon the *process* of research (besides the research goal). Moreover, basing upon historical as well as upon sociological observations and interpretations, the idea of «rationality» as a crucial factor in science on the whole can no longer be sustained. Science and the construction of theories—including the construction of the theory of science—are following criteria that are rather more contingent than systematic, and are therefore, in the classical sense not appropriate to science anymore.

In conclusion it can be said that sciences that are neither able to claim truth of their results nor rationality of their research, do not have priority over other, i.e. politically or religiously motivated comments or remarks of «common sense» per se. Scientists who are confronted with such a fact are experiencing a crisis—making the shock attributed to the works of Kuhn highly understandable (cf. Schnädelbach 1984, p. 8 ff.).

How did educational science react towards this challenge? I would like to clarify these reactions by referring to those two main streams considered important in educational science by Klafki and others and thus illuminate my hypothesis of «paradigms lost» from a genuine pedagogical point of view. As a starting point I will refer to the major work of the respective trend: Brezinka's «Metatheorie der Erziehung» (1978) on the one hand and Mollenhauer's «Theorien zum Erziehungsprozeß» (1972) on the other.

3. *How the discipline handles educational knowledge*

3.1. *Critical-rationalistic education-or the lacking consequences of theoretical concepts*

Brezinka's attempt to formulate an all including methodology of educational science can be reconstructed as a sequence of running fights resulting in the conclusion that his proposed program cannot be executed. First Brezinka stressed the empirical factor in educational science and then described the latter according to the model of unified science.

«From physics to history, from archaeology to educational science one may demand with good reasons the same deductive-empirical method. Those who want to be accepted as empiricists must conform to the most general forms of agreement of empirical science.» (Brezinka 1967, p. 156)

A few years later Brezinka had to confess that these strict rules cannot be adhered to beyond the natural sciences. He now concedes that in the social sciences there are «no deductive systems, that can be compared to the theories of natural science» (Brezinka 1978, p. 137). The rules are «empirical generalizations of statistical nature» at best (p. 137f.), and thus inductively found probabilistic assumptions. In view of the reduction of the formerly postulated claim, Brezinka asks himself «if in the social sciences laws and theories as they do exist in the natural sciences, can be reached at all» (p. 138) and concludes that «the realm of the social sciences is (without doubt) different from the natural sciences» (ibid.).

Dilthey's already formulated hypothesis is thus taken up again and a list of difficulties presented by Brezinka surprisingly reveals a strong affinity to Dilthey's program. In showing the complexity of gaining knowledge about «rules» in opposition to the «laws of natural sciences» Brezinka refers to the «unobservability of the inner life» and the resulting «coercion to interpret», «the complexity of the conditions», the «uniqueness of the situations» and the «variability» of humans and their environment (p. 139).

With these propositions Brezinka has indeed endorsed Dilthey's statement of the problem. But whereas the latter is proceeding on the assumption of the incompatibility of explaining and understandig sciences and thus formulating a dichotomy, the former sees no principal problems, but only gradual differences. The stated difficulties, says Brezinka, do not exclude «the possibility of gaining knowledge on natural laws» (p. 140). The claim attached to this knowledge on laws must be, however, drastically

reduced and the already articulated formulations of statistical laws are to be relativized twofold:

«As to time and location, many of those are limited but our knowledge of the world is also increasing under these limitations. Some are badly confirmed, but incomplete knowledge is better than no knowledge.» (p. 142, cf. 158f.)

This can be summarized as

1. The idea of adaptation of educational science to natural sciences had to be given up and
2. Even the weakened concept of law has more problems than can be justified by nomothetical sciences.

This also means that the fixation on method cannot master the contents of questions and problems of educational science. Hence, the «consequent attempt of Brezinka to lead pedagogics to educational science resulted in referring all other problems of educational practice to an extra-scientific realm» (Dickopp, 1983, p. 61) [5].

That Brezinka devoted no further attention to this topic in his later publications (i.e. after 1978) is the most convincing evidence for the fruitlessness and the lack of consistency of a «nomothetic field» of educational science. There is no empirical or methodological elaboration at all. But if there is «no» case that can be applied on nomothetical educational science isn't it time then to reflect on the relevance of the system of natural laws?

Therefore, it is no wonder that even empirically oriented colleagues are voicing strong criticism. Ingenkamp says, «with Brezinka an empirical research point of view cannot be found» (1983, p. 22) and he concludes «that Brezinka is everything else but a good diplomat in the service of empirical educational science» (p. 24). The tendency not to adhere to the formerly made claims any longer is seen also by Helmut Heid who sums up the problem in his «Pädagogik des Kritischen Rationalismus» (1985) as follows:

«Whereas Brezinka in his first publications talked about a crisis of educational science and in this context formulated the slogan «from pedagogics to educational science», his latest publications show his opinion that the development toward an educational science must be regarded as a Fall of man in educational science.» (Heid 1985, p. 71)

Heid is especially referring to Brezinka's article «Das Berufsethos der

Lehrer» [6] in which —among similar ones— the following passage can be found: «To the disadvantage of teachers and students “educational science” has been gradually replacing “practical pedagogics” at the institutions for teacher training since approximately 1960» (Brezinka 1986, p. 193). One can only speculate about the reasons that made Brezinka turn away from his first claims. However, there is some knowledge about the consequences. With regard to the importance of the textbooks already mentioned for the distribution of paradigmatic concepts it can be argued that a «non fulfilment» or even a turning away from the first claims will lead to the conclusion that the underlying theory is being abandoned. The program is still existent, but it has lost its appeal.

This said does not mean that this approach can no longer be defended —«with a bit of luck and ability» as Lakatos puts it— but as a fixed point of critical-rationalistic science of education this concept has lost its attraction.

3.2. *Critical-theoretical educational science and its dismissal*

Klaus Mollenhauer along with Herwig Blankertz, Wolfgang Lempert and Wolfgang Klafki is one of those first generation educational scientists who was trained in the tradition of the «geisteswissenschaftliche Pädagogik» and who knew the shortcomings of this approach and in turn advanced to become one of its most influential critics. Especially Mollenhauer's opus magnum «Theorien zum Erziehungsprozeß», first published in 1972, can be viewed as a central text for this direction, as it broke away unmistakably from «geisteswissenschaftliche» traditions; at the very sametime it was in a clear-cut opposition to empirical educational science. Furthermore this text was trendsetting in the sense that numerous scientists were accepting and disseminating it in their research and teaching [7].

Instead of presenting Mollenhauer's work, I prefer citing a detailed analysis of Mollenhauer himself, in which, in 1982, he points to the «chain of perpetuating “receptions”» retrospectively as problematic.

«The reception of the theory of symbolic interactionism (especially Mead, Goffman, Strauss) had just begun, when the term discourse appeared, brought forth by “Habermas'” paper “Preliminary remarks on a theory of communicative competence”, showing a shift in his work. Surprisingly fast, pedagogical papers were filled with comments and reviews on this problem, incorporating Watzlawick, then linguistic theories about speech-acts; the first publications on action-research appear, trying to integrate the problems in terminology and methodological deliberations. Within four years, or so, a new literary scene! The speed and the motives of the receptions seem to be more problematic than the reception itself. In 1972 it was not proven at all —maybe plausible

though— if and to which extent the interactionistic vocabulary would be useful for the description of pedagogical matters.» (Mollenhauer 1982, p. 254)

From a scientific perspective it is not only legitimate but also called for, to criticize questionable developments —one ought to specify, however, what the criticism is against. This, however, is not done at this point, just like in other recent works of Mollenhauer. With regard to the offered catch words —such as «symbolic interactionism», «discourse», «theory of speech acts» and the hint on Watzlawick's communication theory— it becomes obvious to the reader of his earlier works, that he has to look for it in «Theorien des Erziehungsprozesses» itself. As a matter of fact, the very concept that was introduced in 1972 by Mollenhauer is now being condemned by him in its usage and reception. In other words, Mollenhauer's criticism should be self-criticism, documenting the renunciation of his own program, instead of accusing educational science in an off-hand way. This is a rather peculiar approach of Mollenhauer to his own works.

Against the background of this synopsis I would like to specify two points: First of all, Mollenhauer is no longer advocating the program of a critical educational science or the connected theory formations respectively. Secondly, he retracts vehemently but without definite explanation as if criticizing an approach which was existent before whereby its underlying assertions never seemed to be of much importance to his own understanding.

But then —without interrogating the subjective motives— the second paradigm in educational science has been given up by one of its main proponents, thus losing its guiding function. This result does not only show the postulated paradigm erosion but it also brings up the more general question, namely the research-ethical question, how scientists are to relate to the products of their own research. The disappointment and demotivation caused by a silent departure from a certain (scientific) ground is exemplified by a statement of a colleague during a discussion with Mollenhauer.

«I have also experienced Mollenhauer's "turn" as a kind of treachery towards the —one might say —"adoptive children". This break of tradition, what does it mean for the young generation of educational scientists who have followed Mollenhauer and his disciples?» (Scheilke 1987, p. 69)

It is important to me to ascertain that this statement is more than a subjective dismay, but also the extending question on how one relates to published scientific knowledge.

Now I have stated the decisive problem which interestingly (and

piquantly) enough concerns Brezinka as well as Mollenhauer and joins them together in that particular point. Again it can be formulated twofold:

1. There are two difficulties in giving up a paradigm at the factual level: The danger of declining attraction for the old adherents and the danger arising from different groups who will take over the leading thoughts and reformulate them to their liking and thus leaving it open to their discretion and leading to arbitrariness.

2. Is the scientific community entitled to expect adherence to the creators of scientific theories or at least substantiation in case of reformulation (of these theories)-analogous to the legal ground «venire contra factum proprium?» Does the principle of duty or loyalty apply to scientific discussion and, if yes, what is the reasoning behind?

4. *Postmodernism -or the end of all science*

This situation is aggravated by an upcoming challenge which—according to its own assessment—does no longer accord with scientific discourse, but poses as a threat to science in general. The proponents of this way of thinking dispute the truth of scientific findings in general hinting that the scientific meta-discourse represents only one narration besides others. I am referring, of course, to the position of «postmodernism» being both similar to and at the very same time extremely different from the before-mentioned approach of the «New Philosophy of Science». This development has aggravated the dispute again and the question arises how educational science is to react towards this new challenge.

The term «postmodernism» seems to have succeeded the paradigm-concept not only because of its suggestive power. Based on Kuhn's arguments, it is also reinforcing the erosion of the scope of truth. Whereas Kuhn mostly handles the loss of a definite truth in a descriptive manner, postmodernism (similar to Feyerabend) discusses this loss of truth normatively and thus reinforces that pressure demanding the legitimation of knowledge: Postmodernism holds that reaching truth (i.e. *one* truth) is impossible and, moreover gives room to totalitarian tendencies. How is such a notion to be understood?

First some remarks on the leading interest of postmodernism: The idea of this school of thought can be traced back most easily when compared with the original use of the term in architecture. The postmodern construction style was directed against the overwhelming predominance of a program following the «Bauhaus» tradition. The accompanying «dictatorship of the rectangle» (Wolfe) was to be replaced by a number of

different, sometimes dazzling and even contradictory construction styles. With the construct of postmodern knowledge this figure is being introduced into the sciences and especially applied to the notion of truth. According to this model, the one universally applicable notion of truth is just as totalitarian as the once dominating architecture of the «Bauhaus».

The work of Jean-Francois Lyotard (1984) can be considered as the quintessential text for a postmodern style of thinking. In the context of my discussion of «educational science» it has the additional advantage of dealing with «pedagogical» questions. The topic of his report which was written for the «Conseil des Universités of the Government of Quebec», is dealing with the situation of knowledge in postmodern societies. According to Lyotard, knowledge will have a different quality and —also owing to this change— will lose relevance. Societies which become increasingly computerized and informatized are not as dependent on knowing individuals to sustain their existence as they were in former times. To the extent that knowledge can be stored and accessed at any time, the individual loses his/her importance as a carrier of knowledge. «The old principle» —as to Lyotard— «that the acquisition of knowledge is indissoluble from the training (Bildung) of minds, or even of individuals, is becoming obsolete and will become ever so more (Lyotard 1984, p. 4). At the same time, knowledge that does not conform to the digitalized logic of information systems will disappear. This does not necessarily impair educational science substantially as long as it deals with the transferring of knowledge.

Of course, it is true that «didactics can be entrusted to machines» but «pedagogy would not necessarily suffer. The students would still have to be taught something: not contents, but how to use the terminals» (p. 50). And Lyotard adds —anticipating criticism against this rather unique introduction of pedagogical concepts— that «it is only in the context of grand narratives of legitimation —the life of the spirit and/or the emancipation of humanity— that the partial replacement of teachers by machines may seem inadequate or even intolerable» (p. 51). How can this statement be understood, especially with reference to the «perspective of grand narratives of legitimation»?

For Lyotard this leads to the basic question of validity of knowledge. He sees two large chains of arguments that tried to substantiate scientific knowledge from the past until modern times in a meta-discussion, a discourse. Politically speaking, this legitimation is done by the people or mankind in general as far as more practical-moral questions are being discussed. Lyotard also calls this a narrative of emancipation. The other, more theoretical and philosophical attitude assumes that this legitimation is carried out by the «speculative mind», which nowadays is found at

university. Just as the practical attitude proposes the fiction of a «social contract» which regulates and legitimates cooperation, the philosophical attitude suggests the validity of the factual and fictitious legitimation consensus of the «scientific community». At least this is the story told from a modern perspective. However, this narration is not sustainable anymore under postmodern circumstances, because it no longer states the reasons for its validity - and above all not unequivocally. Neither can the emancipating narrative legitimate its prescriptive language usage, nor can the philosophical narrative substantiate the truth of its statements.

All these narratives —Lyotard calls them «language games» in reference to late Wittgenstein— are forming a horizontal bond, they partially overlap and are different as well. Wittgenstein talks about a complicated network and coined the term «family resemblance». This heterogeneity of language games is the ultimate one; no principle of reasoning can be imagined that the particles would follow. The very attempt of this legitimation, Lyotard is referring to Habermas' discourse model as an example, «does violence to the heterogeneity of language games» (Lyotard 1984, p. XXV). Against the universality of validity claims Lyotard bets on paralogy, i. e. «the heterogeneity of the rules and the search for dissent» (p. 66).

Thus the epistemological utility of this debate is secured. Scientific knowledge is only a language game among others. Insofar the analysis is congruent with Kuhn's.

But the search for a legitimation for this scientific knowledge is not only superfluous but dangerous, too. Inherent to universality is the stigma of suppression of lingual as well as the connected social diversity.

But isn't this conception a practical case of «theoretical pluralism» or the diversity of democratic life forms already postulated in the beginning? This may be the case; but the «affect against the general» (Honneth) is blinding Lyotard for the price that any «unconditional relativism» has to pay until now; in this case it is the acknowledgement that any information, any knowledge is to be accepted as equally valid. Thus arbitrariness has taken the position of universal agreement. This can be highlighted with the example of educational science. Despite the differences that exist between the formulations of Brezinka and Mollenhauer, there is the one and overlapping commonality: the adherence to the universal claim of science, to the area of validity as well as to the meta-theoretical legitimation. It is only the postmodern reasoning that decouples from these generally accepted assumptions in turning the partly occurring «processes of delegitimation» normatively and concluding that universality cannot be dealt with adequately as an outflow of modernity, but has, instead, to be treated as its potentially totalitarian feature. This leads to the conclusion

that the paradigmatic diversity of science is not limitless and it is always within the constraints of a universalism agreed upon basically. These constraints are not only legitimizing science but also —and stronger— even constituting it.

Where did this debate lead to? I would like to argue along the following thesis: With all precautions a structural pattern can be pointed at from this controversy which seems to be representative for educational science at least. If Lyotard is pointing to the rehabilitation of language games, he is lacking the very criterion that could lead to the distinction of right and wrong statements expressed in reality of life itself. Hence a meaningful argument cannot be found anymore «for a side by side relationship with equal rights concerning all cultures of everyday life if the recourse to general norms is (for ideological reasons) hindered in principle and a meaningful line of reasoning cannot be gained at all» (Honneth 1984, p. 902).

Finally the analogy to the life-philosophy of Dilthey and the therewith connected «involvement in historicism» (Gadamer) is unavoidable: It was Dilthey who contrasted the universal claim of the «grand philosophy», as represented for example by Kant, with the recourse of life itself. According to his position an understanding was only possible from the very center of life. So far postmodernism is a modern historicism that is also subject to the same problems and objections. The central objection being the inability to give (good) reasons as well as reducing its own premises to absurdity.

What can be learned from this debate concerning these problems to which educational science in the Federal Republic of Germany is already dedicating books (Baacke et al. 1985) and journals (*Zeitschrift für Pädagogik* 1987, first issue)? [8] I think there is reason enough to keep composure in dealing with postmodern claims. The knowledge of the aporia between universalism on the one hand and relativism on the other, following and substituting one another, dedramatizes the conflict considerably, so that the sense of crisis as well as the euphoria do not have to be as pronounced as they appear to be at present.

Adhering to universal claims and doing reasonable non-patronizing science is possible as shown in the works of educational scientists, during the 60ies and 70ies by Heinrich Roth for example and recently by Dietrich Benner, Wolfgang Lempert, Helmut Peukert and Wolfgang Klafki.

5. *An Alternative*

Finally I want to refer to the position of Klafki —as done in the beginning— to try to clarify the architecture of his approach. Klafki himself is talking of «position elements» of a «general educational science» that have not yet been elaborated (Klafki 1984, p. 138). He presents them under the headline «critical-constructive educational science». «Critical», because his approach is asking how mankind could possibly achieve «self-determination and solidarity» (p. 141) as well as where there are obstacles to these specific goals. «Constructive», because his approach in differing from a mere «descriptive» or «analytical» knowledge intention, is actively trying to promote the development of these abilities. Klafki is pursuing this goal threefold: a) in taking into account the basic problems of «geisteswissenschaftliche» pedagogics, b) in defending this position against criticism from empirical educational science and finally c) in developing these positions with arguments of a critical educational science in a way that they can stand up against altering scientific requirements and changing social circumstances.

What characteristics can be found to make this thesis plausible? So far I have substituted the hard core (Lakatos) of «geisteswissenschaftliche Pädagogik», i. e. those statements which allow for a relatively homogeneous program, with the term «problem». On closely examining this term, one is lead to

1. The question of the relation of theory and practice.
2. The emphasis of history.
3. The accentuation of relative autonomy of pedagogics.
4. The uniqueness of the so-called pedagogical relationship.
5. The adherence to an all other components including hermeneutic basic assumption [9].

These are exactly the topics that have to conform to the dialectics outlined. I want to discuss this according to the five elements of the hard core.

1. «Geisteswissenschaftliche Pädagogik» has always considered itself as a theory with practical relevance. This assumption is being formulated in explicit opposition to the position of neo-Kantianism on the one hand and Herbartianism on the other. Life itself and not principles or theories have to constitute the centerpoint of the assumptions. With the same argument statements of critical rationalism as «a descriptive or analytical discipline» are criticized later on [10]. Klafki extends his position by including ideas of critical theory. «Critical-constructive educational science

is considering itself as theory of pedagogical practice and *for* this practice» [11] (Klafki 1983, p. 16), whereby practice means an interest in knowledge and action, i. e. «in making possible self- and co-determination, individual and societal maturity (i.e. autonomy and responsibility) for every person to be educated and thus analogously a democratic organization of education and formation (Bildung)» (p. 16).

2. These deliberations lead to the second element of the hard core of «geisteswissenschaftliche Pädagogik» and critical-constructive educational science respectively. Practical education just like its theory is to be considered as historically created and thus subject to change and reformulation. In contrast to critical rationalism, this means that the prevailing primacy of method which is ahistorically oriented without considering the genesis of contents of research, is in danger of giving up meaning and intentionality or is not able to grasp them, just to mention two central and at the same time historically changeable categories. Against the ahistorical Scylla of critical rationalism sensu Popper there stands the Charybdis of relativism or respectively historicism of «geisteswissenschaftliche Pädagogik» [12].

And to solve this conflict seems impossible. Klafki points out the «spiral nature» of this problem though. No doubt the questions to be investigated are historically determined, the categories, however, which are to comprehend the historically determined, are generalizations —«types» with Dilthey (and Max Weber), «structural elements» with Nohl, the «comprehension of the timeless» with Spranger. But these generalizations are again changeable. They «exist only on a certain level of acquired knowledge reached. There is no possibility to escape the «spiral-problem» in a rational, reasonable way. To put it positively: One has to accept this in its unfinished nature and —productively and reflexively— drive forward the motion of thought accordingly» (Klafki, 1987) [13].

3. The term «relative pedagogical autonomy» refers to two topics: on the one hand to the idea of autonomy of pedagogics as science with regard to social deliberations, as well as to scientific patronizing, i. e. from practical philosophy or psychology. On the other hand the «individual right» of the child vis à vis its social environment is to be stressed. For critical rationalism this idea is not to be discussed, because of its selfimposed social abstinence, whereas critical theory and its follower Wolfgang Klafki points out that in the tradition of «geisteswissenschaftliche Pädagogik» autonomy has very often been understood as not taking into account social factors. Against this thesis Klafki puts forward the «economic-sociological-political condition analysis» framed as an ideology critique, i. e. «scientific revelation of forming societal conditions, revelation of the stated reasoning or the wrong rationalizations and the effects of those interpretations,

norms, «theories», that consequently lead to a provable, interest determined misconception of the societal situation» (Klafki 1983, p. 41) [14].

4. It was especially Herman Nohl who formulated the notion of a pedagogical relationship in pointing out those characteristic features when dealing with educational situations differentiating pedagogical from other actions [15]. In this context the remarks of the special nature of the relationship («the loving or passionate relationship») are important, just as the interdependence and the interactive nature of the relationship (cf. Spiecker 1984). Explanations of other nature, i. e. the stimulus-response concept of behaviorism, that offer other hypotheses are definitely falling behind. «Education», so Klafki, «has never been interpreted as behavioral training or behavioral control by “geisteswissenschaftliche Pädagogik”» (Klafki 1987, p. 49) [16].

Other shortcomings of «geisteswissenschaftliche Pädagogik», however, must be corrected in view of the circumstances based upon results of newer critical-theoretical research. Especially the asymmetry of the pedagogical relationship which has not been taken into account and —related to that— on the one side, the danger of exercising power consciously or unconsciously, and on the other side the insufficient consideration of the fact, that the conceptualizing of educational reference has been done for dyadic relationships only; today this last mentioned constellation is, however, describing rather an exception than the rule in the pedagogical field.

5. The last element, «hermeneutics», has a particular significance, because it is not only limited to «geisteswissenschaftliche Pädagogik» or critical-constructive educational science but goes beyond that, also touching the four previously mentioned areas. Such «hermeneutics», understood as a method, therefore forms the third element besides the definition of theory and the expression of goals, thus constituting the paradigm according to the idea of triangulation [17]. But strictly speaking it can also be formulated that «geisteswissenschaftliche Pädagogik» does not command a method in the sense of empirical science: «Hermeneutics» were looked upon as a methodological term or related to text but not to experience. And it was already argued that this conception is obviously at the same time in strict opposition to explanatory methods of empirical science.

Thus the question seems to be even more important, how critical-constructive science is dealing with these problems facing the lack of an adequate method and at the same time being confronted with an assumably highly efficient methodology on the side of critical rationalism. This question is even more important since there were almost no answers concerning topics of method in critical theory, either. Whereas the «early Frankfurt School» trusted «dialectics» —a way of thinking which is not a method in

any strict sense of the word— Habermas is recurring on a combination of critical-rational and hermeneutical methods and thus, in my opinion, is not justifying the potentials of either method.

This unsatisfying alternative was first encountered by critical-constructive educational science with the concept of action research as an independent research method, that was of great importance to educational science in the seventies. Presently, this research alternative shifted to the background, and it would be interesting, too, to research the reasons for this «erosion».

Klafki has reacted to this development in stressing more the methodological independence of «hermeneutics». In interpretative methodology he sees approaches to an «empirical» [18], or «critical hermeneutics» [19], respectively. There are good reasons to expect results not only from the postulated standard of «intersubjectively checking the results concluded by understanding» [20], but these concepts can function as the «missing link» connecting theory and goal formulation in critical-constructive educational science.

In conclusion, it is clear that Klafki incorporates the described dialectics by dealing with basic pedagogical patterns and is successful in preventing the respective onesidedness of the scientific areas in question. He does not need to connect the different areas eclectically, but he is in the position to reconstruct the features and structures of «geisteswissenschaftliche Pädagogik» systematically, i. e. he takes them into account and—considering critique and additional developments— puts them together thus sublating (aufheben) them in a Hegelian sense.

The benefit of such a construction is obvious: Because Klafki is referring in his work to constitutive elements of educational knowledge, he is never in danger of losing his topic. By recurring to these elements in discussions with the most enlightened positions of educational science, Klafki can assert a mastering of theoretical and methodological consciousness that is always up-to-date.

In the event of recurring to the continuity and the fruitfulness of Klafki's work for a successful science of education, the adherence to unpassable history and the engagement in the always new seem to be the way to immunize against paradigm erosion and crises talk.

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NOTES

- [1] The probably most important exception were the different variants of normative and principal-scientific (prinzipienwissenschaftliche) education; cf. HETGER, M. (1987).
- [2] KUHN, Th. S. (1970) «More than any other single aspect of science, that pedagogic form (of textbooks; D. G.) has determined our image of the nature of science...» (p. 143).
- [3] For a more recent meta-theoretical discussion of education cf. BRUNKHORST (1983); LEMPERT, W. (1982); PEUKERT, H. (1983); TENORTH, H. E. (1986); ZEDLER, P. (1983).
- [4] For a discussion of those external reasons that cannot be considered here cf. ZEDLER (1982), pp. 270ff.
- [5] Immediately after the publication of *Metatheory*, DERBOLAV formulated a comprehensive critique pointing in particular to the reductionism as regards to Brezinka's concept of science and his ideal of education, cf. DERBOLAV, J. (1978), now slightly modified, DERBOLAV, J. (1984) *Fehlentscheidungen...?* (Würzburg).
- [6] Printed in BREZINKA, W. (1986).
- [7] For an early criticism, however, cf. LASSAHN, R. (1978).
- [8] Cf. e.g. BAACKE, D. et al. (ed.) (1985); *Zeitschrift für Pädagogik* 33 (1987).
- [9] Cf. WULF, Chr. (1977) as well as KLAFKI, W. (1980).
- [10] KLAFKI, W. (1987), p. 47.
- [11] KLAFKI, W. (1982), p. 16.
- [12] KLAFKI, W. (1982), p. 16.
- [13] KLAFKI, W. (1982), p. 51; cf. also ZEDLER, P. (1979) pp. 42ff.
- [14] KLAFKI, W. (1982), p. 41.
- [15] NOHL, H. (1933) p. 22; cf. also the discussion in KLAFKI, W. et al. (1970), pp. 58ff.
- [16] KLAFKI, W. (1987), p. 49.
- [17] Cf. LAUDAN, L. (1984).
- [18] KLAFKI, W. (1987), p. 65.
- [19] KLAFKI, W. (1982), pp. 27ff.
- [20] BREZINKA, W. (1978), p. 129.

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SUMARIO: LA PÉRDIDA DE LOS PARADIGMAS. EROSIÓN DE LOS PARADIGMAS Y SENTIDO DE CRISIS EN LA CIENCIA DE LA EDUCACIÓN CONTEMPORÁNEA. EL CASO DE LA REPÚBLICA FEDERAL DE ALEMANIA.

Podríamos decir que en Alemania las perspectivas sobre educación están estructuradas de forma relativamente simple. Las corrientes dominantes han sido tres: la educación humanista, el movimiento crítico-empiricista y la perspectiva crítica teórica. Hoy en día la fuerza de estas corrientes han disminuido tanto por los problemas de su dinámica interna como por influencias externas, especialmente del postmodernismo. El peligro que surge de la falta de fuerza de estas tendencias radica en que termina pensándose que su carácter es opcional y que en última instancia, «todo vale», según un creciente relativismo.

Este artículo, que debe mucho al trabajo de Klafki, muestra cómo escapar de estas trampas y cómo promover una educación de acuerdo con los principios de la Ilustración.

KEY WORDS: Education in Germany. Crisis in educational paradims.