Restrained Teaching: The Common Core of Didaktik

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> Ask any teacher of the elementary or secondary schools in Germany the reason for any particular method or practice, and you will find him ready with an answer (John Tilden Prince 1892, p. 232)

When the American educator John Tilden Prince traveled to German schools in the late 19th century on a mission on behalf of the Massachusetts Board of Education, he was most impressed by the level of teacher knowledge and education:

> Less difference in the quality of teaching and greater uniformity in the results than with us are observable. Few teachers will be found who have not a definite object in all their work, and who do not strive to reach that object in a systematic and methodical way.… They have well studied opinions, both in regard to the object to be reached and the means to be taken to reach it. (Price, 1892, p. 75)

Prince moves on to describe exemplary lessons, typical teaching materials, and examples of classroom practice, all of them seemingly grounded in a joint base of a highly developed "pedagogical content knowledge," as Lee Shulman (1987) would put it today. Basically, Prince's book was a thorough description of the state, content, and function of General (Allgemeindidaktik) and Subject Matter Didaktik (Fachdidaktik) as it was perceived in most of

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Revised version of a keynote speech at ECER 2006. The author wants to thank Bernard Schneuwly for the invitation to Geneve and the wonderful challenge, and Ian Westbury (Urbana-Champaign) and Karen Beth Lee Hansen (Kristiansand) for editing an earlier version. The argumentation owes quite a lot to many years of co-operation with Ian Westbury and Rudolf Künzli (Aarau). Finally, I want to dedicate the article to my great Norwegian teacher and colleague, Bjørg B. Gundem (Oslo), on her 80th birthday 2007.

Continental and Northern Europe at the end of 19th century.[2] Some of his contemporaries (like Dewey) were well aware of and much inspired by this continental tradition. However, it never made its way into the mainstream of American teacher education. There it was replaced in the early 20th century by concepts like Dewey's own "curriculum" and Thorndike's "educational psychology."

To understand Prince' fascination with the subject and to understand how Didaktik differed from "curriculum" then and now, one has to understand the common roots of Didaktik in (1) history and presence and (2) the shared fundamentals of Didaktik theories across different schools of thought. Today, this common core of Didaktik is challenged by (3) changing conditions of schooling, which leads to (4) the question of whether it should be replaced by other approaches. By dealing with these points, I will try to answer the question put forward by the organizer of the 2007 European Conference for Educational Research at the University of Geneva, Bernard Schneuwly: How can the common core of Didaktik be characterized, and how is knowledge transformation different within a Didaktik approach compared to both the Anglo-Saxon tradition of speaking about "curriculum and instruction" and the French transposition didactique? As these questions were meant as an invitation to share a specific viewpoint, I will abstain from any special emphasis on the inner divisions and limitations of Didaktik and rather focus on how Didaktik wants to be seen within its own traditions.

To explore these themes, I will mainly use material from a dialogue project, "Didaktik meets Curriculum," which I created together with Kurt Riquarts (Kiel), Ian Westbury (Urbana-Champaign), and Bjørg B. Gundem (Oslo) in the 1990s and which resulted in quite a few comparative efforts (see e.g., Hopmann & Riquarts, 1996; Gundem & Hopmann, 1998; Goodson, Hopmann & Riquarts, 1999; Westbury, Riquarts & Hopmann, 2000, for more detailed accounts). In addition, I will refer to research carried out

[2] Because language reflects in this case important historical and conceptual differences, I will not translate the concepts of "Didaktik" and "Bildung," and will use the German spelling instead, thus underlining that these do not have much in common with, e.g., the usual understanding of "didactics."

in connection with a current comparative project, "Achieving School Accountability in Practice," which is being undertaken in co-operation with colleagues from Austria, Norway, Denmark, and the United States (cf. Hopmann, 2006). Of course, no comprehensive description of Didaktik is intended, only a rough sketch of what could be said to be the common core of Didaktik.

Common Roots

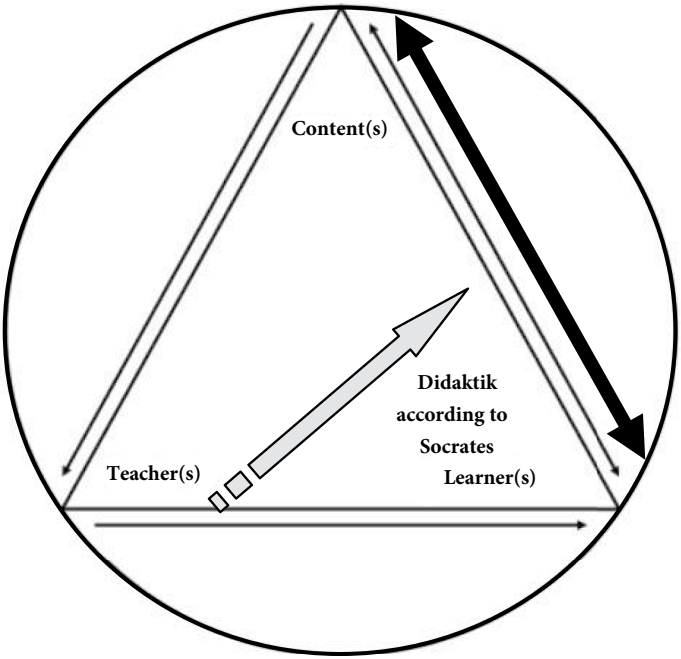
The modern understanding of Didaktik is more or less an invention of 19th-century teacher education in Germany and some neighboring areas, not least in the Nordic countries. However, from the beginning, as, for instance, exemplified by the first European success model of a teacher education primer, August Herman Niemeyer's "Basic Principles of Education and Teaching" (*Grundsätze der Erziehung und des Unterrichts*, many editions 1796ff.; translated into many languages; cf. Landsheere 1998), this included creating a history of the field, starting from Plato and Aristotle, continuing with the apostles, the church fathers like Augustine, the medieval scholastics, Luther and/or Canisius, Comenius and Ratichius, and finally the emerging field of teacher education since the first teacher seminary at Halle in the late-17th century, where Niemeyer himself was firmly rooted. Within this history, three distinctive phases can be discerned, dealing with Didaktik as a matter of (a) order, (b) sequence, or (c) choice (cf. Künzli, 1986, 2002).

Order

The word Didaktik stemmed from classical Greek, from the group of words connected to "didaskein," i.e., teaching, showing something, playing out a drama (didaktikos, didaskalia, didache, etc.; cf. <http://www.perseus.tufts.edu/cgi-bin/resolveform>). Plato's *Meno* can be taken as the founding document of what Didaktik as a formation of knowledge was about. There is a scene where Socrates, while teaching the slave boy, turns to Meno and says, "Do you observe, Meno, that I am not teaching the boy anything, but merely asking him each time?" (*Meno* 82E; online at <http://www.gutenberg.org/etext/1643>). Even though Socrates stresses there and in the following that he does not teach (didasko), what he actually does is teach

Meno about teaching by teaching a boy in his presence. This seemingly self-contradictory stance has been one of the continuing cornerstones of Didaktik. The whole argument of the Meno is about if, and how, teaching is possible by restraint. Socrates' well-known answer is built around the concept of student activity as remembrance. The teacher does not overpower the student with knowledge but helps him to develop his own access. Plato develops the argument further in his vision of a state (*Politeia;* online at <http://www.gutenberg.org/etext/150>), as does his disciple, Aristotle, in his rather skeptical version of the same issue (*Politika*; online at <http://www.gutenberg.org/etext/6762>). In both Greek and Roman teaching, a coherent understanding of the concept of Didaktik developed as an approach to explaining teaching by the order of contents taught and the ways and means of instruction and learning applied to this task (see e.g., Quintilian's *Institutio oratoria*, c. AD 90; online at <http://honeyl.public.iastate.edu/quintilian/index.htmla.C>).

It was not until the medieval development of schooling that Didaktik was transformed into a coherent body of knowledge. One of the first systematic accounts of Didaktik as a theory of teaching and learning was provided by Hugh of Saint Victor, a German monk teaching in Paris, in his *Didascalicon de Studio Legendi* (around 1120; online at <http://www.thelatinlibrary.com/hugo.html>). Hugh's called for three types of *discipline* as the core of any Didaktik, namely, (a) discipline as an order of knowledge, (b) discipline as orderly teaching, and (c) discipline as a precondition of students' orderly approach to learning (this concept of discipline is later echoed by, e.g., Dewey, 1916). Hugh's approach reflected the necessary difference between learning in everyday life and learning by teaching. He argues, for instance, that the order of knowledge creation in life is often different from the best way of teaching in that the knowledge about basic principles emerges rather late in the history of mankind's use of something, whereas disciplined teaching has to start with these principles. Another of Hugh's main points is that all learning and depends on students' preparedness for the task of learning and the discipline they bring to work. In Hugh's perspective, teaching depends thus on the interaction of disciplined knowledge within a disciplined setting, i.e., teaching, with the discipline of the student's efforts.



Similar accounts of good teaching may be found in other scholastic writings, as, e.g., in Thomas Aquinas when he says in *De Magistro*:

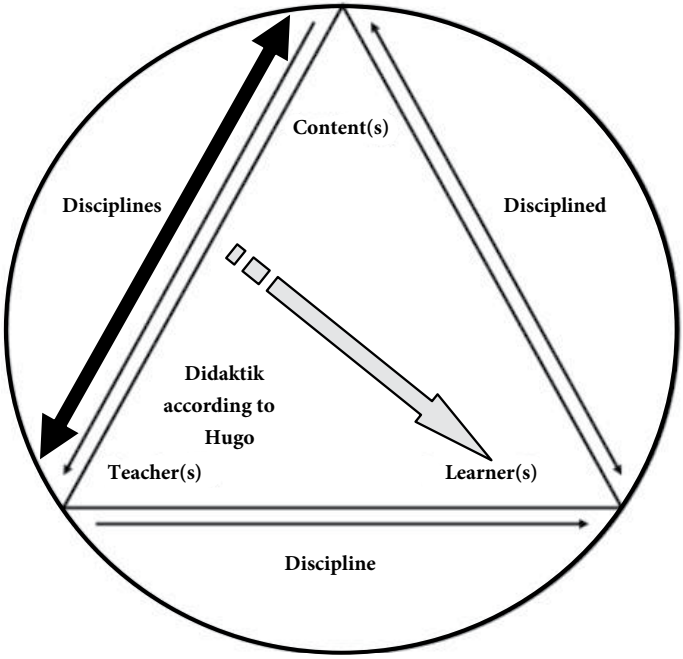
> … the student's ideas are the primary foundation on which is built all the knowledge gained through teaching. The student's own lights are the immediate builder, while the teachers are the middle builder. For the teacher presents signs of the knowable things, from which the student's mind takes ideas in order to consider them. Thus, the teacher's words or writings end up being like the subject of study, since the student takes ideas from both. The difference is that the teacher's words are a more direct way of generating knowledge than the experience of the subject since they are signs of the ideas themselves. (*De Magistro*, 1256; online at: <http://www4.desales.edu/~philtheo/loughlin/ATP/De_Magistro/De_Magistro_11_1.html>).

Didaktik, in this scholastic sense, about teaching the order of knowledge (summa) by introducing the student to its concepts and structures.

Sequence

This line of thought was continued by the emerging Didaktik of both the Reformation and Counter-reformation (exemplified by, e.g., the different catechisms and their concept of teaching) and by the subsequent development of a comprehensive frame of reference for thinking about teaching, as provided, for instance, by the first truly European educator, Comenius, in his famous *Didactica Magna*:

> Let the main object of this, our Didaktik, be as follows: To seek and to find a method of instruction by which teachers may teach less, but learners may learn more; by which schools may be the scene of less noise, aversion, and useless labour, but of more leisure, enjoyment, and solid progress; and through which the Christian community may have less darkness, perplexity, and dissension, but on the other hand more light, orderliness, and rest" (1627/57; cover text; online at <http://onlinebooks.library.upenn.edu/webbin/book/lookupid?key=olbp34684>).



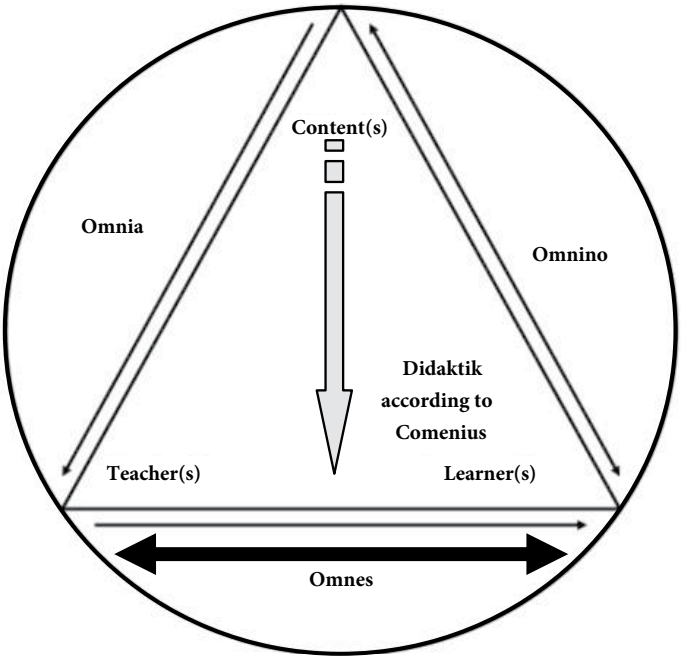
It is on the language and basic notion of Didaktik in Comenius' work on which every later attempt to define what Didaktik relies. Such efforts differ from then-contemporary concepts of curriculum (like Daniel Morhof's *De Curriculo Scholastico*, 1688) in that it is not just the structure of a content itself or an argument on what is valid knowledge within a given structure that creates the realm of teaching, but an understanding of how a student meets this knowledge based on his or her own being. Comenius supposes an inherent continuity from the micro-cosmos of the student to the macro-cosmos of the world, allowing for a natural sequence of learning from the near to the far, from the simple to the complex, etc. Again, we meet the basic idea of *restrained teaching*, familiar since Socrates but now transformed into an argument of how teaching can provide for better learning by reducing itself to the least necessary intervention to inspire and promote "solid progress" of the student. The same idea figures prominently in both the pietistic Didaktik of the inventor of teacher seminaries, August Herman Francke, around 1700, and in the subsequent philanthropic Didaktik of the late 17th century. What they all had in common, in spite of different approaches to the ontology of being and the psychology of learning, was the basic assumption that Didaktik is about how teaching can instigate learning, but learning as a content-based student activity, not as a swallowing of a sermon or a monologue or an otherwise one-sided knowledge distribution by a teacher.

Choice

Of course, this rather selective outline does no justice to the theories mentioned, nor to the many other contributions to the history of Didaktik from ancient times onwards. Its main purpose is to sketch the normative self-concept of teacher knowledge about teaching as it dominated the scene throughout the late 18th and early 19th centuries and as it became functional for the construction of school governance by the emerging nation-state (see Hopmann, 1988, 2000; Künzli, 1988).

From the beginning, the basic problem of the emerging national school systems has been that there is way more "between heaven and earth" than any school curriculum can manage. Even with the right sequence, it is actually not possible to teach everything, as Comenius had maintained; some choice of what is important to include, and more so what is important to avoid, was necessary. The basic invention of Prussian school governance in the

early 19th century in this respect was a move from former types of content regulation by school laws and ordinances (Schulordnungen) toward separate syllabi (Lehrpläne) that contained rather rough outlines of what to teach and what not to teach. Indeed, the first of these written curriculum guidelines, the Prussian normal plan of 1816, was more concerned with the question of what not to teach than any kind of micro-management of what actually should happen in schools.



The basic division of labor between the new curriculum guidelines developed at the state level and the local lesson planning was shaped by the construct of "pedagogical freedom" or "freedom of method," which put into the single teacher's hands the task of planning how, where, and when to enact which part of the curriculum. Like a driving license, the teaching license of the guidelines prescribed general rules of what to deal with, i.e., the main topics of instruction, but not specific ways and means of how to achieve that.

For both teachers and the state administration, this division had quite a few advantages. State policies could point to the contents and intentions of the written curriculum and blame any shortcomings on poor choices made by the schools. Teachers, on the other hand, could free themselves from the close scrutiny of local stakeholders. If challenged by parents or superiors, all a teacher had to do was to prove that the content chosen was not outside the limits of what the curriculum was asking for. As long as the content taught could be considered as being within this frame or being at least equivalent to the tasks required there, everything was up to the teachers themselves and their professional assessment of the specific situation in their classroom. Of course, this required well-educated teachers, so it was no coincidence that new and tougher rules for teacher licensing were introduced in Prussia at about the same time.

Within this frame, Didaktik became the main tool bridging the gap between centralized planning and local practice, and at the same time a tool for creating space for local teaching by providing interpretative tools for dealing on a local basis with state guidelines. In the teacher seminaries as well as in the emerging teacher journals and associations, Didaktik became the subject of concern, widely discussed, often with many competing approaches and ideas of how to teach a certain subject matter, with different concepts of what a certain content was about, and different aims of what students should acquire by dealing with this or that content (cf. Hopmann, 2000). In line with Tilden Prince's abovementioned description, one can thus see Didaktik as the core of the identity of a new breed of qualified professional teachers emerging from the teacher seminars and colleges.

It is no wonder, then, that among the chief claims of the teacher movements of 1848 was the introduction of such curriculum guidelines in all German states. In fact, the concept spread through most of Europe in a couple of decades and became routine practice in most places between the 1830s and early 20th century. No wonder as well that the political backlash of the 1850s (like other efforts to regain state control later on) tried to limit the teachers' curriculum choice, not least by prohibiting Didaktik as an independent subject of teacher education and/or by including method prescriptions into the curriculum, thus reducing the space of "pedagogical freedom." Finally, no wonder that from then on, the teachers began to criticize state or national curriculum guidelines as being out of touch with classroom reality and to

claim that it should be Didaktik and Didaktik alone that decides on what to teach to whom. Both the first theory of the state curriculum, the Lehrplan, by Dörpfeld (1873) and the first theory of curriculum making by Rein (1896) emphasized this turnaround. It was this kind of thinking Tilden Prince met when he visited Rein and his students in the early 1890s: Good teachers know to make their choices, and they have Didaktik as a professional tool for doing so and for legitimizing these choices within a given curricular frame.

Common Places

At the time Tilden Prince visited Germany, one brand of Didaktik seemed to dominate the scene, Herbartianism, and this is clearly reflected in his book and the extra chapter he wrote dealing with this line of thought (1892, 183 ff.). This focus fitted nicely with the Herbartian movement of the time in the United States (see e.g., Dunkel, 1969; Cruishank, 1994). Herbartian Didaktik focused on lesson planning and on the order of subject matter underlying teaching. But even at this point the first signs of differentiation could be seen outside the Herbartian universe, e.g., at teacher seminars or a few reform-minded schools. The Herbartian perspective was widened to a critique of the prevailing "book school" and calls for a "school of life" or a more "child-centered" pedagogy. What was developing was later on subsumed under the label of "reform pedagogy," the Continental or German brand of progressive education, however with a rather distinct flavor than, e.g., Deweyan progressivism (cf. Oelkers, 1995). Whereas Dewey and the international progressive movement were looking for new frontiers in modern education, the German reform pedagogy was concerned with how to maintain the distinctiveness of the Didaktik approach in times of rapid modernization and industrialization. For instance, whereas internationally child-centered progressivism, spelled out as educational psychology, i.e., measuring, experimenting, and controlling the learning process, the reform-pedagogical approach to child-centeredness was a view of the child as a natural learner and the leader of its own idiosyncratic learning. Back to nature, back to the roots, back to authentic communication—all this was not necessarily a conservative movement, as schooling had never exactly been that way before, but a move back to what was considered being the core of Didaktik (cf. Nohl, 1935).

This search for a common core of Didaktik has never stopped since. There are almost innumerable variations available for every purpose and taste (see figure below). However, in spite of this seemingly unlimited variety of scopes and foci, most of these modes of Didaktik share the same common places to describe what Didaktik is about, namely (a) the concept of Bildung, (b) the embedded differentiation of matter and meaning, and (c) a concept of the necessary autonomy of teaching, thus continuing the abovementioned problems of order, sequence, and choice within their respective frames of reference.

Combine any two of these examples, and you will get to the core of at least one existing school of Didaktik!

Modes of Didaktik					
Foundations			Fields		
Reference	**Methodological**	**Normative**	**Institutions**	**Clients**	**Actions**
Philosophical	Hermeneutical	Catholic	Nursery	Children	Education
Anthropological	Phenomenological	Jewish	School	Adults	Instruction
Psychological	Experimental	Marxist	University	Handicapped	Training
Sociological	Empirical	Ecological	Company	Parents	Teaching
Educational	Constructivist	Humanistic	Prison	Minority	Playing
Etc.	Etc.	Etc.	Etc.	Etc.	Etc.

Bildung

English. Stemming from medieval mysticism and the romantic Weltanschauung, the word combines elements of education, erudition, formation, experience, and whatever else is used in English to denote the process of unfolding individuality by learning. The Didaktik tradition connects to the whole development of this concept, from Socrates' innate ideas to (first and foremost) Wilhelm von Humboldt's understanding of Bildung as "grasping as much world as possible" and as "contributing to human mankind" by developing one's own unique self (Humboldt 1792/2000; cf. Gonon 1995; Klafki, 2000; Lüth, 2000). Bildung is more than mastery of contents or development of competencies and abilities, more than "knowing something" or "being able to do it." Humboldt speaks about the risk of alienation if getting stuck with what the object of Bildung is in the outer world. Bildung is whatever is

done or learned to develop one's individuality, to unfold the capabilities of the "I" (cf. Humboldt, 1792, 2000). The purpose of teaching and schooling is, in this perspective, neither to transport knowledge from society to a learner (curriculum) nor a transposition of knowledge from science or other domains to the classroom, but rather the use of knowledge as a transformative tool for unfolding the individuality and sociability, in short, the Bildung of the learners, by teaching

Thus, Bildung cannot be "achieved" by Didaktik. The only thing Didaktik can do is to restrain teaching in a way that opens the individual growth of the student. As seen in what is probably the most influential model within current teacher education in Germany, Wolfgang Klafki's "categorical Didaktik," this can be described as a dialectical process by which teaching "opens up a world for the student, thus opening the student for the world" (Klafki, 1958, 1959, 2000). "Categorical" is Kalfki's way of putting what Bildung is about: providing students with categories, i.e., exemplary concepts, languages, tools, etc., to open up the world and to open up themselves. This is fundamentally different from, e.g., Dewey's and other pragmatists, instrumentalism; it sees these instruments as a legacy of mankind that has to be acquired and developed (as with Dewey), but also as an unfolding unique individuality (which Dewey does not put into his instrumentalism, at least not as explicitly as Klafki does within his Didaktik).

Of course, there are as many versions of the concept of Bildung as there are versions of Didaktik. Like Didaktik, it can be understood in different philosophical, methodological, and normative perspectives focusing on different institutions, clienteles, and actions. For instance, one can speak of "catholic Bildung" as well as of Bildung in a constructvistist perspective or of Bildung within the setting of a prison. And one can combine these or any other mixture of approaches to refine one's own brand of Bildung. In the late 1960s, this openness led to complaints that it was unclear what Bildung was about and that it would be better to replace the concept with the one of "curriculum," at least insofar as teaching is concerned (cf. Robinson, 1967). However, the vagueness, even ambiguity, of Bildung was never the outcome of a lack of conceptual clarification. It is a necessary feature of the concept itself. Indeed, it has always been one of the advantages of the commonplace of Bildung that it is not confined to one type of theorizing on education but is indicative of a core aspect of something that any Didaktik has to deal with,

i.e., the student's individual access to "the world" (as Humboldt puts it) and the outcome of this meeting. Bildung reminds us that the meeting itself and its outcome are not embedded in the content or given by the teaching but only emerge on site, then and there, where the meeting between a particular student and a particular content happens. Bildung is what remains beyond this situated engagement.

Matter & meaning

To make this happen, teaching has to deal with content in a certain manner. As Rudolf Künzli puts it:

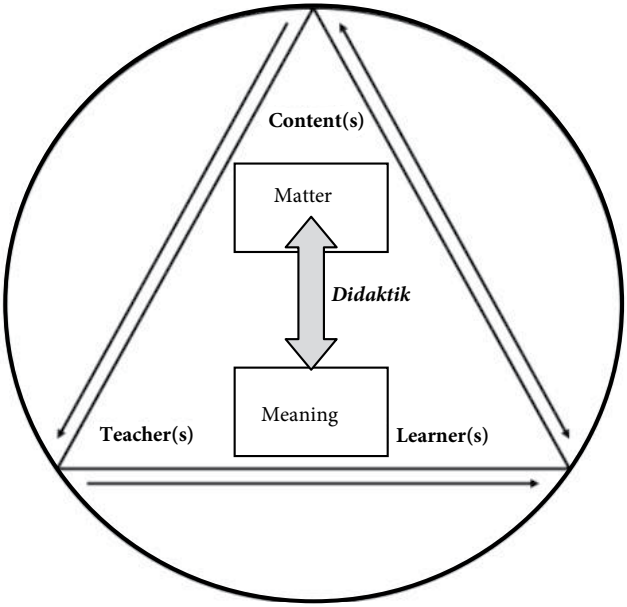
> A didactician looks for the prospective object of learning … and he asks himself what this object can and should signify for the student and how the student can experience this significance. Education (Bildung) is a code in traditional Didaktik and its concern is to synthesize everything that occurs within instruction into a consistently coherent whole … All other questions – other than the significance of the learnbing content – such as class management, individual and social learning, learning control, individual learning speed, appropriate representation, etc. – are subordinate to this central concern and gain significances only when the question of educative substance (Bildungsgehalt) is at issue. (2002, 40f.)

One can hardly overestimate the importance of the implied distinction between the content as such and its "educative substance" for the construction of Didaktik (cf. Roth, 1952/2000; Klafki, 1957; Künzli, 1980; Hopmann & Künzli, 1994; Hopmann, 2002a). Teaching deals with content be it "the Great War," basic arithmetic, or singing a song. But in a Didaktik perspective, the outcome is not knowing history, being able to count, or being able to sing a certain song. All this may or may not be a part of the outcome, but it is not what Bildung is about. Didaktik asks, for instance, what can we learn:

- about mankind by understanding the course of the Great War?
- about numbering the world by counting?
- about my inner being by mastering a song?

But, again, not in the sense that what is learned about mankind, the world, or my inner being is inherent to the subject matter at hand, but in the sense that the meaning of these learning experiences emerges within the learning process itself, based on the meeting of a unique individual with a matter at

hand. Thus, the difference of matter and meaning is not simply one of facts and beliefs, of objects and interpretations. If this were the case, then facts and objects would be seen as a given, whereas the beliefs or interpretations would be seen as something individually attached that is not decisive for the quality of learning outcomes and can be changed at will. Rather, it is precisely the other way round: In the perspective of Bildung and Didaktik, there are no facts or objects of teaching as facta bruta. Any given matter (Inhalt) can represent many different meanings (Gehalt), and any given meaning (Gehalt) can be opened up by many different matters (Inhalt). However, there is no matter without meaning and no meaning without matter.



This rather philosophical argument has an important practical side to it (cf. Hopmann, 1988, 2000b; Nesje & Hopmann, 2003). It reflects perfectly the differentiation of the written state curriculum and the actual teaching as described above by the licensing principle. The traditional state curriculum, as developed in Europe in the course of the 19th century, lists the subject matter of teaching but not the educative meaning attached. Meaning is what

emerges when the content is enacted in a classroom based on the methodological decisions of a teacher, i.e., working within his or her pedagogical freedom. Accordingly, the Didaktik parameter of good teaching is not the degree to which students master the content delineated in the curriculum but rather the question of if and how the educative substance is opened up for the students as intended and if and how it becomes open in their individual meeting with the content in the given teaching process. Different levels of mastery do not necessarily dignify different qualities of teaching but rather reflect different approaches to one and the same subject matter based on different possibilities for unfolding an educative meaning for different learners. In some cases, mastery will be the core; in others, a basic level will be sufficient to meet the educative goal in view, always depending on why one is supposed to learn something about wars, arithmetic, or songs.

Autonomy

Of course, and again, there are as many ways and means of delineating the difference between matter and meaning as there are models and patterns of Didaktik and ways and means of teaching (cf. Hopmann, 2000a). For a Quaker, the story of the Great War will have a different sound than for a soldier; in a creationist perspective, the issue of numbers will have rather different repercussions for Bildung than in a scientist's approach, etc. Didaktik and Bildung require normativeness, but they do not force submission to but one set of norms or beliefs. Rather, they challenge the teacher to be aware of the unavoidable normativeness in every dealing with whatever subject matter. The question then is, do I want to be (mis-)understood in a creationist or a soldier's perspective, or do I want my teaching to allow for other meanings to unfold in dealing with this matter?

Again, being Creationist, being "critical" or being "constructivist," etc., is not decided by the choice of the matter itself but by how the teacher chooses to enact a given content for a given audience of students under given circumstances, i.e., by which "world" (in the sense of Humboldt) is at hand seen from the student's perspective embarking on a journey into the content's affordances and limits. Even if the curriculum asks for something because of a certain expectation of substance (e.g., because something is seen as important for a Christian, civic, social, etc. education), this does not guarantee that the same meaning resurfaces as the chosen content becomes a subject matter in

a classroom. In fact, the substantive outcome can be directly opposite to the expected or required one (as was often the case in many socialist countries) or barely coupled to the substantial expectations of the written curriculum and/or the teacher's expectations (as is often the case in Western classrooms). What comes out in terms of Bildung is often not visible at all, at least not right away. It depends on what remains after the hurly-burly of teaching is done, the battle of minds lost or won, and the student comes to terms with his or her own world.

Such a concept of teaching requires a considerable amount of autonomy for both the teachers and the students. Or, more precisely, it presupposes the existence of such an autonomy in all teaching irrespective of its official status. Why is this? The connection of matter and meaning is not an ontological or ideological fact but rather an emerging experience, always situated in unique moments and interactions. There is no way to fix the outcome in advance. Of course, with experience, one can expect that certain contents meeting certain students within a certain age range and under certain conditions will (often) lead to this or that emerging substance. Without an expectation that specific patterns are more or less probable, there would be no Didaktik. However, there could be no Didaktik if the pattern was fixed in advance. Didaktik is the necessarily restrained effort to make certain substantive outcomes possible while knowing that it can always turn out completely differently from what was intended. As with Bildung, this is the outcome not of a lack of technical or didactical sophistication on behalf of the teacher of doing too much or too little, but of a necessary ambiguity of the teaching process itself. Substance in the sense of Bildung is never given. It emerges whenever we meet and meet something, in teaching as in life, and it can change again and again, even a long time after the original meeting took place. This is the promise and the predicament of Bildung, whatever its specific composition.

Common Challenges

The common places of Didaktik delineate a space for educative teaching (Künzli, 2000). As with any other space, it can be well used or misused, developed or destroyed. It is not the concepts that allow for or prohibit one or the other outcome but the enactment. There is plenty of good teaching undertaken without knowledge of Didaktik, and there is bad teaching on

the part of those who know how to argue a case using didactical phrases. In fact, as taught in teacher education today, Didaktik is often reduced to an art of being innocent of whatever comes out of the instruction delivered. By pointing to the subject matter, the students, or the circumstances as being decisive for the mishaps, we are excused. Such Didaktik often starts with an "if only," the "only" being a non-achievable condition of the given situation.

However, it is true that Didaktik depends on structures and situations, for instance, the amount of leeway built into the licensing principle or the substantive restraint of the state curriculum (Hopmann, 2003, 2006). What if the basic conditions for the Didaktik understanding of teaching are not given or get lost, e.g., by conceptual or structural changes? Again, the differentiation of order, sequence, and choice may be helpful to pinpoint the challenges.

Order

As developed in a Didaktik perspective, Bildung is an individual outcome, not a program for education. It depends on keeping the difference of matter and meaning alive and allowed. Not so in current programs to enhance schooling by national or international testing. These programs depend on a notion that the meaning of a matter is fixed, if not universally, then at least within the context of schooling. The tests present tasks that, in most cases, have but one solution, which is said to be the right one. In terms of Bildung, the problem is not only that other, especially non-cognitive, solutions are systematically neglected (e.g., intuitive or esthetic approaches, cf. Meyerhöfer, 2005) but rather that the outcome of dealing with subject matter is reduced to certain forms of mastering (whatever kind of mastery is preferred). The educative substance, the meaning in the sense of lasting Bildung, which may or may not have been actualized by the current teaching, doesn't play a crucial role for such tests or their results. Bildung becomes a collateral damage of mastering subject matter as required.

Test constructors are aware of the inherent problems of this approach. Different contents may have had different space and prominence in different settings. Different cultures may value a specific matter differently. Different languages make it more or less easy to articulate certain types of mastery, etc. The advanced answer to these problems is a "latent class analysis" of the competencies underlying the mastering of a certain matter (cf. Rost, 1996). Simply put, one assumes that different levels of mastery can be proven by

different tasks, i.e., by dealing with different matters, if one can calculate a scale of needed abilities in doing this or that task. Such competency levels may, e.g., move from basic knowing about something beyond practical mastery to the ability of critical appraisal (Klieme et al., 2003, continuing the Bloom taxonomy). Based on such ideas, the argument goes that if it is possible to calculate the underlying amount of competence necessary to master a certain task, one can easily compare across different cultures and languages and across different subject matter and contexts. For example, one could assume that a certain mastery in an everyday context corresponds with the same mastery in a school context, at least in terms of the competencies involved. Based on such reasoning, some European states (e.g., Norway, Austria) are dropping the former content-based state curricula in favor of competence-based curricula, listing sequences of tasks and abilities to be achieved at certain stages. As they see it, this gives schools and teachers additional freedom to figure out which matter best suits the competence development of their clientele.

If one were not familiar with Didaktik, this could easily be mistaken for a modernized concept of Bildung (which has happened; see Klieme et al., 2005). However, it is instead the direct opposite of the Didaktik idea of Bildung. As shown above, in the Didaktik tradition, Bildung is what comes out of the unique meeting between students and content, whereas the generalized subject matter of the curriculum is only used to instigate the process. Not the shared contents, but the unique process of Bildung is what counts as important: gaining competence is but one of the many potential meanings that can be achieved by a given matter. Moreover, there is no one single competency necessarily attached to a given matter. For instance, what seems to be a reasonable approach within science doesn't necessarily have the same meaning in an everyday context or in another subject matter. What in one case would be an important competency may in another setting turn out to be displaced.

Sequence

In the testing community, however, the generalized competencies are given, whereas the matter attached may vary, depending on situations, contexts, and tests, as long as it necessarily engages the same types of competencies (cf. Rost, 1996; OECD, 2001; Klieme et al., 2002; Maag Merki, 2003). Indeed,

the whole testing approach relies on this turn. No harm is done if one accepts the basic assumptions of latent class analysis, i.e., that there is a more or less hierarchical sequence of competencies that can be inferred from the test data. However, that requires a pre-modern structure of knowledge with stable relations of matter and meaning, a concept that Didaktik has abandoned since the days of Hugo (see above) by accepting that the order of knowledge in science and society and the order of knowledge within the realms of teaching and learning are not the same. If no fixed linkage between certain tasks and generalized competency levels can be assumed, if these tasks could be met by different patterns and levels of competency, and if competencies are different depending on the context of Bildung they are a part of, then a comparison of competencies across settings and different matter compositions would be impossible or, more precisely, meaningless.

The same goes, of course, for any assumption concerning what should be learned when and in which sequence. In the competency perspective of modern testing, one has to assume that there are discernible levels of achievement that are consistent across time and place (cf. Maag Merki, 2003). This would fit nicely the naturalistic cosmology of a Comenius, which is built around stable sequences between the micro and the macro, individual development, and the development of mankind. But one wonders how this fits in modern (constructivist) understandings of knowledge, which would stress, for instance, that there are huge cultural and individual differences in the construction of knowledge; or that taking a valid critical stance does not necessarily require cognitive mastery of a task (otherwise democracy would be impossible); or that intuitive solutions can be as good as technical analysis; or that tacit knowledge can match, or even surpass, explicit mastery; or that distributed knowledge is often more than the addition of individual competencies, etc.

Even worse is the implied understanding of Bildung and knowledge for society at large. It makes the level of (cognitive) expertise the one and only parameter of good teaching. Even more so, it insinuates that the degree of specific type of mastery is what counts for the ability to participate, to have your own voice, to achieve your own Bildung, your own legitimate Weltanschauung. One is above or below average only according to the ability to match a certain sequence of matter and competencies. Again, this fits with a pre-modern understanding of Bildung as a hierarchical, structured sequence

of knowledge hierarchically distributed in society. But what about, e.g., children with special needs or students with minority and other non-fitting backgrounds? Within the realms of modern comparative assessment, they can only count as liabilities or are simply excluded as non-fitting entities (cf. Koretz & Barton, 2003; Hörmann, 2007). To respect patterns of competency or meaning as valid other than those put into the test constructions would undermine the possibility of clear-cut results and thereby the political and scientific reasons for having such assessments.

Choice

Didaktik, as presented here, does not fit into this test environment. Therefore, it is not by chance that the field of assessment is more or less occupied by educational psychology and, to a lesser degree, by people coming from subject-matter research. Both construct the meeting between learner and content as a process determined by the inputs, their conditions, and constraints, not as an open event of intertwining matter and meaning. Accordingly, their models of schooling and school research construct teaching as a multilayered figuration of factors, not as a situated meeting, which creates its own meaning and internal relations based on the decisions of those involved (cf. Krauss et al., 2007). This difference has contributed to the thick walls that currently exist between the empirical research on schooling and the Didaktik discourse. Both General and Subject-matter Didaktik feel that the uniqueness of professional teaching gets lost in the one-sided focus on generalized competencies and constraints, whereas the researchers, with good reason, complain that their results are not taken into account in schools and by most teachers, even if they match the specific task at hand.

Advanced test specialists would refrain from any claim of covering the whole of Bildung, maintaining only that what they cover is an important part of it deserving attention and fitting with, e.g., the results from research on (multiple) intelligence and learning (cf. Rost, 1996). Does such restraint really help to find a common ground? Not within the frame of traditional Didaktik. Discard the difference of matter and meaning and the other elements not compatible with a generalized competency approach to Bildung, and nothing of Didaktik is left. Although many politicians and researchers argue that national testing combined with reducing the state curriculum to competency expectations enhances the autonomy of schools and teachers

(cf. Munin, 2001; Klieme, 2003), this is—plainly speaking—educational rubbish, at least from a Didaktik perspective. The only thing that happens is that the responsibility for matching the required patterns is moved to the classroom, thus reducing the local leeway for restrained teaching, for a teaching allowing for many different kinds of meaning and matter to blossom side by side (cf. Stecher, 1998; Whitford & Jones, 2000; Watson & Suppovitz, 2001; Hopmann, 2006). In this case the autonomy of the teacher to associate different meanings with given matters and the autonomy of Bildung emerging in a situated meeting between a learner and a matter would get lost. However, it does make sense in a perspective that defines the classroom as a place to distribute given sets of competencies, irrespective of their educative value. It challenges the teachers to figure out which subject matter would serve this purpose best under the conditions at hand (Koretz, 2003). The freedom to choose matter instead of meaning, however, doesn't really help in the long run, at least as long as testing requires specific combinations of matter and meaning as universally valid.

Comparing Didaktik

The problem is, of course, that testing and assessment are not just inventions of an overachieving educational testing community but common features of modern societies' governance (cf. Hopmann, 2006). Whatever educationists believe about them, they won't go away or loosen their grip on contemporary schooling. If Didaktik doesn't fit this situation properly, why not use other approaches, which seemingly fit better to the task, as, for instance, provided by educational psychology, the Anglo-Saxon curriculum tradition, or the French transposition diactique? After all, Didaktik shares with these traditions the notion of the classroom as a transformative space in which knowledge is created.

Like Didaktik, each of these approaches has its own advantages and limits. Educational psychology would be a good choice if the goal is the training of capabilities as used by the competence models. But, traditionally, educational psychology has not dealt with the specifics of subject matter or even higher-order competencies beyond very basic processes. Nor does it have a concept of Bildung, which would allow it to fit these competencies into a "consistently coherent whole" (Künzli, 2002). Within its frame, it would not

even be possible to observe the multitudes of meaning that can emerge from situated teaching and learning.

Within the Anglo-Saxon context, educational psychology and curriculum research have had, throughout the 20th century, a division of labor in which the curriculum experts dealt with the subject matter that the psychologists had left out (Doyle & Westbury, 1992; Westbury, 2002). This division came under pressure and still is in distress when, on the one side, the testing community moved into defining more and more of the curriculum by standards (Linn, 2000; Amrein & Berliner, 2002; Braun, 2004; Berliner, 2005) and, on the other side, a re-conceptualized curriculum theory (Pinar et al., 1990) lost its interest in actual classrooms and became more and more interested in the political and philosophical implications of the curriculum as a social fabric (Davis, 2002). Right now, one wonders if the "moribund" status of curriculum research, as diagnosed by Joseph J. Schwab in the late 1960s, indeed has ended by the final decease of curriculum inquiry (Schwab 1969). What is presented as curriculum research now is empirical research on teaching not much different from the educational psychology tradition (e.g., Mercer, 2006) and without any trace of an historical or institutional understanding of schooling in general (cf. Westbury, 2002)—and the promise of Bildung especially, at least without any commonplace for subject matter as provided by Schwab or the similar Didaktik differentiation of matter and meaning (cf. Pereira, 1984; Schwab & Roby, 1986). Even in its most advanced formats, as in, e.g., Shulman's model of pedagogical content knowledge (1987), it systematically fails to reconstruct subject matter as open space for the invention of future meaning, as in Dewey (1916).

This is different for the newest kid on the block, the French research on transposition didactique, as it has emerged since the late 1960s and early 1970s (cf. Chevellard, 2006). The prime focus of this research has always been the question of what happens to content when it is trans-positioned from one field of knowledge and understanding to another one, i.e., from science or everyday life to the classroom, and what space of understanding is given students by certain ways and means of positioning the matter. Much of the work within this tradition has been closely knitted with subject matter issues, looking into order and sequence of specific topics in, e.g., science, mathematics, or language teaching. But again, this is rather different from the subject matter concept of traditional Didaktik.

The French transposition concept assumes that meaning and matter are interwoven in context-specific ways and that the problems stem from the different fabric of this interrelation in different spaces, e.g., in science and in science teaching. The transposition didactique has to provide the knowledge of the differences and ruptures embedded in the move from one to another knowledge position, thus enabling the learning of the appropriate meanings of matter.

Of course, Didaktik could as well gain much from knowing more about both the American and the French tradition—as they could profit from knowing more about Didaktik. The empirical research done within the two traditions could challenge many dearly loved Didaktik beliefs on how dealing with content actually evolves, e.g., if and when it actually moves beyond the mastery levels as described within the competency perspective, and how often it does no more than pay lip service to the prime goal of Bildung. But Didaktik could enhance and widen the scope of the other. For instance, Didaktik could re-read their empirical results, which would probably show that many inconsistencies of, e.g., the competency concept, may stem from the non-linear emergence of meaning within teaching and learning. Didaktik could help to place the testing results where they belong as important aspects of education, but far from giving a complete picture of the impacts of teaching, let alone of Bildung.

But whatever a productive interaction between the traditions may be, there is no way for Didaktik to fall in line with the other's approach to teaching. Neither the C&I tradition nor the French transposition didactique implied a concept of restrained teaching. They do not require the three sine-qua-nons of Didaktik, namely a firm commitment to Bildung, a founding belief in the educative difference of matter and meaning, and a strong conviction that teaching and learning are necessarily autonomous activities. The others can do without these notions—Didaktik cannot!

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