

BOLOGNA REFORM IN GERMANY - A CRITICAL ASSESSMENT

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Almost to the day 12 years ago, a large number of European states passed a declaration on the further development of the European landscape of higher education. In order to emphasise the feeling that there has indeed always been something like a joint European - as opposed to merely English, French, German ... - tradition of higher education and also, certainly, for some rhetorical hyperbole, this declaration was passed at the location of Europe's oldest existing university, Bologna, which was founded almost 1000 years ago. This declaration has arguably wrought the most extensive changes on European higher education in many decades, although its wording is in the end quite modest - beyond emphasizing the need for internationally more mobile students and, later on, employees, and the desire for a better and more suitably educated workforce, lower dropout rates and more compact studies - it does not really formulate a very strict framework for the national reforms. In fact, in many ways it can be read such that many European educational systems could have stayed unchanged except for a few changes in administrative details. Essentially, it calls not for a total homogenization of European higher education, but rather better comparability between systems that have evolved organically over the centuries, but should be able to compete in a globalized context in the future. Many countries have indeed implemented the reforms Bologna calls for (or seems to call for) with barely any changes, namely the United Kingdom. It is this rather loosely fitting structure which has attracted by now 46 countries (and I am sure there will be more) to join in to the goals of the Bologna declaration.

Obviously, it is impossible to talk about 46 different university reforms in one go, and I am certainly not about to do that. My own competence and in particular personal experience is mainly confined to the German system after all, which however might be a very interesting point in case: Germany has one of the largest educational systems of all countries involved, and more importantly, it seems that so-called Bologna reforms have been carried out in Germany with particular intensity, reflecting discussions and debates within Germany going far beyond Bologna. In fact, it seems that many of the reforms implemented under the heading of "Europe wants this" are essentially the outcome of national politics. And this is not necessarily a bad thing, because despite all superficial similarities European higher education comes historically in an incredible amount of national variations.

Let me gather some facts first: The German system of old - which to some extent has influenced also the Austrian, Swiss and certain East European systems - has to a first approximation two categories, universities and Fachhochschulen (Universities of Applied Science), distinguishing themselves by a more applied focus, lower pay for the professors and the absence of PhD programs. The access to universities was achieved by the Abitur, the German certificate of higher secondary education, obtained after 13 years (now switching to 12 years), with a somewhat easier access to the Fachhochschulen. There were no admission exams; essentially this will not change due to existing constitutional court rulings. The degree at a university took usually 5 years (4 at the Fachhochschulen), finishing with a Diploma (sciences, engineering) or a Magister (humanities), or a State Exam (law, medicine, state school teachers). There were comparatively few exams in between that one had to pass in order to be admitted to the final exam; course programs were quite unstructured (with differences, of course, between sciences and humanities). The consequences were quite good national mobility, not so good international mobility because of incompatibilities with other systems, lots of academic freedom, combined with a certain absence of guidance, which often was named as a main reason for high dropout rates and also very long studies well beyond 5 years.

The new system is quite rigid and the same for universities and Fachhochschulen. There is a 3 year Bachelor and a 2 year Master. Because universities and Fachhochschulen become quite similar that way, this reform has been very popular with the latter because of the implied improvement of their status. If taken consecutively, $3+2=5$, everything looks a bit like the old system. But the differences are in the details. Every exam now counts towards the final degree; this implies better guidance, much less freedom beyond what is predefined in the course programs, and a much higher pressure on students. In Germany, there was also the political will that 80% of students should finish with the Bachelor and not go on to the Master - this is not the same level of education as before and implies that most of what was taught before was not needed anyway.

A few weeks ago, I was invited to give a talk on the topic "what makes European universities attractive?" In order to collect evidence, I asked students and professors at various places all over Europe I happened to visit at this time - cafes, restaurants, beer gardens in Munich, Geneva, Lausanne, among others. The answers were depressing, cynical and negative. "Have fun with your topic." "I have no idea." Many people would say, "well, it's cheaper than in the US, but that's about it". I was quite shocked by this defeatism and lack of self-esteem; how can a system be internationally attractive if the locals are not convinced, even though there are lots of good things in the European system? I think the explanation for the answers rests in a perceived discrepancy between political rhetorics of excellence and the situation right at the battleline, but also a lack of identification with and pride in one's university which in Germany was basically killed off after 1968 (the views in an Oxford college would be quite different). But most important it seems to me is that the deluge of reforms of the last few years has left students and professors restless and conveyed the idea that the institutions must be rotten if they are so much in need of permanent reforms.

All this despite the fact that seen from outside, European universities seem to have been a success story over the last one thousand years: starting from inauspicious beginnings, they have formed the model for essentially all institutions of higher education of our times. True, looking more closely, this success story is not without breaks: the college system of Oxford has only evolved on the ruins of an earlier, failed, system of halls, and is not a direct continuation of the medieval monastery. The blossoming of scientific academies all over Europe in the seventeenth and eighteenth century indicates that at this time universities did not fulfil their role as places of serious research and innovation. The successful European university of the nineteenth and twentieth century comes in several varieties: the English college system with its emphasis also on character-building, the French system of highly meritocratic, but school-like grandes ecoles (I am of course oversimplifying here), and the German system of the Humboldtian university with its training by research in a community of teachers and students (again idealizing and oversimplifying). It is this model which is at the basis of the large American research universities that are today's household names, despite the fact that the Americans have adopted the English terminology, and in this sense it has been THE success story of higher education.

It is therefore no surprise that the Humboldtian ideal has dogged German university reforms ever since, with positions ranging from "Humboldt is dead" (as propagated among others by the ministry of research and education) to "Humboldt is more alive than ever" (as propagated among others by a majority of university professors and their professional associations like the Hochschulverband). So no understanding of the Bologna reforms and their particular implementation in Germany can be complete without taking the Humboldtian paradigm into account.

But I would like to dig deeper - the Humboldtian university itself is founded on a deeper ideological foundation which for me is summarized in the very German concept of "Bildung". I am deliberately using the German term, because, as we will see, it finds hardly a counterpart in English as the British system of education has always followed quite different ultimate goals. In the end we are

talking about different views what would distinguish a fully developed human being, what his or her key abilities and characteristics would be. And no design or reform of a system of higher education can become alive and functional without such an implicit vision or a debate of what this vision could be. Obviously there is no unique, no THE answer, as the coexistence of various such flourishing visions shows.

So what is "Bildung"? Starting to think about it I felt as in the famous sentence of St. Augustine on time: "If no one asks me, I know it; if I have to explain it, I don't." It is with deliberation that I am quoting a Christian father of the Church, as the role of "Bildung" in Germany has been quasi-religious, in many ways serving - together with and in competition with science - as a substitute.

So let me start by outlining what "Bildung" in the German speaking world is *not* - because I cannot see any parallel concept in English or French - this concept has specifically grown in the context of a double impotence: that of the myriad of small German states before 19th century unification and that of the educated German middle class in the past in view of a ruling aristocracy. The first distinction is to be made with respect to the anglo-saxon ideal of the "well-educated gentleman", an ideal mainly characterized by norms of behaviour. It is part of an entire European tradition which starts with Castiglione's "Cortigiano", is ridiculed in Thorstein Veblen's "Theory of the leisure class" towards the end of the 19th century, reaching a dubious pinnacle in the "effortless superiority" of Balliol College, Oxford, in the Edwardian twilight of the British Empire, and continues right up to the habits of an academic class with its "fine distinctions" as characterized by Bourdieu. At least in Germany, however, this class does not exist anymore, at the latest after 1968, such that the history of this ideal finds its end as concerns our distinction. It has to be stated that German "Bildung" insists traditionally much more on certain contents than norms of behaviour, even though the assumption of elitist positions does form part of this German concept. One should be without illusion there: the mastery of Bildung is not merely achieved for its own sake, but also for social distinction.

A further distinction that has to be made is that between "Bildung" and a purely utilitarian approach, which is why natural sciences, in particular technical or engineering sciences are still not really accepted as part of "Bildung". In parentheses: I find this quite regrettable; a basic understanding of nature would seem to me equally as important as understanding the human condition. Be that as it may, complaints about an increasingly utilitarian orientation of universities are old: more than 100 years ago they were already accused of being devoted entirely to the production of indefatigable, satisfied slaves. Today, instead of slaves one would speak of company cannon fodder made to measure including skills and competences; but it is quite likely that these complaints date back to the grey prehistory of European universities.

These distinctions and delimitations impress upon us an admittedly vague idea of what "Bildung" might be, characterized by big words which hopefully might be filled by some concrete contents after all. An idea of "Bildung" as an intellectual activity enabling self-criticism and reflection, learning for application to another situation. This might indeed bridge the gap to entrepreneurial patterns of behaviour, so much in demand today, if they are not narrowed down to purely economical behaviour, which sets its own standards. Man in command of "Bildung" - we speak of "gebildet" - is capable of defining and solving his own problems, can empower himself, can go beyond established and accepted rules, has - I am quoting a former German minister of education - desire and joy of knowledge, and achieves the capability of acting as a free man. Isn't this exactly what an entrepreneur would be and do? I admit many of my colleagues might be reluctant to follow up this parallel, because they feel that too many concepts of economics have been forced upon universities in recent years, developing their own dynamics there.

As old as "Bildung" is its crisis, the quotation of the indefatigable slaves already revealing this. Nietzsche for example spoke of "Bildung" as a concept hostile to life. I feel that instead of

discussing a crisis of the concept of "Bildung", a crisis that seems to be as old and indestructible as Bildung itself, such that one may not take it quite seriously any more, we should discuss the crisis of the transmission of "Bildung". This includes a necessary distinction as to whether we are more interested in the philosophical aspects or the more financial ones, if one thinks about the continued lack of funds in German universities even in times of the excellence initiative.

But there are indeed intrinsic problems with the concept of "Bildung". Taken in too abstract a fashion, it implies a risk of apathy and pathological closure upon itself. The special role of the university might now be that because of its permanently renewed contact to society and its specific structure of combining both cooperation and competition it avoids these pathologies. The intrinsic threats to a lively concept of Bildung are accompanied by external threats, mainly from utilitarian ideologies, namely the subordination to economic concerns or the market or an ideology which focuses mainly on measurable outputs.

It is here that the role of the natural sciences might be critical: natural sciences show strong algorithmisation of knowledge, the production of context-free codes and context-free argumentation, the basis of their successes but also their limitations. Compared to the much more ambitious concept "Bildung" this is all quite limited, but so successful that the paradigm of natural sciences is being transported into other areas. To give an example: training in the natural sciences is very much about the acquisition of certain technical competences - which is fine, knowledge is organized in the form of algorithms to acquire highly complex theoretical or experimental abilities, without at first any view towards an application of any sort. But "competences" can also be reinterpreted, find different incarnations: the German Bologna reforms with their emphasis on extremely structured, school-like courses with a myriad of small examinations all counting to the final degree have led to a form of accumulation of competences which I can only call bulimic, without any long-term staying power and often forgotten the next day, let alone a reflection on the larger context of these competences. This seems a huge step back from any Humboldtian form of learning by doing and investigating within the community of a university.

This step backward has been superficially compensated by another almost epidemic phenomenon which I would like to call the lure of interdisciplinarity. There is, of course, nothing wrong at all with interdisciplinarity. As an excellent positive case I have in mind the Collegium Helveticum, which attracts suitably chosen researchers from various fields to work on a quite well-defined interdisciplinary project. But I do think it is all moonshine if physicists are fed a little bit of history and vice versa, and one feels that they might find their Archimedian eureka by thus enlarging their minds. Such attempts have been made, and failed. The differentiation of the sciences and humanities into ever new and also dying disciplines can usually be motivated on scientific grounds. This generates new fields and associated courses for degrees, also by reorganizing parts of old fields, and shows how organically growing interdisciplinarity can be a real trendsetter for new and unexpected innovations. What fills me and many others with a lot of unease is an explosion of interdisciplinarity by order from above. German specifics play a role here: The excellence initiative, at the moment in its next round, has generated interdisciplinarity because it was a political demand for proposals. The same has happened due to the Bologna reforms (without being intended in any way by the Bologna declaration), because the new courses for degrees have generated pseudo-innovations by pseudo-interdisciplinarity. This is in large part a consequence of the industry of certification of the new degrees, where criteria of uniqueness of a degree program are often applied. Jürgen Kaube in the *Frankfurter Allgemeine* reports on 11.000 German degree programs that differentiate themselves by juggling together various fields almost at random in some cases. The resulting chaos drastically reducing the mobility of our students should not be eulogized by calling it interdisciplinarian or even representative of a broadly defined "Bildung".

How does the concept of "Bildung" now survive in the days of Bologna? To repeat, I would be highly surprised to find anyone who would question the fundamental tenets of the Bologna reforms, like a higher mobility of students or a reduction of drop out rates. Increasingly, it turns out to be an essential problem that no discussion of the concept of Bildung and its possible role in the context of the Bologna reform has happened. The pedagogical framework within which German Bologna reforms operate I would characterize as "vulgarized pedagogics", conceptionally superficial and diffuse, essentially only identifiable by its deeds and consequences. To illustrate let me take just one catchword of the German discussion, "employability" (used in English). This word originates from Great Britain where it deals with people who haven't even achieved the lowest school leaving degree and have essentially extremely limited abilities to read and to write, and the question how to make them members of the workforce or employable by suitable additional qualifications. In Germany, this word is used for the job market access of academics, in complete ignorance of its origins, leading to fatal misunderstandings once discussions on education become international. This point may seem pedantic but it illustrates the vague conceptualizations that abound.

Of course there is an implicit model of Bildung, education, whatever, in the Bologna reform, which obviously varies strongly due to national traditions: once again it is important to remember that the execution of the reforms varies radically from one European state to the next. In the specific German case, it is the model of the "Nürnberger Trichter", an instrument from a German fairy tale, which squeezes knowledge into your head, which indeed sounds like a torture instrument. Another word would be bulimic learning, characterized by a "work load" measured in hours a student has to sweat, which structurally implies that everyone is equally gifted and that knowledge or rather the acquisition of knowledge can be numbered by hours due to a uniform speed of acquisition. Maybe this sounds excessive, but like many excesses, instructive for understanding. But maybe it is a euphemism to talk about excesses: student representatives report about certificates for overtime hours and structures of study that recall working at a Ford assembly line of old. I wonder how the overwhelming regulations introduced by the reform will lead to an increase of entrepreneurial thinking which is often supposed to lack in German students if compared to, say, American students. Will this be learned in the so-called soft skill modules? The reintroduction of the passively received lecture, an inefficient form of education and true step backwards from more modern forms of learning, as the cornerstone of bachelor and master studies definitely kills off individual initiative.

Unfortunately the very positive goals of Bologna have not been achieved in Germany so far, as is emphasized by students' and professors' organizations, but also the result of scientific studies, unless you deform their results to the amount done by the German ministry for research and education or the conference of university presidents. Of course the mobility of students in Germany has increased and more international students have come to Germany. But whether this is part of a general trend due to globalization or specifically related to the Bologna reforms is far from clear. Causality and coincidence are quite different things, in particular for scientists, and a mere juxtaposition of numbers will not do. In fact, recent studies seem to indicate that mobility is higher in the old types of degrees!

To look at things from afar can often be quite revealing, for example from the Chinese perspective. Local experts tell me that currently students there are moving away from an attitude which in the West is still arrogantly connected to the "blue ants" of Mao and are desiring more than just an acquisition of technical competences. This contrasts with an attitude in the West that sees people there as copying robots while creativity is the hallmark of the West. Given the way my university system is currently moving, there might be a very bitter ending to this story.

Following up on this rather dark diagnosis: can we do anything about it? Can we start a reform of the reform? Some countries, like Italy, have moved quite a bit in this direction; in Germany the

reform of the reform started after the student protest of the last 18 months or so, ten years after the original reform was launched. Most of the deficits now diagnosed had been predicted, had been obvious, but had been brushed over by silence in the political debate, and my hope is that this first silver lining on the horizon will also lead to a reflection of "Bildung" in the 21st century. I find it regrettable, if even ministers of state complain that in this debate the force of the argument is quite limited. Perhaps it is a German phenomenon that the force of ideology is strong. A good friend of mine, the German writer Martin Mosebach, put it the following way in the context of brutalizing modern architecture in Germany after WW II, which has disfigured so many of our cities: "one fabulated about concepts against what you could see with your naked eye, concepts that in Germany will always win easily against evidence." Perhaps German professors should have put up more and more organized resistance: in Switzerland, for example, stubborn resistance of Swiss professors led to the Master degree being the standard degree. This would also be highly desirable in Germany where the original intention was to kick out 80% of students after the Bachelor, against their will and intentions. All this might be changing slowly now, but 10 years have been lost for sure. Several universities like Freiburg are now introducing very broadly defined Bachelor courses which bring back the concept of Bildung and the Humboldtian type of acquisition of scientific thinking. Interestingly enough, no one dares to point this out in public: the argument is that we are following the American trend of a general education Bachelor. This is politically acceptable ...

In the current discussion it is pointed out that teachers and students, and in the Humboldtian sense the teachers are students too, cannot lead a purely internal debate, but have to take into account external requests and demands. This is perfectly acceptable, the university being financed by the state and being anchored in society. Our possibilities and limitations are indeed given by society: how, to give an example, can a university generate students that want to take risks if they originate from a society which nowadays is in large parts averse to any risk and thinks it can freeze its wealth and status, while the world around it is storming ahead. The role of politics would be to mediate between societal interests and the universities' own interest. What are the societal interests?

As already mentioned, "employability". Fans of "employability" like to point to paragraph one of the Humboldtian founding constitution of the University of Berlin, which - seemingly opposed to the ideals of its founder - names quite specific positions in civil service as the goal of a university education. One might discuss this a lot: wouldn't a person steeped in "Bildung" be particularly suited to serve society? Or might all this be just pure declamation? The educational law of my own state, Bavaria, declares the key goal of education to be respect for god and love of Bavaria. In practise, we learnt reading and writing, mathematics, foreign languages. My guess would be that a key goal of Humboldt might simply have been to extract the necessary money for his vision from a not so visionary, parsimonious king.

But we should also mention external demands which are totally unrelated to Bologna, but result from a massive mixture of Bologna-specific demands and specifically German political intentions. Former Saxonian minister of research and education, Hans-Joachim Meyer, has quite convincingly argued that the goal of the German reform is not so much to establish a European sphere of education and research as such, but rather to establish an English-speaking complex of science which is closely modeled on the anglosaxon model, in the hope of achieving major savings compared to the old system. The expected savings made this model attractive in Germany beyond all party lines - and now that it has turned out to be much more expensive so unattractive. The reform of the reform is probably more due to that than to any student protests.

Further demands join in: like the acquisition of new student groups, motivated by the claim that more and more people with an academic training are needed. OECD experts, who in my view also have political goals of their own, sometimes present countries with 90% academics as models, whatever these 90% of academics might be doing exactly. In the daily practice of universities

people rather feel that saturation has been reached: the activities of the last years to enlarge the intake have led to a reduction of standards, with the politically desired goal of also reducing dropout rates. Many argue that the additional demand for academics is essentially driven by employers who can raise formal (degree) requirements to prune the number of applicants, if degrees become ever more pervasive but also ever more void of contents. It is purely anecdotal evidence, but many of my friends from my days as physics students who left with a diploma, PhD, even habilitation, and who now work in excellent positions, think that the specific qualifications as a physicist were not what mattered: "the high school certificate and a basic ability to calculate would have been sufficient".

Anecdotal evidence, if undesired, is often countered by saying one should access the "systemic level". I am very happy to try that. Could it be that my friends are successful not because they learnt quantum mechanics, but because they learnt at school and university, instead of seemingly perfectly fitting competences leading to maximal employability, exactly what "Bildung" embodies: reflection, learning for the different situation, going beyond established rules? I think there can never be enough human beings able to do that. Whether the degree mills established under the heading of Bologna will help them there, I seriously doubt.