CHAPTER 3

A RULE-GOVERNED COMMUNITY OF SCHOLARS: THE HUMBOLDT VISION IN THE HISTORY OF THE EUROPEAN UNIVERSITY

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INTRODUCTION

Whenever rapid, fundamental, and seemingly irreversible changes occur, or at least seem to occur, in politics, art, technology, or in different types of infrastructures and institutional formations, we are almost instantly inclined to start talking about "x-revolutions," "x-quantum leaps," etc. By doing so we are not only indicating that in "our age" we are experiencing an undisputed and measurable quantitative change in our daily private and professional lives, we are also convinced that the impacts of these processes will be extremely rapid, far-reaching, and indeed unique in a qualitative historical sense.

Thus, before discussing the question of continuity and change in European higher education and research and in particular the role of the so-called Humboldtian model, it is only befitting to once again make a humble reminder of the fact that concepts, such as "revolution" and "evolution," "change" and "continuity," are notoriously tricky to use in an actual analysis and explanation of historical events, actors and processes, and, hence, they are also hotly and almost incessantly debated among scholars. Historians have, for instance, not reached even a moderate or provisional form of consensus on the matter *when – or why –* a process of change in politics, economy, culture, or technology should be defined as a "proper" revolution.

Not least because of their powerful psychological appeal and notorious ambiguity these very concepts are – and have always been – used and abused, not only as unproblematic analytical and descriptive tools and categories, they have also been frequently used as potent ideological and political instruments to promote certain contemporary policies and political goals. Those among us, both scholars and other so-called experts, who are the most naive and not seldom notoriously lacking even the most rudimentary form of historical knowledge will usually maintain that they are not only able to predict the *precise outcomes and consequences* of these alleged revolutionary processes in practically every walk and dimension of human life, but are also quite capable of presenting the "*proper*" *remedies and solutions* that these more or less "revolutionary" and seminal changes crave.

The ongoing European debate on the need for rapid and fundamental changes in higher education and research funding, organization and policy planning during, at least, the last decade has certainly not been an exception from this particular historical

P. Maassen and J. P. Olsen (eds.), University Dynamics and European Integration, 55–80.

rule of ideological abuse (Ash 2005). On the contrary, many of the most frequent European arguments in this debate – both on the national and supranational level – have had clear political or ideological connotations. This is perhaps most obvious when different protagonists have resorted to historical arguments to promote their own particular reform agenda and recommendations (chapters 2, 4, 5 and 6). Most notably this has been the case in regard to the perpetual and sometimes heated discussions on the relevance/irrelevance, impact – negative or positive – actual significance and, even existence of the so-called Humboldt University both in the history of European higher learning during the last two centuries and regarding its present-day role and repercussions in European higher education organization and policy making.[46]

Despite the precautions and pitfalls listed above I, nevertheless, believe it is quite possible to identify at least six "revolutionary" periods, including the one we obviously are witnessing at present, in the history of European higher education and research, that is, periods when European university systems went through different types of fundamental changes.[47] However, my ambition is not only, or even primarily, to recreate a condensed and sketchy historical record of European "university revolutions," but rather to point to the fact that these fundamental changes certainly had a variety of internal and external causes or prime movers as well as different outcomes and consequences, which reshaped the institutional, professional, ideological, and political preconditions for the existing and emerging higher education institutions in a variety of ways.

By using a fairly broad historical perspective my ambition is, at least, to complicate the discussion on the multi-facetted long-term effects of structural change on the private and public lives of higher education institutions and knowledge production, as far as their fundamental organizational and curricular structures, pedagogy, main societal obligations, and basic self-understanding are concerned. For all analytical purposes the so-called "Humboldt Revolution(s)" of the nineteenth century will constitute the centrepiece and historical node of my deliberations. The discussion and characterization of the other identified "revolutions" in the history of organized higher education in Europe will indeed be very sketchy.

Thus, the first two "pre-Humboldtian revolutions" should primarily be seen as historically and culturally defined starting-points and preconditions for the institutional reforms and ideological transitions that were first introduced in Berlin at the beginning of the seminal nineteenth century. In many central aspects the starting-point for Humboldt's passionate ambition to restore the German universities into proper places of higher learning, was the deeply felt conviction, not only by Humboldt but by most of his intellectual contemporary *Mitstreiter* that the existing German universities,

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[46] The Humboldt literature has, not least in the last few years, become almost boundless. For an overview, see Nybom (2003), Bartz (2005) and not least Ash (1999) and Schwinges (2001), as well as the contributions by Nybom, Jonsson, Henningsen, and Wittrock to Neave et al. (2006).

[47] The standard works on the history of the European University are of course the four CRE-volumes, *A History of the University in Europe* (Ridder-Symoens 1991, 2003) and Rüegg (2004). The fourth Volume, edited by Walter Rüegg, is forthcoming.

with a few exceptions, had deteriorated to intellectually stagnant local duck-ponds.[48] One could perhaps even go so far as to argue that his ultimate intention was *not to mend* but indeed to *smash* the existing universities – to create something entirely new (Walther 2001: 35).

Apart for being interesting in their own right the two "post-Humboldtian" examples might also further illustrate the continued relevance and persistence of the Humboldt model. Hence, if one wants to understand the arguments for institutional and ideological change discussed and propagated today, a closer and more complex study of the developments during the "long nineteenth century"[49] is crucial, simply because this particular period in the history of higher education has in a curious way played a central role in the ongoing discussions on the future of the European University – Wilhelm von Humboldt certainly continues to cast a very long shadow.

UNIVERSITY REVOLUTIONS – PRIME MOVERS AND BASIC CONSEQUENCES

Among the many possible internal and external *driving forces* or *prime movers* in the history of higher education and knowledge production a good handful of the more obvious and uncontroversial ones can be singled out:

(a) Political
(b) Ideological
(c) Technological
(d) Economic
(e) Scientific/Cognitive
(f) Demographic.

Even if these general societal forces usually are intertwined and, thus, very difficult to separate from each other when it comes to their actual historical impact, I nevertheless believe it can be quite instructive to discuss their *relative* importance and *possible* impact on different levels and dimensions of higher education and the pursuit of knowledge, such as:

(a) Institutional
(b) Curricular/Pedagogical
(c) Professional
(d) Social/Mental
(e) Policy/Political.

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[48] His first very short academic experience in Frankfurt an der Oder was deeply disappointing and he subsequently suggested that after the establishment of Berlin this and other "provincial" institutions, which "could never gain any international repute should be closed down." See Steinberg (2001: 13, 72).
[49] The label was coined by Eric J. Hobsbawm (1987) in the 3rd volume of his brilliant exposé of world history since 1780.

As regards the major consequences of the categories I have identified they are equally floating and interrelated. However, it is in this way possible to identify and illustrate, at least tentatively, the multivariate and uneven character of the historical process of institutional change that has gradually transformed European higher education.

THE GUTENBERG REVOLUTION, 1460–1560

My first case takes its starting-point with an equally well-known, and never really disputed, revolution in the field of *Information and Communication Technology* (ICT) quite comparable to the one we have experienced in the last decades: Johann Gutenberg's invention, or rather development, in the 1450s of the printing press in Mainz. This technological innovation did not only revolutionise the production and distribution of knowledge and information (Febvre and Martin 1976; Eisenstein 1980), it also had far-reaching *professional* and to some degree *curricular* implications. In fundamental ways, this technology not only changed the *content* of education but also the *role* and *self-understanding* of both students and university teachers. For the university professor, one could say that this innovation marked an important first step from being mainly a *transmitter* to becoming an *interpreter* of existing knowledge and to some extent even a producer of new, original knowledge. From now on, the professor could no longer exclusively stick to his old trade of reading out loud from canonical texts, because, even if he still was using the traditional form of lecturing, his main obligation had become to *make personal comments*, and preferably even original and intelligent interpretations, on texts that were already available to, and sometimes even read by, his students.

As regards the students, the *ideological* impacts of Gutenberg's innovation can hardly be overestimated. It can be argued, for instance, that it would be quite impossible to understand and explain the "student revolution" of the late fifteenth and early sixteenth century, instigated primarily at the Wittenberg University by that notorious young theologian Martin Luther, and which soon became the prime mover of Protestantism, without Gutenberg's innovation. Likewise, it would be equally impossible to explain the massive expansion and transformation of scientific knowledge starting roughly at the same time. But even if the ICT-revolution of the mid fifteenth century obviously played a decisive role in changing the societal role and standing of higher education and systematic knowledge, surprisingly perhaps, it did not had any visible effect or any substantive impact on the overall organization, institutional, and curricular structure of higher education, and perhaps even more surprising, nor did it lead to any substantial reforms of the pedagogical content of higher education. As many historians have pointed out, this path-breaking innovation in ICT did not have *any* visible or substantial effect on the existing mode of teaching and educational thinking at the university. The actual delay from Gutenberg's invention to the introduction of new pedagogical and educational forms and methods made possible by that very technology was roughly 350 years, that is, when the modern Seminar was introduced as a central form of teaching and instruction.

THE SCIENTIFIC REVOLUTION, 1600–1750

As the second revolution, and in many ways, closely linked to the first – not least when it comes to the distribution of knowledge, one would certainly be inclined to reclaim the so-called "Scientific Revolution" of the seventeenth and eighteenth centuries.[50] Gradually, this scientific revolution had an enormous cognitive and theoretical impact by introducing the methods/*praxis* of modern natural sciences as an independent body of knowledge. But apart from its revolutionary *cognitive/scientific* drive it also, gradually at least, had fundamental *economic/technological* repercussions. Eventually, it also had deep – if in our particular context paradoxical – *institutional consequences* on the organization and political embedding of higher education and knowledge production, both regarding the *standing and institutionalisation* of scientific work and of its distribution,[51] Furthermore, and not least, it had a far-reaching and lasting impact when it comes to the *habitus* and *self-understanding/mentality* of the individual scholar. It is thus only befitting that Francis Bacon published his treatise *New Atlantis* in 1627.

This intellectual revolution witnessed the founding and rapid expansion of the first, at least, semi-independent, institutions for the systematic pursuit of *new* knowledge and research, that is, the European Academies of sciences starting with the establishment of *L'Académie française*, 1635, the Royal Society, 1660 and the *Académie des sciences*, 1666 (McClellan 1985). These were soon to be followed by sister institutions in practically every European country. It also, at least in rudimentary forms, witnessed the birth of the *modern scientific man* and simultaneously a growing insight that the pursuit of knowledge was a *common international enterprise*. Science and research were certainly not performed or did not prosper in *Einsamkeit (isolation)*; these activities were rather the outcome of intense international cooperation and permanent scholarly correspondence. Carl Linnaeus in Uppsala and the Royal Society in London could almost be designated ideal-typical individual and institutional representatives of this "sociological" development.

Furthermore, it has even been argued that this seminal shift in intellectual mentality and *habitus* should actually be regarded as *the* steppingstone to the European "*Sonderweg*" (unique path) to modernity and eventual hegemonial, political and economic global power. If so, it is almost exemplary that when Carl Linnaeus in the mid eighteenth century defined the *Homo Europaeus* as "*levis, argutus, inventor*" (quick, shrewd, innovative), that is, a supreme being – he was primarily, and indeed proudly, thinking of himself, that is, the *modern scientist* (Lepenies 1998: XVII and Huff 1993).

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[50] See the contributions in Crosland (1975).

[51] Usually the *Philosophical Transactions*, 1661 of the Royal Society is considered to be the first regular scholarly journal. For an overview of the forms and ways of distribution, see Sörlin (1994), esp. chapters 3 and 4.

Strangely enough perhaps, the existing European universities, with the possible exception of two untypical examples of Leiden and Göttingen,[52] were not only side-stepped but to a high degree the victims of this profound intellectual and institutional revolution, which eventually led to what probably could be described as the most serious crisis that the European University has hitherto gone through in its almost millennial long history. The transformation of the medieval University system had already started with the emergence of the European centralized territorial state in the late sixteenth and early seventeenth century, which turned the University from an almost exclusive prodigal of the church into an institution *instrumentally* directly linked to, and in the service of the early modern absolutist state. In this connection it was primarily seen as a crucial *Kaderschmiede* of civil servants in different branches of the growing state bureaucracy. The Swedish development could serve as an almost ideal-typical example (Frängsmyr 2000: 330; Neave et al. 2006: 52–55).

The gradual emancipation of the University from the church changed the role and the (self-) understanding of what a university, a university professor and a university student were, or should be. The process of instrumentalization/"vocationalization" or what Germans probably, then and now, would give the label *Verschulung* of the university combined with the rise of independent scientific academies led to a gradual decay of the existing European university systems as research institutions from which it, at least in my view, never fully recovered. Thus, the ensuing transformation process in the history of higher education that characterized the next century was not primarily a period of reform of the *existing* institutions but should rather be seen as an era of *reorganization* and restoration of all three major European university "systems": the French – where the university in everything but name was side-stepped by the Napoleonic Reforms, the German with the "Humboldtian" revolutionary reforms, and the English with what Sheldon Rothblatt (1981) has described as the "revolution of the dons." The only place where the existing universities actually flourished during this particular era was probably Scotland.[53]

THE HUMBOLDT REVOLUTION: PART ONE PROFESSIONALIZATION AND VERWISSENSCHAFTLICHUNG, 1810–1860

The first and perhaps still most famous of these seminal shifts during the "long nineteenth century" occurred in 1810, in the then not particularly illustrious Prussian *Krähwinkel* of Berlin. The immediate driving forces behind this truly revolutionary break in the history of the University, which has gone down in history as the establishment of the so-called Humboldt University, can be found in a combination of a number of integrated and random historical factors:

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[52] And possibly Uppsala simply because of the presence of Carl Linnaeus, Anders Celsius, and Torben Bergman; for an overview and further references, see Frängsmyr (2000), and chapter 4.

[53] On the particular Scottish University and the Scottish Enlightenment, see Sloan (1971). For a comparative dimension, see Rothblatt (1997).

- *Ideology*: An almost unique combination of aggressive neo-humanism (classicism), *Spät-Aufklärung* and pre-romantic German idealism. (The most important intellectual point of departure probably being Immanuel Kant's satirical pamphlet *Streit der Fakultäten,* 1798).
- *Politics*: Prussia's national catastrophe after the Napoleonic wars and the ensuing political and institutional reconstruction of central functions of the state (vom Stein – Hardenberg reform era).
- *Mentality*: A historically – possibly unique – concentration of creative intelligence and a general interest in – almost obsession with – education in general.
- *Institutional*: The total external and internal intellectual and institutional decline of the German university system.

I am prepared to state that this seminal and even revolutionary importance did *not* take place primarily at the institutional level but at the *ideological* level. Thus, the main and enduring achievement of Wilhelm, *Freiherr*, von Humboldt was that he, out of the almost innumerable philosophical and pedagogical ideas on knowledge and learning floating around, was able to deduce and articulate and produce a consistent *Idea* of the University. Traditionally the defining properties and basis of the "idea" of the Humboldt's University/vision have rightfully been described as:

- Knowledge as a unified indivisible entity.
- *Einheit von Forschung und Lehre*. (Unity of research and teaching).
- Primacy of *Wissenschaft* and research, which also presupposed a new institutional order and cognitive hierarchy.
- The individual and common pursuit of "truth" in "*Einsamkeit und Freiheit*" (Solitude and freedom).[54]
- *Lehr- und Lernfreiheit* (Freedom of teaching and learning).
- The creation of a unified national culture with *Wissenschaft* and University as the centre-piece: "*Bildung*."
- *Wissenschaft* and (higher) education as the second categorical imperatives of the central state beside national defense: as the basis of a modern "*Kulturstaat*."[55]

The Humboldtian reforms, nevertheless, also had far-reaching institutional consequences. As regards Wilhelm von Humboldt himself his main institutional dilemma and concern could be formulated as follows: How is it possible to establish a *socially integrated yet autonomous institutional order for qualified scientific training*? An institutional order, which, at the same time, could guarantee an optimal and perpetual

[54] It should be pointed out by *Einsamkeit* von Humboldt certainly did not mean individual *intellectual isolation*. On the contrary, Wissenschaft = the never-ending search for truth, was indeed seen by both Humboldt brothers as a common enterprise of the republic of scholars/students. The claim for *Einsamkeit* entailed the right to devote oneself to scholarly work without any intervention from external forces.

[55] Apart from the argument of a superior "critical mass" the decision to locate the new University in the capital also reflected the central strategic position of the University in the nation state, Schwinges (2001: 59). This pattern was soon to be followed in other German and European states.

growth in knowledge but also provide a dimension of *Sittlichkeit* (virtue) to the individual?

Wilhelm von Humboldt's pragmatic solution or even functioning historical compromise was: *The regally (state) protected and fully endowed Ivory Tower combined with an elitist and gate-keeping Gymnasium/Abitur.* And even if the label Ivory Tower has gradually, nowadays become one of the most frequently used degrading metaphors for the supposed societal and even cultural irrelevance of the Humboldtian University, it certainly had no derogatory connotations for Wilhelm von Humboldt. On the contrary! The creation of an Ivory Tower was precisely what he ultimately was striving to achieve. Accordingly, the state must be persuaded that it was in its own well-founded, long-term interest to optimally promote the expansion of scientific knowledge, and this could only be accomplished by securing the individual freedom of the scholar. Reciprocally, the king should keep the prerogative of appointing professors – not primarily as a means of control but in order to protect the institutions from succumbing to the vice of internal strife and nepotism. Furthermore, to be worthy of enjoying this extended freedom and autonomy the professors should refrain from the political and other "external" strives, and hence the delimitation of the university from society at large should be clear.

Wilhelm von Humboldt presented two main arguments why the king/state should play the role of a more or less passive guardian angel to an institutional order with unparalleled autonomy in an absolute monarchy. First, there was the "philosophical/moral" argument that new and original knowledge could only be pursued and produced in "*Einsamkeit und Freiheit*." Second, and logically following the first, he also presented the purely "utilitarian" argument, which is usually forgotten in the present deliberations on the Humboldt University: since the intellectual *and* economic prosperity, and even physical existence of a modern *Kulturstaat* was directly and inexorably linked to the optimal pursuit and production of qualified knowledge, the principle of individual autonomy was not only a *desirable* institutional solution but an *utilitarian necessity* and central *moral obligation* of the central state – *sine non qua.* To pull off this political "*Meisterstück*" Wilhelm von Humboldt used both ideological/moral *and* purely economic and utilitarian arguments – sometimes originally invented by his brilliant younger brother, Alexander.[56] This "utilitarian" side of Wilhelm von Humboldt may perhaps surprise his present day academic admirers, who tend to believe that Wilhelm von Humboldt did not care about such "worldly things" as instrumental usefulness – he certainly did.

Contrary to Wilhelm von Humboldt's original proposal and repeated pleas for a fully endowed and thus economically autonomous university, the Prussian *Staatsrat* decided to treat the new University as just an ordinary state agency with annual and hence politically controlled allowances. This decision was a major disappointment to von Humboldt who considered economic autonomy as a necessary precondition also

[56] See for instance, Alexander von Humboldt (1845: 3–40), *Zaunick* (1958: 344). For a brilliant condensed introduction to Alexander von Humboldt, see Lepenies (1999).

for academic autonomy. The governmental decision was probably the main reason why he quite suddenly and promptly decided to leave his office as Secretary of state in the *Section des Kultus und Unterricht* after only 16 months in office, and he officially declared that he wished to have nothing to do with the further planning arrangements of the new institution of higher education (Steinberg 2001: 81). This definite demission has been reason enough to ask how much "Humboldt" the "Humboldt" University actually contained – all the more so as it was not until almost a century later that the Berlin University was hailed as the outcome of Wilhelm von Humboldt's genius.[57]

Last, but not least, a strict state control of student admission (*Abitur*) should be established. Modern academic "politicians" tend to forget that Wilhelm von Humboldt's greatest and lasting *institutional* achievement in education was probably not the reorganization of the Berlin University, but laying the foundations of the German *Humanistisches Gymnasium* (Vierhaus 2004: 63–76; and Mittelstrass 1994: 149–174).[58] The European secondary school thus became totally integrated in, and dominated by, higher education, and subsequently also the real gatekeeper and guardian of excellence. From now on the *Abitur* became the only, but still powerful selection mechanism for the comprehensive, "open" Humboldtian but nonetheless highly elitist university system (Müller 1990: 306). The illusion that the present day European secondary school systems are actually still performing this crucial gate-keeping task is very much alive in many parts of continental Europe, which has contributed to aggravate some of the structural dysfunctions in European higher education.[59]

In the initial five decades (1810–1860) of its existence the "new" German University underwent a gradual institutional and professional transformation, which eventually and in different degrees, would permeate and influence almost all Western university systems.[60] At the institutional level the modern organizational and hierarchical triad of *Fakultäten – Disziplinen – Lehrstühle* (Chairs) was formally established and cemented, where the actual power rested with the full professors (*die Ordinarien*). The European University then became a rule-governed community

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[57] The actual Humboldt heritage becomes even more ironic and dubious when the Professor of Pedagogy Eduard Spranger in *Über die idee der Universität*. Leipzig 1910 – one of the many "Gedenkschriften/Reden" published at the centennial anniversary – boldly declares: "The great achievement of Wilhelm von Humboldt was that he was able to cog (Verzahnung) *Wissenschaft* and state together into an organic whole." (XLI), and even more so in the light of one of Humboldt's most frequently quoted statements: "The state must always be aware that it … is always a hindrance as soon as it becomes involved in things that would go so much better without it" (257) – and one of those "things" was precisely the University/*Wissenschaft*. For an early classic study on the "Berlin-type" University, see Paulsen (1902).

[58] From 1810 all German Gymnasium teachers had to get their degree from the university, see Lundgreen in Ash (1999: 148).

[59] One interesting case of the lack of serious consequential, long-term analysis would be how Sweden from the 1970s gradually changed its secondary school system from a "German" into a US-type high school system.

[60] The modern statutes of the Uppsala University from 1852 could serve as a typical example; see Blomquist (1992).

of scholars – a loosely coupled institutional framework without an administrative centre of gravity within which individual professors remained more or less autonomous. The *Rektor* remained a purely representative position, and the *Kanzler*, as administrative head, did not even formally belong to the university but to the ministry. In due course this institutional fragmentation would turn out to be one of more decisive institutional differences between the European University and its rapidly expanding North-American sisters and competitors. When it comes to *pedagogical* change the introduction of the Seminar could be seen as an ambition to establish an ideal-typical form of free, discursive and common scientific inquiry of professors and students.

From having been regarded as "*Trivia*" the Philosophical Faculty was elevated to the indispensable core of the "new" University. A revolutionary transformation, which although it had deep-set institutional consequences, primarily reflected the epistemological and ideological corner stones in German Neo-humanist thinking. The unity of knowledge was not only a cognitive and epistemological pillar of German idealistic philosophy; it also constitutes, in some respects, its basic philosophical and moral foundation. This unity should primarily be achieved and secured through the reign of philosophy.[61]

This did not just mean that the natural and cultural sciences could be merged on the higher philosophical level. Philosophy – together eventually with history – was also given the central task or duty to supervise the so-called "*Brotwissenschaften*," that is, Medicine, Technology, and Law. These fields of study should not be able to corrupt, or even influence, the institutional order and the intellectual content of higher education, since those disciplines – to quote Wilhelm von Humboldt: "don't have their immediate, spiritual home in *Wissenschaft* but in qualified handicraft." This Kantian idea actually meant that the existing medieval university was turned on its head when the traditionally "lower" Philosophical Faculty suddenly became top dog. In reality, one could say that this Faculty, from now on, constituted the genuine and "real" new University, since, according to Kant, and von Humboldt *et al*., the Philosophical Faculty was the only one immediately connected with "truth" while the other three had their rationale in instrumental "usefulness" (Mittelstrass 1994: 22, 43; Müller 1990: 294, 306). Eventually, this also quite early led to an institutional differentiation.[62] "Thus, the dual identity of the modern European University became established: it was supposed to be at the same time a place for research and an educational institution for *civil servants.*" (my italics, TN) (Neave et al. 2006: 99; Schnabel 1964: 207).

On the *professional* level it has been argued that this period signified the emergence of the modern competitive academic career system and consequently also the establishment of an informal but nevertheless obvious institutional hierarchy. Until

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[61] Vierhaus in Treue-Gründer (1987: 69).

[62] But the dream of an indivisible body of knowledge lived on and, accordingly, when the soon much envied German *Technische Hochschulen* were given the right to grant doctorates, in the second half of the nineteenth century, they did so only on the condition that they established chairs in philosophy and/or history "to secure their scientific quality." These chairs are, by the way, still with us today, see Lundgreen in Ash (1999: 157).

the mid nineteenth century the recruitment of professors had in the German realm been extremely local – and to some extent even a family affair (Baumgarten 1997). In the second half of the century Germany had become a national academic labour market where professors pursued highly competitive academic jobs and careers. It was also now that the Berlin University gradually established itself as the pinnacle of academic excellence and fame (Baumgartner 2001: 105–129). Simultaneously, the individuals devoted to the noble task of perpetual "truth-seekers" that is, university professors – advanced markedly in social and economic status until they, eventually, in the imperial era attained a mandarin-like position – or in the words of the German professor of philosophy, Jürgen Mittelstrass (1994: 83): "What God was among the angels, the learned man should be among his fellow men."[63]

Finally, it must be pointed out that the driving-force behind the broad and massive international impact of the German University in the second half of the nineteenth century was not primarily a matter of any formal organization or institution building but rather an effect of an almost instant and exceptional expansion of scientific knowledge in Germany in practically all scholarly fields, which seemed only to accelerate over time. And since nothing succeeds like success also in academia, in less than half a century the *Friedrich-Wilhelms-Universität zu Berlin* became the undisputed model institution for practically all university systems in the world.[64]

The explanation of scientific productivity has long been a central concern of the history and the sociology of science. Should the undisputable success of German science and scholarship, in the nineteenth century and onwards, be explained by specific or generalisable cultural and/or economic factors?[65] Although there are many different theories accounting for scientific success performances, social scientists seem to agree on at least this one factor: "advance was dependent upon the number of talented individuals who select science as a career" (Cole and Phelan 1999: 37). But even if one certainly can find a fair number of scientific geniuses in German nineteenth century intellectual history, such geniuses, nevertheless, are in need of milieus where their genius can thrive and where their achievements can be duly acknowledged. So, the question remains: what are the factors that seemingly influence and possibly

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[63] On the German Mandarin, see Ringer (1969) and the ensuing debate, for example, Habermas (1971: 239–251). Also Mommsen (1994).

[64] To illustrate the self-understanding and the almost unbounded self-confidence of the German professoriate already in 1869 one can quote from a speech "Über Universitätseinrichtungen" by the Rector of the Friedrich-Wilhelms-Universität, Emil Du Bois-Reymond: "It is reasonable to maintain that in the field of higher learning the German universities are superior to those of any other country. Indeed, given the fact that none of man's works is perfect, the German universities have such an organizational strength that they could only have been created by an act of the most fundamental legislative wisdom" (My trans.), see Bois-Reymond (1887: 337). As an illustration of the long term international impact one can quote Abraham Flexner's (1930: 305) "self evident" introduction to the German chapter in his famous book *Universities American – English – German*, "Of the countries dealt with in this volume, Germany has in theory and practice come nearest to giving higher education its due position."

[65] The same question is applicable in the case of Ireland showing a staggering R&D growth and publication rates in the last couple of decades – or for that matter also the cases of Finland and the Netherlands, see Bertilsson (2002).

increase the pool of scientific talents? In the history and sociology of science, there are at least three different types of theories: cultural, organizational, and wealth-oriented.

One classic theory in the sociology and history of science is the cultural theory, which Merton (1938, 1970) advanced already in the 1930s. His study of seventeenth century English science showed that after the Reformation in England, the rate of scientists increased considerably. Implicit in Merton's theory was the hypothesis that Protestant societies place a higher value on scientific activity, and hence, these societies will profit from that greater activity. But before applying this handy theory modelled on Max Weber's study of the affinity between Protestant Ethic and Capitalism, we need to consider the fact that many European countries had been Protestant for centuries without showing a similar development, at least not in the nineteenth century.[66] Nevertheless, even if it is no longer Protestantism and related religious and moral values that are significant in explaining scientific success, I maintain that Merton's theory has a certain historical significance for nineteenth century Prussia, and indeed the North-western parts of Europe in the sense that education became a central national state priority in most countries during the first half of the nineteenth century (Neave et al. 2006: 94, 51–60; Wehler 1987: 405–485).

In Prussia, furthermore, after the above mentioned defeat in the Napoleonic war it became a deep conviction among the reformers around Freiherr vom Stein and Fürst Hardenberg that the state must be reformed and rebuilt from within, or in the words attributed to King Friedrich Wilhelm III himself, Prussia had to "… make up in spiritual strength for the physical strength it has lost" (Wehler 1987: 473), which certainly included the notion or concept of national education as an absolute centrepiece (Ibid: 405–485, and Schelsky 1963). Thus and in summa one could quote a fellow German scholar:

> The Prussian imperial desire to strengthen the "spiritual strength," the humanist-idealist demand for "national education," and the reformers' aim of having a tertiary educational institution in the service of civilian society all came together and formed the amalgam, which ran like a red tread through the university success story of the 19th century …(Neave et al. 2006: 95).

However, we need to be highly cautious as to "motivational" factors that may operate in the case of young talents choosing a science career simply because of "higher" idealistic reasons. So it is most probable that apart from inner driving-forces external, material stimuli were also in operation, such as good research facilities, good salaries, good career opportunities; and such a (materialistic) motivation structure is linked to some other kind of theories. In the late 1950s Joseph Ben-David, advanced a theory of scientific success linked to structural-organizational factors prior to motivational-cultural ones (Ben-David 1960). In order to increase the pool of talented scientists, the crucial mechanism is institutional/educational reform. When more universities

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[66] Concerning a negating case as regards the continued relevance of Merton's thesis of religious connection one could point to the contemporary German situation, where the Roman Catholic south is considered to be far more successful in science (e.g. The outcome of the recently carried through national "*Exzellenz-Initiative*" where the three selected universities are located in Baden-Württemberg and Bavaria!).

are created in a country, competition between these universities increase, and talented youth are offered richer opportunities. Hence, the pool of talents expands and intensifies; a motivational structure of high performance is the result.[67]

Ben-David's theory seems easily applicable to the development of the Prussian and the German higher education system in general in the nineteenth century (Paletschek 2001). Likewise, many have also pointed to a growing tendency to expand and reform the higher education and research systems in response to rising and changing demands and requirements of a rapidly growing and innovative industry, which would also be consistent with the rapid German industrialization process in the second half of the nineteenth century. And even more important, in this second phase of the industrial revolution the new electro- and chemical industries became the "cycle leaders" that is, industrial undertakings that not only craved sophisticated skills but even scientific knowledge to flourish and expand (Wehler 1987).[68]

Taken all these factors or driving forces into account, it actually does not matter if the different international followers often had a less well-grounded or even non-existing knowledge of the actual Humboldtian ideas and their implications and significance.[69] Thus, it would be quite possible to make the argument that the next flash of genius in University history – the establishment of the North American Graduate School – is, at the same time, both absolutely inconceivable without and fundamentally at odds with the *Friedrich-Wilhelms-Universität* (Parsons and Platt 1973: 304–345; Muller 1999: 199). To make the argument a little more provocative I believe one could, quite convincingly, argue that the Graduate School, and subsequently the great American research university, was founded on one of the most successful and productive "misunderstandings" in modern intellectual history! Hence, Daniel Coit Gilman, Abraham Flexner and other US-reformers could serve as instructive illustrations to Friedrich Nietzsche's warning of the dangers of knowing too much history if you wish to be an active and successful political and social actor in our own time.

"Bildung": A Necessary Ideological Excursus

An almost endlessly discussed key concept in Humboldt's thinking and reform plans is *Bildung* which, eventually, would have such a powerful, but at the same time imprecise, impact not only in German culture and public debate for almost two centuries. The Humboldtian concept of *Bildung* was not only a matter of understanding the

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[67] This was not only how Ben-David explained the lead of United States from the 1920s and forward but also how he explained the success of German universities in the nineteenth century: a federal structure that promoted competition, which in turn promoted adequate funding and innovation, Ben-David (1983: 3–6).

[68] In this connection one should neither underestimate the constant impact of war and armament as an "ultimate" driving force also in the development of national higher education and research systems, for the US case, see Geiger (1993).

[69] For a systematic discussion on the impact of the German university in different parts of Europe and over-seas, see the contributions in Schwinges (2001).

rational features of knowledge and *Wissenschaft*, but also the possibilities of developing a person's natural abilities through an unlimited, spontaneous, spiritual process of self-cultivation guided from within (Ringer 1992: 95–108). *Bildung* involved more than the narrow learning process; it was also related to a particular concept of the human being that emerged in the closing decades of the eighteenth and the first decade of the nineteenth century. As a matter of fact, *Bildung* became the catchword for a whole philosophy of pedagogy, and indeed national culture, spreading from German-speaking cultural circles to the Nordic countries and Russia. The original power of the *Bildung* concept was that it referred to the objective, as well as subjective, aspects of knowledge. Thus, on the one hand, the subjective aspect of knowledge was emphasized, but at the same time *Bildung* would serve as a barrier against arbitrariness.

Inspired by the Swiss educationalist Johann Heinrich Pestalozzi the central aim in Humboldt's "*Bildungs-vision*" was the establishment of a national three-level educational system *(Nationalerziehung)* where the university was the third and final level.[70] In this comprehensive system the first or elementary level should only be concerned with *Menschenbildung*. The secondary schools should, through the intense study of languages (classic), history, and mathematics, primarily teach the students *how* to learn, since mastery of the learning process was absolutely necessary for the kind of university education Humboldt wanted to establish where the student is striving to attain "pure knowledge" in "*Einsamkeit und Freiheit*." At this third and highest level the most a teacher could do was to awaken the student's natural will to learn and act as an experienced counsellor and *Meister*.

The Humboldtian ideas and the ensuing German *Bildungsideal* never created a unitary national culture – if there ever was such a thing anywhere in the world. But it did contribute to the rise of a specific national "super-ideology." Research and higher education became integrated in, and were a central component of, a well-structured societal status- and power brokering hierarchy (Neave et al. 2006: 101).[71] In this extraordinary ideological brew it is possible to find, at least partly, the roots of the peculiar German ideological "*Sonderweg*," which in the second half of the nineteenth century was condensed into the conviction – or illusion – of a unique German road to modernity – *Kultur*. The allegedly unique German development was not only and in many and fundamental ways supposed to be different from, but also superior to the "normal," Anglo-French process of "*Civilization*." This hierarchical, not to say aristocratic, national ideology got its perhaps most ideal typical expression, in 1918, in Thomas Mann's equally brilliant and chilling treatise *Betrachtungen eines Unpolitischen*.[72]

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[70] The central elements in Humboldt's educational thinking were presented in the "white paper" *Der Königsberger und litauische Schulplan* from 1809, see Liedman (1997: 227) and Björnsson et al. (2005: 217).

[71] For a uncompromising and negative evaluation of the impact of the "Humboldtian Bildung-Ideal," see Litt (1955).

[72] For a penetrating discussion, see Lepenies (2006), also Henningsen, in Neave et al. (2006: 101).

THE HUMBOLDT REVOLUTION, 1860–1920: PART TWO THE RISE OF THE MODERN RESEARCH UNIVERSITY AND COMEBACK OF WILHELM VON HUMBOLDT AS MYTH

The second "revolution," the emergence of the modern research university, which in reality brought about a gradual restructuring and reorganization of all university systems, at least in the so-called Western world, took place in the period between 1860 and the outbreak of the First World War in 1914. The driving forces behind these fundamental and simultaneous changes came not least from *within* science and scientific theory itself. With the emergence of the modern – and post-newtonian – natural sciences and their gradually demonstrated industrial potential it became virtually impossible to define the scientific endeavour and the academic profession as "the pursuit of curious individual gentlemen of ingenious minds." After Justus Liebing and subsequently, Herman von Helmholz, Robert Koch, Louis Pasteur et al. (laboratory), Albert Einstein, Max Planck, Niels Bohr, Ernest Rutherford et al. (theory), and also Wilhelm Röntgen, Carl Bosch, Fritz Haber et al. (application) the pursuit of knowledge had become a central concern for almost every sector of modern society. Hence, the combined effects of the fundamental breakthroughs and revolutions on the scientific-cognitive level and the demonstrated and potential impact on the macro-economic and eventually also political level, had deep-going ideological, professional, institutional and policy consequences, which in many ways collided with the basic Humboldtian ideas and ideals.

- First, science had turned into a collective task or "intellectual industry," which demanded scale, organization and, perhaps above all, money and where the notion of "*Einsamkeit und Freiheit*" seemed to be utterly obsolete.
- Second, and for more or less the same reasons, the ambition to amalgamate "*Forschung und Lehre*" gradually became almost impossible.[73] The most striking illustration and manifestation of this fact became the establishment of the *Kaiser-Wilhelm-Gesellschaft* and its string of more or less autonomous research institutes in 1911. It was, perhaps also, the ultimate indication of the deplorable fact that "excellence" had actually started its gradual exodus from the Humboldt University.
- Third, the steadily growing costs and societal impact of research did not only lead to institutional changes but also to innovations in research policy and (targeted) funding, which had consequences for the institutional autonomy (vom Brocke 1988).
- Fourth, and perhaps, even more seminal, modern science finally and irrevocably crushed the illusion of the "unity of knowledge under benevolent aegis of philosophy" and was gradually superseded by the idea of two distinct scientific "cultures." Significantly enough, it was in Germany that this distinction between "*Natur- und Geisteswissenschaften*" was discussed and philosophically codified in the second

[73] For instance, when Albert Einstein was called to Berlin in 1913 he had no teaching obligations, and he was not the only one, see Vierhaus in Treue-Gründer (1987: 73).

> half of the nineteenth century by scholars, such as Wilhelm Dilthey, Heinrich Rickert and Max Weber, while it was also discussed by intellectual industrialists, such as Werner von Siemens (von Bruch 1999: 46).

This process of cognitive disintegration and specialization was, furthermore, institutionally manifested by the foundation of the modern *Technische Hochschulen* responding to the rapidly growing demand for a new type of qualified professional training and skills.[74]

However, in our context it is equally interesting and remarkable that this process of cognitive and institutional disintegration, which in many respects signified a fundamental brake with the original Humboldtian ideals, was not only explicitly presented as the ultimate fulfilment of Humboldtian dreams, it also, ironically enough, marked the reinvention and even canonization of Wilhelm von Humboldt himself as the spiritual *and* practical founding-father of the German (European) University.[75] Accordingly, it is typical that when the prime intellectual and bureaucratic movers, the theologian Adolf von Harnack and the almighty *Ministerial-Direktor* Friedrich Althoff, instigated the institutional revolution of the *Kaiser-Wilhem-Institute*,[76] they were nevertheless very keen to use and stress all the supportive arguments they could possibly find in Wilhelm von Humboldt's rediscovered and immediately canonized *Denkschrift*. Luckily enough, in his deliberations Humboldt had indicated that a complete science organization should have three major institutional components or levels: beside the free Academy and the University, there should also be "Hilfs-Institute." But with these "leblose (life-less) Institute" Humboldt had hardly meant the powerful centres of excellence that were now established.[77]

It is also at this point in time, especially in connection with the centennial anniversary in 1910 that Wilhelm von Humboldt's ideas and ghost were transformed into some kind of "universal weapon" (*Allzweckwaffe*) (Paletschek 2001: 103) in the German and gradually also the international debate on higher education institution building and higher education policy. It is perhaps interesting that this ideological innovation process or transfer was already from the start driven and promoted not in scholarly works by professional historians but primarily in interventions and pamphlets by academics with a "university political cause" or education politicians on the national

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[74] Lundgreen in Ash (1999: 157). See also chapter 4 in this Volume.

[75] During the entire nineteenth century *Wilhelm* von Humboldt was hardly a reference point, or even mentioned, in the University policy discussion. The Humboldt that indeed was often referred to was his brother *Alexander*, whose crucial importance regarding the development of sciences in Germany was frequently emphasized, see Paletschek (2001: 98–104). (It is in this connection perhaps significant to note that even if the two brothers have remained almost equally illustrious and constantly referred two, each epoch of German political history has crafted its very own Alexander – and sometimes (1949–1989) even more than one – while Wilhelm, on the other hand, seems to have always remained the unchangeable "neo-humanist genius and university-builder"! On "The many lives of (A) von Humboldt," see Nicolaas Rupke (2006).

[76] On the KWG, see Vierhaus and vom Brocke (eds) (1990).

[77] See Vierhaus in Treue and Gründer (1987: 72). On Althoff's central position in research and university policy-making, see vom Brocke, in Treue and Gründer (1987: 195–214).

level. In the German context this became particularly true in the reoccurring times of national or institutional euphoria, deep crisis and ongoing restructuring.[78]

Even if technological innovation *per se* cannot be said to have played an important role in the process of restructuring university life between 1860 and 1920, the short- and long-term *technological consequences*, of the internal scientific revolution were to become almost "cosmic." From now on, and increasingly so, "Big science" did not only become heavily dependent on modern, sophisticated technology, it also became the absolute necessary prerequisite for, and power-house of, this path-breaking new tool, soon to be called "high tech." Or to put it differently in more socio-political terms: As the English crystallographer and historian/politician of science, John Desmond Bernal *hoped* already in the 1930s, and MIT-President and Scientific Advisor the President, Vannevar Bush *feared* in the 1940s,[79] the demonstrated tremendous impact or obvious and immediate "social function of science" had ultimately made science and scientific training too important a matter to be left to the scientists and so it was eventually turned into a separate sector of national policy making. In this connection, one should also contemplate the undisputed historical fact, that without the boys and the odd girl (Lise Meitner) on the banks of the rivers Spree and Cam, and of Öresund – a little bit later, also, on the banks of the San Francisco Bay and Lake Michigan – the university and research system would certainly not have enjoyed the enormous political and public good-will – and equally enormous investments – that it actually had the good fortune of doing in its golden age from 1945 to the mid 1970s.[80]

THE MASS-REVOLUTION, 1965–1975

The next revolutionary change in the history of the University was what the Berkeley sociologist Martin Trow in his classic article from 1974 defined as the ultimate shift from elite to mass higher education. It started in the USA already after World War II, with the introduction of the GI-bill, (Geiger 1993) and gained momentum in Europe in the 1960s and early 1970s. This shift was primarily caused and driven by external political, economic and demographic forces and had, at least initially, very little to do with internal cognitive or educational factors. It was both a consequence of growing popular demands (equality of life-chances) and of the immediate intellectual and professional needs of the emerging welfare state. This development was by no means confined to Western Europe but it was rather a general process that included,

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[78] As a starting point one could choose the above mentioned *Gedenkschrift* by Eduard Spranger from 1910. In 1919 the Prussian *Kultusminister* Carl Heinrich Becker published *Gedanken zur Hochschulreform*. In 1946 the philosopher and university ideologue Karl Jaspers published his important *Die Idee der Universität.* In 1963 the sociologist and University reformer Helmut Schelsky published his equally seminal book *Einsamkeit und Freiheit*.

[79] Bernal's influential book *The Social Function of Science*, appeared in London, 1939 and Vannevar Bush' equally important *Science – The Endless Frontier* in Washington, 1945.

[80] For the USA as the leading nation, Geiger (1993), esp. chapters 6 and 7.

more or less, all industrialized parts of the world. In the European case, however, the massive growth of the higher education systems took the form, not of structural renewal but of a rapid expansion of the existing institutional and organizational forms. Or as the German sociologist Thomas Ellwein (1985: 238) has summarized the German development: "*Ausbau statt Umbau*" (Expansion instead of reconstruction)! At least in the German case the most frequent explanation for this obvious lack of structural reforms has been attributed to the lasting and overpowering impact of the "Humboldtian ideals."[81]

But also in countries where the higher education system was quite substantially transformed, as in the Swedish case, its comprehensive and monolithic character was, nevertheless, retained and even strengthened, partly as an effect of the deliberate ambitions to "vocationalise" almost all types of higher education (Neave et al. 2006: 52–55). As long as the European states were prepared to fully finance this rapid and massive expansion, the institutional consequences remained limited. However, when – after 1980 – this was no longer the case, an institutional dissolution process became inevitable (Nybom 1997: 140). All in all, it is not unreasonably unfair to maintain that in the European case the rapid and massive changes have generally been carried out with few if any detectable signs of higher political wisdom or of institutional prudence and professional insights, at least not during the last 25 years and certainly not in comparison to other higher education systems.[82]

The undisputed success of the North American research universities in the last century and particularly in the last 30 years (the same period in which their European sisters declined) could, at least to a certain extent, be explained by their readiness and superior ability to react to social, economic, scientific, and political changes (Kerr 1991, 1994).[83] The European University, on the other hand, *has not changed* in the last 50 years – it has *been changed.* Paradoxically enough, this has been achieved rather by systematic negligence than by bold intervention on part of the politicians, but the end result is, nevertheless, that the European University has become a seemingly helpless political football.

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[81] Schelsky (1963) had invoked and endorsed the Humboldt Legacy as the basis for future university reforms, was, only four years later in his *Festrede* at the bicentennial anniversary of Wilhelm von Humboldt's birth inclined to warn against the tradition to make Humboldt to the eternal litmus test for higher education policy: "In our considerations on education (*Bildung*) we have elevated Humboldt to the rank of Church Father, and subsequently, every attempt or suggestion to change anything in what is held to be the founding elements in his University structure, is condemned as blasphemy." (Schelsky 1969: 152). For a discussion, see Bartz (2005: 105–110). For the Humboldt "heritage" in the GDR, see Connelly in Ash (1999: 80–104), and Wittrock, in Neave et al. (2006: 119–123).

[82] For a general account of the "massification" process in the USA and esp. of the much envied California system, see Douglass (2000), Kerr (1991, 2001), and Geiger (1993).

[83] Even if Clark Kerr sometimes has argued that the US-universities also have changed mainly due to external pressures, I do, nevertheless, humbly maintain that the North American research universities and central university actors have shown a relatively remarkable ability to act and reform. Not least Clark Kerr himself (the California Master Plan) must be considered to be an almost ideal typical example of this capacity. See also Trow (1991: 156–1972) and Keller (2001).

The most immediate and deep-going impacts of these primarily quantitative changes were visible on the professional, mental and political levels. The academic profession, which hitherto had been extremely homogenous gradually split up into different levels and tasks. This, in turn, gradually led to a declining social and economic status of the academic workforce. I would go so far as to maintain that this eventually also included a slow but irreversible process of "de-professionalization/de-academization" in what had been regarded as "the highest profession,"[84] and subsequently either led to a gradual shift from collegiate, academic to bureaucratic governance or in some European cases to political neglect.[85] The latter was also manifested by the massive introduction of new and different types of semi-academic vocational programs as well as by the, at least sometimes, reformed admission requirements and examination forms.

This could be illustrated by the transformation of university governance from a meritocratic collegiate to a quasi-democratic representative system (chapter 5) as in the German case where the traditional "*Ordinarien-Universität*" was abolished in favour of the representative, so-called "*Gruppen-Universität.*" The perhaps most fundamental changes, however, took place on the political or policy level. Due to its steadily rising costs and size, and its growing social and economic relevance higher education no longer was perceived as primarily a national cultural investment but rather regarded as an integrated part of the ordinary education system where manpower planning and not academic excellence became the highest priority in higher education policy and planning. In 15 years time this revolution had changed, or in certain cases even severely damaged some of the European higher education systems – with the possible exception perhaps of the English where the changes occurred later.

Curiously enough, if there were interrelations between innovation/business and the ordinary European universities in this entire process, it was perhaps primarily a negative one – with the obvious exception of medicine and some of the technical universities. From now on, and increasingly so, the sophisticated branches and producers of the emerging information communication technology, and other high tech branches, did not intensify their collaboration and interactions with the ordinary European University.[86] This process of estrangement, together, of course, with other interrelated political, economic, etc., factors, is certainly not unimportant when trying to explain the constantly widening scientific/technological gap between the USA and Europe after the Second World War, and particularly since the1980s.[87]

Even today, politicians and academics, who should know better, seem to forget that if there was a gap in technological and scientific know-how in 1945 then it was

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[84] In the sense that the Academic profession actually trains and examines all other professions.

[85] For primarily the Swedish case (Nybom 1997: 121–127) and Nybom (2001: 63–66), and for Norway see Olsen (2000: 231–249).

[86] The establishment of Fraunhof-Institute organisation in Germany, and similar initiative in the 1960s and 1970s in other European countries are instructive cases.

[87] One possible explanation to this development could perhaps be the historically close connection between the European universities and the state/civil service.

probably to *Europe's* advantage. To deny, like many European academics *still* do, the fact that the quality and performance of the respective higher education systems has played a crucial role in bringing about this rapid and massive shift in the distribution of intellectual power, is not only a sign of historical ignorance but also an example of institutionalized continental, mainly academic, arrogance or even sheer ignorance.

Considering the natural delay of causes and effects in research practice and research policy planning, there are good reasons to believe that something happened in European or American research policy planning in the 1970s. And it most certainly did! Starting in the late 1970s many European countries gradually and consciously replaced the existing Vannevar Bush model of science policy and research funding with a variation of more or less explicit versions of instrumentally oriented research-funding policies, which were supposed to secure and boost the immediate "social function of science." This shift did not least have, and continues to have, profound and lasting detrimental consequences for the norms and values, such as disciplinarity, peer-review, for institutional autonomy, and eventually also for the level of intellectual creativity and hence the life and well-being of the European University.[88]

The first, which could be labelled "the technocratic phase" started in the mid-1960s and lasted until the late 1970s. This development constituted no immediate threat to the primacy of basic research, traditional academic values and the university. Instead, it was seen as a complementary but supposedly more "socially relevant" form of knowledge production that was funded and administrated outside the traditional research sector, but often under the qualitative supervision of academic research. It could, perhaps a little simplistically, be regarded as an attempt to fulfil the old social democratic dream of the "good society" governed by a scientifically based and enlightened form of social engineering.

THE UNIVERSAL REVOLUTION –AND THE RISE OF NEW PUBLIC MANAGEMENT, 1980–2006

Finally, I will wage the risk of getting into even deeper waters by talking about the present state of affairs and indeed also about the future, fields where the historian can claim no exclusive or superior competence.[89]

First, during the last 25 years there has been a sharp rise in student enrollment, which means that several of the European higher education systems have turned from being mass to become almost universal higher education systems. In most European cases this has happened without any fundamental structural and institutional changes in

[88] For the Swedish case until the 1990s, see Nybom (1997). For a discussion on more recent European developments, see Krull in Neave et al. (2006: 146–151) and Scott in Neave et al. (2006: 130–142). For the Swedish case in the 1990s and onwards, see Benner (2001), Bennich-Björkman (2004), Leijonhufvud, in Neave et al. (2006: 153–158). Also the discussion on recent Nordic research policy planning and universities in Nybom and Stenlund (eds.) (2004: 175–213).

[89] For detailed and certainly more sophisticated analysis of the present situation, see the other contributions in this volume.

the existing, often unitary and inflexible, European state-controlled higher education systems. Accordingly, this growth has caused substantial structural, institutional, and intellectual dysfunctions and deficits.[90]

Second, and to make things even worse, this rapid growth of the student body has been accompanied by unchanged or, in many cases, even reduced levels of state funding. This could be seen as an undisputable indication of the European states' and central governments' massive retreat from their traditional "Humboldtian" obligation of being the ultimate guardian angel of their national higher education institutions. And additionally, the resources which eventually were allocated to the universities and research gradually turned from a system that had included a substantial share of block grant funding into a system where so-called "competitive funding" became the standard operating funding procedure. This meant that the possibilities of long-range research planning at the university level became more or less illusory, and, eventually, also to a reduced capacity to function as independent and autonomous institutions.[91]

In the last 15 years, European central governments have become just another "stake-holder" who is primarily treating the universities not as a public good *as such,* but rather as just another political means for achieving all sorts of political ends. It is, for instance, quite clear that at least some European governments have expanded their higher education systems in the 1990s *primarily* because they wanted to reduce the unemployment level among young people.[92] Paradoxically, this development has almost everywhere been accompanied by a trend of sometimes massive politicisation of higher education and research,[93] which in some cases has led to a redefinition of the ultimate role and mission of higher education institutions. These are no longer considered to be responsible and invaluable academic and national *cultural* centres. They are rather primarily seen as instrumental means; to function as "development or innovation centres" in national or even regional economic policy (Kogan et al. 2000). In addition, this process has been accompanied by an almost explosive growth of numerous evaluations and accountability schemes, which have turned the traditional

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[90] The chronology of this development has differed between the European countries, but, generally, one could maintain that there has been a substantial rise in the number of students in the last 25 years.

[91] The sharp increase in competitive funding and the relative decline in public funding in the last decade has certainly not been without complications and detrimental effects also in US-University system. Yet there are fundamental cultural and historical differences between the US- and the European systems both when it comes to experiences of multivariate, competitive funding and the societal embedding of the universities. These fundamental differences also mean that the institutional impact and consequences in the two systems tend to be different. On recent trends in the USA, see Geiger (2004), as well as Slaughter and Leslie (1997) and Slaughter and Rhoades (2004). For the Swedish case, see Engwall and Nybom (2006).

[92] Obviously explicit statements by politicians to confirm this are nowhere to be found, hence it would be interesting to make a serious empirical study on the correlation between f.i. Swedish unemployment rates and the governments repeated decisions to increase the number of "student-places" during the last decade.

[93] For an interesting and penetrating discussion and for references, see chapter 7 in this Volume.

European system of exclusive and strict "input control" into different types of "output control" where practically "everything that moves is measured."[94]

Furthermore, and in a European "etatist" university context and tradition certainly not least important, it remains an undisputable fact that, as of today, very few if *any* of the present European central governments can be said to articulate, and much less pursue, any form of conscious national research and (higher) education policy, even in the most rudimentary form, with the possible exception of Finland and Switzerland. Instead European politicians are standing on the ruins of their crumbling university systems delivering one joint statement after the other on the strategic importance of knowledge, research, innovation, education, etc.

Third, during the same period of time research funding has undergone a second period of massive bureaucratisation and instrumentalization. This is primarily but certainly not only manifested by the constantly growing importance and direct and indirect impact of the so-called "frame-work" EU-Research Programs. It has also to a very high degree become a dominant trend in research policy and research funding at the national level. The "Policy for Science" that characterized the first three decades after World War II has in practice been abandoned for something that rightfully could be labelled "Politicised Science." This has gradually led to a growing tendency in research funding to replace the traditional criterion of academic excellence by more nebulous criteria sometimes labelled "strategic," sometimes "social and economic relevant," sometimes "mode 2" research or "the production of socially robust knowledge."[95] Subsequently, this has affected public research funding in the sense that politically controlled "earmarking" and "strategic allocation of resources" has become the rule rather than the exception (Forman 2002).

Ultimately, this has had fundamental consequences for discipline formation and for other dimensions of the internal life of science including the self-understanding and professional ethos among scientists and scholars.[96] Thus, it is not only relevant to talk about a gradual demise of the University but also, at least in relative terms, of a decline of the disciplines, particularly in research policy planning. Even if the traditional disciplinary structure is still well anchored in academic life and prestige structures it has, nevertheless, gradually lost its favourable position in the research (policy) hierarchy. In a system where politically defined "socio-economic relevance" has gained the upper hand as the ultimate criterion of quality, disciplinary based peer-reviewing and expertise is not only considered to be inadequate and even obsolete, it can also quite easily be dismissed as nothing but a means of illegitimate power abuse on part of the scientific community (Forman 2002).

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[94] Peter Scott's apt characterization at a Bank of Sweden Tercentenary Foundation Seminar, at Krusenberg 05/25/2003 also Scott (2000). For international comparison, see also the contribution in *Sociology of Science Year-book* (2006, fall).

[95] For an intresting discussion and references, see the contributions by Scott, pp. 130–141 and Gustavsson in Neave et al. (2006: 159–162), also Elzinga (2004: 277–304).

[96] For a notable shift among Swedish academics during the 1990s and the early 2000s, see Blomquist et al. (1996) and Bennich-Björkman (2004).

Against this total background, one could very well start wondering if the euphoria among national and European politicians and higher education bureaucrats over the alleged unlimited possibilities opened up primarily by the jointly agreed upon implementation of the Bologna process in European higher education has *anything* to do with a serious will on part of its academic and political protagonists to promote the pursuit of qualified knowledge (Witte 2006). A more suspiciously minded (cynical) observer would perhaps rather detect a hidden political agenda behind the sudden and massive Bologna-enthusiasm among national and European politicians, bureaucrats, and lobbyists, which indicates that the main objective of the Bologna scheme is simply and foremost that it gives the politicians an opportunity to avoid the risk of having to take the immediate responsibility of a number of necessary but probably very controversial reforms on the national level concerning (a) funding (fees), (b) differentiation, (c) access (master), (d) marketization. Instead, unpopular undertakings can and have been presented as "unavoidable and logical consequences" of Bologna.[97]

This implies that the Bologna process is not only presented as the magic tool for creating an open European Higher Education Area, it is also considered to be the ultimate means for implementing long overdue, fundamental structural reforms in European higher education. In the worst of all possible cases the politicians – together with their allies in academia – will succumb to the illusion that Bologna will, in itself, *both* raise the quality of higher education and research *and* at the same time take care of the constantly growing needs for qualified vocational training and lifelong learning structures.

CONCLUDING REMARKS

Coming back to the Humboldt revolutions I would, in this connection, first like to point to the fact that successful transformations in higher education are not always – and have even seldom been – to expand the number of tasks, duties, and obligations performed by the University. I have the slightly worrying impression, that we, being caught in a curious type of a-historic and simplistic analogy-thinking, have a tendency to believe that the developments of the 1960–70s are forever true and relevant. In short, when, and if, the University has to respond to "new challenges" or is asked to "reformulate its agenda" or "mission," the universities tend to conclude that they must take on any new task or responsibility "society," on an almost daily basis, suggests or demands. *This is not true,* simply because, when it comes to knowledge "*society*" very seldom actually knows what it really needs in 15 years time!

The two Berlin-based "revolutions" discussed above, which thoroughly reorganized and rejuvenated the Euro-American universities and turned them into the real intellectual *and* industrial power houses of their societies, for almost two centuries, had nothing to do with expansion. On the contrary! Wilhelm von Humboldt's

[97] This type of argumentation is sometimes called the TINA-syndrome (There Is No Alternative), see chapter 1 in this Volume.

exceptionally successful institutional reforms of 1810 in Berlin meant retraction and "purification." The establishment of the modern European and American research university at the turn of the previous century also meant that the universities defined their core mission in a much more restricted way than they had previously done. So, when we, today, are discussing how to respond to the "new challenges and demands" and to "redefine our new role/mission" in society, we should also perhaps remember that all great universities always have, *at the same time*, been institutionally adaptive, intellectually creative, *and* ideologically conservative institutions.

Sometimes the impact of intellectual or mental transformation is so powerful that actual reality is more or less superseded by this projection and thus becomes a myth. Certain concepts and ideas may acquire an "afterlife" that makes them significant far beyond the times in which they were created and sometimes for reasons far different from those the original creator probably envisioned. This is most certainly the case with Wilhelm von Humboldt's *Denkschrift* and his final proposal, *Antrag auf Einrichtung der Universität Berlin Juli 1808*. These few and scattered pages, written in clear and beautifully unbureaucratic German, have triggered off an almost innumerable number of more or less qualified scholarly, political and other reflections during the last 200 years. In these two centuries there has probably not been delivered one academic *Festrede* – at least on the European continent – that did not mention either Wilhelm von Humboldt or the "Humboldtian Idea of the University."

But despite the never-ending deluge of speeches, essays, and books from both Humboldt's friends and foes I do, nevertheless, believe that it is necessary for the European academic community to discuss and confront this overpowering and nebulous image repeatedly, simply because of its continued presence in almost every European discussion on the mission and future of higher education and research. In some curious way the central question then is perhaps not Wilhelm von Humboldt's *actual thoughts* but rather why these ideas have come to play such an exceptional role during two centuries almost regardless of how far from his original thoughts the European university systems have moved.

One tentative answer to this fundamental question would be that Humboldt was not only able to formulate a comprehensive idea of what institutionalized higher education and the systematic pursuit of knowledge should be, but he was also able to convincingly argue why it must be considered as one of the central interests and indeed obligations of the nation state to support such an undisputed public good. This is very different from our era in which almost everybody in politics, business, civil service, and academia is almost incapable of delivering a single speech without referring to the alleged strategic importance of "research, education, knowledge, competence, and excellence" in the present and future "knowledge society." At the same time, most European universities neither seem to have a formative idea nor are they adequately supported or trusted by their formal political owners and masters. As a consequence, ideological references to the "noble Humboldtian ideas" can either be used as an eternal source of moral and intellectual legitimation or be dismissed as an obsolete and detrimental institutional European heritage, which is hampering the necessary restructuring of European higher education and research.

As we have seen, this is nothing new in the history of German and European University politics, it has been going on for more than a century (chapter 4), or at least since the turn of the previous century when the then existing Berlin University almost officially was declared to be the institutional and physical embodiment of Wilhelm von Humboldt's *corpus* of ideas and ideals. One of the reasons why this ideological traffic has persisted is, in my view, precisely because von Humboldt was primarily interested in *pursuing and realising a coherent but nevertheless imprecise body of neo-humanist ideas*. His actual interest in institution building was secondary or at least not concretely and precisely articulated. And, however brilliant, a slightly nebulous set of ideas can readily and steadily by used and abused in ideologically infested conflicts.

So, if the other important University ideologue of the nineteenth century, John Henry, Cardinal, Newman, who incidentally formulated his vision of the University in direct opposition to the German/Humboldtian "*Wissenschafts-Universität*," could be said to have taken an existing formal *institutional order*, the Oxford College, and transformed it into an *Idea of a University*,[98] then Wilhelm, *Freiherr,* von Humboldt's major achievement was to *synthetise a number of ideas on science, Bildung, and learning*, which 100 years later were transformed, or elevated, or perhaps even perverted into *an institution* soon to be decreed as *the* University, and which another 100 years later is freely and indiscriminately used in the European debate on higher education; either hailed as an eternally valid ideal-type or disdained as a suitable scapegoat, which is responsible for nearly all our alleged present miseries. From this saga we may thus learn that not only "institutions matter." This is equally true of ideas.

[98] For a penetrating analysis of Cardinal Newman and his important *The Idea of a University* from 1852, see Rothblatt (1997).