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Institutions, Professions, and Ideas

An Approach to the Theory of the Humanities through their History and Institutional Settings and their Implicit Anthropologies

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Lecture notes

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In memoriam Thora Blatt

I august 1978, da lærergruppen for den nye årgang på den humanistiske basisuddannelse var ved at udforme velkomstbrevet til de nye studerende, blev det foreslået at vi skulle slutte med "og så glæder vi os i øvrigt til at se jer!"

"Nej", sagde Thora. "Man skal ikke hykle. Et universitet er nu engang bedst uden studerende. Præcis ligesom et bibliotek er bedst uden lånere og en kirke er bedst uden kirkegængere. Det er kun en beværtning der vinder ved at der er trængsel".

Men man skal ikke tage fejl: Ingen af os andre tog sig så omhyggeligt af de studerende som Thora igennem de næste to år.

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1. PREFACE

The notion of a "theory of the humanities" is not current in the Anglo-American tradition. In German, it would be much more familiar, namely *Wissenschaftstheorie der Geisteswissenschaften*, corresponding to the Danish equivalent *humanistisk videnskabsteori*. The subject is related to the traditional philosophical discipline *philosophy of science*, but with two important differences. Firstly, since the nineteenth century, English *science* is more narrow than German / Danish / Latin *Wissenschaft/videnskab/scientia*, and often it only encompasses the exact and natural sciences to the exclusion of other scholarly pursuits; secondly, *Wissenschaftstheorie/videnskabsteori* may draw more on empirical (historical, sociological and psychological) foundations than standard twentieth century philosophy – and even standard philosophy *of science*.

This empirical orientation is also typical of the present notes, which as a matter of fact only covers the first half of a twin course. Properly speaking, the "theory of the humanities" must be discussed from a double perspective: what can be said about the humanities (=human science) *qua* science, i.e., which characteristics are *shared* by the humanities and the other sciences? And what distinguishes the humanities from other scientific fields, i.e., which are the *distinctive characteristics* of the humanities? The present volume concentrates upon the second perspective; another volume will be devoted to the first issue.

As a historian of science I find it most easy to confront the problem of the humanities through their genesis and development. The first part of the course is therefore consecrated to a presentation of select episodes and developments from the history of the humanities, *not only as a field of knowledge but also as a social entity*. In our own world, indeed, "the

humanities" are not only a type of scholarly work supported by teaching and popularization. It is also a *profession securing a living* for the social group of humanists, which entangles them in a particular social and societal context – and one of the insights gained by the history of science over the last twenty years is that there is an intimate connection between the professional setting of a field, the types of insight at which it aims, and its mode of thinking and of organizing the insights which it gains. Discussions of this interplay in non-familiar historical settings may, firstly, awaken our appreciation of similar relations between the intellectual aspect and the social and professional situation of *the humanities today;* secondly, the presentation of central ideas and characteristic concepts and methods of the humanities in the context where they were created and once put to use will often give essential information about their meaning and carrying capacity.

Etymology, however, is rightly claimed to be the "lore of the lost meanings of words". Similarly, the humanities are no longer found in the settings in which they developed. If their value (or some value of theirs) remains, this cannot be due to their origin (in the philosophy of science, this problem is spoken of as the relation / difference between *genesis* and *validity*). Even though Copernicus *may* have got the mental courage to remove the Earth from the centre of the Universe because of the breakdown of the Medieval *social* and *ecclesiastical* World order, his theory (as reformulated by Kepler, Newton and Einstein) now serves to send planetary sondes successfully to the outer planets; similarly, the validity of psychanalysis does not depend upon Freud's personal frustrations and hypothetical mother fixation (as claimed by some of those who do not like the "Godless Jew"). Taken alone, a historical approach to a body of ideas may give clues to their meaning but provides no theory of their general validity and coherence. The second part of the notes therefore switches to a *systematic* approach to the different "philosophical anthropologies" (i.e., fundamental conceptions of the nature of human beings and human society) that may be presupposed in the human sciences. Such anthropologies may be *deterministic* in tendency: if we *explain* human behaviour or find the *real* meaning of human communication in terms of human biology or sociology or in the structure of language, little seems to be left to human *freedom*. Or they may (like original Sartrian

existentialism) declare that everything which is *explained* is thereby *non-human*, because *human nature is freedom* aware of itself.

Neither determinism nor the postulate of abstract freedom give a meaningful account of the complexities of human existence, human communication and human history. Therefore, the final pages attempt a synthesis under the headline “human nature as dialectic and history”.

It goes by itself, I suppose, that only a small part of the following builds directly upon my own research. The rest is based in part on my own selective reading of sources and original literature; just as important, however, has been thoughtful reading of the secondary literature, a modest segment of which is listed in the bibliographic essay which closes the notes. However, as everybody knows who has been engaged in research in a specific domain, secondary literature cannot always be relied upon: at times it contains downright errors, at times it makes use of generalizing formulations which the author would be able to interpret so as to make them agree with the sources, but which nevertheless mislead the innocent reader. Reading of select sources within an unfamiliar field may, however, be equally misleading. The two methods may supplement each other and thus help avoid many errors, and only the universal or divine genius can do without them; but errors will still remain in any interdisciplinary work of broad scope. So also, no doubt, in the following. *CAVEAT LECTOR!* In other words: *READER BEWARE!*

For educational purposes, the past is a
bank to be raided, not a church to worship
in; but it is also not a useless museum.
(Ivor Grattan-Guinness)

2. INTRODUCTION: SOME FUNDAMENTAL CONCEPTS

Firstly: although this usage is not current in English (or not yet quite current – things seem to be gradually changing), I shall use the term *science* as an equivalent of *Wissenschaft/videnskab*, i.e., in the sense of *socially organized and systematic search for and transmission of coherent knowledge* in any domain. On this account chemistry, the study of law, sociology, and literary history are sciences in full right. Theology may be so, if founded on critical discussion and hence on the search for intellectual coherence, whereas the mere teaching of traditional dogma in a fundamentalist preachers' school is not. Nor are "pseudo-sciences" like chiromancy or astrology to be counted as sciences: they contain a body of coherent knowledge (which may be false, but sciences too contain errors) and they hand it down systematically through a socially organized network; but they do not involve systematic search for extension or critical revision of that knowledge. Nor does the mere collection of information, for example for the compilation of a telephone guide, constitute a science: it lacks both the aim of intellectual *coherence* and the character of a continuous endeavour bound together by systematic transmission. Finally, the knowledge gathered by some Robinson Crusoe isolated on his island and forgotten with him constitutes no science, even if it should happen to be eminently true and coherent: it differs from the sciences by the lack of *social* organization and by the absence of systematic (indeed, any) transmission links.

This definition implies no value judgement. Nobody will blame our Robinson because he works in isolation, and the higher or lower moral value of fundamentalist theology does not depend on its being *a science*. The definition is first of all intended to be descriptive, telling the characteristics of the actual undertaking of science in our modern world; secondly, it concentrates on features which influence each other, and

influence in particular the character of the cognitive contents achieved by the undertaking: *social organization* of the search for knowledge makes each worker dependent on the work and the critical judgement of others; the aim of creating *new* (in some sense "certified" and reliable) *knowledge* conditions the sociology and the norms of the institution creating and transmitting the knowledge; and so forth.

The use of the above definition does not mean that those ventures which are excluded are without interest. Quite the opposite, indeed. If we are to gain insights into the distinctive characteristics of scientific activities, a privileged method is to compare with those undertakings which in some respects are similar yet in others not. Which are the differences that explain the dissimilar outcomes of science and organized crime, two not wholly unrelated types of social activity? What distinguishes science from technology? And from pseudo-science?

Secondly, an ancient anecdote:

> One day Plato the philosopher met his fellow philosopher Diogenes, who, as so often, made a teasing comment on Plato's philosophy. "Good Friend", he said, "Table and cup I see; but your Tablehood and Cuphood, Plato, I can nowhere see." "That's readily accounted for", Dear Diogenes, replied the other. "You have that which is needed to see the table and the cup: that's the eyes. But you lack what is required to grasp Tablehood and Cuphood: namely the intellect".
>
> (Slightly paraphrased from Hicks 1980: II, 55)

This story illustrates the contents of some of the fundamental concepts of the philosophy of science. Diogenes is a *positivist* and an *empiricist:* only that which can be *positively seen* or otherwise registered by direct experience is *real*. And he is a *materialist:* experience of reality has to be sense experience; the direct and immediate insights of the intellect are irrelevant, since *reality is out there*, outside our mind. Plato, on the other hand, is an *idealist:* supreme reality is the reality of ideas (Cuphood); that material reality (the cups) to which our senses have access is only secondary, a pale and distorted reflection. Moreover, he is an *objective* idealist: for him, the world of ideas exists *out there*, in the *Universal Intellect*, beyond the control of our mind and our fancies; our individual intellects have access to this world of ideas because they partake in the universal intellect (and,

according to Plato, sense experience only serves to *remind us* of the knowledge once possessed but now deeply hidden in our minds).

These concepts are still essential to discussions of the philosophy of science and knowledge. At present I shall use them to characterize the approach used in the first, historical part of the notes. This approach does not postulate or look for the transhistorical and unchanging existence of *the humanities* across all epochs and cultural borders, i.e., it does not believe in *the humanities as Cuphood*. It is empiricist, and presupposes that the humanities can only be approached in their appearance as actual, historically specific undertakings and vocations. It is *not positivist*, however, but founded on the conviction that the grouping of these undertakings – the individual cups – under a common headline is inherently meaningful, reflecting *real* similarities and relationships, and thus more than a mere device dependent solely upon our arbitrary choice and whims.

PART I: HISTORY OF THE HUMANITIES

3. A BRONZE AGE SCRIBAL CULTURE: A SOCIOLOGICAL FABLE WITH AN IMPLICIT MORAL

Brain work and state formation

Humanists are brainworkers, and hence specialists of a particular kind. It is therefore meaningless to look for an environment of a "humanist" character in so-called *egalitarian societies* as exemplified by Bushmen or Inuit. In such societies as everywhere, of course, individuals differ. But status differences depend on the gender and age and on the personal abilities of individuals, not on inherited position or social class; in principle, everybody belonging to the same gender and the same age-group makes a living in the same way. There is little or no room for specialization in the sphere of intellectual work; the closest we come is the possible existence of a shaman or a priestess, but even they will normally not be full-time specialists[1] and in any case not be part of *an environment* or profession.

Chiefdoms, another main category of pre-state society distinguished by political anthropology, are characterized by differentiation along several dimensions: *Socio-economic division*, implying unequal access to basic resources (for instance land for agriculture), and maybe a genuine class division into a ruling class, commoners, and slaves belonging to members of the ruling class; and *political division* between the chief supported by his associates and retinue on one side and the general population on the

[1] A fitting example is the Ibo priestess Chielo in Chinua Achebe's novel *Things Fall Apart* (1986), who from time to time is possessed by the spirit of her God but on all other occasions fulfills the same social roles as other women.

other[2]. Priestly functions may be the privilege of the chief and his associates; but still one finds no *group specializing in intellectual work,* neither of religious character nor connected to the chief's political control.

The division between manual and intellectual work, the precondition for the emergence of anything approaching however vaguely a stratum of "humanists", is thus a consequence of the emergence of statal organization of society. As a minimal definition of the early state we may borrow the following, current in contemporary political anthropology and socio-archaeology: a state is a society provided with

(1) a structure of control with at least three levels ("vertical" specialization);
(2) division of labour, both in the productive and in the controlling sphere ("horizontal" specialization);
(3) precedence of social over kinship divisions;
(4) reasonable temporal permanency and stability;
(5) possession of a reasonably well-defined fixed territory.

Apart perhaps from number 5, all these features are necessary prerequisites for the creation of a social stratum (4) of people specializing in intellectual work (2) yet not belonging to the ruling class (1), and understood (both by its own members and by others) as a coherent group (3 and 4). But they are of course *not sufficient*. "Control" may be of many sorts, and so may division of labour. Only where *writing* developed together with the state has a stratum of professional intellectuals emerged – and even writing has not always been sufficient[3].

Three cases where the step was actually taken are ancient Mesopotamia, ancient Egypt, and ancient China. In Mesopotamia and Egypt the stratum of scribes carried literate culture for millennia before eventually collapsing in the Hellenistic era; in China the classical "mandarin culture" has

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[2] It hardly needs to be said that these descriptions of pre-state societies simplify the variability of real societies in the extreme.

[3] This is born out by the Mycenaean society of the second millennium B.C. This early Greek culture was a bureaucratic "Palace economy" managed by scribes; but not the slightest evidence for intellectual interests can be traced, nor is there any indication that the script developed for accounting purposes survived the downfall of the Palaces.

survived continuously until this century, and only future will tell whether it has been shattered or only shaken by the double Revolution and by the Modernization process. China could therefore be chosen to demonstrate the importance of scribal "humanism" even in recent times; but since the early beginnings are poorly documented and my own familiarity with the details of Chinese culture virtually non-existent I shall concentrate instead on Mesopotamia, with which I am fairly familiar, and where the permanency of clay has guaranteed the survival of early written sources.

In Mesopotamia, the earliest social system fulfilling conditions (1)–(5) (with some reservations for N° 3) arose between c. 3500 and 2800 B.C. in Southern Mesopotamia ("Sumer"), which by this time became suited for irrigation agriculture and could thus yield a surplus large enough to allow certain population groups to specialize in other activities than food production; according to all evidence, this is the earliest statal system in the world. The centre of the system was a Temple institution, where the body of priests took care of a number of societally important functions: long-range trade; exchange of the produce of different groups of producers specializing in agriculture, herding, fishing, and other trades; presumably organization of handicraft work and in any case of huge temple building projects; and perhaps reparation of the consequences of climatic or other catastrophes. As in other state formation processes, the carriers of central functions took advantage of their position and made themselves masters of society – to judge from the favourite pictorial motifs of cylinder seals not by peaceful means alone.

None the less, the fundamental legitimation for the newly emerging state organization of Mesopotamian society was functional and theocratic-economical, *at least as far as legitimization is concerned.* War and similar organized violence played a much smaller role than in other state formation processes; economic class division, moreover, appears to have been a consequence rather than a cause of the process. This legitimization through purported functionality of the state will probably have been one reason for the systematic development of tools for bureaucratic management – another one being the availability of an age-old system for primitive accounting which lent itself easily to refinement.

One of the newly developed tools was *writing* – at first with a purely ideographic script (i.e., a script where each sign stands for a specific word

or conceptually related group of words, as "to eat" and "food ration"); the other was *mathematics* used for accounting and in metrology. Together they were used by the priesthood acting collectively as a "Civil Service" to keep track of taxation and of the Temple economy. They were thus the instruments for the emergence of a class of intellectual workers separate from but controlling manual work.

So far, this seems to have little to do with the humanities. The operation of any specialized tool, however, has to be learned, and in the case of the Mesopotamian scribal tools this was done by institutionalized schooling[4]. Here, the script and the mathematical notations and techniques were taught – the script by means of systematic sign lists. Indeed, these lists and a few mathematical exercises constitute the only evidence left by the school institution. We can therefore not say very much about the organization of the school, but still something about its intellectual impact.

This follows from a comparison of the organization of the sign lists with the results of an investigation of the "psychology of literacy and modernization" made by the psychologist Luria in the 1930s in Soviet Central Asia[5]. He distinguishes "categorical classification" from "situational thinking", in a way which can be illustrated by this dialogue:

> *Luria*, explaining a psychological test: "Look, here you have three adults and one child. Now clearly the child doesn't belong in this group" [categorical classification].
>
> *Rakmat*, an illiterate peasant: "Oh, but the boy must stay with the others! All three of them are working, you see, and if they have to keep running out to fetch things, they'll never get the job done, but the boy can do the running for them [...]." [situational thinking].
>
> (Luria 1976: 55).

Situational thinking was found to be "*the* controlling factor among uneducated, illiterate subjects", whereas both modes were applied (with situational thinking dominating) among "subjects whose activities were still confined primarily to practical work but who had taken some courses

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[4] In Egypt, on the other hand, scribes were taught as apprentices "on the job" until the end of the third millennium B.C. This is probably a main reason for the difference between Egyptian and Mesopotamian scribal culture.

[5] Similar consequences could be drawn from analysis of the mathematical texts and techniques.

or attended school for a short time". "Young kolkhoz activists with only a year or two of schooling", on the other hand, employed the principle of categorical classification "as their chief method of grouping objects". In other words, people living in a stable world made up by a restricted number of apparently ever-fixed situations presuppose this stability in their mode of thought, whereas those accustomed to change (and perhaps engaged in planned change) arrange theirs in a more abstract and less directly applicable but precisely therefore more flexible pattern.

Now, the sign lists are arranged according to the categorical principle. One list enumerates professions in a hierarchical scheme; one records wooden objects; one inventories vessels; one is a catalogue of place names; etc. Apart from teaching the pictographic signs, the lists can thus be said to convey in a double way a *world view:* firstly, that the world is to be understood in terms of general categories; secondly, which are the categories involved. Being an intellectual worker in the early Mesopotamian Temple State not only implied *social segregation* but also existence in *a mental cosmos wholly different* from that of illiterate peasants and workers.

Another perspective on the early scribal culture is provided by a scheme proposed by Jürgen Habermas (in the book *Erkenntnis und Interesse,* 1973) in a discussion of the different incentives for the quest for knowledge. He distinguishes three distinct *Erkenntnisinteressen* or interests motivating the pursuit of knowledge[6]. One is the *technical interest*, which looks for means to achieve given ends, and which is identified by Habermas as the incentive motivating the natural sciences; the other is *interpretive* or *legitimizing*, leading to *understanding* of why things (in particular society, culture and cultural products) are as they are and hence potentially to acceptance *that* they are thus; Habermas identifies it as the incentive motivating the humanities; the third, finally, is emancipation, which *ought to be* the distinctive motivation of social science (in reality, Habermas observes, the real incentive of much actual social science is technical, which he regards as a philosophical mistake of categories, namely as a treatment of fellow human beings as objects to be manipulated – cf. below, note 139).

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[6] Giddens (1985: 127) translates the untranslatable German phrase as "knowledge-constitutive interests". At the cost of precision, I shall use the less suffocating expression "cognitive interests" in the following.

Now, obviously, the primary motive of the priestly managers for their construction of a coherent system of knowledge was *technical:* their aim was to *know how* to manage the Temple estate and that society in which they had acquired a pivotal position. This position was not legitimated by their *possession of knowledge* – instead, legitimacy followed from actual or pretended societal functions, to which knowledge was subordinated. Nor can we ascribe more than a secondary role to the emancipatory interest; the liberation from the bonds of traditional modes of thought suggested by the organization of the lexical lists, on the other hand, makes it conceivable to speak precisely of emancipation as a *secondary motivation* for a social stratum ridding itself of the restrictions imposed by functional service to a formerly more egalitarian society while perpetuating the functional ideology.

The first intellectuals

During the following millennium, the character of the Mesopotamian state underwent a series of changes. At first, a system of city-states in perpetal conflict (mainly, it seems, over basic resources like water) developed. In these states, a secular supreme power (a "king") came to over-shadow the traditional theocracy. The most striking illustration of this is provided by the so-called "Royal Tombs of Ur" (c. 2600 B.C.), where up to 80 servants, maidens and soldiers were killed in order to follow their royal master to the Nether World. Clearly, statal power was now firmly established on its own and no longer to be understood as an expression of social functions alone.

Epics originating during the same epoch (though only written down around 2100 B.C.) also show us a social structure where the King is protector of the shrine of the city but not submitted to the priesthood. King Gilgameš of Uruk is no absolute ruler; but the bodies which he must consult are the council of "men" (able to bear arms, one may presume) and the council of "elders" (powerful citizens, presumably like the Roman Senate the highest-ranking members of leading families). The leading priests may well have belonged to the latter body; but the epic is only interested in their role as first-rank citizens.

Yet in spite of its absence from the epic horizon, the literate tradition

was continued and expanded. Royal inscriptions begin to turn up – the very first we know is due to a king known from the Gilgameš-story. What is more: the functional ideology originally connected with the origin of writing was carried on by the literate environment. Nobody would believe without the evidence provided by city walls and by the originally oral epic tradition that the king was first of all a military leader: the literate environment would for centuries depict him as a builder of temples and of canals, i.e. as a representative of functional and theocratic power. Nobody would guess from the written evidence that servants were slaughtered in honour of the King. "Early Dynastic" Mesopotamia was thus a truly *dual society*, a society with Janus face. As seen by the epic literature it was a "military democracy"[7]; as reflected in written sources – and hence as seen by the literate – it was still a bureaucratic-functional state supposedly providing for communal needs.

In the longer run, of course, the dual society was unstable. Around the mid-third millennium (the so-called Fara period), the primitive-democratic components of society were increasingly incorporated into an overall structure where written contracts and monetary relations were important. At the same occasion, however, literacy itself stopped being bound up exclusively with its bureaucratic function:

Firstly, the increased use of writing for many socially important functions called for an increase in the number of literate functionaries and hence – given the complex character of writing – for professional specialization. For the first time an organized group of *scribes* distinct from the stratum of priestly managers turns up in the sources. The scribes are *professionally literate and numerate*, not just professional managers who have to be literate and numerate in order to attend to their business.

Secondly, this social group *an sich* also became a profession *für sich*, to use a distinction going back to the Hegelian-Marxist tradition. The scribes started investigating the capacity of their distinctive professional tools: writing and computation. They started writing down *literary texts* (hymns and proverb collections); and they produced the earliest examples of *pure mathematics*, i.e., mathematical problems chosen for their inherent

[7] A concept originating in nineteenth century anthropology and mainly known today from Engels' *Origin of the Family, Private Property and the State.*

interest and in spite of lack of direct relevance for everyday scribal practice[8].

Thirdly, the students in the Fara scribe school were enthusiastic about the newly invented idea of intellectual work. They do not inform us so in direct words, but they have left more telling evidence: the empty corners of many of the school tablets made by this first generation are filled out by nice and occasionally really artistic decorations, in a way not seen in any other period of Mesopotamian history, where the cane was always the chief teaching aid. In Fara it was apparently great fun to go to school.

Novelties do not remain new, nor will a subordinate social group be left in possession of its distinctive subculture if its culture can serve those in power. Mesopotamia was no different in these respects. After the 24th century, where a centralizing tendency replaced the city-states by larger "territorial states", literary texts were no longer made in the scribal school in order to explore the possibilities of professional tools; they had become the product of a "court chancellery" and were made as a vehicle for royal propaganda. Enḫeduanna, the first poet of world history known by name, was a princess, and her hymns are clearly meant to reshape mythology in a way which would suit the territorial state created by her father.

During the 21st century B.C., the scribal loss of intellectual autonomy reached a paradoxical apex. In this century, southern Mesopotamia formed a single state (the so-called "Third Dynasty of Ur" or "Ur III"), which constituted one of the most highly bureaucratized systems in history – maybe the supreme bureaucracy until the advent of the modern corporation. Most land was concentrated in royal estates (some of them formally temple estates, but the realities were the same), and most of the rural population worked here as serfs, supervised by scribes who were

[8] A modern mathematician, of course, would not easily recognize the problems as "pure mathematics" – a favourite problem type was division of phantasmagorically large round numbers by divisors which were as irregular as possible with respect to the number systems in use; nor will a modern literary scholar perhaps fathom the historical importance of a collection of proverbs. But on a background where nobody had ever used writing and numbers beyond the purely utilitarian realm both are important steps towards the formation of a sphere of autonomous intellectual work.

accountable for the performance of their crew calculated in units of 12 minutes (1/60 of a work-day). Textile and other industries as well as foreign trade were organized according to similar principles, and of course *the scribe*, the central pivot of the whole machine, stands out as the culture hero of the era, for instance in various royal hymns.

At the same time, however, we possess a number of descriptions of the curriculum of the Ur III scribe school, as well as a number of the texts which were used to implant the correct ideology into the minds of future scribes. It turns out that the education of the ordinary scribe was strictly utilitarian. Most of the Sumerian literature, it is true, was written down precisely during Ur III; according to all evidence, however, the focus for this activity was the court, and the purpose was propagandistic (as it can be seen from the way old stories were twisted to fit the political conditions of the day). The rank-and-file scribe was to be an *engineer* and an *accountant* in *civilized society*, and he was to be proud of that. He was a *trusted and privileged* subject of the state but still a subject and not a member of an autonomous profession with its own values and interests. In this respect his situation was quantitatively but not qualitatively different from that of the enslaved former peasant, who had also been reduced from a member of a free clan to a mere subject.

Scribal "humanism"

Ur III was a swing of the pendulum in one direction. It was soon followed by a swing in the opposite direction, both as concerns socio-economic conditions and if we look at scribal culture. Economy first:

In the long run, the costs of the bureaucracy that was needed for running the Ur III system and keeping the workers busy were too high for the yield of the land. Breakdown followed, and after an intermediate period (the twentieth century B.C.) a new, highly individualized socio-economic structure emerged in the "Old Babylonian" period (which lasted until 1600 B.C.).

Firstly, the economy itself was individualized. Much land was still held by the King, by temples, and by the richest citizens. Estates run by enslaved workers, however, had disappeared, and land was instead cultivated by tenants on contract or by wage-earning workers. Trade had been taken

over by private merchants, and so had industry. Banking of a sort developed, and monetary economy flourished[9].

These changes are reflected on the levels of culture and ideology, where the emergence of the *individual* can be observed. In earlier times, only official letter-writing had existed; now, the private letter turns up (and even in the official correspondence of King Hammurapi, the King stands out as an individual character); the *cylinder seal*, until then an attribute of the official, now becomes a token of private identity; and so on. Society no longer consists of mere *subjects*, but of *private human beings* – in a few unique cases (the merchant communities in certain cities), it seems, even of *citizens*, i.e., of persons possessing political co-responsibility.

In this new context, the role and self-awareness of the scribe changed, too. Maybe 80% of the scribe school candidates still went into traditional scribal occupations (engineering, accounting, surveying, cancellarian functions at court or in the service of wealthy families). But the scribe-school now provided an *education of individuals aware of themselves as such*, and no longer a mere training of officials and overseers. This double situation explains the distinctive character of the Old Babylonian scribal culture.

Firstly, the ideology legitimating that state in whose service the scribe could expect employment was still the traditional "social-democratic" idea of the functional state securing affluence *and* justice[10]. In so far as this idea was believed (and it was more easy to believe in now than during Ur III), the scribe could be proud of his service to the state – for who but the scribe took care of the functions that actually secured affluence and justice, by means of accounting, surveying, letter-writing for the King, and so forth?

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[9] This description may sound almost as modern capitalism. That would be to overstate things, however. Commodities were produced for the market, it is true, and even land could be bought and sold. The exchange of land, however, did not take place on real market terms but depended on the social standing and kinship affiliation of the parties involved. As land was still the all-important economical asset it is therefore meaningless to speak of a real *market economy* and hence of capitalism.

[10] One of the most clear expressions of this ideology is found in "Hammurapi's Law-Code", more precisely in its prologue and epilogue.

Secondly, however, the scribe was taught in school to be proud of being *somebody special*. The mathematics of normal accounting and surveying was fairly trivial, and so was writing in the current Babylonian language[11]. The abilities *actually required* to procure affluence and justice were thus no adequate basis for professional pride. Pride, however, would be fully justified if the scribe mastered the non-trivial (yet, alas, useless!) levels of scribal cunning: solving second-degree equations (occasionally even third to eighth degree!); reading, writing and speaking the dead Sumerian language understood by nobody but other scribes; knowing the three different occult meanings of cuneiform signs; and so on.

In contrast to his Ur III colleague, the Old Babylonian scribe is thus no mere technician but *a virtuoso* – and in contrast to his fellow countrymen he is *culturally polished*. He is very much aware of this, and has a name for this specific characteristic of his: nam-lú-ulù, (of course Sumerian for) *humanity*. Like the humanists of later days he is thus aware that he is a human being *par excellence*, and proud of being so.

Superficially, this reminds of the joy of the Fara scribes to be the first intellectuals in history, and some scribe students have certainly experienced the pleasures of Sumerian poetry or of mathematical dexterity. To judge from surviving texts, however, the overall climate of the Old Babylonian scribe school was as repressive as that seventeenth to nineteenth century Latin school which inculcated "Latinity" or "Graecity" into the sore backs of future priests and officials. Like the humanist produced by the latter institution, the brood of the Old Babylonian school would usually be full of arrogance toward both aristocrats and commoners yet fully uncritical and submissive to the existing social order (cf. also note 86)[12].

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[11] Babylonian could be written adequately by means of some 80 syllabic cuneiform signs, as it is demonstrated by the members of an Assyrian merchant colony in Cappadocia in the nineteenth century B.C. They wrote their own letters without scribal assistance. The scribes took care that this would never happen again by making the script more complex.

[12] A striking example of this: in 1600 B.C., the Hittites raided Babylon, putting thus a violent end to the Old Babylonian era. In reaction to the ensuing social chaos the population of the city rose in rebellion, only to be crushed by the conquering Kassite warrior tribes, who imposed a new military state on the region which was totally devoid of "social-democratic" legitimation. A contemporary scribe has left

Returning to Habermas' cognitive interests we may say that the glimpse of emancipatory interest which can be read into the early lexical lists is indubitably present in the Fara emergence of autonomous intellectual activity, though even here only as a by-product. The training of ordinary Ur-III scribes, on the other hand, was apparently driven by purely technical interest, whereas that of the contemporary court chancellery was legitimizing. Legitimization and understanding of the proper cultural tradition of the scribal profession was also the driving force behind Old Babylonian "humanism" – no wonder, in fact, since Habermas locates the interpretive-legitimizing interest precisely in that humanist tradition which sprang from the post-Renaissance Latin school, and which impregnated the Wilhelmian German mandarinate.

The fall of the Old Babylonian state was the end of the age-old idea of the functional state, of the culture of individualism, and of the scribe school. As one should expect it was also the end of that scribal culture which had grown out of this well-blended soil. Scribal humanism disappeared; for the next one and a half millennium the scribes, now trained as apprentices inside a "scribal family", would posture as members of a venerable and patriarchal *tradition*, and would mix up as much priestly mysticism as possible into their secular business. This phase of Mesopotamian scribal history is therefore no longer interesting as an elucidating parallel to the professional situation of the humanities in the contemporary world – even though it may throw light on twentieth-century fringe mysticism and occultism.

A question close at hand is of course whether the earlier period is a real elucidation, or I have just used the opportunity to tell some more or less amusing anecdotes. Is the present chapter really "a sociological fable with an implicit moral", as claimed in the caption? An answer will be provided by the following chapters, toward which it will repeatedly be possible to hold up the models presented here. For the moment I shall just oppose three counter-questions to my own rhetorical question: firstly, is

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us a metaphoric description of this sequence of events. The popular rising is compared to a plague, and the foreign conquerors are seen as deliverance sent by benevolent gods.

it fully excluded that the interest of modern humanists in literature and philosophy fulfills the same functions as Old Babylonian scribal "humanity" with regard to legitimation of social identity and position? Secondly, can we trust our conviction that we serve general interests while engaged by the public authority as teachers, librarians, researchers, TV-commentators, and so forth – or is this Hammurapian ideology nothing but a convenient veil hiding quite different realities? Thirdly, is the complete technicalization of Ur III intellectual work without parallels in the contemporary age?

Whoever answers "yes" to these three questions without hesitation will see no moral in the fable. Others may well see it.

4. CLASSICAL ANTIQUITY

The preceding chapter dealt, firstly, with some very general preconditions for the rise of anything akin to the humanities considered as a social entity – namely the segregation of intellectual work as a particular occupation, and the emergence of literate culture; secondly with *sociological parallels* to the modern business of humanities as they could be found in the various phases of Mesopotamian scribal culture. The present chapter, devoted to classical antiquity, will still present us with some such parallels; its chief aim, however, is to introduce some of the *roots* of the humanities – those very roots to which the intellectual culture of Europe has preferably referred itself ever since.

In the present perspective three main periods (possibly four) can be distinguished. The first ("pre-Socratic") period covers the span from c. 600 B.C. to c. 430 B.C. The second ("from Socrates and the Sophists to Aristotle") comprises the time until 320 B.C. The third ("Hellenism and late antiquity"), finally, extends until c. A.D. 500. A fourth period ("late antiquity") beginning around A.D. 300 can be defined for instance as the period where

Christianity became important for the interpretation of the cultural heritage.

These distinctions reflect not only intellectual currents (though that is the way they are defined here) but also important socio-economic and political changes. At the same time, however, decisive continuities make it meaningful to speak of the whole span as *one* epoch. Fundamental among these continuities is the lasting importance of *slavery*.

It is in fact common to speak of classical society as a *slave society*. As all simplifications this characterization can be challenged. It is *not* true, as one might believe from the term, that slave labour was all-important throughout the period and in the whole Mediterranean world, though on the other hand it remained more important than in most other historical periods, earlier as well as later. More decisive, however, is the quality implied by the corresponding German term *Sklavenhaltergesellschaft*, "Slave holders' society" – namely that the ideological and cultural perspective of the social stratum of slave holders was *hegemonic*, i.e., influenced even the culture and perspective of other social strata decisively[13]. An important strain in that hegemonic thought was contempt for manual work (which *ought to* be the domain of slaves), extending even to contempt for the supervision of such work (with the one exception that a gentleman might legitimately engage in the management of his own *rural* estates).

Supervision and management of practical work was, we remember, the *raison d'être* of the scribal profession. The hegemony of the slave-holders' perspective therefore had as its natural consequence that the scribal function stopped being culturally productive.

The rise of philosophy

From our present perspective, the decisive characteristic of the first, "pre-Socratic" period is the emergence of *philosophy* as *critical and systematic investigation*, as *organized curiosity* – corresponding to the definition of "science" given in the "Introduction" (p. 4). The change in relation to earlier

[13] The term is borrowed from the Italian Marxist Gramsci, who uses it to describe the general acceptance of the ideology and perspective of the bourgeois class in capitalist society. Since neither slaves nor slave holders constitute *classes* according to normal socio-economic definitions of that term, I use the concept in a generalized sense.

times is properly delineated by Aristotle in the following passage from the *Metaphysics* ($981^{b}14$–$982^{a}1$):

> At first he who invented any art whatever that went beyond the common perceptions of man was naturally admired by men, not only because there was something useful in the inventions, but because he was thought wise and superior to the rest. But as more arts were invented, and some were directed to the necessities of life, others to recreation, the inventors of the latter were naturally always regarded as wiser than the inventors of the former, because their branches of knowledge did not aim at utility. Hence when all such inventions were already established, the sciences which do not aim at giving pleasure or at the necessities of life were discovered, [...].
>
> So [...], the theoretical kinds of knowledge [are thought] to be more the nature of Wisdom than the productive.
>
> (trans. Ross 1928)

The knowledge of the first phase is the age-old technological wisdom of mankind, which in Aristotle's times had been degraded to being the cunning of the unfree (legally unfree, like slaves, or morally unfree, like those who had to work manually in the likeness of slaves and perhaps together with slaves). The distinctive knowledge of the second phase can be compared to the virtuosity of Old Babylonian scribal humanism, although its scope is somewhat broader. The third phase, finally, is that in which *philosophy* (*philo-sophia*, meaning "love of wisdom") emerged, as a quest for knowledge not conditioned by considerations of material utility.

Though not aiming at material utility, early Greek philosophy was still directed at the material world. Early sixth century philosophy (embodied by Thales, Anaximander and Anaximenes, all from Miletus on the coast of Minor Asia) was *natural philosophy*, i.e., it aimed at understanding the phenomena of the material world through the *proper nature* (*physis*) of things and not by reference to divine forces. Thunder and lightning, rain and earthquakes, until then numinous manifestations of the Gods, could be explained as occurrences on a larger scale but not qualitatively different from what could be regarded in the artisan's workshop. Through their *theoretical* investigations (from *theōréō*, to look at, to inspect, to regard) the natural philosophers thus brought the incomprehensible and awe-inspiring within the reach of human understanding. Nothing, on the other hand, suggests that the results of the philosophers were *brought back* to the artisan. The aim of understanding the material world was not technological cunning

or mastery – power in the Greek city-state or *polis* was power over fellow beings, not technical command of nature. In Habermas' terms, the cognitive interest behind early Greek natural philosophy was emancipation, namely from traditional authority and from the authority of tradition, and nothing but that[14].

Why was this? A product of a particular Greek mind? Hardly. As observed above, the Mycenaean (that is, Greek) mid-second-millennium Palace scribes had been unable to create as much as a scribal culture similar to that of Babylonia. The best explanation of the "Greek miracle" appears to be sociological rather than racial. Seventh to sixth century Greece, indeed, happened to be at the crossroads of a multiplicity of mutually fecundating currents, tendencies and opportunities.

One of these was the vigour of primitive-democratic institutions. Anybody reading Homer's *Iliad* (c. eighth century B.C.) will discover the importance of the Council and the Popular Assembly. At closer investigation it turns out to be an ever-recurrent topic that the aristocrat truly worth that title possesses equal excellence in battle and in the Assembly and earns his honour indiscriminately in both domains. The importance of rhetorical skill and argument is also made clear by the way prayers to the gods are formulated: not "Do *Z* in my favour" but "If I have done *X* for you [implying: which you cannot deny], then do *Z* in my favour".

Such conciliar institutions are not specifically Greek – we remember

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[14] The one exception to this blunt statement is to be found in the field of medicine. The improvement of cures can of course be claimed to be a technical matter, and Hippocrates' fifth century medical works are indubitably in debt to contemporary natural philosophy (and *vice versa*). And yet the exception is not really one: the aim and result of "philosophical medicine" was not simply to cure the sick but quite as much to get them out of the grasp of the Asclepian medical temples and their priests; it was, furthermore, to understand the reasons of sickness on *natural terms* (whence the subject and title of one of Hippocrates' works, *Airs, Waters, Places*, and the insistence that "the sacred disease" epilepsy is not "any more divine or more sacred than other diseases, but has a natural cause").

Another variation on the pattern of natural philosophy is the writing of *critical history*, which took its beginnings in the late sixth and reached an early high point with Herodotos in the mid-fifth century B.C. Once again, the aim was to procure orientation in and reasoned understanding of the actual world.

that Gilgameš consulted two similar bodies back in the early third millennium B.C., and anthropologists can point them out in many parts of the world. But in the Greek city states of the seventh to sixth century B.C. they happened to be still alive at a moment when the Greek city-states were plagued by endemic class-struggles (not between masters and slaves but between rich and poor citizens) often evolving into open civil war, and when old aristocratic constitutions were replaced by democracy[15].

Traditional primitive-democratic institutions are mostly organs of approval and nothing more. The Germanic aristocrat would make his speech, and the commoners would strike their shields with their swords to express consent – or two aristocrats would make different proposals, and the noise level would decide. In the sixth century Greek Assembly, on the other hand, truth was expected to be found "in the Middle", as formulated by the Milesian philosopher Anaximander, i.e., to result from debate among equals in the open squares of the city, and be decided neither in a closed council of "Elders" nor in the secret deliberations of the counsellors of the ruler, nor by a High Priest.

The application of reason in realms hitherto governed by tradition and authority thus took its beginning in the political domain. An older contemporary of Thales is the Athenian statesman Solon, who in the 590s gave Athens a new constitution constructed by reason and political insight and meant to check those abuses and instabilities which threatened to destroy the state from within. But the cutting edge of reason was soon taken over by the philosophers, who make clear their debt to the sphere of political discussions through the metaphors they use to describe their endeavour – among which Anaximander's claim that truth is found "in

[15] The class struggles resulted from the increasing role of monetary relations, loss of land on the part of the poorer citizens, and accelerating destabilization due to institutions like debt slavery. *Democracy* followed not from the mere goodwill of those in power, nor from popular rebellions alone. It had become a historical possibility through a seventh century reform of military tactics which gave the key role to *hoplites*, heavily armed infantry. Hoplites were recruited from the stratum of moderately wealthy citizens who could afford the equipment, but who then also could (and did) claim influence in that *polis* which needed them. In fifth century Athens, which built its military power on a fleet manned by penniless citizens, even these could, in a similar manner, claim their voice in the chapter, which provided the foundation for the radical democracy of Athens.

the Middle".

The happy collision between primitive and developed democracy provided the background and the occasion, and actual political discussions contributed the metaphors. The *tools* for understanding the world, however, had to come from elsewhere, and were provided by another happy collision. Greece, still equipped with the institutions of primitive democracy, was the neighbour of civilizations which had lost them millennia ago but which on the other hand had accumulated technical and other knowledge during an even longer time-span. The Greek city-states were in intensive trading connection with these older civilizations, Greeks went as mercenaries to Egypt and elsewhere, and Greek cities and rulers employed foreign technicians when they needed them. The Greeks learned the alphabet from the Phoenicians, and in the process of adapting it to their own language (by introducing letters for vowels) they developed something much better suited for the diffusion of rudimentary literacy than the original Semitic invention.

Beyond intellectual tools, the foreign contacts also provided new questions (which the source civilizations had never asked themselves as "theoretical" questions). Questions of thunder and earthquakes and of the origin of the world had been asked in Greece before the advent of philosophy and answered at first in religious terms[16]. But the natural philosophers went further, asking also for the reasons underlying the practices which had been learned from abroad: *Why* do the methods of surveyors and accountants work? These methods were borrowed from Near Eastern and Egyptian scribal mathematicians. *Why* are the Sun and the Moon eclipsed at those points of the Ecliptic where it happens? That these eclipses were subject to regularity was known to Babylonian astrologer-priests at least since the seventh century. *Why* are the positions of planets so important for epidemics? The assumption that this was the case was part of the ground for Babylonian astrology.

A final coincidence was needed to make Greece come out of the collisions alive. World history is full of confrontations between developed civilizations and cultures on an organizational level comparable to Homeric

[16] For instance by Hesiod in his seventh century *Theogony* – which, by the way, already borrows from Near Eastern sources, but from mythologies and epics.

Greece. In most cases the latter cultures have been crushed. Greece, like eleventh-twelfth century Western Europe and nineteenth century Japan, was militarily and economically vigorous enough to survive the confrontation and to incorporate foreign elements into its own culture as inspiration. But whereas Western Europe and Japan adopted the foreign inspiration into a relatively stable structure, Greece received it while itself in the midst of deep-going transformation. This quadruple coincidence appears to be the ultimate root of the "Greek miracle".

Such explanations can of course always be subjected to doubt. Whichever its roots, however, Greek philosophy began as natural philosophy and as a kind of *enlightenment* aiming at emancipation from the authority of tradition. Thereby it had defined the battleground; since this battleground was in fact the politically decisive *city square*, the partisans of aristocratic values and of tradition were forced to take up the challenge and to formulate their points of view *as philosophy* – a process not unlike the late eighteenth century appearance of the Counter-Enlightenment and of Conservatism as an *explicit philosophy*. The very first person to have adopted the title of "philosopher" may actually be *a counter-philosopher*, namely Pythagoras (fl. c. 530 B.C. to c. 500 B.C.).

Because Pythagoras was regarded in Hellenistic and late ancient philosophy as the Prophet of True Wisdom, we possess a large stock of reports and legends on his life and opinions – and for precisely the same reason it is often impossible to distinguish what may remain of reliable report in the heap of legends. In spite of the prevailing opinion in popular histories of philosophy and science it seems most safe to disregard the incoherent accounts of Pythagoras the mathematician and Pythagoras the experimental physicist. He appears to have been much more of a *guru*, a spiritualized teacher, than a "scientist" or philosopher. His fame as a mathematician and scientist seems to be due to a predilection (shared with Ron Hubbard and other neoreligious gurus of our own times) for using as much as he understood of contemporary philosophy and mathematics to illustrate and support his teachings and to impress the public[17]. Like

[17] Whereas the appraisal of Pythagoras as a shamanic figure can be found in part of the general literature (in particular Burkert 1962, English translation Burkert 1972), the latter statement will not be found in standard textbooks on the history of Greek

many recent gurus he also founded a brotherhood where his doctrines were taught: for Pythagoras and his followers, truth was certainly not to be found, and not even to be divulged "in the Middle". On the contrary, the initiates of the brotherhood were to use their acquaintance with True Wisdom to grasp or keep political power in their cities (eventually, democratic revolutions in most of those Greek cities in Southern Italy where the order had its strongholds put a violent end to its political dominion).

The attraction to knowledge not accessible to everybody led one branch of the Pythagorean order to concentrate its teachings on mathematics – *mathemata*, like Latin *doctrinae*, means "matters to be taught" – and at some point in the later fifth century B.C. these so-called "mathematikoi" had created a curriculum based on four *mathematical arts*, which was to remain an important ingredient of any European higher education for 2000 years:

1) Arithmetic
2) Geometry
3) Astronomy
4) Music

The first two subjects are self-explanatory – if only one remembers that arithmetic has as little to do with practical computation as geometry with the measurement of land and distances. *Astronomy* was first of all a mathematical theory of how the sacred heavenly system *ought to* look; *music* was the mathematical theory of musical harmony (considered a model for social harmony, based as the social order should be on correct proportions and not on equality).

Pythagoreanism was apparently a morally-politically motivated reaction against the implications of natural philosophy – but a reaction which at the same time stuck to the central themes of natural philosophy: mathematics was seen by the Pythagoreans as a way to gain *better* knowledge of the material world than could be obtained by everybody

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science and philosophy. I build it partly on a fragment of an early comedy presupposing general knowledge of supposedly secret Pythagorean mathematical teachings (discussed in Høyrup 1985: 20f), partly on evidence from an Islamic book catalogue that Pythagoras' most glorified discoveries in musical theory may have been committed to writing by the musician and composer Sacadas already around the time when Pythagoras was born (see Høyrup 1994: 285 n.36).

by means of the senses; *number*, to the Pythagoreans, was *not superior to* material reality but *the essence of* the material world. Another counter-current – carried by figures like Parmenides (possibly c. 515 to c. 450 B.C.) and Zeno (c. 490 to c. 425 B.C), both from Elea in Southern Italy – may have been less directly politically motivated while at the same time differentiating itself more thoroughly from the tenets of natural philosophy. Distinguishing sharply between the thought of the intellect and that reality which was experienced by the senses, the Eleatic thinkers claimed that sensual experience was fallible and even misleading, and the intellect thus the only source for certain knowledge; more than any other philosophical current in history, they deserve the label "rationalists". Movement and change, they argued, were illusions, and by a series of famous thought experiments[18] Zeno set out to prove that movement was *logically impossible* – no doubt a comforting thought in midst of the rapid political changes of the Greek city states (Zeno himself may have been killed in an abortive rebellion).[19]

Natural philosophy, Pythagoreanism and Eleatic rationalism were all important for the formation of European philosophy, and thus for the humanities. But were they themselves constituents of a "humanist community"?

Yes and no. In a loose sense it is possible to speak of "schools" around the philosophers – Zeno, for instance, was taught by Parmenides. But the usage is only permissible in the loose sense which corresponds to the Greek expression "those around Parmenides". The philosophers were in mutual,

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[18] One of them is the "paradox of Achilles and the tortoise", another one the "arrow paradox". The latter goes as follows: think of an arrow flying from point *A* to point *B*. Before reaching *B* it must pass through the mid-point *B´*, and before that through the mid-point *B´´* between *A* and *B´*. This argument can be continued ad libitum. Before getting anywhere at all the arrow must thus go through a process consisting of an infinite number of steps, which is "obviously" impossible. Therefore the arrow will get nowhere.

[19] Whereas eighteenth century Counter-Enlightenment declared reason impotent or dangerous (cf. below, p. 139), the Pythagorean and Eleatic reaction to natural philosophy thus exalted it – but in a way which had the same ultimate consequence: the futility of *the reason of everyday and every enlightened person*, that reason which is the foundation of any enlightenment venture.

critical communication, and they were of course specialized as intellectuals. But the philosophical environment was quite loosely knit, too loosely perhaps to justify the term "community".

The Pythagorean order was certainly more firm in structure, but probably too firm to be reckoned a primarily *intellectual* community – and, in particular, religious and political in orientation rather than directly intellectual. Again, the differences probably outweigh the similarities.

At a less ambitious intellectual level one might perhaps expect a more positive answer. After all, a system of general education for free boys seems to have existed. On the other hand, the ambitions of the curriculum were probably too low to allow us to speak of more than rudiments of a humanistic environment: gymnastics, meant as preparatory military training; spelling and counting; and *music*, meant in this context as "the domain of the Muses", i.e., recitation of religious hymns and Homeric passages meant to strengthen the character and to convey a moral message.

From the Sophists to Aristotle

Around the mid-fifth century, the new social system of the *polis* had become (relatively!) stable, and the roles of rich and poor within the social fabric had become institutionalized and more or less a habit. This is especially true of Athens, where even the different political roles of the different social classes and groups had been organized within an astonishingly well-performing direct democracy[20]. Thanks in part to this, in part to the wealth and political dominance of Athens between the Persian

[20] Democracy was established in Athens in 509–507 B.C. after a period of tyrannic rule. Truly, the abuses of Athenian democracy has been a favourite theme for anti-democrats from Plato onwards. As pointed out by the American historian Moses Finley, however, few political regimes in history, democratic or authoritarian, have managed to make so few political blunders per decennium as the Athenian Popular Assembly.

Evidently, Athenian democracy was *democracy for the citizens*, which means that it did not include slaves, women, children, and foreigners, and for a while Athens built up an empire which it treated as its legitimate sphere of influence. This non-observance of twentieth-century political ideals, however, changes nothing in the fact that the Athenian political system performed well, both as regards effectiveness and concerning compliance with its own established moral norms.

and the Peloponnesian wars (500–479 and 431–404 B.C., respectively), Athens became the intellectual meeting place of Greece, and the focus of new developments.

One new development was a "technical" utilization of philosophy, brought about by the "Sophists". This did not involve any use of the insights of natural philosophy in the productive sphere – natural philosophy had neither sought nor produced any insights fit for that. In agreement with the principle that "power in the Greek city-state or *polis* was power over fellow beings, not technical command of nature", *use* was *political use*.

The problem which the Sophists helped to solve was the common problem of economic elites in a democracy: how to safeguard also the position as a *political* elite. In Greek direct democracy, the way to political influence went through the Popular Assembly. What you could do with your money was (apart from supporting or favouring your clients, thus making them vote as you wanted) to buy an education permitting you to perform well on this stage. That meant, firstly, that you needed rhetorical skill – political life was oral; secondly that you had to be versed in the favourite themes of philosophy – since philosophy had developed in close interaction with the political stage, as a sort of meta-political discourse; and thirdly that you had to be fairly well versed in that traditional literature (first of all Homer) which was part of the upbringing of every citizen and hence common cultural heritage.

The *Sophists* were thus *professional intellectuals* who made a living from *teaching what upper class youth needed* in order to achieve political success. In its beginnings, the Sophist movement descended directly from natural philosophy: Gorgias, one of its greatest early names[21], was a disciple of Empedocles, the inventor of the theory of the Four Elements; the Sophists were thus the first to live *off, not for* philosophy, to borrow Schopenhauer's sarcasm. The alliance between natural philosophy and the preparation for

[21] So great, indeed, that Plato spares him the direct attacks in the dialogue carrying his name, using instead minor or caricatured followers as scapegoats when he is to demonstrate the mutual discordance between Gorgias' two claims: that rhetoric is technically effective, and that perfection in rhetoric is conducive to moral perfection.

a political career on the conditions of democracy was no accident. Already about one generation before the arrival of the Sophists, Pericles' acquaintance with Anaxagoras and his familiarity with Anaxagoras' natural philosophy enhanced the impetus of his political career – so it is told at least by Plato's Socrates, in a discussion of the rhetorical and persuasive art of this father of radical Athenian democracy:

> All great arts demand discussion and high speculation about nature; for this loftiness of mind and effectiveness in all directions seem somehow to come from such pursuits. This was in Pericles added to his great natural abilities; for it was, I think, his falling in with Anaxagoras, who was just such a man, that filled him with high thoughts and taught him the nature of mind and of lack of mind, subjects about which Anaxagoras used chiefly to discourse, and from these speculations he drew and applied to the art of speaking what is of use to it[22].
>
> (Plato, *Phaedrus* 269e–270a, trans. Fowler 1977: 547)

In its beginnings, the Sophist movement also continued Anaximander's principle that truth is to be found "in the Middle": Protagoras, the other main character of fifth century Sophism, is famous for having formulated that *man is the measure of all things* – that is, moral truth derives from neither tradition, nor authority, nor religion, but only from human utility and free decision.

Around the end of the fifth century, the need to bolster up political aspirations with familiarity with natural philosophy seems to have vanished[23]. As Sophist teaching crystallized, the program therefore came

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[22] Plutarch, when discussing the same matter, sees the utility of philosophy more technically; Pericles "often made an auxiliary string of Anaxagoras, subtly mingling, as it were, with his rhetoric the dye of natural science" (*Lives* 156,1, trans. Perrin 1967: 21).

[23] One reason that the tie between natural philosophy and politics was torn will have been Socrates' influence (cf. below). But Aristophanes' comedy *The Clouds* from 423 B.C., where he ridicules Socrates as a typical Sophist proponent of natural philosophy, shows that Socrates was not the only one in his times to find it socially and morally irrelevant whether wasps produce their buzzing with one or the other end of their body. It even suggests that he was not the first: if the comedy could be expected to be funny, it will have had to portray Socrates in a period of his life where he still believed that natural philosophy contained a clue to existential questions (as he tells once to have hoped, if we are to believe Plato's version of his *Apology*).

to consist of these three parts:

1) Grammar
2) Rhetoric
3) Dialectic

"Grammar" can be explained as *rules for correct and tools for good use of language*. This includes what we would designate by the term ("correct use"), but also knowledge of literature, in particular poetry ("fitting and agreeable use"); even "correct use" was trained pragmatically with reference to literature, schemes and grammatical systems being an invention of the Hellenistic age. "Dialectic" derives from "dialogue", and is thus the art of persuasion in discussion; the term was used with somewhat changing meanings during antiquity and the Middle Ages but mostly as a near-equivalent of *logic*[24]. But as it is suggested by our own term "sophistry", the dialectical art taught by the Sophists would also embrace the use of pseudo-logical fallacies and tricks, notwithstanding the ideals of Gorgias but in agreement with the needs of the customers – who pays the piper chooses the tune.

This well-known principle is also reflected in a reinterpretation of Protagoras' maxim which was undertaken by his followers, at least if we are to believe Plato's polemical but not implausible portraits. Protagoras' critical utilitarianism, speaking in the abstract of "man", had presupposed a shared and general human measure of what is good; when exposed to the realities of political life and leaving to the individual to decide the measure, it changed into moral relativism or nihilism: that which is *good for the strongest* is *good simpliciter*.

In the nineteenth century, this consequence of naive moral relativism was summed up by Dostoevski in the phrase that "if God does not exist, then everything is permitted". In the fifth century B.C., Socrates (c. 470 to 399 B.C.) reacted to the moral breakdown inherent in and represented by the Sophist teachings as Dostoevski would later do. Socrates lived for, not

[24] To Plato, *dialectic* was the supreme stage of philosophy, leading to true knowledge; but already Aristotle used it about the kind of logical reasoning which merely "aims at gaining credence" (*Analytica Posteriora* 81^b17), and opposes it to *analytic*, that reasoning from necessary truths which characterizes the sciences (cf. below, p. 41).

off philosophy, and changed the course of philosophy radically and lastingly[25]. In his youth he had been interested in natural philosophy, believing to find there the answers to essential questions concerning the question of *the good life* (no wonder, indeed, if we recall the enlightenment role of natural philosophy). But natural philosophy did not meet his expectations – its theories about *what is* were, and could only be, irrelevant to the essential questions which to Socrates were *practical*[26]. The roundabout way over natural philosophy having shown itself to be nothing but a dead end, the practical questions had to be tackled directly. This was hence what Socrates attempted to do in his famous, obstinate discussions with whoever dared expose his own inveterate conventional wisdom to Socrates' questions: what is *VIRTUE* in the absolute, what is *THE GOOD*, what is *THE BEAUTIFUL* – the answers, according to Socrates, could not depend on subjective and arbitrary choice, as claimed by the Sophists. Nor could they any longer be taken over from a tradition whose credibility had been undermined both by the Sophists and by dramatic authors like

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[25] A.N. Whitehead has claimed all Western philosophy to be but a series of footnotes to Plato. Plato, however, presents all his works except one (the cosmological *Timaeus*) as footnotes to Socrates, and is indeed our main source for Socrates' teachings (even though Xenophon and Aristotle say enough about him to permit us to extricate an approximate picture of the historical Socrates from the different distortions of the three authors; Socrates himself never wrote a line). Allowing for obvious exaggeration on the part of Whitehead and for literary stratagems on the part of Plato we may still conclude that the word "lasting" understates Socrates' influence.

[26] The term "practical" as used in philosophical contexts is easily misunderstood if interpreted from common usage. The word is borrowed from Greek *praxis*, which originally means "doing", "transaction", "business", "action", "dexterity", etc., but which in Greek philosophy took on the specialized sense of that *action in itself* which fits the free citizen (in contrast to *materially productive* or *technical* action). *Practical philosophy* therefore means analysis of the question *how one should act* absolutely, in contrast to the strategic (and non-philosophical) question "how should one act in order to attain a given goal effectively".

Practical philosophy, encompassing *moral* and *political* philosophy, is thereby one of the main branches of philosophy – the others being *epistemology* (how do we attain knowledge, and what is the status of knowledge); *aesthetic philosophy;* and, in some enumerations, *philosophy of religion*.

Euripides[27]. The investigation had to start from scratch, from the principle of "Socratic doubt": "The only thing I know is that I know nothing". Until his execution Socrates seems not to have attained any conclusive results beyond this, but to all evidence his way to enforce upon others the same awareness of ultimate ignorance was considered far from ineffective by those whom it made his enemies.

Socrates declared (in Plato's version of his *Apology*, 33a–b) never to have been the teacher of anybody. A teacher, in Socrates' opinion, poured ready-made doctrines and opinions into the defenseless minds of his private, paying disciples (*ibid.* 33b; *Protagoras* 314b). Yet through the questions and advice offered publicly to rich and poor alike he had certainly made Plato (c. 428 to 348 / 47 B.C.) as much of a disciple as anybody has ever been. Plato continued Socrates' quest for absolute moral knowledge, not only however with the aim of *knowing* but as part of an effort to improve society morally through education.

Plato's early works still reflect that global doubt which had been Socrates' ultimate position. Later on, however, he developed that philosophical doctrine ("Platonism", of course, or the "doctrine of forms") which was hinted at in the anecdote on Plato, Diogenes and Cuphood (p. 5).

Starting points for Plato's solution were provided by the Pythagorean mathematical-hermetic and the Eleatic rationalist traditions. Unlike the Pythagoreans, Plato did not claim that ultimate reality was mathematical. Mathematics, however, served as a symbol and as a preparation of the intellect for the perception of ultimate truth. According to Plato's understanding, all the different more or less imperfect triangles which we can draw in the sand, with sides never quite rectilinear and never infinitely

[27] Even though he was the first to submit the ethical questions to philosophical inquiry, Socrates was indeed not the first to raise them publicly and critically; nor were Sophists like Protagoras (whose maxim can hardly be labeled "philosophical inquiry"). The precedence goes to literature, more precisely to the dramatists from Aeschylos to Euripides and Aristophanes. As Socrates' greatness can be attributed to his ability to formulate the urgent dilemmas of his times (most of his mature activity falls within the 30 years of the Peloponnesian War between Athens and Sparta) in a way which was open-ended enough to express and interpret similar dilemmas in later ages, so can much of the majesty of the tragic authors.

narrow, are only deficient reproductions of the *ideal triangle*, the *Triangle in itself* or the *form* of the triangle ("triangle-hood", in the idiom of the anecdote). The theorem that the sum of the angles of the triangle equals two right angles never holds perfectly for our drawn triangles, and it should not. It holds for the *triangle in itself*, in the *world of forms*.

THE BEAUTIFUL, similarly, and still according to Plato, is a form, and the many beautiful things in this material world – temples, statues, young boys, musical harmonies – are only imperfect reflections of that form or "idea". In spite of our present-day understanding of the latter term it does not denote something subjective but a supremely objective entity which is present in the Universal Intellect (in order to avoid misleading connotations I shall therefore retain the term "form", although it was only introduced by Aristotle). When we enjoy the naked boys in the stadium or the sculptures of Phidias it is therefore not through a process of abstraction that we derive a concept (or an "idea" in the modern, subjective sense) of beauty, as modern thinking would mostly have it, or by extracting the shared quality of all the beautiful things (according to Aristotle this was Socrates' opinion). The reason is instead that our own minds originated as parts of the Universal Intellect, like sparks from a bonfire. The imperfect beauty of boys and sculptures therefore *reminds us* of what we once knew, before our material incarnation.

The doctrine of forms was no piece of pure epistemology to Plato – no "academic pursuit", in modern phrasing. In his large dialogue on the construction of the perfect state (*The Republic*) Plato delineates a grand educational program which will allow the best minds of the State to be led to perception of THE GOOD – the supreme form from which all other forms derive, and knowledge of which will solve the ethical problem; having attained that stage of wisdom these *true philosophers* will have to take on the task of governing the State, since they – and they alone – are capable to discern which course of action must be chosen as THE GOOD POLICY.

The Republic, of course, is a piece of utopian writing. As a beginning, however, Plato organized an educational institution, located close to and borrowing the name of an athletic ground ("the Academy") much frequented by adolescents. Here, firstly, he used the opportunity offered by the location to get into contact with Athenian youth; this was of course

the trick of the location. Secondly, mature philosophers and mathematicians worked there "making their investigations in common"[28] (Plato's Academy can thus be claimed to be the first prototype of the modern university institution with its association of teaching and research).

Plato's philosophy was hence part of a broader political, moral and educational program of his. It reflected Plato's dismay at the crisis of the city state of his time – a crisis which is indubitable: already in Plato's later years, Macedonia under Philip II had begun the conquest of Athenian allies; 13 years after Plato's death, Alexander the Great had subdued all city states in mainland Greece. According to Plato's diagnosis, the root of the crisis was the individualistic egoism of the rulers – be they the common people as in the democracies, the rich and powerful in oligarchic states, or a single ruthless individual (a "tyrant"). Paradoxical as it may seem, Plato attempted to save the city-state – if anything the *state of the citizens* – from the blindness of these citizens by transforming them into *citizens subject to the state*.

There is a striking parallel – almost certainly not quite accidental – between this subordination of all individuals under the state as a theoretical construct and the idea that all "cups" are nothing but defective copies of a "Cuphood", no less a theoretical construct. No accident, either, that conservative ideologies (emphasizing the primacy of *the state* and *existing social structures* over merely ephemeral individuals) have mostly been supported by some sort of objective idealism, and that Stalinist policies were accompanied by a corresponding transfiguration of Marxist philosophy (as pointed out by Sartre in his *Critique de la raison dialectique* – cf. p. 206).

Whereas Plato has mostly been the idol of European philosophy from the Renaissance onwards, some of the "footnotes" (especially those of liberal but also of many Marxist philosophers and historians of ideas) are strongly critical and negative. For instance, Plato is one of the main villains in Karl Popper's *The Open Society and its Enemies*.

Thanks to his literary gifts, Plato succeeded in discrediting the Sophists for all times to come. But literary gifts alone are not sufficient to change the real needs of a time. Plato was enough of a genius to go beyond immediate needs, and even enough to inspire others (not only Aristotle

[28] As told by Proclos Diadochos (c. A.D. 410 to 485), one of the last heads of the Academy, which was closed in 529 by the Byzantine Emperor Justinian (*In Primum Euclidis ... commentarii*, 67).

but also all major mathematicians of the fourth century B.C. participated for a shorter or longer period in the research at the Academy). But his genius was also sufficient (and of a sort) to permit him to propose strategies and solutions without foundation in real life[29]. Not only were his plans to save the city state therefore without consequence; so was his attempt at moral rearmament through education, of which only some formal structures survived. This can be seen in the "cycle of Liberal Arts", which came to constitute the canon of good education for the free citizen belonging to the well-to-do and hence cultured classes from Plato's mature years onwards[30]:

1) Grammar
2) Rhetoric
3) Dialectic
4) Arithmetic
5) Geometry
6) Astronomy
7) Harmonics

The first three (later to be called the "trivium"), we notice, are identical with the core of Sophist education. The presence of the last four (later the "quadrivium") may be due to Plato's influence; but their root may also be directly Pythagorean or, more likely, have been inspired by some Sophists (several of these tried to prove their omniscience by muddling with favourite geometric problems like the squaring of the circle).

Though devoid of the moral messages which had been intended by Plato, the cycle of Liberal Arts still looks quite encyclopedic[31]. But the all-round character is delusive: in practice only the arts of the trivium were

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[29] It may thus be due to political common sense quite as much as to tolerance that democratic Athens never tried to disturb Plato's attempt to overthrow its institutions through education – the danger to social order presented by oppositional scholars and *literati* depends critically on their ability to hit the frequencies of the social resonator.

[30] These arts are "liberal", i.e., "free" (Greek *eleutheros*) in the sense that they were thought suitable for the free citizen, in contradistinction to the "mechanical arts" used in material production.

[31] In fact, the term "encyclopedic" derives from the Greek name for the cycle (*enkyklios paedeia*).

dealt with seriously[32], and in real depth only grammar and rhetoric. Average education for the upper classes was thus, from the time where it was generalized, *almost exclusively a literary education*. Since, finally, this development took place at a time when city state democracy was on the wane (soon to disappear completely), rhetoric no longer aimed at participation in political life but at the law-courts, or it was simply an *art pour l'art*. In practice, education in the Liberal Arts was thus not only purely humanistic but also solely directed at procuring *cultural polish*, and hence that self-assurance which comes from being part of the right culture, and possessing the best cultural values. There is, of course, a direct line backward from this system of "secondary education" to the "music" of traditional general education (meaning "the domain of the Muses", we remember, and encompassing recitation of religious hymns and Homeric passages). Precisely this backward connection, identifying Liberal Arts (=grammar+rhetoric) as a qualitatively higher level of the acknowledged Right Thing, however, would make the new system a support for upper-class class consciousness[33]. Habermas' identification of the humanities with legitimation of existing culture and of the existing social order, therefore, has its roots back in the fourth century B.C. – not in Plato's program, however reactionary some will find him to be[34], but in his

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[32] This is obvious from some of the introductory compendia in the quadrivial arts for students in the "university level" philosophical schools. They must be presumed to start at the level attained by the brighter pupils from the "high school" level of Liberal Arts (only these would get the idea to attend a philosophical school) – and they start from scratch.

[33] Maybe non quite without intention. The Greek historian Polybios, who passed seventeen years as a hostage in Rome around 150 B.C., tells with enthusiasm of the skill with which the Roman ruling classes used superstition to keep in check the lower classes: "as every multitude is fickle, full of lawless desires, unreasoned passion and violent anger, the multitude must be held in by invisible terrors and suchlike pageantry. For this reason I think, not that the ancients acted rashly and at haphazard in introducing among the people notions concerning the gods and beliefs in the terrors of Hell, but that the moderns are most rash and foolish in banishing such beliefs" (*Histories* VI,56; trans. Paton 1922: III, 395). Forging and using ideology intentionally was nothing to be ashamed of for the ancient upper classes.

[34] Plato, indeed, was utterly distrustful of traditional "Muses' music" as a part of

failure.

Philosophy itself can be claimed to undergo a similar change, at the same time as it reaches a high point not to be surpassed for very long time. This culmination was brought about by Aristotle (384 to 322 B.C.), one-time fellow in Plato's Academy and later educator of Alexander the Great (who, as it is known, did not share his teacher's view on the pre-eminence of the city state). Aristotle created a complete system encompassing not only almost every subject which had been treated before him in Greek philosophy but also some where he was the absolute pioneer: a *Metaphysics* where he comes to grips with the theory of forms, with Eleatic rationalism, with the Pythagorean belief that everything is numbers, with the problem of causality, and other core problems of existing philosophy, while at the same time writing a history of philosophy; several large works on epistemology, logic and Sophist dialectic, and many more on natural philosophy, beginning with the theory of change and motion (the *Physics*) and the description of the Heavenly system, and continuing with an extensive many-volume natural history largely built on his own observations (Aristotle was the son of a physician) and with works "on the soul" ("psychology"); furthermore several works on ethics, on political theory, rhetoric, and poetics. Among the subjects on the periphery of philosophy, mathematics and medicine are lacking, and history is only represented in the surviving corpus by an investigation of the constitutional history of Athens serving as part of the empirical foundation for the treatise on political theory (many studies of other states by his disciples have been lost, as has Aristotle's own *Theology*).

A point which was decisive in making Aristotle's philosophy a better basis for scientific thinking than Platonism was his transformation of the doctrine of forms. Whereas Plato had been an "extreme realist", claiming that the forms had independent existence, and more real existence than

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education. So he was in general of poetry: firstly, it was normally immoral (just think of the behaviour of the Gods in the Homeric epics!); secondly and worse, poetry was qua imitation of (material) real life one step further remote from the higher reality of ideas than material reality. An irony of history, then, that Plato's own fine literary style has made him the favourite philosopher of beaux-esprits since Petrarch.

the individual instances representing them, Aristotle was a "moderate realist": forms exist, it is true, and a shared form is what brings a number of individual instances (for example all human beings) together as members of one species (*in casu*, mankind); but forms *only* exist through their participation in individuals, just as the form of a statue only exists as the form (in everyday sense) imposed upon the bronze; families of forms, on their part, may share features, through which species (such as mankind, catkind, horsekind, and crocodilekind) are brought together in a common genus (*in casu*, animals)[35]. It is the task of each particular science to induce from experience the forms of the entities falling within its domain (in modern language: *the laws* governing the domain), and make its further conclusions from these *necessary truths: poetics* has to know what distinguishes a tragedy (namely arousal of fear and pity); *politics* as a science has to start out from the form of man, "a political animal" (an animal which should live in and be citizen of a *polis*), and deduce from this starting point the correct form of the city-state. Below the level of shared metaphysical principles (where the doctrine of forms was pivotal), knowledge was thus compartmentalized, each discipline dealing with its specific subject-matter according to its own distinctive principles.

But it was also an important characteristic of Aristotle's scientific thinking (positively as well as negatively) that he did not stick dogmatically to these metaphysical doctrines. When absolute certainty about forms could

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[35] This *hierarchy of forms* is only possible in moderate realism where, in some sense, forms are *shared features*. The geometric example of the triangle demonstrates the dilemma of Platonism and of extreme realism in general: how are we to explain that everything which holds for *the triangle* also *by necessity* holds for *the right triangle* if these are independently existing entities? No wonder that Plato preferred to take as his example *the circle*, which allows no such subdivision.

If one finds it difficult to grasp what one or the other variant of the doctrine of forms has to do with the possibility of actual research one may borrow an oft-used analogy referring to more recent science: is *gravitation* nothing but a way to abbreviate our records of the movement of bodies which is convenient but which refers to nothing real (so to speak Diogenes' point of view)? Does gravitation exist in isolation (the "Platonic" persuasion)? Or is it something real, but only as a quality possessed by material bodies in interaction (the "Aristotelian" view, to which also most physicists will adhere already for the psychological reason that it is difficult to engage seriously in the study of something in which you don't believe)?

not be attained (and on many occasions they could not, even according to Aristotle's own standards), he would still try to find out as much as possible about the single fields from experience submitted to educated common sense, and also tell when the outcome did not allow any firm conclusion – and when strict application of the metaphysical principles would lead to conclusions which contradicted his own common sense too strongly, he would introduce *ad hoc* modifications (cf. note 37).

Aristotle's system is impressing, and it is no wonder that he came to be known simply as "the Philosopher" from the thirteenth through the sixteenth centuries A.D. It marks the emergence of professional scholarly philosophy, and the point where a *general scientific enterprise* can be spoken of with some reason. But it also marks the final retreat of philosophy from its enlightenment pretensions. Philosophy (like literature, rhetoric, and mathematics) had become a field for educated leisure[36], where the gifted *dilettante* might (if gifted and hard-working enough) produce works of high scholarly value without endangering the social "peace for the palaces" (and hardly that of the Christian Church when it eventually rose to power)[37].

The epoch of Hellenization

Christian power, of course, was still far beyond the horizon when Alexander the Great and Aristotle died. *Palaces*, on the other hand, were not. Alexander had conquered the world from Indus to the Libyan Desert and the Adriatic; within a few years after his death his leading generals had divided this empire up among themselves; in the West, Carthage and Rome were already fighting for supremacy, with the well-known end result

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[36] Cf. the quotation from the *Metaphysics* in the beginning of the present chapter.

[37] The disappearance of critical political aims is confirmed by a paradoxical conflict between Aristotle's metaphysics and natural philosophy and his political theory. According to his variant of the doctrine of forms, all individual representatives of a species share *the same* nature or form. This could easily undermine the moral legitimation of slavery, since everybody (included Aristotle) would agree that slaves were human beings, and thus should be "political animals" who ought to live in and be citizens of a *polis*. In order to avoid such unhealthy inferences, Aristotle introduced the pragmatic *ad-hoc* postulate that slaves possessed a specific nature through which their servile role was predetermined.

that the Roman Empire came to reach from the Scottish to the Iranian border, and from Vienna to Nubia. This whole region was soon Hellenized, in the sense that upper and middle class culture imitated the Greek model as far as possible. But Hellenization reached still further geographically, as it may be illustrated by the end of the Roman politician and general Crassus: in 53 B.C. he was defeated and killed by the Parthian army (whose capital was in present-day Afghanistan) in 53 B.C., which carried his severed head off as a trophy. Eventually, as Plutarch tells, the head ended up as a requisite in a local private performance of Euripides' tragedy *Bacchae*.

In places like post-Alexander Egypt, Hellenization adapted to local culture (and, not to forget, vice versa) was a deliberate policy of the conquerors; in Rome it was no less a policy of the indigenous elite. In both cases, it goes by itself, the policy had to overcome much greater obstacles than in the initiation of Athenian upper-class adolescents to the choice products of their own mother culture. In several places, therefore, specialized institutions were erected in order to overcome the obstacles, the most famous and prestigious of which are the *Museum* (another term derived from the Muses) and the Library in Alexandria. Here, among other things, literary scholarship took its beginning with the establishment of critical editions of the literary classics (which had attained the status of *classics* precisely by being transferred from the place where they were living culture to one where they had to *be studied*). In the Alexandrian and similar institutions *philosophy* also changed its character, from being the *study of the moral or natural world* or of the conditions for knowing the world to *the study of the doctrines of the great (whence classical) philosophers* on these subjects.

Through the establishment of textual criticism, an important branch of humanistic studies can be rightfully claimed to have reached a *scientific* level. The problems of getting access to the literature of a foreign language (and, in Rome, to develop a corresponding literature in one's own language) were spurs for the development of more sophisticated studies of grammar and semantics. The general *use* of the humanities, however, followed the trend established in fourth century Athens throughout antiquity: lip service to the complete cycle of Liberal Arts, in practice restriction to grammar and rhetorics (including as much knowledge of literature and philosophy as was needed to give colour and substance to

your speeches) together with some dialectic. Globally, humanistic culture remained legitimizing, when not subservient to the techniques of rhetorical persuasion[38].

Some exceptions to these generalizations should be mentioned: Stoicism, Epicureanism, and neo-Platonism, philosophical currents with mainly moral or quasi-religious implications[39]. The first two philosophical currents arose already in the fourth century B.C., and reacted upon the breakdown of political life not by reform proposals but by preaching retreat into private life. Especially Epicureanism was also an enlightenment movement critical of established religion and superstition

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[38] It is thus anything but an accident that the main Latin work on education (at least until Saint Augustine) is Quintilian's *Institutio Oratoria*, the *Teaching of the Art of Speaking* (first century A.D.), where the preeminence of rhetoric over all other subjects is proclaimed (whence also that *ethics* is a sub-discipline of the art of speaking rather than a branch of philosophy – I, Preface, 10–11).

The lack of substance in the teaching of the quadrivial subjects is illustrated by Quintilian's explanation of the utility of geometry for rhetoric (I.x,34–37).Firstly, the subject is told to deal *both* with numerical computation and with figures. Numbers are necessary because it makes a bad impression when the speaker "fumbles with his fingers in a way which contradicts the calculation which he states in words". Geometrical figures are needed because law-suits often regard boundaries and measurement of landed property. On this background it seems questionable whether personal experience is involved in the ensuing assertion that geometry also serves to train formal logical argumentation which "sometimes though rarely" is used by the rhetor.

[39] The primarily moral character of the Epicurean and Stoic messages did not prevent their doctrines from dealing with topics which seemed to carry an only implicit moral message. Atomism had originally been devised by natural philosophers as an answer to the Eleatic dilemma: it was not Nature as a whole which was immutable and changeless but its minutest, indivisible parts (*a-tomos* means *in-divisible)*. Epicurus adopted it as a way to dispense with religion and superstition. The Stoics, intent to prove the harmony of the cosmos, developed a physical doctrine involving a match between microcosm and macrocosm. In connection with semantic investigations (and thus, ultimately, with the question "What is Reality composed of?"), the Stoics also developed the earliest grammatical *theory* (that is, earliest in Greek tradition – Sanskrit grammarians precede them by at least two centuries, and Babylonian scribes may have done so by 1500 years).

The categories of the "logical grammar" of the Stoics (word classes – case – tense mixed up with aspect – mood – and voice) are is still with us today, and they dominated European grammar until early nineteenth-century linguists got acquainted with the Sanskrit tradition. Epicurean atomism, as we shall see, became important both in twelfth-century naturalism and in the seventeenth century.

and rarely in favour with the rulers (in 173 B.C., Epicurean philosophers were expelled from Rome). Stoicism, a philosophy of resignation, was more acceptable: one Roman Emperor (Marcus Aurelius) was himself a Stoic writer, and a major Stoic philosopher (Seneca) was the educator of Nero (who eventually disliked his moral preaching so much that he ordered him to commit suicide, which the obedient teacher did). Neo-Platonism was a selective re-interpretation of Plato, basing itself among other things on the theory of Love set forth in the *Symposium* and making use of Aristotelian metaphysical concepts; it was important from c. A.D. 300 onwards, and can be seen as an expression of the same mystico-religious moods as gave rise to the acceptance of Christianity among the educated classes. A characteristic theme is the "Great Chain of Being" through which influence emanates from the Divine Universal Mind through a hierarchy of Angels and further via Man to the lower, animate and (at bottom) inanimate orders of Nature. It was very influential in Christian philosophy from Saint Augustine to the seventeenth century, and also in Medieval Islamic philosophy[40].

In one respect, the situation of humanistic teaching in the Hellenistic empires was different from that of the beginnings in fourth century Athens: the scale and degree of professionalization. State interest in the spread of culture led to public employment of teachers ("*professores*") in the Liberal Arts (carefully pointed out in Roman Law to be in honourable business, in contradistinction to the teachers of vulgar useful crafts like practical calculation), whereas the most wealthy families could employ (or possess! We are in a slave holders' society) their own educators. Like Old Babylonian scribe-school teaching but unlike early Greek philosophy and

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[40] The mystical significance of the "chain" is articulated with eloquence by the thirteenth century Persian sūfī poet Jalāl al-Dīn al-Rūmī in this passage (quoted from Berger 1973: 72):

> I died as a mineral and became a plant,
> I died as plant and rose to animal,
> I died as animal and I was Man.
> Why should I fear? When was I less by dying?
> Yet once more I shall die as Man, to soar
> with angels blest; but even from angelhood
> I must pass on: *all except God does perish.*
> When I have sacrificed my angel-soul,
> I shall become what no mind e'er conceived.
> O let me not exist! for Non-existence
> Proclaims in organ tones: *to Him we shall return*,

which mixes the neo-Platonic concept with (italicized) quotations from the Koran.

even Sophist activity, the *teaching of culture* had become a *standardized career* characterized, one must presume, by the customary sociology of such careers. Directly dependent as these teachers were on their municipal or private employers we may guess that the professionalization of the cultural career contributed to the lasting moral and political domestication of Hellenistic humanism.

The impact of Christianity

Christianity began its dialogue with Pagan (i.e., Greek) philosophy already in the first century[41], and had a breakthrough in the educated classes in the fourth century which led to complete political take-over around the mid-century. Even though Pagan culture constituted an indubitable threat to Faith, the breakthrough took place at the conditions of classical (Pagan) educational ideals – only if Christianity was culturally competitive would it be taken seriously by the culturally and politically decisive social strata. We may speak of a "gentrification" of a religion and a religious community which had once primarily recruited the humble and suppressed.

The complex situation is illustrated by the life and writings of Saint Augustine (354 to 430) – if such things can be measured probably the most important Christian thinker of all ages (Saint Paul and Christ belonging to other categories). In his younger years he was a teacher of the Liberal Arts, from which period among other things an extensive and partially innovative work on musical theory and a highly original sketch to a treatise on semiotics (belonging under the heading *dialectic*) survive. After his baptism in 387 his voluminous writings concentrated on religious and ecclesiastical matters, many of them being concerned with education. The leading idea is that the Christian should be so polished in the Liberal Arts that he does not loose his standing among the educated; *but no more.* The emphasis on the latter point corresponds to the very strong formulations in Augustine's autobiography, the *Confessions* (X.xxxv). Here, secular curiosity, not least everything approaching scientific or purely intellectual interest, is counted as a particularly malignant variant of the *concupiscence*

[41] A.D., of course, as all dates from this point onwards.

of the eye, which, one remembers, is no better than the consummated concupiscence of the flesh ("whosoever looketh on a woman to lust after her hath committed adultery with her already in his heart" – Matt. 5:28). In as far as it was at all necessary, this attitude could only open the way for a radical break with every autonomous intellectual activity beyond that which was needed for reasons of competitive power[42] – in agreement with principle formulated in the following verse of the Gospel ("if thy right eye offend thee, pluck it out, and cast it from thee").

After the downfall of the (Western) Roman Empire, competitive power was no longer a problem. The Christian intellectual elite of the outgoing fifth and early sixth century tried to save as much as possible of the classical heritage (which at the onslaught of the Barbarians suddenly appeared as the heritage of the Church and of that society of which it had become the backbone) in a situation where both knowledge of Greek and books in general were disappearing. But since this elite consisted (roughly speaking) of two persons, the success was limited.

The first member of the elite was Boethius (c. 480 to 525). He set himself the task to translate Aristotle, Plato, and the basic works for the quadrivial disciplines. He managed to translate a number of Aristotle's logical treatises and to provide them with commentaries[43], and to translate at least large parts of Euclid's *Elements* and (probably) Ptolemy's *Almagest*, the culmination of ancient mathematical astronomy, together with some more trivial works on arithmetic and harmonics. The *Elements* were soon lost, with the exception of the definitions and the propositions of book I without their proofs, and the *Almagest* completely (the forgotten manuscript was rediscovered in 983 by Gerbert of Aurillac (see below, p. 60), as this scholar and future Pope tells with great enthusiasm in a letter – since when nobody

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[42] The necessity can, however, be doubted. Few independent intellectuals of any stature come to the mind in Augustine's time, apart from Augustine himself and Saint Jerome (Hieronymus) the translator of the official Latin Bible (the *Vulgate*). The latter, admittedly, tells about a dream where Jesus reproached him of being more committed to Cicero, that is, to refined literary style, than to Christ.

[43] It is worth remembering that this translation activity led him to create much of our modern philosophical terminology – whoever speaks of "terminology" and "substance" or who distinguishes "quantitative" from "qualitative" (to name but a few examples) is in linguistic debt to Boethius.

has ever heard about it). Other works survived in monastic libraries (at first perhaps in private libraries of affluent landowners' families), ultimately to be rediscovered, copied and studied in the late eighth and during the ninth to tenth centuries.

The second member was Cassiodorus Senator (480 to c. 575). In older age he established a monastery where the copying and study of ancient texts (including first of all the Fathers of the Church) was a regular part of monastic duties (the *only* early monastery where that was the case, notwithstanding a widespread myth). Not very much seems to have come out of the whole program, and Cassiodorus' long-term influence was mainly secured by an *Introduction to Divine and Human Readings* which he wrote as a not very advanced compendium for his monks.

There is a clear moral to the story of Boethius and Cassiodorus: in the West, the disappearance of much of the ancient heritage was on the whole not a consequence of ecclesiastical suppression, prohibitions or persecution. It followed from *lack of support*, on the part of the Church as of every other body and institution. Ancient learning was *forgotten because nobody needed it* and few were able to understand even its more rudimentary levels. Ancient philosophy, science and scholarship were forgotten because they had become superfluous by the breakdown of ancient society.

– and then, after all, they were not *completely* forgotten, for one need subsisted, namely the need of the Church. Monks were expected to be able to read (i.e., read Latin) and to understand a little bit of what they read, and so were priests. Though the myth of monasteries as havens of quiet scholarship *is* a myth they did give place to some teaching and study of the Fathers of the Church and thus, indirectly, of that Pagan philosophy which had been the adversary of the Fathers; future priests were adopted into the bishop's household at an age of seven as *lectores*, and it was the task of the bishop (for centuries of the bishop in person) to teach them reading and writing. Some, though admittedly few, would go on with the Fathers and possibly with authors like Cicero as guides to good style; they might even try to pick up as many rudiments of the Liberal Arts as they could get hold of (not much, since no other sources than Patristic writings were available to any but the most lucky handful), because even these rudiments could serve to interpret the Scripture and the Fathers and to compute the day of Easter.

The system of knowledge to which the select and happy few could hope to get access was thus composed of two parts, the names of which we may borrow from Cassiodorus' *Introduction*. One is *Litera divina*, "Divine letters": Holy Scripture and the Fathers. The other is *Litera humana*, "Human letters", brief encyclopedic accounts of the basic concepts of the Liberal Arts – in Cassiodorus' own compendium concentrating on rhetoric and dialectic, in general practice restricted to grammar (including literary bits) and some rhetoric.

This, and a handful of forgotten manuscripts scattered in monastic libraries, was the scholarly legacy bequeathed by antiquity to the Latin Middle Ages. No more – but also no less.

5. THE MIDDLE AGES

An era of renascences

The Early Middle Ages offer little of immediate interest for the themes of modern humanities and philosophy. It could hardly be otherwise, given the meager legacy from antiquity and the lack of alternative inspiration. But the Early Middle Ages can be claimed to have been the mould in which the specific "Western" or (in the beginning rather) "Latin" interpretation of the ancient heritage was cast – as different from the Eastern Christian (Orthodox and other) and the Islamic interpretations, none of them less genuine nor legitimate but certainly different. Thereby the Early as well as the Central and High Middle Ages make up the essential background to that idolizing return to ancient values and attitudes which became pivotal for the later rise of Humanism and the humanities.

During classical antiquity, the large majority of the population had lived in the countryside as food-producers; agricultural techniques were

insufficient to secure a surplus allowing that more than a modest minority be occupied in other activities. All the same, the centre for all cultural innovations and for literate culture had been the cities. During the closing centuries of the ancient era, however, aristocrats had increasingly withdrawn from the city to their landed estates ("villas"). Since c. A.D. 300, moreover, the social structure had begun to change. All manual workers became bound to their professional corporations and thereby subjects of the state, which brought their actual juridical status closer to that of slaves; simultaneously, slaves and others were often settled on landed estates as *coloni*, unfree and bound to the land yet provided with their own plot – closer to the serfs of later ages than to the chattel slaves of the early Roman Empire.

At the onset of the Middle Ages proper, this waning of slave society accelerated, and the development of feudalism began. Slaves, it is true, continued to exist and to be fixed to the large estates of aristocrats and monasteries. As a rule, however, the implications of the unfree status changed. The unfree (still designated with the Latin term *servus* – whence *serf*) became a person with *specific* obligations and certain (though strictly limited) rights. The *ideological implications* of slavery, moreover, changed at least to some extent. Warrior nobility, it is true, was as contemptuous of manual work as any ancient aristocrat had been. In many periods, however, the attitude of the Church was different, as expressed in Saint Benedict's Rule for the monastery in Monte Cassino (founded 529) prescribing manual work as a monastic duty. Religion itself may have played a role here, not least because participation in work could symbolize Christian humility. But as Medieval monks were rarely as humble as pious historiography tends to make us believe, the absence of a professional managerial ("scribal") class outside the Church may have been an equally important factor. Monks had, willy-nilly, to participate in the management of their own estates and to take care of everything which could not be left to illiterate and probably ill-willed serfs. The Church, moreover, had to provide rulers and noblemen with staff in periods when territories won through war and conquest were consolidated through the establishment of administrative structures (whence it comes that an English "clerk" can be an office employee as well as a member of the ecclesiastical crew). The "scribal function", which had been culturally unproductive during classical

antiquity, thus became productive once again; but it was now bound up with other functions (those of *responsibility* and not mere service for the central societal institution) and was set in a different historical situation (the succession of antiquity, socially as well as culturally) which made it create something new[44]. Not least (though not equally forceful in all epochs) the ideology that *work* was reevaluated as a human and no specifically servile duty, a duty which furthermore called for veneration.

The Early Middle Ages (reaching until c. 750) constitute a formative period, during which this reevaluation as well as the culturally productive role of the clerico-scribal role were only possibilities, implied for instance by Saint Benedict's Rule. The same can be claimed regarding the feudal end result of the transformation of the mode of production, if only we notice that *two different* aspects of European feudalism were contained in germ in the early structure. Firstly, there was the development away from chattel slavery and toward bondage. Secondly, the quality by which Western European feudalism is distinguished from the "proto-feudal" systems found in earlier epochs and in other parts of the world was already present in the *colonus* system and thus inherited from late antiquity: bondage and responsibility was *individual* or at least familial, not a matter concerning the village community as a whole[45]. The individualism so characteristic of Renaissance and later Humanism was thus not only a combined result of the economic individualism of early capitalism and of the recapture of the literary-humanistic legacy from antiquity. It was also transmitted through the very mode of production resulting from the breakdown of ancient society – a fact not to be forgotten by the reader of these pages, which otherwise concentrate on the level of literate culture.

If we then return to this level, which is of most immediate interest to a discussion of the humanities, we are up for a surprise. Notwithstanding

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[44] One may notice the analogy with the rise of Greek philosophy, which also appeared to result from a hitherto unseen combination of social forces and structures rather than from the advent of quite new patterns.

[45] No doubt, village and similar communities existed; in most of Europe they even grew stronger during the Middle Ages, thanks to the invention of the wheel plough and the ensuing development of tilling community. What is at stake is the individual character of *bondage* (or, to be precise, its *mostly* individual character).

the Renaissance contempt for an intermediate period seen as nothing but abandonment of true (i.e., ancient) culture, and in spite of the emergence of a radically new social structure and new social values, the literate culture of the Middle Ages was – especially until the twelfth century – no less directly dependent on antiquity than the Renaissance, in particular on Roman antiquity: indeed rather more. At closer inspection of the situation this is no wonder: the collapse of the Roman Empire and civilization produced no new cultural upsurge nor revival of pre-Roman, for instance Celtic, cultural patterns[46]; though conserved until long after the Roman conquest, these had finally given way to Romanization bound up with evangelization toward the very end of Christian late antiquity. Nor did the Barbarian invaders bring much of their cultural baggage – they would rather leave the marks of their avowed inferiority behind and try to conform to the more prestigious habits of the conquered territories, in the likeness of the Ostrogothic King Theodoric of Italy, who employed Boethius and Cassiodorus as ministers and had the former executed on suspicion of ideological disloyalty, and who held that "an able Goth wants to be like a Roman; only a poor Roman would like to be like a Goth" (Brown 1971: 123).[47]

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[46] These were best conserved in Ireland, which was Christianized without being politically submitted to the Roman Empire. Early Irish Christianity thus developed in interplay with the autochthonous Celtic elite, much less dependent upon the ancient heritage than for instance Christianity of the Gallic region. The unique character of early Christian Ireland highlights, by this contrast, the importance of the classical tradition for the form of Christianity that dominated the Medieval scene in the regions once belonging to Rome.

In a later epoch, when part of the Germanic and the Nordic regions were Christianized and crystallized as *states* in a similar process, something similar to the Irish development happened in the juridico-political sphere; in other cultural domains, however, the impact of Christianity made itself felt whole-sale, and no specific form of Christian culture arose.

[47] It is characteristic of the situation and of the need for Barbarian invaders to embrace the culture of civilized society that the Barbarian rulers, when needing to symbolize their separateness in religious terms, did not do that by conserving their original tribal religion but by adopting Arianism, a variety of Christianity regarded as heretic by the Roman church. Statehood, even the statehood of Vandal, Longobardian, Ostrogothic and Visigothic conquerors, could not be built upon Germanic religious and other cultural patterns.

This general dependence of cultural patterns upon antiquity was no hidden substructure but something of which the educated were acutely aware throughout the Middle Ages:

Firstly, the Church, the institution which more than any other (and especially more than the emerging royal power) created social coherence during the early Medieval phase, expressed itself in the language of the Roman Empire – more specifically of the *Western* Empire: Latin. The structure of the Western Church, moreover, was framed in juridical terms, in itself a remarkable feature not shared with religious institutions in other cultures and a legacy from Rome rather than from the Old Testament[48]. As long as Roman (or Romanized) aristocratic lineages survived as landowners, finally, they occupied the upper echelons of the ecclesiastical machine and provided the monasteries with most of their monks; in this way the Church often took over the aristocrats' veneration for what they considered their specific cultural past.

Secondly, social reconstruction after the breakdown, i.e., the formation of new states and systems of law, built on the foundations provided by late antiquity, often of course mediated by Christianity. It is a recurrent pattern, from the adoption of Arianism by Ostrogoths and Visigoths to the Christianization of Denmark under Harald Blåtand and that of the Magyars under Geza and Stephan I, that warlords or chieftains trying to stabilize their command in the form of a permanent kingship would try to enforce Christianity upon their subjects.

Thirdly, all learning built on ancient *authors* (including the Fathers of the Church), who were designated *authorities*. The two words (in Latin *auctor* and *auctoritas*) are of course etymologically related, the first denoting the *source of a text* and the second the *source of power*. It is characteristic of the Medieval veneration for ancient learning and knowledge that no distinction between the two terms could be made.

Fourthly, in particular, until the twelfth century the material used for

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[48] Roman Law, like modern law, tends to be formulated as general principles. Ancient Hebrew law, like the laws of Germanic and Nordic barbarians, tends to list possible cases.

It is noteworthy that even the eleventh-century rationalization of the ecclesiastico-feudal world as consisting of "three orders" (cf. below, p. 60) may have been borrowed from the only accessible work of Plato, the *Timaeus*.

teaching was almost exclusively of ancient origin: in part excerpts from Roman authors, in part Roman compendia, in part encyclopedias compiled during the Middle Ages from ancient works or from earlier Medieval compilations. From the twelfth century onwards, as we shall see, more original material came in, but the stem of almost all disciplines remained ancient.

The result of this acknowledged cultural dependence is the striking phenomenon of "renaissances". The Middle Ages, in fact, were marked by violent ups and downs, demographic as well as economical. In periods of social collapse and economic regression, cultural vigour and especially scholarly interests would also decline. At every upsurge, on the other hand, even cultural life and interest would flourish. The striking thing is that the students of every such bloom speak of it as a "renaissance", in the likeness of the "rebirth" of ancient splendour in the fourteenth through sixteenth century Renaissance. At each occasion, indeed, the dominating feature of the process was an attempt to recapture as much of the lost heritage as possible and to understand as much of it as could be done on the conditions of the day – conditions comprising intellectual prerequisites as well as the uses to which learning and other cultural activities would be put.

The Central Middle Ages – 750 to 1050

In the Early Medieval period, as we saw, *literate* activity was concentrated in the household teaching of bishops and in the modest education offered to monks. Occasionally but not very regularly, some copying and reading of manuscripts took place in monasteries. *Literary* and scholarly activity, on these conditions, could hardly be expected to be anything but rudimentary and derivative, dependent exclusively on the ancient model and no vehicle for the expression of new attitudes. Literary and scholarly activity was not completely absent, it is true. Gregory of Tours (539 to 595) wrote a *History of the Franks*. Isidore, Visigothic Bishop of Seville (560 to 636) wrote *On the Nature of Things*, *On the Order of Creatures* and an extensive encyclopedic work *Etymologies*, i.e., explanations of the basic concepts of various scholarly and technical fields of knowledge often built upon or dressed up as etymological explanations of the origin

of the terms – probably the most-quoted authority of the Middle Ages next to the Bible. Bede the Venerable from Northumbria (672 to 735), of whom it has been said that the scratching of his pen could be heard over the whole of Western Europe (namely because no other writing went on), wrote an *Ecclesiastical History of the English Nation* which is in fact more than a mere Church history, and several works on *computus*, i.e., on ecclesiastical calendar reckoning. Valuable authors all of them, in view of the limitations imposed by the times (Gregory's and Bede's *Histories* are in fact very readable today). Only Bede's computistic works, however, can be said to represent some sort of renewal, as reflected by the circumstance that they displaced everything written on the subject before and gained a position analogous to that possessed by ancient handbooks in other fields.

Bede can be regarded as a portent of the first formulation of a specific Medieval culture during the "Carolingian Renaissance". The fundament for this first bloom was a sequence of technological innovations, some of them in the military and some in the agricultural domain. Most important among the changes in military technology is the introduction of the stirrup, which made it possible for a horseman to use a lance without being thrown himself from the saddle. From then on, heavy cavalry became the decisive armed force, irresistible to infantry in normal terrain until the advent of firearms. The change provided the drive for the juridical consolidation of emerging feudal structures: in need of armed knights and unable to support them directly, the King would distribute land with appurtenant bondsmen to noblemen against the obligation to provide armoured horsemen. Agricultural innovations include the introduction of new crops (hay, protein crops) and of new crop rotation systems, the application of a new harness for horses, and the invention of the wheel plough. Some of the latter innovations only entered practice gradually, but even the modest beginnings allowed demographic growth and social stabilization – first of all in Frankish territory, where the result was political consolidation and military expansion.

The process of consolidation and expansion was inaugurated by Charles Martel, who beat the Muslim army at Poitiers in 732, and was brought to its culmination under his grandson Charlemagne, who took over power in the Frankish realm in 768 and died in 814 as the ruler of everything between Pamplona, Barcelona and Rome to the south, the Channel to the

north-west, Hamburg to the north, and Magdeburg and Linz to the east, and with spheres of influence extending even further. Charlemagne tried to build up a centralized administration of this huge and disparate empire. One branch of his government system consisted of commissioned military leaders (*committi*, related to the *commissar* of our own century and the origin of the title *count*); the other branch of the twofold system was that of *administrative control*, presupposing literacy and headed by the bishops (no other body of potential administrators was at hand). For the actual working of the administrative system, a larger number of literate functionaries was required. That body was as yet non-existent, and the only way to create it was through an organized school system.

Administrative needs were thus the motive force behind the Carolingian educational reform. The means, once again, were provided by the Church. Teaching had for centuries been an episcopal duty. Now the obligation to organize a proper school open to able free boys was imposed upon all bishops' sees (this is the origin of the term "cathedral school"). Even monasteries, which had a tradition for teaching their own novices, were required to organize an "open" school.

The latter ordinance was rarely observed, and bishoprics which did not comply with the edict on schooling were more common than those overdoing the case (like the bishop of Orléans, who tried to impose general school attendance). But some cathedral schools were created, and at the Imperial residence in Aachen a palace school was held for future high officials. In these places, the curriculum was taken over from (what was known about) ancient education. The *Liberal Arts* were considered the only possible foundation for literate education. But even if that much was known, the content of these arts was largely unknown, since few textbooks (and texts at all) were at hand. A main result of the effort to provide for administrative needs (largely a vain effort, since the empire was split up after Charlemagne's death, and the administrative system decayed in the resulting smaller kingdoms) was thus a treasure hunt for forgotten manuscripts in monastic libraries.

Among the findings were Boethius' translations of and commentaries to Aristotle's minor logical works; and a didactic poem "The Marriage of Philology and Mercury" by Martianus Capella (c. A.D. 365 to 440) built mostly on primers of the single Liberal Arts. A curiosity is the changed

status of Latin treatises on mensuration and agriculture. They had been conserved in the monasteries as handbooks for growing ancient crops (monks would eat white bread made from wheat and not ordinary black bread); now their rules for area computation had to fill the role of geometry, since no other texts at hand could do that (Euclid's *Elements*, anyhow, would certainly have been too highbrow). In the early ninth century, Boethius' translations on arithmetic and music were found[49], and toward the mid-century, the Irishman John Scot Erigena (c. 810 to 877), the extraordinary head of the palace school of Charles the Bald in Laon, translated several Greek Fathers of the Church and made his own attempts to reconcile Christian theology with neo-Platonism[50].

It is remarkable that the classicizing program of the new school institution was not only felt to be *necessary* for the education of future officials, or at least the obvious choice. The program also aroused enthusiasm among those involved in the palace school, from Charlemagne himself (who, when not conquering Bohemia, Lombardy or the Pannonian (now Hungarian) Plain, would participate in its activities) to the students. The court in Aachen complimented itself to be "Athens resurrected and united with Jerusalem" and thus to *stand at an even higher level than antiquity* – which we may of course take as an indication of the distance which separated the "Carolingian Renaissance" from real understanding of the example it had set itself[51].

Erigena, by knowing Greek and philosophy, was an exception to the generalizations set forth above. Charlemagne himself provides another

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[49] The *De musica* contains the only genuine mathematical proof known to the Latin Middle Ages until the twelfth century.

[50] Erigena was inspired by Augustine but so much closer to real neo-Platonism that his works verged on pantheism – for which reason the only original theological and philosophical works written in Latin between 550 and 1050 were condemned by the Church. None the less, they were influential in later Medieval mysticism.

[51] At another occasion I have compared the self-assurance of Carolingian learning to the "cargo-cults" arising in certain Pacific islands after World War II. If you have never seen an airplane before and know nothing about its origin or construction, it is no wonder that you try whether two pieces of wood tied together may continue the delivery of canned food and flour; and if the mere ability to write is a miracle you may easily mistake that basic tool of scholarship for philosophy itself.

exception to the rule that all scholarship and literary activity was derived from Latin classics. His enthusiasm for his school and for its learning went further, and he had the oral Frankish heroic poems collected and written down. They were, unfortunately, lost in the turmoil lying ahead, and we are therefore ignorant both of the content of this early Germanic literature and of the methods and character of this early Medieval example of humanistic scholarship.

Turmoil was indeed to come, undermining empire-building as well as learning. It came from Scandinavia (the vikings) and from the Pannonian Plain, where Charlemagne had achieved a "final solution" to the Avar problem, only to open the way to the much more fierce Magyars. The viking and Magyar raids made communication inside the realm break down. The counts made themselves *de facto* independent. Officially, the empire was divided into three after Charlemagne's death and some initial struggle. Actually it fell apart into countless domains deprived of any law and order beyond what the local lay or ecclesiastical Lord could and would enforce. Another step was taken toward the reality of feudalism, which came to be very different from the Carolingian hierarchical and centralized ideal.

In a situation where Magyar tribesmen could put the daughter of a local nobleman for sale at the slave market in Verdun[52], there was no longer any need to train an administrative elite, nor peace or available wealth to uphold cathedral schools. The consequences were depicted by Walahfrid Strabo, abbot in the Benedictine monastery in Reichenau, in a preface to a *Life of Charlemagne* written by Einhard, a former student from the school in Aachen:

> Of all kings Charlemagne was the most eager in his search for wise men and in his determination to provide them with living conditions in which they could pursue knowledge in all reasonable comfort. In this way Charlemagne was able to offer to the cultureless and, I might say, almost completely unenlightened territory of the realm which God had entrusted to him, a new enthusiasm for all human knowledge. In its earlier state of barbarousness, his kingdom had hardly been touched at all by any such zeal, but now it opened

[52] There was in fact an intensive slave trade through Lorraine, conveying slaves caught in Slavonic areas to Muslim Spain.

> its eyes to God's illumination. In our own time the thirst for knowledge is disappearing again: the light of wisdom is less and less sought after and is now becoming rare again in most men's minds.
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> (trans. Thorpe 1969: 49f).

Cathedral schools vanished from the horizon, and so did the open schools of monasteries. In certain monasteries, the Carolingian Renaissance of learning was continued as best it could (one of them being Walahfrid Strabo's Reichenau). However, the monastic reform movement of the century (the "Cluny movement") went in a different direction, toward the extension of rituals and psalm singing and toward emphasis on the worship of relics. Cluny, as it has been said, transferred the Bible from the reading desk to the altar. On the whole, the monastic environment was unable to persevere in a direction whose deeper social rationale had disappeared.

The next beginning, then, came from below. By 950 the Magyars and the Norsemen had been pacified (partly beaten, partly bought off). Administrative order was reintroduced, at first at the local (ducal and similar) level, giving rise once more to a need for literate officials. The spread of agricultural innovations, furthermore, provided a better economic foundation (clerks, then as ever, lived from the surplus of material production). The cathedral schools could thus regain some vigour from the mid-tenth century onwards.

The curriculum was, once again, based upon the scheme of Liberal Arts. The starting point was the level attained in the aftermath of the Carolingian period, i.e., much more adequate than what had been possible in Aachen. But still, of course, teaching was concentrated on subjects which *could be understood:* firstly *grammar* (including elementary study of excerpts from classical authors) and *rhetorics* (to be used, among other things, in preaching). But even some dialectic was introduced, together with the use of a newly invented or imported abacus and some geometry of the sphere to be used in astronomy – thanks not least to Gerbert of Aurillac who, before becoming the mentor of the future Emperor Otto III and eventually a Pope, was the head of the cathedral school in Rheims, and beyond doubt the leading figure of the whole movement. His teaching thus foreshadowed that flourishing of the Liberal Arts which was to unfold in the late eleventh and the early twelfth century school.

It is noteworthy that *no organized teaching of theology took place*. No

syllabus as yet encompassed the Fathers or the Bible. *Human*, not *Divine readings*, were the aim of the new, spontaneous growth of education. The notion that learning in the pious Middle Ages was "the handmaid of theology" was started already in the Middle Ages as a pious lie, taken over as anti-Medieval propaganda during the Renaissance and the Enlightenment, and once more turned into a pious lie in the era of Romanticism.

The age of the Liberal Arts

In the early eleventh century, scholars connected to the cathedral school environment (in particular the school in Chartres) formulated the political theory of their age, according to which society consisted of *three orders:* the (ecclesiastical) order of those who pray, the order of warriors (king and noblemen), and the order of labourers – the fact that praying also implied administration for the warring order being presupposed together with the not totally vain idea that it allowed enforcing some moral order on *both* warriors and labourers. Social reality, however, had already begun to leave this simple scheme behind, in a way which also was to change the world of learning.

One factor was the relative pacification and the creation of at least local social order. Another was the steady improvement of agricultural techniques – the last great famines for centuries occurred shortly before 1050 (large-scale famine only reappeared in the early fourteenth century). The third was a gradual centralization of power in Royal (and, as far as the Church is concerned, Papal) hands.

The three factors together made possible a new beginning of trade and urban life. Towns grew up as trading centres and around craft production. These towns, like the early Greek city states, were tense with discussion and democratic claims. Unlike what had been the situation in Greece, however, the Medieval towns were anything but masters of the surrounding countryside. Their democratic aspirations went no further than the possibility to govern their own affairs without interference from the feudal Lord; similarly, the aspiration of single social groups (first neighbourhoods, later artisans' and merchants' guilds and similar professional organizations) was autonomy. But as in Greece, the root of

the democratic aspirations was the closeness of primitive-democratic experience: the structures of the urban fraternities were borrowed from the kinship- and village communities. As in Greece, the fraternities were composed of equals, who had to find their common goals and strategies "in the middle".

Since towns would often grow up around bishops' sees, the schools were typically located within the urban environment. True, the Bishop himself would on most occasions be in conflict with the urban community – *he*, indeed, would be the feudal Lord from whom the town tried to free itself. But the "cathedral school" would only be loosely connected to the See. The *scholasticus*, an episcopal official, was responsible for the teaching; but other masters might teach too, in relative independence from the local ecclesiastical power (masters lived from students' fees, and were not paid from the incomes of the See). The town was thus a sounding board for the discussion in the school, and the school a resonator for the discussions and claims of the town. The chronicler Hermann of Tournai tells us (in 1090) that the squares of his city were filled by curious crowds when Master Odo discussed philosophical questions with his students, and that "the citizens left their various employments so that you might think them fully attached to philosophy". Even the late eleventh century pamphlet war between the Pope and the Emperor (the "Investiture Conflict", not *only* a pamphlet war) reached this environment, as revealed by a favourite argument used on both sides: that the reasoning of the other part was "so poor that it was repeated by fishmongers and cobblers".

Such claims may not have been wholly untrue. Since the power structure against which the urban environment revolted was ruled by an alliance between the warring and the praying orders, and since the natural language in which to express moral protest was religious, urban discussion and urban political claims also gave rise to a specific urban piety, which was both socially critical and potentially heretic. In the mid-eleventh century, in this environment, the first serious theological discussions in the Latin world since antiquity took place, concerned in particular with the nature of the Eucharist. A few heretical priests were executed, the works of others were condemned – and both because the argument was

philosophical[53] and because the display of sacred relics was an inadequate answer to arguments, unlearned priests (certainly the majority) became a serious problem to the Church (a reason that the Papacy backed the cathedral school movement).

A final effect of the new social situation was an awakening of interest in *astrology*, the first brief treatises on which were translated from the Arabic in the outgoing tenth and the eleventh century (the point of contact was the slave trade route in Lorraine). Astrology, indeed, was a *natural* explanation, accessible in principle to everybody and not only to those with priestly patent on Divine knowledge. Astrology thus entered Latin culture for reasons similar to those which had engendered early Greek natural philosophy. Like natural philosophy, the astrological endeavour was *humanist* though not concerned with humanities, in the sense that it points to the possibility for human beings to reach true knowledge on their own, without being dependent neither on Grace nor on the grace of authorities[54].

Pacification, the growth of agricultural output and of administration and urban culture and political life were, taken together, the economical and ideological background to a new, ardent interest in learning, which in the twelfth century was understood as interest in the Arts – but this time in the complete cycle of Liberal Arts, and with certain authors even in "mechanical arts" (the despised "productive knowledge" of antiquity). The prospect of future employment in ecclesiastical and lay administration made it possible for gifted young people to attend the cathedral schools. The "Twelfth Century Renaissance" of the Arts was thus carried by the first environment of *professional intellectuals* since antiquity (first in the Latin West, that is).

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[53] It had to do with the problem of *nominalism* versus *realism:* are general concepts mere *names* invented by us to cover a plurality of objects, or do they possess *real* existence, for example as Platonic ideas? In the first case something which is obviously *bread* can hardly be *flesh* according to some higher point of view.

[54] Of course astrology came to depend heavily on those *authors* who were designated and regarded as *authorities*, first of all on Ptolemy's *Almagest*. But these were still *human* authorities, depending themselves on *human* observation and reason and not on Holy Writ.

The scholarly culture created by these intellectuals was primarily *dialectical* and not rhetorical. The ideal was no longer the speaker ("the priest") but the critical peer able to produce arguments and only to be defeated by *better arguments*. The background in the urban environment of fraternities is obvious. But it was also humanist, as already stated in connection with the emergence of astrological interest: explanations should be accessible to human reason as presented, for example, by natural philosophy, and not have recourse the God's hidden wisdom. A nice example of this is provided by Peter the Venerable in his mid-twelfth century *Summary of the Whole Heresy of the Diabolic Sect of the Saracens*. In the Koran he finds the rhetorical question "Do you not see that the birds in heaven are not sustained otherwise than by God", to which he answers (forgetting that almost the same naturalist objection could be raised against Matt. 10:29, "one [sparrow] shall not fall on the ground without your Father"):

> "See the simplicity of the madman who thinks that flying birds are supported not by air but by the miraculous power of God. But (as we know) fishes are supported by water and birds by air, according to an original decree and ordering of God, and not (as he thinks) by a special and invisible miracle".
>
> (Quoted from Southern 1953: 40)

In a world where the unfree was defined as somebody "who did not know today what he is going to do tomorrow" (because his master might decide arbitrarily), whereas the free man was understood as one who "knew what he was going to do tomorrow" (because nobody had the authority to change his decision once it was made according to law), to procure natural or other explanations accessible to human reason thus amounted to obtaining predictability – in other words, to make *man* a free citizen of this world.

The title of a famous theological treatise from 1099 is telling in this respect: Anselm of Canterbury's *Cur Deus homo*, "Why God Became Human". This theme is of course a central Christian dogma, and it had been involved in most of the theological struggles of antiquity. But it had been largely displaced during the Early and Central Middle Ages, as it is obvious from the iconography of Christ: triumphant and ruling, not suffering on the Cross. Both the familiar Gothic suffering Christ and Anselm's resurrection of a forgotten theological theme are thus religious

reflections of the new humanism. So is also Anselm's formulation of a proof of God's existence. Anselm was a sincere believer, who had no doubt in the matter; before his times, no Medieval Christian would have come upon the idea that God's existence should be proved (we remember the almost complete absence of anything related to proofs even in the mathematical texts known to the Central Middle Ages). But in the 1080s, the intellectual environment in a monastic school (admittedly a famous one, that of Bec in Normandy, where Anselm was Abbot) was such that even God's existence could be measured by human reason.

Two specific twelfth-century schools and three scholars should be highlighted. First there is the so-called Chartres group, inspired by Bernard of Chartres, leader of the Chartres cathedral school from 1119 to c. 1126 (but not all members actually taught in Chartres). He in known to have formulated the idea of progress in science in the aphorism that "we are like dwarfs, standing on the shoulders of giants and therefore able to see more and longer than they, not because of our own acute eyesight nor the length of our own body but because we are lifted up by their gigantic magnitude"[55]. It is no doubt due to the existence of this famous group and school that the Liberal Arts are prominent in the decoration of the Chartres cathedral. It is known in particular to have engaged in natural philosophy; one surviving work describes the Creation as a natural process, and argues in that connection that "it is indeed not to be believed literally that God took a rib out of the first man's side"[56]. The inspiration was Plato's cosmological *Timaeus* – the most untypical of Plato's works, and the only one to be at hand in (incomplete) Latin translation; Epicurean atomism as transmitted through the Roman Epicurean poet Lucrece and through the Arabs; and the doctrine of the Four Elements. Aristotle's works on natural philosophy were as yet unavailable, and even the indirect presentation of his doctrines within Arabic astrological treatises had to wait a bit.

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[55] The phrase became so famous that the Danish nobleman Sven Aggesøn could make a pun out of it in the late twelfth century, supposing it to be familiar to the educated elite in Denmark.

[56] This rather daring deviation from literal belief is formulated in Guillaume de Conches' *Philosophia mundi* I,xxiii (quoted from Gregory 1975: 196; my translation).

The other school to be mentioned is the open school of the Saint-Victor monastery in Paris (that it was "open" means that the students were not future monks but drawn from the youth of Paris in general). Its first head was one Hugh (c. 1096 to 1141), a deeply believing mystic and yet a rationalist engaged in the search for knowledge and in practical life. In 1125 he wrote the *Didascalicon*, a general introduction to studies, covering both the seven Liberal Arts and seven Mechanical Arts (ranging from Theatre performance to trade and textile production) and the Sacred Readings: the Bible, the Fathers, and ecclesiastical history. During the treatment of the last subject it comes to his mind that one might question its utility. The answer is that

> Some things are to be known for their own sakes, but others, although for their own sakes they do not seem worthy of our labor, nevertheless, because without them the former class of things cannot be known with complete clarity, must by no means be carelessly skipped. Learn everything; you will see afterwards that nothing is superfluous. A skimpy knowledge is not a pleasing thing.
>
> (VI.iii, trans. J. Taylor 1961: 137)

The examples given in the context tell that "everything" *is* really *everything*, or at least not restricted to everything in Sacred Scriptures: they deal with his own experiments in geometry and acoustics and with his observations of the stars. All were results of the curiosity of his boyhood; but though his knowledge of these fields is now modest they are still of value.

The name of the third scholar is not connected to any specific school, even though he was driven out from several schools and contributed strongly to make Paris the paramount city of schools. It was Abaelard (1079 to 1142). He was a famous and eminent teacher, known as the master of dialectic and as the creator of "the scholastic method", and he can be claimed to have opened the way toward the modern notion of "dialectic" (new knowledge or structures engendered from contradiction). This was done in his *Sic et non* ("Yes and No"), where apparently contradictory opinions of the Bible, the Fathers, Ecclesiastical Councils and other authoritative authors on 158 questions regarding Christian faith and ethics are set forth, without solution of the dilemmas but with methodical advice on what to do and a general exhortation to ask critical questions as the only way to truth:

> By raising questions we begin to enquire, and by enquiring we attain the truth, and as Truth[57] has in fact said, "Seek, and ye shall find; knock, and it shall be opened unto you." He demonstrated this to us by His own moral example when he was found at the age of 12 "sitting in the midst of the doctors both hearing them and asking them questions". He who is the Light itself, the full and perfect wisdom of God, desired by His questioning to give his disciples an example before He became a model for teachers in His preaching.
>
> (trans. Piltz 1981: 82)

Bernard of Chartres as well as Hugh and Abaelard had in the main built their intellectual innovations on the Latin material handed down through the ages, in combination with a new approach to material provided by themselves. During their mature years, however, a new phenomenon appeared: the "wave of translations". What happened can be seen from a fourteenth-century biography of the most prolific of all translators, Gerard of Cremona: he was "educated from the cradle in the bosom of philosophy", i.e., in traditional Latin Liberal Arts; however, dissatisfied with the limits of Latin studies, he "set out for Toledo" to get hold of the *Almagest*. Having arrived he stayed there translating the Arabic treasures "until the end of life". Another, anonymous scholar pursuing medical studies in Salerno heard that a Greek copy of the *Almagest* had arrived to Palermo; accordingly he left for Sicily, started preparing himself by translating some minor works from the Greek, and finally translated Ptolemy's *Great Composition*, as it was called in Greek. Through the heroic efforts of these and other scholars, Latin learning got access to most of the works known only by name and fame from Cassiodorus, Martianus Capella and Isidore, and to a good deal more: Euclid's *Elements*, Ptolemy's *Almagest* and astrological works, Galen's medical treatises, Arabic algebra and "Hindu calculation", and – not least – a fairly complete Aristotle, including his large epistemological works, the *Metaphysics* and the books on natural philosophy and natural history. Together with these works mostly rooted in antiquity came a large collection of Arabic works serving as explanation and commentary.

[57] I.e., Christ. The Scriptural passage "I am truth" was very popular from the late eleventh century onwards. Once, as the German Emperor had used a reference to the customs of his ancestors as an argument in the Investiture Conflict, Pope Urban II replied that "The Lord said 'I am Truth', not 'I am Custom'".

At first, few scholars could do much with anything but the most elementary part of this huge meal. The translators did not in general select works to be translated from specific importance. They rushed at whatever important came within their reach, and could hardly have done otherwise: the choice was probably not too varied in a place like Toledo after the Christian reconquest; few if any translators, furthermore, had received an education which permitted them to fathom the depths of the texts they translated. Importance, thus, was general, and was determined from appurtenance or affinity to the disciplines of ancient learning. The whole process reminds much of the *worship of relics* so current in the religious sphere, and can legitimately be taken as a secular expression of the same general attitude. To borrow the Carolingian expression, the Middle Ages were held in the combined spell of Athens and Jerusalem. Even the twelfth century Renaissance, whose background was social renewal and a non-derivative intellectual revolution ended in the main, we may say, by merely shifting the emphasis from Jerusalem toward Athens, and by combining *Athens* (i.e., Greek natural philosophy and mathematics) with *Rome* (Latin grammar, rhetorics and the Latin Fathers), which until c. 1100 had been the real perspective on ancient learning.

The rise of universities

In the end of the twelfth century, the enthusiasm for knowledge thus found its expression as enthusiasm for the reconquered fundament of ancient learning. Whereas conservative theologians in the beginning of the century had condemned Gothic cathedrals and Abaelardian dialectics as expressions of human vanity and arrogance, those of the outgoing century aimed their spear at new enemies, complaining that many Christians (and even monks and canons) endangered their salvation by studying

> poetical figments, philosophical opinions, the [grammatical] rules of Priscian, the Laws of Justinian ["Roman Law"], the doctrine of Galen, the speeches of the rhetors, the ambiguities of Aristotle, the theorems of Euclid, and the conjectures of Ptolemy. Indeed, the so-called Liberal Arts are valuable for sharpening the genius and for understanding the Scriptures; but together with the Philosopher [i.e., Aristotle] they are to be saluted only from the doorstep.
>
> (Etienne de Tournais, my trans. from Grabmann 1941: 61)

Many Christians, indeed, would rather risk their salvation than stay

at the doorstep. The flow of students to the schools, in particular the most famous schools, continued to grow. So did the number of masters, living from fees paid by their students (or, at times, from ecclesiastical incomes from elsewhere) and only marginally submitted to the authority of the chancellor of the episcopal see. Not only *professional intellectuals* they were also in practice *free intellectuals*, as once the Sophists – a rare situation in history (nominally, it is true, being a scholar implied membership of the Ecclesiastical Order).

The most famous schools were those of Paris, Oxford and Bologna[58]. Those of Paris and Oxford had grown out of the traditional cathedral school system with its emphasis on the Liberal Arts, whereas those of Bologna were originally law-schools. In all three cases, the name *universitas* was used from around 1200. The term is simply Latin for "guild", and in Paris and Oxford the name denoted the guild-like organization which students and masters formed together in order to protect their interests and security. In Bologna, where the teacher's were regular citizens of the city and only the students came from abroad, the *university* was originally the student union.

The particular character of the school in Bologna had to do with the particularities of Northern Italy. Here, the commercial revolution had begun earlier and developed further than anywhere else, and the towns had gained not only a limited autonomy but practical independence from feudal overlords. Cities like Florence, Bologna and Siena were in fact independent commercial city republics governed by the more wealthy guilds, and the cradle of commercial capitalism. They had a much more urgent need for people trained in Roman Law than for clerks (however much the clerks of northern universities were in fact going to be administrators), and the teachers of this subject did not have the same reason for conflict with local authorities as those of Paris and Oxford.

The early history of the universities shows that scholars might well need guild protection. It also shows that this protection could be effective. The main weapons were *strikes* and *emigration*. Students, in fact, brought their money from home. If they left a city like Paris, where they may have made up some 10% of the population, the commercial life of the city was severely hit. This was often realized by authorities, who therefore protected

[58] The medical school in Salerno was perhaps equally famous yet in a particular category, and I disregard it in the present connection.

the scholars and gave way to many of their claims. In other cases they did not, with the result that scholars left and settled elsewhere. Cambridge is probably the result of an early emigration from Oxford. Padua got its university modelled on Bologna when students left the latter city in 1222. Both Anger and Toulouse owed their universities to an emigration from Paris in 1229. Others could be mentioned, most of them short-lived.

Toulouse, it is true, was not a spontaneous settlement of Parisian scholars. It was, instead, established by the Dominican Order, which took advantage of the occasion when Paris was deserted. It is thus a representative of a third type of university: those founded as universities by some authority. Others belonging to that category are Naples, founded by the Emperor Frederick II in 1224, Palencia (founded by Alfonso VIII in 1212–14), and the Papal university founded in 1244/45.

It may seen paradoxical that authorities should found organizations meant to protect against authorities. In fact they did not. Soon after 1200 the term came to mean something more and something different. This is a process which can best be followed at Paris, the model of most later universities (Vienna and later German universities were modelled directly on Paris, Copenhagen on Cologne, and so on) and even a model which Italian universities gradually came to approach.

Around 1200, the interests of Parisian scholars agree fairly well with the description quoted from a conservative theologian above. Most consequential are the "philosophical opinions" and the "ambiguities of Aristotle", hinting at interest in the metaphysics and the natural philosophy of Aristotle and at the growing interest in dialectic (at the cost of rhetoric and grammar, the central disciplines of ancient Roman humanities and of the Liberal Arts until c. 1100). These interests led a number of scholars into non-religious humanism and into what seems to have been a pantheist heresy, giving rise in 1210 to a process and several executions at the stake. A synod of local bishops then banned lectures on Aristotle's natural philosophy. This, and other conflicts, made the university appeal repeatedly to the Pope, who accepted the role as protector of the university while at the same time imposing adequate regulations in a number of decrees, which are in fact our main sources for curricula and university organization.

A *university* hence became a body with a specific set of privileges, especially concerning the right of the masters to confer the *license to teach*

at all similar institutions (an institution with this privilege was called a *studium generale*), and certain obligations. In Paris (and to a greater or lesser extent elsewhere) the studies were organized in a sequence of faculties. You started studies at the age of 14 at the "Arts Faculty", where for seven years you pursued "basic studies"; the first years were spent on the Liberal Arts in general, the last increasingly on dialectic and natural philosophy. After having received your license in the Arts you might continue studies at one of the "lucrative faculties" (Canon Law or Medicine) while teaching yourself as a master at the Arts Faculty. Studies at the Theological Faculty (also "lucrative") might follow and be supported by teaching of Medicine or Canon Law.

Aristotelianism

Etienne de Tournais had considered Euclid, Ptolemy and Aristotle equally dangerous. In 1210, however, only Aristotle's natural philosophy was condemned, which we may take as an indication that the study of Euclid and Ptolemy might perhaps jeopardize the salvation of individuals but was not likely to disturb the worldly tranquility of authorities.

There were good reasons for this. Then as now, only a minority would find it attractive to invest more labour than required by the syllabus in mathematical studies (and Ptolemy's astronomy is no less demanding in this respect than Euclid)[59]. Aristotle, on the other hand, not only offered much more direct and all-encompassing insight into the workings of the

[59] Even though the study of astronomy and astrology had originally been rooted in enlightenment aspirations, most scholars would get lost in technicalities long before they got sight of this goal, whereas those who mastered the technicalities would mostly become astrological technicians. Only insignificantly few would reach a level where they might experience astrology as "without doubt the most faithful herald of the immortal God who, interpreting his secrets, displays the Law according to which the Almighty resolved that the Heavens be made, on which he sprinkled the starry fires, testimonials of the Future" and be convinced that "this angelical doctrine makes us no less kindred of God than we are separated from the beasts by the other arts" (as formulated by the fifteenth century astronomer Regiomontanus; my translation from Schmeidler 1972: 52); technicians working from simple handbooks and schemes had no reason not to see *the Church* as "the most faithful herald of the immortal God", as they and everybody else were supposed to.

world through his natural philosophy and his metaphysics. Both because of the way they were formulated and because his teachings constituted a relatively coherent *system*, Aristotle's works corresponded better to the deeply dialectical mood of High Medieval learning than any potential competitor could do[60].

Early thirteenth century university scholarship was thus drawn irresistibly toward Aristotelianism, in spite of (in some cases no doubt because of) its inherent challenges to Christian doctrines (for instance that it excluded that the World could have a beginning and an end, thus denying the Creation as well as the Day of Judgement).

The prohibition of 1210 was repeated by a Papal representative in 1215, and extended to the *Metaphysics*. In 1231, the Pope repeated the prohibition once again, ordering at the same occasion that those who had trespassed should be absolved – a double indication that the ban had not been very effective. In 1231, moreover, a committee was ordered to prepare an inoffensive edition of Aristotle's books on nature:

> [...] since, as we have learned, the books on nature which were prohibited at Paris [...] are said to contain both useful and useless matter, lest the useful be vitiated by the useless, we command [...] that, examining the same books as it is convenient subtly and prudently, you entirely exclude what you shall find there erroneous or likely to give scandal or offense to readers, so that, what are suspect being removed, the rest may be studied without delay and without offense.
>
> (Trans. Thorndike 1944: 40)

Since the chairman of the committee died, it never set its pen to paper, and nothing came out of this initiative. In the 1230s, however, the situation became untenable for the conservatives, as even their own theological treatises were fully permeated by Aristotelian metaphysical concepts. It was clearly demonstrated not only to us but also to contemporaries that the Aristotelian system was *necessary*. The university environment could not do without the intellectual coherence offered by Aristotle but by no

[60] This formulation presupposes that we count as variants and not as competitors the interpretations of Aristotle which the Islamic philosophers Avicenna (ibn Sīnā, 980–1037) and Averroës (ibn Rušd, 1126–1198) had produced. These, indeed, were *systems* to a higher degree than the original. As a consequence, Aristotelianism was first received in the form of Avicennism, and later as Averroism.

other system.

At the same time, the triumph of Aristotle was a symptom that *university learning was becoming specialized*, and that its close interaction with general currents was in decay. Only within the professional environment of university masters could a climate of dialogue and controversy be regulated by the strait-jacket of scholarly *dialectic*, and nowhere else could the quest for intellectual coherence and system become paramount.

Already during the conflicts of the early thirteenth century, the university environment was thus preparing its eventual integration into the mid-century synthesis, to which we shall return (no wonder, since the majority of students and masters were, after all, preparing for future employment within the secular or the ecclesiastical Establishment).

Other social groups had gone the opposite way. Already during the second half of the twelfth century, that specific urban piety which was mentioned above (p. 62) developed into authentically heretical movements which, in particular from the early thirteenth century onwards, were submitted to large-scale persecution (the verdict of 1210 is a modest instance, whereas the crusade against the Cathars in Southern France is the most frightening example).

The origin of the mendicant orders is to be sought in this context. In 1208, St. Francis of Assisi had begun preaching Apostolic humility and poverty, thus pursuing the same road as some of the late twelfth-century heretics; in 1209, however, his groups of followers was recognized by the Pope as a regular monastic order (the Franciscans or Friars Minor), with ensuing regulations on doctrine and activity. In 1215, St. Dominic received a similar approval of the "Order of Preachers" (better known as "Dominicans"), who were to "fight heresy by means of sword as well as fire as well as tongue". For tactical, not for ideal reasons, even the Dominicans were to live in Apostolic poverty; but they were also founded as a *learned order*, and from the beginning almost half of St. Dominic's followers were sent to Paris "in order to study"[61]. Although that had never

[61] The approval of Dominic's group was unusually prompt – the Church was not too fond of the mushrooming of new monastic orders. There are good reasons to believe that the swift acceptance of the group as an official order was due precisely to the prospect of improving the intellectual level of the clergy. In spite of the

been the aim of St. Francis, the Franciscans developed in the same direction, and soon both orders received as recruits many university scholars who would rather pursue study than turn to trite clerical work.

Two eminent Dominican friars who were active in Paris also accomplished what the committee of 1231 had been unable to. Around 1250, Albertus Magnus (1193 or possibly 1206/07 to 1280) wrote a large commentary to Aristotle's *Physica*, the first volume on natural philosophy, telling in the preface that he did so "in order to satisfy the brothers of our Order, who now for several years have asked us to compose a book on physics, in which they might have the perfect science of Nature, and which would enable them to understand Aristotle's books"[62]. After this beginning, he continued through most of the Aristotelian corpus, and even supplemented it with books on missing subjects (one of these, *On minerals*, was used as a practical handbook for centuries).

From 1250 onwards, St. Thomas (Aquinas) (1225 to 1274), also a Dominican, built up a complete philosophical system in agreement with Christian Faith but on Aristotelian foundations in partially neo-Platonic interpretation – the "Thomist synthesis", which was no less a systematic interpretation of Aristotle than those of Avicenna and Averroës[63].

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expansion of schools during the twelfth century, ignorant priests had remained a problem to the Church.

The original aim of Dominican studies was theology, and as late as 1228 it was stated in the statutes of the Order that Dominican students "should not study the books of the pagans and the philosophers, even though they may inspect them when appropriate. They should not learn the secular sciences, nor the so-called liberal arts, unless some master of the Order or the General Chapter should dispose otherwise".

[62] The quotation asks for several terminological commentaries. Firstly, "physics" (*physicae*) does not mean what it means to us; it is simply the ancient Greek term for "nature", the inherent properties of things and beings. "Science" (*scientia*) designates any field of knowledge which is organized according to the precepts set forth by Aristotle.

In view of the recent regulations of Dominican studies (cf. note 61), this role not only of a single Dominican scholar but of his fellow-brothers in general is quite striking.

[63] In the beginning, Thomas' theological doctrines were met with some resistance, not least on the part of Franciscan theologians, who would rather stick to Augustine's more directly neo-Platonist teachings (but Dominicans and others were

A famous *dictum* is often used to sum up the core of the Thomist doctrine: "Grace does not abolish nature but brings it to perfection". The implication is that (Aristotelian) natural philosophy is considered valid, and is allowed to explain as much as it can; "Grace" (i.e., Divine intervention and explanation) only enters as a complement and where natural explanation fails. Similarly, the principles of "natural law" – those principles which can be derived from Aristotle's political philosophy as understood at the time – are accepted as valid in any society, Christian as well as non-Christian; revealed truth (the teachings of the Bible) can only specify and complement them, but cannot abolish them.

The *dictum* was not a mere philosophical principle. It was also a rationalization of the division of the university into faculties and of the autonomy of the Arts and Medical Faculties (and, where it existed, of the faculty of Secular Law): in these, the study of natural philosophy and of presumed natural law should be allowed without constant policing on the part of the theologians.

Another feature of the Thomist system had similar implications: its emphasis on the Aristotelian division of knowledge into separate domains, each derived from its own specific set of principles or axioms. Once again, this agrees with the compartmentalization of university knowledge into the domains of separate faculties, each governed by its own principles and not supposed to encroach upon the territories of the others. Obviously, one exception to the general principle of mutual autonomy should be remembered: the teachings of other faculties were ultimately to be completed by (and hence also to be compatible with) "Grace", i.e., theology and its basis in revealed truth.

A document from the Arts Faculty in Paris from 1255 tells the curriculum for the coming academic year in terms which presuppose that the content was already familiar but the lectures often too superficial in view of the difficulty of the texts. Apparently only the mature level is concerned, and the list seems not be complete. With this proviso, Aristotle

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also involved). After having been declared the official doctrine of the Dominican Order, however, the system was adopted in the 1330s as the official philosophical stance of the Church as a whole. From this moment on (and only then) is it legitimate to speak about a full Aristotelization of the Catholic doctrine.

overshadows everything else, being accompanied in the document only by a few Boethian commentaries to his logic and some texts on grammar.

Aristotelianism had thus won the day. It would be mistaken, however, to see the outcome of the process as a victory for the radical thinkers of 1210. What won the day was an Aristotelianism that had been moulded by the "repressive tolerance" of the Albertine-Thomist synthesis (to use a term which was coined to describe an analogous process in our own century), and the environment in which it won was no longer a major threat to social and intellectual stability. In 1210, in connection with the ban on Aristotle's natural philosophy and the condemnation of the heretical priests, the diffusion of theological treatises translated or written in the vernacular had been forbidden; mid-thirteenth-century university annals offer no similar evidence of interaction between scholarship and lay religiosity.

The compromise

The transformation of Aristotelianism exemplifies a general trend of the mid-to-late thirteenth century toward "balance" or "compromise".

Balance was a general social phenomenon: for a while – i.e., as long as moderate economic expansion continued – open fighting between Papacy, secular rulers, nobility, and commercial towns had declined or ceased; large-scale revolts in towns and in the countryside were phenomena belonging to the past (and, as it turned out, the near future).

Within the university, the masters of arts had become a semi-autonomous but also an isolated professional group. This is appropriately demonstrated by one of the condemnations of supposedly heretical scholars which *did* take place.

The scholar in question is Boethius de Dacia (*fl.* c. 1275), who was accused of being an "Averroist", i.e., a proponent of an Aristotelian system which had not gone through the Thomist domestication. In a treatise *On the Eternity of the World* he distinguishes, on one hand, "the truth of [Aristotelian] philosophy", which claims this eternity, and on the other, "the truth of Christian Faith, which is absolute truth", which denies it. The style of the work, not least the use of emphasis and jokes, leaves no doubt in me that Boethius is sincere in equating the truth of Faith with genuine

truth[64]. The truth of philosophy was only established as a consequence of the creation of the physical world, and it will be abolished at the Judgement (and between these two limits, it is obvious, neither beginning nor end of the World can take place, which is Boethius' solution to the dilemma of the apparent "double truth"). As a master at the Arts Faculty, i.e. as *a philosopher* (no longer, we observe, a teacher of the Liberal Arts), none the less, Boethius explains it to be his duty to pursue *the truth of philosophy*.

The underlying inclination toward mysticism goes against Thomas' belief that Reason and Faith can be harmonically combined, and points forward towards certain late thirteenth and earlier fourteenth-century philosophers (Meister Eckhart, Duns Scotus, Ockham). The proclamation of an autonomous sphere of knowledge which the philosopher should pursue, however, is a continuation of the Thomist programme even if it goes beyond the limit which Thomas found acceptable. When, in 1277, the theses of Boethius were condemned by the Paris Bishop, it is also characteristic that some of Thomas' opinions were included (Thomas had died in 1274); ultra-conservatives apparently could not see the decisive difference.

That Thomas' as well as Boethius' stance is to be explained with reference to the sociology of the institutions, and not solely from the impetus of Aristotelian epistemology, is indicated by the failure of attempts to secure autonomy for domains *within* the complete range of subjects covered by the masters of arts[65]. The domain which achieved epistemological autonomy was thus not defined by epistemological criteria, i.e., by shared methods or by the subject-matter to be dealt with: it was demarcated by a purely social institution. *Autonomous knowing* could be accorded to people who ran an autonomous institution, and who knew

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[64] One example: who denies that the World was created is a heretic. But who believes that he can prove it by means of reason is a fool! Thus speaks a genuine believer who appreciates the use of reason but feels that the mystical experience of his faith goes deeper.

[65] One such attempt was made for mathematics by Jordanus de Nemore, one of the two best European mathematicians of the thirteenth century, and in my opinion clearly the most original of the two. Even his closest followers either did not understand his aim, or they did not bother.

to do this without disturbing the compromise which this institution had made with stronger powers.

The effects of the professionalization of university teaching thus merged with those of the violent suppression of heretic movements (the Cathar crusade!) and of the primitive-democratic tendencies of towns for which ecclesiastical and royal authorities were responsible: the connection between universitarian and popular politico-religious discourse became tenuous and mostly non-existent.

It is true that certain fourteenth-century scholarly conflicts on the border between philosophy and theology were connected with important political conflicts – but mostly conflicts between the Papacy and secular royal powers. The only scholarly conflict with heavy impact on fourteenth century popular heretical movements (which were important, since the social compromise did not outlive the thirteenth century by many decades) was located within the Franciscan Order. It concerned a group within the order (the *spirituales*) which refused its development away from absolute poverty toward participation in the scholarly world and in the "Scholastic compromise"[66]. It is thus merely a pseudo-exception which, when inspected more closely, confirms the rule that the scholastic compromise implied an interruption of the connection between popular and scholarly discourse. Only toward the very end of the fourteenth century was this dialogue to be revived sporadically, and with consequence only in the Hussite movement and the early Reformation of the fifteenth and early sixteenth centuries.

One particular development should be mentioned which contributed to severing the ties between scholarly and popular discourse, since it also changed the character of universities as seen from within and eventually undermined the autonomy of the "artists": the masters of arts were gradually loosing their position as free intellectuals. One reason for this change of condition is that specific *chairs* were established, often at colleges supported by an endowment. Originally, *La Sorbonne* in Paris was one of

[66] That we should rather speak of a "Scholastic" than of a merely "Thomist" compromise follows from the interpretation of the main tenets of Thomas' philosophy as expressions of broader movements in the culture and institutional framework within which Thomas and other university scholars worked.

these, endowed by the theologian Robert Sorbon and meant to shelter students of theology; the College system of Oxford and Cambridge also has its origin here.

Another reason, for a while more important, is that an increasing number of teachers were Dominicans or Franciscans. These were primarily *members of their order* and not of the university understood as a guild. They would therefore not be solidary during strikes, and could be suspected of being more loyal to Church and "Grace" than to their fellow masters and to "Nature"[67]. Initially, the Friars were therefore met with strong resistance by other masters. In the end, however, they had to be accepted, among other things because the Papacy was needed by universities as an ally against local authorities – in Paris, where the conflict was strongest, probably also because Thomas Aquinas the Dominican was found by the students to be a far more interesting teacher than his secular competitors.

The fourteenth century

As already mentioned in passing, the multi-level balance which had been reached around the mid-thirteenth century did not last long. When seen in the context of demography and economic history it can in fact be understood as the brief interlude between the crisis of growth of the early High Middle Ages and the crisis of decline of the late Middle Ages.

The cultural bloom of the late eleventh and the twelfth century had grown out of demographic expansion based on improved agricultural methods and of that rise of towns and commercial economy which it made possible. By the outgoing thirteenth century, the new techniques and the increased population pressure had exhausted the soil in many areas, and population growth stopped. To make things worse, the climate began deteriorating. In the 1320s, protracted warfare between England and France set in (the "Hundred years War", which went on with interruptions until the 1450s). It was followed by bankruptcies among the largest North Italian bankers, who had invested in quick victories. Worst of all was probably

[67] Certain decrees censuring the actual behaviour of friar scholars tell us that some of them were actually more interested in "Nature" than in "Grace". Entry into a friars' learned order could, indeed, be a way for scholars to stay scholars instead of leaving the intellectual environment of the university.

the Plague, which swept over Europe in the end of the 1340s and cut the badly fed population by some 35% in the average. In many of the commercial towns, violent rebellions and civil war between the mercantile patricians and poor artisans and workers broke out.

The population decline in the countryside created a shortage of manpower, thus leading to a reduction of the value of landed property. Attempts to increase the exploitation of feudal peasants only resulted in rebellions, which at least in England and France were far more successful than those of the working population of the towns. The Church, the largest landowner of all, was significantly impoverished; enforced political submission of the Papacy to the French King led to conflicts with other secular rulers and in the end to the Great Schism of 1378 to 1417, where two (for a while even three) rival Popes existed.

These political and economical turmoils affected the universities and university learning in several ways. First of all, recruitment changed, and became increasingly dominated by the upper social levels; gifted peasant's sons, who had been quite visible during the thirteenth century, become much more rare.

The reduction of ecclesiastical income from landed property after the Plague also affected the universities directly, since the Church (and local churches) had financed much of what went on in universities: students going to the higher faculties and possible teaching the Arts on the same occasion, as well as colleges. Both the level and the status of university activity was lowered in this process; a reform edict from Paris from 1366 shows this quite clearly in its attempt to repair some of the damages. It also proclaimed that the

> scholars hearing their lectures in the [Arts] faculty sit on the ground before their masters, not on seats or benches raised above the ground, as was the custom when the studies of the said faculty were more flourishing, so that occasion of pride may be removed from the young.
>
> (trans. Thorndike 1944: 246)

In the end, this development killed much of the intellectual creativity of the university environment. Yet during the decades of incipient crisis, i.e., until the effects of the Plague had their full impact, certain developments took place which are not only interesting in themselves but also illustrative of the interaction between institutional environment and

style of thought – and which are thus informative about the humanities as a social enterprise.

Some of the philosophical developments and some of the conflicts between different philosophical schools were superficially mixed up with the political conflicts of the day. Political partisanship and conflicts, however, were not the driving forces behind the increasingly sophisticated approach to dialectic and natural philosophy. Instead, a highly original approach to the problems of language and meaning and an unprecedented attempt at mathematization of natural philosophy was introduced. They were certainly not meant as investigations of practical discourse or real nature; instead we must see them as *testing and display of the key professional tools and disciplines of the masters of arts:* logic and natural philosophy. Structurally, this is similar to what was done by the Fara scribes around 2500 B.C., and to processes taking place in many environments populated by professional intellectuals. The exceptional sophistication of the fourteenth century developments and their isolation from common sense and from all everyday concerns was only possible, however, because the masters of arts as a group were highly specialized and professionalized, and because their professional activity (as long as they stayed masters of arts) was itself disconnected from everyday intellectual practice (be it administration, juridical practice, secretarial functions for rulers, or preaching)[68].

Contemporaries were quite aware that something new was produced. They spoke of a *via moderna* in philosophy, a opposed to the *via antiqua*. The latter term covered not only (and not so much) ancient philosophy in general as the kind of Aristotelianism that had established itself during the thirteenth century – not least as embodied by Albert and Thomas. Like Aristotle it was "moderately realist", i.e., it held that "universals" ("Cuphood", etc.) are real, but only exist as partaking in individuals ("the Dog" as a species is no free invention but the shared "form" of all single

[68] This does not imply that no participant in the movement was engaged in such functions, which is certainly not the case. What is important is that *the environment which defined* what was of interest and produced the norms governing philosophical activity was disconnected from worldly affairs.

dogs).

The *via moderna*, on the contrary, was nominalist and proto-positivist. "The Dog" is nothing but "a puff of the voice", to quote a favourite expression, and much effort was invested in exploring the relation of language and logic to reality[69].

In a certain sense, the *via moderna* was thus built on Aristotelian concepts, and it investigated problems arising within Aristotelian logic and Aristotelian natural philosophy. But it did not feel obliged to take these concepts as Aristotle or the commentators of the *via antiqua* had interpreted them. The backbone of the mathematization of natural philosophy, for instance, was the idea that the Aristotelian *qualities* could be varied continuously in numerical degree[70]. In spite of its Aristotelian fundament, the approach of the *via moderna*, and even its way to *discover problems*, was hence quite new.

So new in fact, and so different from anything which had come before, that many aspects of fourteenth century philosophy were not understood during the Early Modern period but only on the background of twentieth

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[69] Without pursuing their particular ideas and doctrines we may list some of the foremost representatives of the *via moderna:* William of Ockham (c. 1285 to 1349), Jean Buridan (b. 1285, d. after 1358), Richard Swineshead (*fl.* c. 1340 to 1355) and Nicole Oresme (c. 1320 to 1382).

[70] For instance cold, heat, moisture and dryness – the qualities which were bound up with the doctrine of the four elements and with medical doctrines. To those who have grown up with thermometers and hygrometers, numerical gradation of these qualities is a matter of course, but according to traditional Aristotelians they might well "admit of variation by degree", as stated by Aristotle (*Categories* $10^{b}26$), but it would be as meaningless to ascribe numbers to the degrees of cold as to the degrees of justice or health. It is remarkable that the main idea behind later mathematizations (be it of physics, biology or linguistics), namely that the numerical values to be ascribed to a quality should correspond directly or indirectly to something which can be *measured*, was totally absent from the fourteenth century "quantification of qualities". The concepts of which it made use were in the style of "twice as cold" or "three times as healthy", which we will probably find just as absurd as did the proponents of the *via antiqua* (even though, admittedly, we have got accustomed to the numerical marks given in school). The quantifiers, on their part, did not claim that their ascription of numbers had any relation to reality – they were probing the capacity of their tools "according to hypothesis", as they would tell.

century semantical theory and abstract algebra – i.e., when seen in the perspective of disciplines which themselves are products of highly specialized and professionalized academic environments.

Some broad features of the development from c. 1150 to c. 1400 can be summed up as follows:

— *Scholasticism*, which literally means nothing but the *learning of (Medieval) schools* from 1050 onwards, ripened into the particular style of the "mature" Medieval university. This has come to be the normal interpretation of the word, often coloured by the negative attitude of Renaissance polemicists to the style.

— Whereas the cognitive interest of twelfth and early thirteenth century university learning was often emancipatory (whence the enormous enthusiasm for the new learning), that of the late thirteenth and the fourteenth century university was rather legitimizing, an ideological support for status interest and status consciousness.

— Through the reconquest of ancient *philosophy* (as opposed to the remainders of polished Roman *culture*), the twelfth and earlier thirteenth century had reached that "Athens" which Medieval scholars had only dreamt and spoken of until then. Truly, this Athens still clung to the *texts* of antiquity, using the Abaelardian (so-called "Scholastic") method to make them agree; but through the sophisticated innovations in semantics and logic and through the quantification of qualities, university scholars had even produced something *new*, starting from but not really restricted to Aristotle.

— On the other hand, a scholarly culture had been created which seemed increasingly irrelevant even to educated people outside the university sphere. Only the astrological counter-current (which, admittedly, grew quite strong at the universities of the later fourteenth century) seemed to carry a relevant message. Fourteenth century Scholasticism can, on the whole, be seen as a brilliant but late intellectual afterglow of a general social compromise between conflicting forces which had since long ceased to be tenable.

The post-Medieval university

As this anachronistic orientation combined with the effects of impoverishment of the late fourteenth century, a genuine intellectual decay process set in. Already in the outgoing fourteenth century, university learning is no longer adequately described as oriented toward sophisticated logic, semantics and (bookish or speculative) natural philosophy. It was oriented *toward the sophistication of the earlier fourteenth century*, i.e., toward what had been created and canonized before 1350 (we may speak of "Aristotelianism by inertia"). New works were still written, but mainly compendia introducing to the original thinking of the early century. Very broadly speaking, the decay process accelerated after 1400. It is characteristic that the "new" books (i.e., books not written during classical antiquity) which were printed in the university towns around 1480 would mostly either be compendia written a century before or original treatises written between 1200 and 1350! Exceptions exist, but they are rare.

Grosso modo, universities had become fossilized, uncritically dogmatic schools for administrators, physicians, lawyers, and priests – and most of them retained that character until 1800 or later. This does not imply that nothing new entered university learning for 400 years. But curricular novelties entering a university during these centuries would mostly be a hundred years old or more, except in cases where it was the result of a reform guaranteed and enforced by higher authorities. To mention but one example, Newton's infinitesimal calculus (created in the late seventeenth century) only entered the curriculum of *his own* university (Cambridge) during the 1820s. In contrast, Thierry of Chartres had used books for his teaching in Paris in 1145 which had been translated in Toledo no earlier than 1140 in Toledo (this was before the invention of printing!).

In brief, universities had become enclaves isolated from the real life of their period—from what went on in the humanities, in natural science, and in general culture. No wonder that university scholarship and university education was ridiculed and parodied in Thomas More's *Utopia*, Rabelais' *Gargantua et Pantagruel*, Molière's *Le malade imaginaire*, and Holberg's *Erasmus Montanus*.

6. THE RENAISSANCE

Renaissance and humanism

The basic feature of that "real life" to which universities only reacted passively and torpidly was a thorough (though of course not quite sudden) transformation of economic and societal structures. With local stops and goes, towns and commercial activities continued their growth to the point where the commercial capital of towns became the main determinant of economic life: agricultural production under more or less feudal conditions was still the major component of the economy, but even agricultural production was to a large extent made for the market and not for local consumption.

In Italy, which was the cradle of the Renaissance movement, many of the commercial towns had been independent city state republics ruled by the burghers (the members of artisans' and trading guilds) or by the commercial patriciate (the merchants' and bankers' guilds alone) at least since the twelfth century. From the late fourteenth century onwards, the dominant tendency was a constitutional change toward some kind of monarchic rule, or toward republics ruled by a nobility arising from the commercial patriciate but increasingly burying its wealth in landed property. In Northern Europe, where towns had never gained more than autonomy (most developed in Flanders and the German Hanse), the growth of commercial capitalism was connected to an increasing growth of statal power at the cost of feudal "freedoms" – most markedly in Tudor England and the Netherlands.

Culturally, this development was reflected in growing self-consciousness outside the ecclesiastical and universitarian spheres. In Italy, on which we shall concentrate at first, the new culture flourished most conspicuously in the vicinity of the new princely courts – not least in Rome, the Papacy

being the most wealthy and the most powerful of the courts and behaving quite in the manner of a secular court[71].

It may seem a paradox that the cultural expression of the new age was most vivid in an environment which in some respects was retrograde – after an expansion of commercial capitalism during the thirteenth and fourteenth centuries, the Italian city-states were moving toward what has been called a "re-feudalization". The paradox is only apparent, however, unless one has a very mechanical view of the connection between socio-economic structure and cultural expression. The new aristocracy of Italy, it is true, was as eager to gain honour as the feudal knights of twelfth century France. But the conditions on which honour could be gained were different. Precisely because the ground had been prepared, and because of the connection to a still powerful commercial and urban life[72], honour was acquired by an aristocratic transformation and accentuation of those cultural values which had developed and established themselves during the fourteenth century.

Central to these values are ideas and practices covered by the terms *Renaissance* and *Humanism*. Both the Renaissance and the Humanist movement originate in mid-fourteenth century Italy, Petrarch (1304–1374) and Boccaccio (1313–1375) being pivotal figures; and both spread to the rest of Western and Central Europe over the following two centuries. "*The* Renaissance", it is true, was not a current expression during the period itself. But metaphors of rebirth were current, and more widespread than they had been during the Middle Ages. The cultural movement of the fourteenth to sixteenth centuries is also spoken of as a renascence with much better reason than the various Medieval revivals. These are, indeed, best described as attempts to *restore* what had been lost (vain attempts until the the twelfth century). That renascence of antiquity which took place during the Renaissance epoch, on the other hand, was really a new birth

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[71] In the mid-fourteenth century, before courts and courtly culture developed in the city-states, several important participants in the new cultural movement were connected to Avignon, at that time the abode of the Pontifical court. One among them was even outstanding: Petrarch.

[72] Investigating the birthplaces of 600 writers and artists constituting the Italian "cultural elite", Peter Burke (1972: 36) finds that 60% come from large and middle-sized towns, where only 13% of the population was found.

of ancient material to (a new and different) life. The "Renaissance renascence" can thus be interpreted as a *reassimilation of forgotten aspects of ancient culture* to that new development which had started in the late 11th century, and whose first products had been the Gothic cathedrals, the "twelfth century renaissance", and Scholastic culture (and quite a few other things not mentioned in these notes[73]).

That the feeling of closeness to the ancients – as comrades in arms rather than as "authorities" in Medieval style – penetrated even the private life of Renaissance intellectuals is illustrated by a famous letter written by the politician, political philosopher and historian Niccolò Machiavelli (1469–1527) in 1513[74]. Having played the wrong card in Florentine politics he had retreated to a small estate; in the letter he tells how he spends the day. Two passages are significant:

> [...] When I leave my wood, I walk to a fountain, and from there to my aviary. I carry a book with me, at times Dante or Petrarch, at times one of those minor poets, like Tibul, Ovid, and others: I lose myself in the reading about their amorous passions, their passions recall my own; meditations which I relish for quite a while. [...].
>
> Evening comes, and I return to my dwelling. I enter my cabinet, and, already at the threshold, I take off my everyday clothes, covered by dirt and mud, and dress in robes suited for the royal or pontifical court. Thus, decently costumed, I enter the ancient courts of the men of antiquity. There, gently welcomed by them, I nourish myself by that food which is mine more than any other, and for which I was born. I have no shame to speak with them, to ask for the motives of their actions, and they, thanks to their humanity, answer me. For four hours I experience no trouble whatsoever, I forget all my distress, I no longer fear poverty, even death does not frighten me. And, since Dante says that there is no knowledge if one does not retain what he has understood, I have taken down from these conversations what I found essential, and I have composed a booklet [...].
>
> (My translation)

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[73] As Marie-Dominique Chenu, a famous Dominican scholar, once said at a congress on Medieval philosophy, after a session discussing the *artes* in the 12th century: it is a pity that time has not allowed us to discuss the *ars amoris*, which after all also had an appreciable success in our epoch.

[74] Letter to Francesco Vettori, 10.12.1513, ed., trans. Barincou 1952: 1434–1438.

—namely the treatise *The Prince*, which was condemned publicly and studied eagerly in private by countless statesmen during the following centuries.

Even the term "Humanism"[75], like "the Renaissance", is anachronistic, though in a different manner. Strictly speaking, it refers to the Renaissance concept *studia humanitatis*. *Studia humanitatis*, however, was no general study of the humanities, of human beings as participants in a culture, nor *a fortiori* an expression of the idea that the human being (thus neither God nor tradition nor Nature) is the centre or measure of everything. *Studia humanitatis* was in the main a study of Cassiodorus' *litera humana*, and more precisely the study of the subjects which were central to *good style*: (Latin) grammar, rhetoric, poetry, history, moral philosophy – and a *Humanist* was somebody engaged in or teaching the *studia humanitatis*.

The immediate and practical reason for cultivating these exercises of good style was their utility (a keyword in texts from the age): Humanists were secretaries (literally: somebody initiated in the secrets of the boss), counsellors or chancellors to patricians, high prelates, princes and city republics, writing their official correspondence, the history of their family or the city itself, and what else needed to be taken down in good style.[76] They were also teachers training others to perform these tasks.

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[75] In order to avoid misunderstandings I shall capitalize Humanism (and its derivatives) when the term refers to the Renaissance phenomenon; "humanism", when not capitalized, refers to an attitude which can be found in all ages. Protagoras (cf. above, p. 32) was thus a humanist, but no Humanist.

[76] This social affiliation of the Humanists is reflected in the scientific method they used when involved in textual criticism, from Petrarch onwards. Trained in the techniques of exposing fraudulent juridical documents – in particular forged donations of privileges – and, one can safely assume, familiar with the techniques of forging documents which might escape detection, they made use of the same techniques when proving (to mention the most famous examples) that a privilege allegedly granted by the Roman Emperor Constantine to the Pope in the fourth century was in fact expressed in the language of the seventh or eighth century (Lorenzo Valla, early fifteenth century), and that a body of writings attributed to the semi-divine and fully legendary Hermes Trismegistus (supposed to prove that ancient mystics had had access to fundamental Christian teachings already at Moses' time) was written in the typical Greek of late antiquity (Casaubon, late sixteenth century).

But even though the immediate purpose of the *human studies* was utilitarian, their implications and impact went much further. One will notice that Humanist culture was moulded upon the literate culture of the Roman upper class. Humanist culture was therefore also regarded as the symbol and the guarantee of personal and especially civic qualities – utility, indeed, was always meant as *civic* utility. Sons (and a few daughters) of families belonging to the upper social echelons, and even sons of princes, were therefore educated by Humanists, or sent to their schools in order to learn to speak and write Ciceronian Latin as if they had been native speakers. The age was one of individualism – both within the broader sphere of the urban patriciates, where economic structures were reflected in ideology, and among the princes themselves, whose world was unstable enough to require specific personal distinctions from anybody who was to gain or conserve power. Even though these distinctions had little to do directly with Humanist culture, their abstract reflection as *individualism* provided the connection. Even princely self-esteem (and esteem on the part of others, which would certainly have political importance) could not be built on the mere possession of princely social status: status had to be combined with qualities belonging to the prince *as a man* – a man like others, but a better man than others.

To master the *study of humanity* was thus, automatically, to be *a better man*. The reason that the term *Humanism* could become and stay popular (and the reason that it coincides with the name given by Old Babylonian scribes to *their* specific qualities) was this inherent ambiguity.

In a technical sense, *Humanism* was nothing but a reversal to the ideal of pre-Abaelardian literate culture: Latin grammar *cum* literature, and Latin rhetoric. As it had happened at every cultural revival, the Humanists took their material from the ancient heritage. But the two undertakings are separated by a leap in quality which makes this technical comparison highly misleading. The study of literary fragments in traditional Grammar had aimed at familiarizing you with sentences and grammatical structures. The study of Latin literature in the schools of the Humanists aimed at knowing them intimately enough to use them in allusions and for producing the right connotations when you expressed yourself, and hence also at understanding *their* allusions and connotations. Whereas traditional

Grammar had (mostly, and grossly speaking) used its literary fragments as a phrase book for tourists ("Can you tell me way to the barber's shop?" / "What is the price of a cup of coffee?" / etc.)[77], the aim of the Humanists automatically forced them to read the historians as history, the tragic authors as tragedy, the poets as poetry (precisely as Machiavelli did, "I lose myself in the reading about their amorous passions, their passions recall my own")[78]. Since one of the ever-recurrent themes of ancient Latin literature was the importance of Greek letters, they would take up the study of Greek literature to the extent that it became possible (thanks not least to the assistance of Byzantine scholars).

The new approach to antiquity served as a pretext for emancipation from the fossilized rationality of late Scholasticism – better, perhaps, as a pretext for disregarding it as irrelevant: *True Reason* was the reason of antiquity (which implied that Seneca's and Cicero's Latin moral meditations replaced Aristotle's ethics in Thomistic interpretation – no philosophical progress but probably more adequate for practical life in the ruling strata of city states). *Good Latin* was the Latin of Cicero, and not the crude and supposedly degenerate Latin of the Middle Ages. *True Christianity* was the Christianity of St. Augustine, and not the Thomistic synthesis between Christian theology and Aristotelianism. *True logic* was that of the ancients, and not the sophisticated semantics of the *via moderna* of the fourteenth century university.

How far even the best Humanist minds had moved away from the thought and discussions of the *via moderna* is illustrated by a satirical passage in Thomas More's *Utopia* from 1516. It is told that

> Of all those philosophers whose names are famous in the part of the world known to us, the reputation of not even a single one had reached [the Utopians] before our arrival. Yet in music, dialectic, arithmetic, and geometry they have

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[77] Some twelfth to thirteenth century Medieval scholars, it is true, would engage in ancient literature as literature, as revealed by Etienne de Tournais's complaint (see p. 68). But rare were those who, like the Danish historian Saxo Grammaticus, were able to approach and (we will therefore guess) really to appreciate the style of the ancient writers.

[78] "Automatically" indeed in the long run, but not immediately, nor without contradictions. Cf. below, p. 97f, on pedantry and detail-thrashing in much Humanist teaching.

made almost the same discoveries as those predecessors of ours in the classical world. But while they measure up to the ancients in almost all other subjects, still they are far from being a match for the inventions of our modern logicians. In fact, they have discovered not even a single one of those very ingeniously devised rules about restrictions, amplifications, and suppositions which our own children everywhere learn in the *Small Logicals*. In addition, so far are they from ability to speculate on second intentions that not one of them could see even man himself as a so-called universal – though he was, a you know, colossal and greater than any giant, as well as pointed out by us with our finger.

(ed., trans. Surtz & Hexter 1965: 159)

His reverence for Plato and Aristotle notwithstanding, More is obviously a nominalist by inclination: *men* exist, but *MAN*, the universal, does not. One might therefore have expected sympathy with fourteenth century nominalism and its more recent heirs at the universities (that which "our children everywhere learn")[79]. Instead, he is so much disgusted by the pedantry and technicalities of the discussions that he rejects the current wholesale.

The wider context

Humanism was only part of, and a specific expression of a broader movement, even though it was certainly the expression that was most intimately connected to the new aristocratic rule. This is already obvious from the courtly function of the Humanists as advisors and secretaries – guilds might well employ a painter to decorate their guild-house or to paint a picture to be donated to a church, but would have no use for a Humanist – and from the class of young people who were educated by the Humanists. Furthermore, this connection is established through the pattern of recruitment: only few of the Humanists were of lowly social origin, while such a parentage is the main rule for artists[80].

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[79] It is true that these heirs were no longer nominalists; but they kept a sophisticated terminological and conceptual tradition (more or less) alive which permitted formulation of the problem.

[80] In his investigation of the origin, social status and activity of 600 members of the "intellectual elite" of Renaissance Italy, Peter Burke (1972: 39, cf. 41 and 66f) finds that the "known fathers of [320] painters / sculptors / architects include 96 artisans / shopkeepers, compared to 40 nobles / merchants / professionals. The fathers

To dissect a broad cultural movement into constituent parts is always somewhat misleading, both because no list can be exhaustive, and because the cuts of the dissecting knife create the illusion that the resulting sharp boundaries are inherent in the movement itself. None the less, such a dissection may be a necessary first step.

Beyond Humanism, the following constituent parts or aspects of the Renaissance movement the following may be particularly important:

Firstly, the writing of poetry and other literature in the vernacular. Early writers in Italian are Dante (1265–1321), Petrarch and Boccaccio. All of them also wrote in Latin. Petrarch and Boccaccio are counted among the founding fathers of learned Latin Humanism; Dante, who is too early in date (by one generation) to belong to the Humanist movement itself, was held in high honours by the Humanists, some of whom (for example Ficino, whom we shall meet repeatedly below) also took care to translate his Latin works into Italian. It is hence obvious that the Humanist movement, in spite of its veneration of Latin literature and ancient culture, was not isolated from that creation of a vernacular literate culture which is one of the best known aspects of the Renaissance movement. Since much of the courtly service of Humanists had to be performed in the vernacular, this alliance is hardly astonishing.

Secondly, another aspect which immediately comes to the mind when the Renaissance is spoken of: the renewal of the visual arts (painting and sculpture). These arts, whose practitioners had been regarded rather lowly in antiquity, now associated themselves with architecture, becoming thereby legitimate in the eyes of many Humanists[81]. Obviously, this distortion

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of [231] writers / scientists / humanists include 95 nobles / merchants / professionals, compared to 7 artisans / shopkeepers". As pointed out by Burke, this information is hardly representative, since a lowly origin is more likely to have been hidden by the son – but then, according to the statistics, more likely to be hidden by a Humanist than by an artist, which confirms the conclusion that Humanists were more closely connected to the upper social strata than artists. The fact that artists were trained as apprentices (who were boarded in return for their work) and Humanists in school and university (which were not free, and where no money was earned) also tended to close the latter path for talents with insufficient economic background.

[81] True, the statistics quoted in note 80 show that the upper classes would still give higher value to a literate career, and many members of the social elites would repeat

of ancient value judgments by people who were convinced to adhere to the standards of antiquity must have had specific reasons: the importance of these arts in the life of court and town, and as further expressions of lay-human self-consciousness.

The latter statement calls for a commentary: the vast majority of paintings still dealt with themes from the Bible or the lives of the Saints (maybe 95% in the 1420s, and 80% in the 1530s); in this respect there is nothing particularly lay about the visual arts. But the use to which paintings were put, the way the themes were dealt with, and the claims on background etc. formulated by those who ordered the paintings show that neither painters nor all customers were moved exclusively by pious feelings[82].

Already from Petrarch onwards, the *biography* and the *autobiography* came into favour – not least the biography of the artist or other creative intellectual. The position of creative intellectuals, indeed, is much more prominent than in the ancient biographical collections – what Plutarch tells about Archimedes occurs as a digression in his biography of the Roman general Marcellus, one of whose soldiers killed the genius. This demonstrates, firstly, a new interest taken in the individual personality: biography of generals and statesmen may be made from interest in military and political history, but the biography of creative personalities in general (soldiers, soldier-intellectuals and artists on a par) must have their personality[83] as their focus; secondly, that the artist and the humanist were

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the ancient view that artists *qua* manual workers were to be looked down upon. But this argument, far-fetched as it may seem to us (as Peter Burke (1972: 70) ironically observes, fighting with a sword was as much manual labour as cutting marble), was often set forth in a way which suggest that it was less obvious than it had been in Aristotle's time, and never went undisputed.

[82] Some customers certainly were predominantly moved by piety or by the ambition to demonstrate piety. The Renaissance movement was, precisely, *a movement*, and neither a culture shared equally by all members of society nor, on the other hand, the product and mind-set of a precisely definable social group. For many customers, paying a painter (at best, if you could afford it, a famous one) for a holy picture will simply have been the recognized and obvious way to express religious devotion, given the general context of Renaissance culture.

[83] Their personality, as manifested in their creations and their public activity, but not their inner psychical life. Considerations like those made by John Donne in

regarded as personalities *par excellence:* at first by themselves, since they wrote the biographies and autobiographies; but since they had a public, also by this larger public. The writing of biographies of elite intellectuals is thus quite as much an expression of worship of the *universal genius* in the style of Leonardo da Vinci and Michelangelo as a mere consequence of veneration for or love of art and writing.

The interest in biographies and autobiographies is not likely to amaze a modern audience, which is often at least as curious about the life of the artist as about his works. But the Renaissance interest is a strong contrast to what we encounter in Medieval intellectual culture, where even important personalities are often poorly known. Much of our information about the life of Thomas Aquinas has only come down to us thanks to the process conducted prior to his beatification. Jordanus of Nemore, the major thirteenth-century mathematicians mentioned above (note 65), is known exclusively from his works: no single trace of his personal life has survived, we are ignorant of his birth, of his death, and of his nationality, and only the distribution of manuscripts allows us to conclude that he taught in Paris.

Another expression of the same kind of individualism is the importance of the *private letter* as a means of expression, reminiscent of Old Babylonian and ancient Roman literate habits. Still another is the entry of religious devotion into the private sphere: a large part of the market for smaller paintings and for mass-products like wood-cuts was constituted by private

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a sermon in 1626, that

> I throw myself down in my chamber, and I call in and invite God and his angels thither, and when they are there I neglect God and his angels for the noise of a fly, for the rattling of a coach, for the whining of a door. I talk on, in the same posture of praying, eyes lifted up, knees bowed down, as though I prayed to God; and if God or his angels should ask me when I thought last of God in that prayer, I cannot tell. [...] A memory of yesterday's pleasure, a fear of tomorrow's dangers, a straw under my knee, a noise in mine ear, a light in mine eye, an anything, a nothing, a fancy, a chimera in my brain, troubles me in my prayer.
>
> (ed. Craik & Craik 1986: 178)

are not too far from what Augustine wrote in the first pages of his *Confessions* 1200 years earlier – but they are unthinkable in anything written between Petrarch and Machiavelli.

people who wanted to have Virgin Mary (or some saint) at home (perhaps in every room) as a focus for worship rather than as a piece of decoration.

It may seem strange that neo-Platonism became a dominating philosophy, given its hierarchical top-down structure, which holds the "Great Chain of Being" to channel Divine influence and power through all orders of existence. The explanation may have to do with the importance of courtly culture (the late fifteenth century Medici Court in Florence was a centre for neo-Platonism, and courts have a natural bent for seeing the world in a top-down perspective), but other factors like the alliance of neo-Platonism with the occult current (see below, p. 95) since late antiquity will certainly also have played a role. This is clearly demonstrated by a curious reinterpretation of the doctrine formulated for example by Marsilio Ficino (1433–1499), the most important neo-Platonist of the Renaissance and working precisely at the Medici Court. According to Ficino, *Man* is no longer a subordinate unit in the Chain: he is the *central, active mediator*, binding together the upper and the lower orders, and acting upwards as well as downwards – in reality he is no less important than Divinity itself. Notwithstanding that emphasis is shifted from single personalities to that universal – *MAN* – which the Utopians were unable to see, Ficino's interpretation establishes harmony between neo-Platonism, humanism (*not* capitalized) and Humanism, giving thus Protagoras a kind of revenge over Plato. Although the observation builds on a pun and not on genuinely shared meanings we may observe that the particular regard for *the universal genius* can be understood as regard for the most obvious representation of *the universal, MAN*.

Even though most of the participants in the Renaissance movement were sincere and many of them even deeply religious Christians, the total movement can thus be seen legitimately as a *lay movement*. That is: firstly, it was not subordinated to the Church in its function as a religious body; secondly, it tended to see existence and even religious themes in the light of practical, civic life.

In this connection it should once more be remembered that the Papacy often functioned more as a lay court than as a religious centre; intellectuals who worked for the Pope or for other high ecclesiastical officers were thus integrated in a courtly rather than in the ecclesiastico-religious sphere. Even

though in one sense the Renaissance and the Reformation are phenomena growing from the same soil, the Reformation (in particular the Lutheran variant) was also a reaction to the all too visible transformation of the Papacy into a lay princely court. It will be remembered that the spark which set fire to the Reformation conflagration was the commercialization of indulgences which was meant to finance ostentatious building activities in Rome.

Individualism, laicality, human self-consciousness and "realist" art are aspects of the Renaissance which have often given the impression that the Renaissance is the first phase of the Enlightenment, following upon the obscurity of the Middle Ages. During the last twenty to thirty years, however, other aspects of the Renaissance have come to the fore (indeed a natural consequence of the better understanding of the High Middle Ages as anything but intellectually dark): anti-rationalism, mysticism, and alchemical, astrological and other "occult" undertakings, i.e., undertakings which were to be kept "hidden" (*occultus*) to the unworthy eyes and ignorant mind of the uninitiated multitude. These aspects did not represent any opposition to those which were discussed until this point, and which constitute the traditional picture of the period. Instead, this "darker vision of the Renaissance", as it has been called, demonstrates that the received "light" interpretation is superficial. Ficino, to name but one instance, the eminent Humanist who translated Dante, and the neo-Platonic philosopher who made *man* the key figure of the Great Chain of Being, was a firm believer in astrology and magic and translated the writings of Hermes Trismegistus (cf. note 76), which were taken to contain the summit of occult teachings – to such a point indeed that Renaissance occultism is often spoken of as "Hermeticism"[84]. Ficino, and many others with him, demonstrate that the Renaissance is not the indisputable victory of Reason

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[84] It seems likely that Hermes' success as the exclusive embodiment of occultism is due to the need of those (Humanists and would-be-Humanists) who wanted to furnish their occultist sympathies with ancient legitimization. Without the appeal to Hermes and a few pseudo-Aristotelian treatises, occultism would have been a too unmistakably philo-Arabic affair, and thus to be denounced by true Humanists.

If this interpretation is valid, Hermes fulfills a function for Renaissance occultism which is strictly parallel to Archimedes' function with respect to Renaissance mathematics – cf. below, p. 104.

over either Faith or obscurantism; it was just as much a way to dissociate oneself from a late Scholastic rationality which had proven false or at best irrelevant, and thus a necessary step toward the establishment of a *better rationality* – "better" not in the abstract nor in any absolute sense but in relation to the actual historical situation and actors[85].

Humanist scholarship, pedantry, and the humanities

Shared etymology notwithstanding, the Humanist movement should not be confounded with "scholarly practicing of the humanities". This much should be clear from the above. It should also be clear, however, that the two are connected. It can even be argued that the origin of the modern humanities as a separate yet internally coherent enterprise can be traced back to the Renaissance Humanists.

At the outset, the connection between Humanism and the humanities concerns literary studies – more precisely, it goes by itself, *classical* literary studies. Even though prominent Humanist teachers held the aim of their teaching to be the production of better leading citizens, the path believed to lead to this aim – that the pupils should "learn to speak and write Ciceronian Latin as if they had been native speakers" in order to follow both the meaning and the connotations of the ancient texts – passed through immense thickets of mostly very pedantic studies of the details of the ancient literary heritage and of the contexts to which its terms referred. One mid-fifteenth century example of "pedantry raised to the second power", namely a commentary not to an ancient text but to a single

[85] The importance of this distinction between "absolute" and "local" rationality is highlighted by the attitudes to witch-hunting. Jean Bodin (1530–1596), a trained Humanist and lawyer and one of the grandfathers of modern political sociology and a father of comparative and historical legal studies (thus certainly as modern a mind as could be found), suggested that those who refused to believe in sorcery should be burnt along with those who practiced it. In contrast a Spanish inquisitor, trained in the scholastic tradition of Canon Law, managed to analyze a giant witchcraft epidemic in Basque country as a psychological mass panic, putting thereby an end to witch burning in Spain in 1613. In general, the secular judges of sixteenth and seventeenth-century France, generally taught in the Humanist tradition, were much more severe than contemporary Italian inquisitors, who were priests and certainly closer to the tradition of Medieval rationality (G. Parker 1980: 23; Henningsen 1980; E. W. Monter 1980).

line from another commentary – an explanatory text which had been written by the pioneer of Humanist teaching Guarino Guarini (1374–1460), and which tells in this line that the Crab is both an animal living in the water and a celestial constellation –

> goes on for more than a page. [Ludovico da Puppio] lifts a complete list of the signs of the Zodiac from Servius, with the months they were held to rule and the spheres of the planets that were assigned to their control. Only then does he pass on to Guarino's original level of simple lexical distinctions, and even so he finds it necessary to amplify and to explicate Guarino's already very simple latin [...].
>
> (Grafton & Jardine 1986: 13f)

One may wonder why anybody would pay for this kind of education. Grafton and Jardine point to three reasons. Firstly, humanist education "was modish; it was in vogue with the elite". Secondly (and not wholly unconnected to this fashion), the skill "to speak *extempore* on any subject in classical Latin, the ability to compose formal letters to order in the classical idiom, the ability to teach exactly as [one] had been taught, were all valuable assets" in fifteenth century Italy, whether he was to "serve as an ambassador, or secretary to a government department, or could become an advocate, a priest, or a professor of the *studia humanitatis* in his turn". Thirdly, this kind of schooling

> fostered the sort of personality traits that any Renaissance ruler found attractive: above all, obedience and docility. Much of the time in [...] classroom was spent [...] passively absorbing information, accumulating and classifying predigested and processed material. Active participation, like the formal disputation .. which had figured prominently in medieval training, played a comparatively small part in the programme; hence the insignificant place of dialectic or 'active thinking' in the course. The consequences of this were much as they had been in late antiquity, or as they would be in the seventeenth and eighteenth centuries: students became accustomed to taking their orders and direction from an authority whose guiding principles were never revealed, much less questioned[86]. [...] Fluent and docile young noblemen were a commodity of

[86] We may also remember the above analysis of the "double-bind" effect of Old Babylonian scribal schooling (cf. above, p. 19). Those who had gone through the Humanist school would certainly be no less sure of themselves as a special and higher class of people than the scribes had been.

Physical punishment, that other way to inculcate docility, also appears to have

> which the oligarchs and tyrants of late fifteenth-century Italy could not fail to approve.
>
> (Grafton & Jardine 1986: 24)

Pedantry is not to be mistaken for scholarship – in so far as its essence is to be repetitive and opposed to original thinking it comes close to being the opposite. Yet pedants, if they do not find the material at hand which they need, may be forced into making original work themselves. They may constitute a public willing to appropriate and pay what is produced by other, more original minds. And some of those who pass through their hands may learn with sufficient facility to be able to go on with their own creative work on the stable foundations which pedantry at its best can provide.

All of this happened within and to the Humanist movement. Machiavelli's letter to Vettori leaves no doubt that his familiarity with ancient letters had left pedantry far behind, and permitted him to draw on them both for personal consolation and as primary material for his formulation of political theory. Lorenzo Valla, whose denunciation of the Constantine Donation was mentioned above (note 76), and who went so far as to criticize the most respected ancient grammarian when he found his understanding faulty, also developed a whole programme (in part transmitted in teaching and public lectures, in part in writing) which approached and emulated ancient elite culture as a culturally informative whole and not its details alone, which reinstated dialectic (though Platonic rather than scholastic) in Humanist education as a precondition for creative understanding, and which thus really participates in the *renascence* movement.

Willingly or not, by upholding Humanist teaching as a modish trend, even the pedants also contributed to create a need for new texts and (after the invention of printing) a market for text editions with scholarly commentaries. Of particular importance was the import, spread and

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been as common in the Renaissance as in the Babylonian school. According to the repeated warnings of Erasmus (1466–1536) against transforming the school into a torture chamber, it was often administered without prior offense, and with the sole but explicit purpose of teaching students humility (see for instance C. R. Thomson et al (eds) 1978: III, 40; IV, 326–331).

printing of Greek texts. These had been presupposed as obvious background knowledge by the classical Latin authors, and any reading of the latter which did not share this background was therefore bound to be inferior. On the other hand, getting to the point where one understood the Greek texts adequately was a challenge calling for more systematic and analytical thinking than the mere continuation (be it expanded) of the Latin tradition in the liberal arts of Grammar and Rhetoric. This held on the level of textual and grammatical understanding, but also – since many of the Latin texts which were known had once been written as popularizations or simplified versions for the use of less well-read fellow citizens – on the level of substance. Getting behind the Latin texts thus contributed to making the Renaissance reconquer that metropolis of ancient thinking of which Latin culture was never more than a periphery. This had been done already in the twelfth century, it is true. At that moment, however, only utterly few translators had come in touch with the Greek texts (and not many more with the Arabic translations), and the use of the translations had largely been absorbed in the scholastic synthesis. This may be the main reason that the disciplines which built on Greek texts were dismissed by the early Humanists; another reason, which may rather have been a pretext, was the non-Ciceronian language into which the sacred texts had been translated[87]. In any case, Petrarch and his contemporaries had done their best to reduce legitimate learning to what could be learned through the

[87] That the language may first of all have been a pretext is suggested by the fate of the translation of Archimedes from the Greek made by the neo-Platonist Dominican Moerbeke in 1269. It was printed by Tartaglia in 1543, who seems not to have believed it impossible to make the translation pass for his own work. The printing history of Euclid's *Elements* tells a similar tale: the version which was first printed (in 1482) had been made by Campanus of Novara around 1260. A Latin translation directly from the Greek was published in 1505 by Bartolomeo Zamberti, but for decades all new editions would either follow Campanus or give the two versions in parallel – Campanus' being apparently understood as mathematically better and probably more easy as far as language is concerned (personally I subscribe to both judgments), while Zamberti's text, seemingly sounder in principle, may have been felt to be unnecessarily tortuous (that it was made from an inferior manuscript is a later discovery).

The moral in both cases seems to be that once the subject was regarded as interesting, objections to the language became secondary.

ancient Latin authors[88].

Another source for a new understanding of language was the production of literature in the vernacular, if not by the pedant members of the Humanist current then all the more by its creative participants. From proper experience they discovered the difference between a language which had been expanded and polished through extensive literary and scholarly use, and a language which had not gone through this process. Latin was clearly felt to be better suited for literary purposes, as expressed by Dante and accepted by most fourteenth and fifteenth century Humanists, since

> speech which is ordained to make manifest the thoughts of men is good when it does this, and that kind of speech which does this most successfully is best. Wherefore, inasmuch as Latin makes manifest many things conceived in the mind which the vulgar tongue cannot (as those know who have command of both kinds of speech), the goodness of the former language is greater than that of the latter.
>
> (*Convivio*, 1,5,80, trans. W. W. Jackson, quoted from S. S. Gravelle 1988: 368)

—had it not been, as Dante goes on, that writing certain works in Latin instead of the vernacular would be as useless as gold and pearls buried in the ground.

However, the Humanists did not stop at such value judgments. Some of them continued to write some of their works in Italian, the choice of language depending on genre and intended use or public. Since others did not agree, or would have chosen differently in specific cases, the debate about the relative merits of the two languages continued, and the self-defence of those who wrote in the vernacular forced them to make up their minds about *the reasons* for the difference, and led to understanding of the process by which vernaculars are transformed by being tools for literate discourse. In this way, certain writers came to approach semantics through the mutual dependence of linguistic form and content. Alberti (1404–1472), a prolific author in both languages and particularly known for his *Ten Books on Architecture* and as the co-author (with Brunelleschi the architect and painter) of perspective theory, engaged deliberately in the process of

[88] Certainly not because they did not want to read the Greek authors – they merely did not possess the texts, or – as Petrarch found out when he finally managed to get hold of a Greek Plato – they could not read them.

adapting the Italian tongue to its new uses. Lorenzo Valla summed up the new insights in words which may not astonish *us* but are anything but trivial when compared to his fourteenth-century precursors or to ancient theories:

> Indeed, even if utterances are produced naturally, their meanings come from the institutions of men. Still, even these utterances men contrive by will as they impose names on perceived things. [...] Unless perhaps we prefer to give credit for this to God who divided the languages of men at the Tower of Babel. However, Adam too adapted words to things, and afterwards everywhere men devised other words. Wherefore noun, verb, and the other parts of speech per se are so many sounds but have multiple meanings through the institutions of men.
>
> (trans. S. S. Gravelle 1988: 376)

Language was not the only field where the Humanists tried to connect insight in the historical process with the attempt to influence the future. *History itself* was another. As in the case of language, the perspective was restricted to antiquity plus the present time – the Medieval interlude was rarely looked at.

History was understood to be more than the mere writing of annals. Source criticism was not the strong point of Renaissance historiography, apart from the unmasking of forgeries. Nor was the understanding of *historical change*. Instead, the fundamental idea was similar to what came to be called *uniformitarianism* in nineteenth-century geology: the processes which went on in the past are of the same kind as those which take place in this very moment (cf. below, note 121). For many Humanists, from Petrarch onwards, this reduced history to a reserve of everlasting moral lessons. Others asserted that history was not simply

> past events or even the recollection thereof but rather [...] their accurate description according to an order which was topical and chronological. History was concerned above all with causes, dealing as it did with motives, acts and consequences. History's interest in vicarious experience [i.e., something which one can learn from] gave it a common ground with oratory, but it was distinct because of its method and its 'verisimilitude'.
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> D. R. Kelley, paraphrasing George of Trebizond,
> *in* C. B. Schmitt et al (eds) 1988: 749

It was this approach, combined with the uniformitarian presupposition that the reasons for and consequences of Moses' actions were no different

from those of a Roman emperor or a Renaissance prince or city state tyrant, which permitted Machiavelli to use his conversations with the ancients not as a mere reservoir of lessons but as primary material for a treatise on political strategies.

As the Humanist movement spread beyond Italy and produced so-called "northern" (in particular French, Dutch, German and English) Humanism, some of the beneficiaries would rather use its prestige for propaganda purposes or fit its insights into preconceived schemes: French early to mid-sixteenth-century lawyer Humanism (a strong movement) would prove that everything valid in this world (language, knowledge, art) was originally produced by the Gallic forefathers of the French; Lutheran theologians insisted on understanding history in terms of Augustine's four world monarchies; and so forth. But the spread of Humanism beyond its native ground, where the leftovers of antiquity had been found everywhere though in ruins and half buried in the soil, to countries where antiquity was only to be traced in libraries, also accelerated the further formation and shaping of humanist scholarly disciplines, at first along the lines which were already described above.

A "Scientific Renaissance"?

To the received picture of the Renaissance belongs, together with writing in the vernacular, "realist" art and worship of the universal genius, the idea of the "scientific Renaissance": the Renaissance was the era where Copernicus told the Sun to stand still in the centre and the Earth to move, when Galileo broke the spell of Aristotelian physics, when Harvey discovered the heart to be a pump, and when Descartes invented analytical geometry.

This is true, details apart. But it is no less true that if we are to locate it with regard to the "two cultures" of our own times, the fourteenth and fifteenth Renaissance movement was *mainly humanistic*, concerned with rhetoric, letter-writing, literature, history, visual arts and mathematics (including astronomy). *Natural science* beyond mathematics and astronomy was only represented by occult interest in "the secrets of Nature", and by a fervour for "natural magic" applying this occult knowledge. Technology was often regarded rather highly, in part because it was understood as

part of architecture (a highly respected component of ancient culture), in part because of its *public or civic utility* (or better, as a result of both explanations in combination).

Regarding the absence of non-occult "natural science" it is important to remember that at the time this could only mean *natural philosophy*, which would identify it with the Aristotelian philosophy of universities. Astronomy was bound up with astrology, and even though the two together continued the Medieval tradition, they were not tightly bound up with the Scholastic tradition but rather – when not a mere tool for prediction – an instance of interest in the secrets of nature (cf. the quotation from Regiomontanus the astronomer-humanist in note 59).

The understanding of mathematics as a humanistic subject has several explanations. Firstly, it had its root in antiquity, and in particular in the person of Archimedes. Archimedes was mentioned by many Latin authors as an eminent servant to his King and country; further (abstractly) as the most subtle among geometers and, indeed, the most ingenious of minds. There were thus good reasons that already Petrarch wrote several biographical notices about him, even though he knew nothing about his actual mathematical works. In this way, he and other Humanists paved the way for a legitimization of abstract mathematics as the activity of the supreme genius.

Next, from the 1430s onward, mathematics came to be applied in the theory of perspective, and thus to be connected to both architecture and painting.

Thirdly, mathematics was centrally concerned with harmony and proportion, and mathematical harmony and proportion had been taken already by classical authors as symbols for social harmony and for the just character of the unequal distribution of social power and wealth (cf. above, p. 28). Metaphorically seen, mathematics was thus a way to moral and political philosophy.

On all three accounts, mathematics was thus legitimized by close connections to central themes of early Renaissance culture (supplementary reasons could be mentioned, which are not so directly connected).

But precisely the same reasons made mathematics a Humanist

subject[89]. The interest of certain Humanist scholars in mathematics should therefore not be mistaken for scientific interest in Nature, and it is actually only from around 1500 that we can speak of the beginnings of a *scientific Renaissance* through a transformation of Humanist thought.

Several symptoms of this transformation can be traced. In the late fifteenth and early sixteenth century, Leonardo da Vinci (1452–1519) filled his notebooks with anatomical, botanical and other studies and with sketched inventions and mechanical inquiries. Some of these served the naturalist precision of his paintings or were connected to his activity as an architect and a military engineer; but many point further, to theoretical scrutiny of the mechanism of vision and to theoretical investigation of mechanical principles. In the same decades, printed editions of ancient works on natural history and botany first facilitated "material textual criticism" – comparison of the text and illustrations as handed down and possibly distorted through a complex manuscript tradition with real plants and animals; but soon they also kindled interest in local fauna and flora, with the result that the insufficiency of the ancient books was discovered (in part they were simply erroneous or distorted beyond repair, in part they described Mediterranean species which differed from those found in Switzerland and Germany).

Botany, in the form of herbals, had a traditional function in medicine. In the early sixteenth century, however, a new medical doctrine based on alchemy and not on herbs was introduced by Paracelsus (1493–1541). Its roots are not in Humanism, but rather in the philo-Arabic, non-Hermeticist occult tradition (cf. note 84). None the less, "iatro-chemistry" (medical chemistry) was a great success in early sixteenth-century Humanism; it became a matter of teaching for physicians (which means that it was no longer *occult*), and led to appreciable progress in chemical knowledge – less, perhaps, in actual cures for the sick, apart from the treatment of syphilis by mercury.

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[89] We may find this classification unfamiliar—but ours is not necessarily better founded. There is, indeed, no particular reason to count mathematics as one of the sciences that investigat the physical world, apart from the historical accident that *advanced* mathematics was first used *as a tool* in the natural sciences, and only later and with less predictive success in economics and certain other social and human sciences.

The appearance of so many roughly contemporary symptoms pointing in the same direction suggests that they are precisely *symptoms*, and that the real cause of the transformation is to be found at deeper levels; one may suggest that a world which was transformed technologically and socially at an accelerating pace could not longer be served by a merely literary intellectual culture. New elites (and groups with elite ambitions) might pay the necessary lip-service to Humanist culture in order to gain recognition for their professions, and Humanists might become aware that "civic utility" had come to encompass more than just literary service to the Prince supported by architecture and military techniques.

This is just what the Humanist Georgius Agricola (1494–1555) argues in Book I of his *De re metallica*, which he had begun writing in 1530. This is one of several famous works which, while demonstrating the Humanist-legitimate character of technology in general, integrated the description of actual procedures with as much scientific insight as could be produced.

Such works were not known from antiquity (apart from Vitruvius' work on architecture). Along with this *new* genre, the 1540s produced a sequence of major works which better fitted the traditional genres but surpass the best works from antiquity – usually, Copernicus *De revolutionibus orbium coelestium*, Vesalius' anatomy, and Cardano's algebra are considered to mark the watershed.

All three works were printed (the first and third by the same printer in Nürnberg, in 1543 and 1545 respectively). Thereby they gained influence rapidly outside universities (though their public was certainly dominated by university graduates). As they were soon followed by other works, confidence arose that better knowledge of Nature than that transmitted from antiquity could be established – and, moreover, that the *belles lettres* and the classical tradition did not constitute the apex of possible knowledge. The formation of this conviction, and not the mere production and printing of major books, constitutes the real establishment of the "scientific Renaissance".

It may be difficult to trace the emergence and stabilization of a conviction, but a *terminus ante quem* can be pointed out. At the beginning of the seventeenth century, a number of ideologues for the new science drew the consequences of the discoveries, establishing that *new* rationality for which the Renaissance had paved the way: Bacon (1561–1626), Galileo

(1564–1642), Descartes (1596–1650). All three – though each in his own way – were strongly critical of both traditional natural philosophy and of Renaissance Humanism; all three – each, again, arguing and putting the accent in his own way – emphasized the necessity of making new observations and experiments; and whereas Bacon was an exception on this account, the others accentuated the need to have observation and experiment guided by *new* theories, which as far as possible should be structured mathematically.

Since the "scientific Renaissance" starts so late, it is customary to count Bacon etc. as Renaissance figures. In those fields which count Petrarch and Giotto as its fathers, nobody would include the seventeenth century in the Renaissance. This may therefore be a convenient point to investigate the attitude to the purpose of different kinds of knowledge as it had developed over the Renaissance.

Natural science (Galileo's language) or natural philosophy (Bacon's) were still *theoretical* in outlook, and *practical* or *emancipatory* in their destruction of "idols" (Bacon's term for general classes of fallacy and mistake), as they had been in the pre-Socratic era. But the *technical perspective* was already rising above the horizon, with Bacon as its main prophet and Galileo as a practitioner.

Humanism, on the other hand, which had started out as *technical knowledge* (letter-writing, rhetoric), tended to loose this character. The *belles lettres* were no longer a necessary model for effective political action; they became something *beautiful*, entertaining, edifying, educating, or a subject for investigation. Literature *as art* and *humanities as scholarship* tended to diverge, after having belonged together during the Renaissance. The *humanities as scholarship* were further accentuated by the rise of textual criticism and by new, more critical trends in the writing of history.

7. THE EARLY MODERN EPOCH AND CLASSICISM

A shifting centre of gravity

Only one of the three main prophets of the new science (viz Galileo) was an Italian, whereas one was French and one English. This is symptomatic of a general displacement of the European economical, political and intellectual centre of gravity and of a new balance of power in these and other domains.

Part of the background is the discovery of America and the development of new trade-routes and of the whole American market as well as the market for American products. At first, it is true, the American boom benefitted to Spain[90]. Spain, however, was unable to use the opportunity to adapt its own socio-economic structure. The successful completion of the Spanish *Reconquista* (the conquest of the Islamic territories begun in the eleventh century and brought to an end in 1492) and the sudden wealth was the fundament for an impressing cultural efflorescence (*El siglo de oro*, c. 1550 to c. 1650, represented in literature by names like Cervantes, Lope de Vega, Góngora and Calderón). But its high points lay in *art* (literature as well as painting) rather than in renewals of scholarship or world view, for which reason I shall not describe it further. Even its fruitful tendency not to observe the "classical" norms as established in the Renaissance was rather a matter of practice than of theoretically argued principle – a description which also holds for the broader current of baroque art and literature, one of the reasons that recent scholars rarely agree on the delimitation of this current and similarly a reason not to analyze it more closely in the present context.

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[90] Portugal gained similar though smaller advantages through systematic piracy in the Indian Ocean (dressed up in later historiography as "trade on India").

Instead of falling to Spain, the long-term benefits of the Atlantic trade were eventually reaped by England, the French Atlantic cities, and the Dutch provinces which freed themselves from Spain in the seventeenth century (the German area was ravaged in the Thirty Years' War 1618–1648, and lost most of its vigour and probably the larger part of its population). This is one of the reasons that the economic centre of Europe moved to the north west. Another reason – which is also the basic reason that the north-western countries could appropriate the gains from the Atlantic trade – is the transformation of the socio-political structure of the countries themselves: in England and France, centuries of intermittent internal and mutual warfare had weakened the feudal nobility, and in (uneasy and sometimes unstable) alliance with the mercantile bourgeoisie, the royal power constructed a more centralized state. In the late sixteenth to early seventeenth century, both countries developed toward absolutism. An even more outspoken alliance between the semi-monarchic Republic and the upper bourgeoisie resulted from the Dutch emancipation.

Economically, an equilibrium between a predominantly feudal mode of production and a global structure geared to mercantile capitalism emerged. Within the framework of historical materialism (but not respecting the categories of the simplifying text-book version) one might say that the feudal mode of production lost its hegemonic role within the social formation, and was replaced in this role by commercial capitalist relations. Feudal relations became subordinate much in the same way as eighteenth and nineteenth plantation slavery was subordinated to the world market and to European capitalism. The balance of forces was of course different in France, England, the Netherlands, Basel, and the German more or less autonomous City Republics; moreover, it varied over time in each of these places, as the balance between the different centres was itself subject to temporal change.

In spite of this new hegemony, and even though the Atlantic trade "represented the future" (i.e., carried features which in later capitalist socio-economic structures were going to become even more conspicuous), the fundament for the European economy was still agriculture. Until the eighteenth century, it was therefore France (whose population was much larger than that of England, not to mention the Netherlands) that took the economic and political lead; for the same reason, the French Court (to

which much of the surplus took its way) and other institutions connected to the French royal power became the focus for cultural development. The characteristic innovations of the seventeenth century were thus coupled to the appearance of full-fledged absolutism and to French courtly culture.

Courtly culture and classicism

In many ways, Versailles (and everything it stands for) is a parallel to San Pietro (and everything it stands for). The courtly culture of France was thus a continuation of the courtly cultures of Renaissance Italy. But French society of the later seventeenth century as a whole was very much different from the society of Renaissance Italy, the former being centralized (one state, one cultural focus – certainly with exceptions, but none the less as a general rule) and the latter pluralist (many political centres and many cultural foci). As hot-beds for culture, art and world view, the two societies thus produced quite different crops.

This can be illustrated by the changing concept of *academies*. The term first turns up in the Italian Renaissance, borrowed of course from Plato's school but rather understood in the beginning in the likeness of Cicero's villa *Tusculum*, as a locus of cultured leisure. The "Academy" was the place where the Prince or patrician met with his Humanist-, artist- and philosopher-friends to be one of theirs for a while. When meeting in Academy, then, the "Friends" would take their seats not according to rank but in order of arrival.

In the sixteenth and seventeenth centuries, princes (in particular the Medici's in Florence) would found specialized academies: *Accademia del disegno* ("Academy of drawing"), *Accademia del cimento* ("Academy of Experiment"), as places of research and mutual inspiration. It was a member of the latter who told in 1664 that the Medici Prince Leopold when participating in the meetings

> likes to act as an Academician, and not as a Prince. He is content to play the second role only on occasions when there is a question of expense, generously supplying the needs of the Academy
>
> Lorenzo Magalotti, quoted from
> E. K. Middleton 1971: 56f

Similar groups of literary or scientific peers, only without a princely

protector, appeared in France around 1610–30. They were not allowed to stay private, however: instead, they were given the status of official institutions by Richelieu (the architect of French absolutism) and his successors, with financial support from the state but also with specified responsibilities and statutes: *L'Académie*, and *L'Académie des sciences*.

Among the tasks of the French Academy was (and is) to make a dictionary, i.e., to decide about what was correct language. This obsession by *rules* is characteristic of the whole French *classicism*. The beginning of genuine *humanistic scholarship* made during the late Renaissance is absorbed into prescriptive poetics and aesthetics. The favourite form of analysis of a literary or other artistic product is an *aesthetic judgment* which follows the pattern that "this poem / painting / building *is good because it observes rules A, B and C*, but it *is not supreme because it fails to agree with rule D*".[91]

There are thus fair reasons to regard cultural domain as the sphere where absolutism was best realized (if at the cost of regarding popular genres as not worthy of notice even if still going strong). It is true that Louis XIV claimed to *be* the state and thus to decide independently of all custom and precedent; none the less, the actual working of the political and administrative apparatus was a patchwork of new rules superimposed upon but not fully suppressing old customs and privileges, and themselves developing into insuppressible privileges. *Only in art* could Rabelais and Ronsard be declared to be simply *bad taste*, as done for instance by Boileau in 1674 in *L'Art poétique* (Chant II, ed. Sainte-Beuve 1868: 202) when he first sets out the rules for idyllic poetry[92] and afterwards condemns first the poet who does not follow them (the passage is omitted here), and next the one who follows them with insufficient elegance:

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[91] The tension between description and prescription is visible even today in many of our institutions. An institution like *Dansk sprognævn* still makes a dictionary defining correct spelling of the language ("Retskrivningsordbogen"). According to the members of the commission, it is true, it mainly does so by observing the actual development of spelling in newspapers and literature; but much of the debate about the institution (not least around the latest version of its dictionary) shows that the institution is expected by the public to be a judge acting on behalf of some Platonic ideal language.

[92] Even though certain ideals – thus simplicity and elegance of language – hold widely, different genres indeed obeyed each their own rules.

Telle qu'une bergère, au plus beau jour de fête
De superbes rubis ne charge point sa tête,
Et, sans mêler à l'or l'éclat des diamants,
Cueille en un champ voisin ses plus beaux ornements:
Telle, aimable en son air, mais humble en son style,
Doit éclater sans pompe une élégante idylle
Son tour simple et naïf n'a rien de fastueux,
Et n'aime point l'orgueil d'un vers présomptueux.
Il faut que sa douceur flatte, chatouille, éveille
Et jamais de grands mots n'épouvante l'oreille.
[...]
Au contraire [Ronsard], abject en son langage,
Fait parler ses bergers comme on parle au village.
Ses vers plats et grossiers, dépouillés d'agrément,
Toujours baisent la terre, et rampent tristement:
On dirait que Ronsard, sur ses pipeaux rustiques,
Vient encor frédonner ses idylles gothiques,
Et changer, sans respect de l'oreille et du son,
Lycidas en Pierrot, et Philis en Toinon.[93]

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[93] In my translation, and despoiled of versification

As a shepherdess, on the most beautiful festive day,
does not weigh down her head with arrogant rubies,
and, instead of mixing the gold with the shining of diamonds,
picks the most beautiful adornments in a neighbouring field:
Thus, lovely in look but humble in style,
should shine without ostentation an elegant idyll.
Its simple and naive goings have nothing ornate,
and do not love the haughtiness of pretentious verse.
Its sweetness should please, tickle, awaken,
and never scare the ear with excessive words.
[...]
To the contrary, [Ronsard], using gross language,
makes his shepherds speak as they speak in the villages.
His base and vulgar verse, deprived of attraction,
always kiss the earth, and crawl lamentably:
one would say that Ronsard even hums
his barbarian idylls to his boorish shawm,
changing, with no respect for the ear and the timbre,
Lycidas into Pierrot, and Philis into Toinon.

Boileau and his generation were certainly not the last to be more interested in developing schoolmastering literary criticism than poetics or (with a modern

Seen from our point of view, it seems at least bizarre that an idyll can only be elegant and thereby acceptable if its characters carry Greek names. Being brought up in the late aftermath of Romanticism we also tend spontaneously to find it more than bizarre that accordance with pre-established rules should be the main gauge of artistic quality (this is why readers will probably have accepted without objections the above remark about the "fruitful tendency" of Spanish *siglo-de-oro* art not to respect the classical norms). As a matter of fact, however, rules did not prevent a number of artists from making magnificent work – among those who were close to Boileau we may mention Molière and Racine. An important part of the explanation is that rules were not really pre-established but to a large extent abstracted from the actual art of the period[94] – larger indeed than realized at the time, which for a long time continued to believe that its rules expounded the real canon of ancient art.

In reality, and as always, not only the form but also the content of the art of the epoch expressed its own outlook and explored its own dilemmas. Racine's tragedies were concerned with individual psychology rather than with fate; more than once, Molière's comedies came close enough to urgent political and moral conflicts to bring him in acute trouble. Though the phenomenon of rules was an expression of Court dominance, the actual content of art (and thus even the rules derived from it) reflected the overall experience and societal situation of at least the literate classes, with all their tensions.

Different authors and artists would of course orient themselves differently within the field of tension, depending both on their personality and on their public. More than others, Molière makes us aware that artistic innovation is rooted in the burgeoning *bourgeois public domain* (see below, p. 123) while being controlled by the state.

Independently of the questions whether the preoccupation with rules

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term) literary theory or insight. In his very introductory note to *L'Art poétique*, Charles-Augustin Sainte-Beuve, the recognized leading authority in French literary criticism of his days, explains that "this poem is admirable because [...]".

[94] Another factor is, evidently, that the post-Romantic folklore identification of artistic creativity with contempt for all rules is no less superficial than the infatuation with rules.

and taste kills or fosters artistic creativity, it had one important consequence for the understanding of the role of art and culture: measured by explicit standards derived *de facto* from the artistic products of the later seventeenth century, ancient works could not avoid to fail. It was, put sharply, impossible for Sophocles to be a better Racine than Racine. After a half-century of skirmishes, the "battle between the ancients and the Moderns" broke out definitively around 1690: Homer was full of implausibilities and outright errors, Terence and Seneca were crude compared to Molière and Racine, Montaigne's essays were in better style than Pliny's letters. After 50 years where literary culture and scholarship had separated itself from the trend inaugurated in the natural sciences by Bacon, Galileo and Descartes, it joined the ranks. It did so, indeed, not only because of the rules for literary taste but also because "the century of Louis XIV" was superior to antiquity on *all* accounts. Charles Perrault, who launched the onslaught in a poem entitled precisely *Le siècle de Louis XIV* and read before the Academy in 1687, gave detailed descriptions of the microscope and the telescope as part of the argument.

The outgoing seventeenth century is thus the time which finally broke the spell of antiquity in literate culture, by creating another *via moderna* better fit for the actual world than that of the fourteenth century. The counterattack that whatever reproaches were made against Homer could be made with equal right against the Old Testament (formulated in a translation of the *Iliad* in 1711) proved more dangerous to established religion than to modern culture, and can be taken as an expression of Enlightenment *malgré lui*, and thus as a harbinger of the process described in the following chapter.

From scientific to philosophical revolution

Of more direct importance for this impending development were the repercussions of the "scientific revolution" *in philosophy*, i.e., the way philosophy understood the "scientific Renaissance" and drew its own general consequences concerning the acquisition and nature of knowledge and about human life.

As it was mentioned above (p. 106) the early seventeenth century had produced the ideology of a new science; this, however, could only be done

convincingly because the same epoch had produced astonishing new *results*, replacing the tradition of astronomy and natural philosophy which had developed undisturbed (when at all developing) since antiquity by *something quite new*—and recognized to be quite new. For the sake of brevity we may restrict ourselves to the following high points:

— Kepler's *New Astronomy* from 1609, which, firstly, had dismissed those perfect heavenly circles which still formed the fundament of Copernicus' heliocentrism, and had replaced them by ellipses; and which, secondly, had abolished the distinction between Heaven and Earth, arguing that the same physics was valid above and below the sphere of the moon (which, as it followed, was no longer a crystal sphere but a mere elliptic orbit in space).

— Galileo's derivation of the laws of free fall and ballistics (etc. – published 1638) by means of mathematics combined with experiment, which exterminated Aristotle's physics and relegated 300 years of critical but non-experimental discussion of its problems to the archives of the history of science and philosophy.

— Harvey's discovery of the circulation of the blood (1628), which had no less cataclysmic effects on the faithful repetition of Galen's classical doctrines with minor addenda and corrections.

— The inventions of the microscope and the telescope, which had opened worlds whose mere existence had never been imagined – from the sperm cell to the mountains of the Moon and the moons of Jupiter.

— And finally, as the culmination, Newton's *Philosophiae naturalis principia mathematica* (1687), which replaced Kepler's purely empirical laws (the elliptic orbits, the relation between period and distance from the Sun, etc.) and his qualitative physical speculations by four simple laws and precise mathematical calculation.

In the first place, the justifications which participants in the movement gave for their methods and the arguments they put forth in defense of their right to disregard the tradition developed into a new *philosophy of knowledge*. Bacon, Galileo and Descartes were already mentioned as ideologues of the new science, and this may be the place to tell a bit more about them.

Bacon was the one of them who was least important as a participant in the scientific movement itself (as stated in one biography, "his standing

as a scientist [...] is low"). Much of his fame in the later seventeenth century (which does not do full justice to his actual opinions) rests on his emphasis on experience and *induction:* concerning a specific quality like (for example) heat, many experiments should be made, and it should be observed when heat is present (for instance, in sunlight) and when it is absent under otherwise similar circumstances (for instance, from moonlight); only in this way would one be able to find the "simple natures" which determine phenomena. Like the "experiments" of Renaissance natural magic and alchemy, Bacon's were meant to be qualitative, and unencumbered by precise measurement and mathematics[95].

In this respect, Galileo's stance was quite different: in his opinion, the Book of Nature is widely open to our eyes, but it can only be read by the one who knows the language in which it is written: the language of mathematics. Like Bacon he would perform experiments (his notebooks reveal more of them than his published works), but his experiments would involve careful measurement, since they would be undertaken in order to test mathematically formulated hypotheses.

The starting point for Descartes' philosophy is a radical rationalism, according to which one should start from self-evident truths alone; but Descartes combined the rationalist principle with application of mathematics – his *Discours de la méthode* was indeed published in 1637 as a common introduction to his analytical geometry, a work on optics making ample use of geometry, and another containing an equally geometric analysis of the rainbow. Descartes also made a bold compromise with experimentation and empirical investigation at those points where metaphysics derived from self-evident principles was mute or ambiguous

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[95] As it has been said repeatedly, Bacon did not recognize important science when he encountered it. He rejected Copernicus' heliocentric astronomy as uninteresting, together with Napier's invention of the logarithms, whose eminent importance, for example for navigation, no real practitioner could have overlooked.

But his philosophy provided an underpinning for another facet of seventeenth-century science, which possesses less present-day prestige but which was quite important in its time and for the future creation of more prestigious breakthroughs: the fact-finding and fact-ordering activity in fields where no theory of value was as yet possible – as it went on for instance in the botanical gardens where the flora of all known parts of the world was cultivated and classified.

(most points, of course).

Evidently, these three philosopher-scientists did not advance as a closed phalanx – if reduced to one catchword each (induction / mathematization / self-evident truths), they present us with no overlap at all. It would be mistaken, however, merely to see them as complementary, as insisting on different aspects of the scientific process. The underlying themes of their writings are, indeed, rather similar: the rejection of tradition, the importance of precise observation and experiment, the use of critical and analytical reason, and (except for Bacon), the prominence of mathematics as a tool and a language. Still another theme which is also shared though formulated differently is a *mechanistic* view of Nature – a view of Nature as some kind of sophisticated clockwork or a piece of pneumatic machinery[96].

All these themes gained broad influence in seventeenth century philosophy. Most bizarre for modern eyes is probably the triumph of the *geometric method:* metaphysics as well as ethics and theology were set out in the style of Euclid's *Elements* and Archimedes' statics, with definitions, axioms, theorems and proofs. Descartes had done so (even though he presented *his geometry* in "non-geometric" essay style), and he was followed by Spinoza (1632–1677) and others. Pascal (1623–1662), who only employed the geometrical method strictly in his mathematical writings, none the less declared it in general to be the most perfect of humanly possible methods.

More durable was the success of *empiricism:* all knowledge comes from empirical observation of the phenomena of the real world – or, in a classical formulation due to Thomas Aquinas, "nothing is in the mind which was not first in the senses". The empiricist programme was formulated by John Locke (1632–1704), in continuation of Bacon and under inspiration from the achievements of Robert Boyle and "such masters as the great Huygenius

[96] Bacon was an atomist, seeing everything as composed of small material particles in motion; even the "spirit" providing the active forces of the system consisted of a subtle fluid somehow similar to air. Galileo suggests (to mention only one example) that the planetary system may in some way be driven by the rotation of the Sun. Descartes, in the *Discours de la méthode*, describes the function of the heart more or less like that of a steam engine, whose heat made the blood expand into the arteries (whereas Harvey had seen the heart as a pump); explains the movements of the planets as the movement of vortices in a liquid; and interprets light as small particles, whose speed of rotation determines their colour.

and the incomparable Mr. Newton" (*An Essay Concerning Human Understanding*, ed. Fraser 1959: 14). Strictly speaking, it is true, empiricism was also the basis of Aristotle's philosophy. According to Aristotle, however, experience was to lead to a finite set of pre-existent, immutable and exhaustive principles (cf. above, p. 41). Already for this reason, Locke's versions constituted a radical innovation (Bacon's "simple natures" were closer to Aristotle). Moreover, Aristotelians of later Ages (and especially those of the fossilized university) tended to pay only lip-service to the principle of experience, which made Bacon's and Locke's contributions to "experimental philosophy" even more innovative.

Not only methods and epistemology were borrowed from the new science and its spokesmen. Even the mechanistic view was taken over as a general principle, mostly in the radical atomistic variant (cf. above, n. 39). Atomism had been known to the Middle Ages and the Renaissance in part from Lucrece, in part through Aristotle. In the early seventeenth century it was broadly adopted because of its agreement with the mechanistic view. It was still suspect of being atheist, but Christian versions were produced both in France and England.

What makes atomism and related views important in our context is primarily the use that was made of it to explain human nature and human society. On one hand, mechanicism was applied directly: to Descartes, and to others after him, human beings as well as animals were machines who differed from other automata in complexity but not in principle – with the only difference between man and animal that there was a "ghost" in the human machine, i.e., that it was ruled by a soul. On the other, atomism served as a metaphor and a model: as seen by Hobbes, society was composed of social atoms (translated into Latinized English: *in-dividuals*) who, in the state of nature, were as indifferent to each other as atheist Epicurean atoms; only a strong ruler could force some order upon them and prevent them from cutting each other's throat. According to Locke, who accepted Descartes' mind-body-dualism, complex thought was built from simple ideas resulting from experience, in the way physical objects were composed of atoms (a piece of ice in the hand will produce the simple ideas of coldness and hardness, and the concept of ice will thus be composed from these ideas); mental association, moreover, was explained

as ideas that were "strongly joined"[97] .

Vaguely connected to the ideology of the scientific revolution, if mostly only through the willingness to reject received opinions and through the application of critical and analytical thought, were the varying doctrines of Natural law, as represented by Hobbes, Grotius (1583–1645), Pufendorf (1632–1694) and Locke. Admittedly, as in the case of empiricism, the concept of Natural law was not new but one of the basic tenets of the political theory of Thomas Aquinas (and other scholastics). But Thomas's Nature was Aristotelian, and Thomist Natural law tended to be both theological and Aristotelian, and had been conceived as an answer to the problems posed by the thirteenth-century balance between the Church, autonomous bodies, and feudal rulers. Seventeenth century Natural law was thus something new; through Hobbes it was essentially related to the mechanical world picture and independent of religious doctrines; the problems which it answered were those posed by the interaction between the new nation states and by the internal political structure of these; and the individualism on which it was based corresponded to the emerging social structure of capitalism, however much it borrowed ideas and terminology from mechanicism.

Scholarly and theoretical activity

Before we leave the seventeenth century, some brief remarks should be made about the development of traditional humanistic scholarship and of theoretical insights in the domain of the humanities during the seventeenth century.

Much of what went on continued the Humanist traditions of the later Renaissance – at times for better, at times for worse. The victory of the Moderns over the ancients was a French victory, it happened late in the century, and it was far from complete. Classical literature (including Hebrew studies, not least in Lutheran countries where only the Bible and

[97] Locke, it is true, only used this extension of the atomistic model to explain *faulty* thinking; but contemporary and subsequent thinkers would use attraction and repulsion between ideas to explain the functioning of the mind in general (for those of them who considered even the soul as a kind of subtle matter, the atomism of ideas was no mere analogue, as it had had to be to Locke).

not the Latin translation was assumed to be Gods original word) still dominated scholarly studies, and philological progress made its way rather automatically, due to the continuation of hard and systematic work within an unbroken tradition.

The institutional focus of this tradition could no longer be private Humanist schools – they had died long ago. Already during the Italian Renaissance, however, certain universities (not least new universities created by Princes) had employed illustrious Humanists as teachers. As the products and habits of Renaissance Humanism crept into the general mentality of the cultured classes, (often but not necessarily pedantic) Humanism established an alliance with post-Medieval dialectic and disputation, and thus found a dwelling. As the Jesuit Order, established as part of the "Counter-Reformation" (that mid-sixteenth movement within the Catholic Church which sought to redress the abuses which had provoked the Reformation rebellion, and to uproot all heretical movements and tendencies), established its own high-quality schools for the sons of the elite, even these schools came to harbour high-quality Humanist scholarship aimed at teaching[98]. The better Lutheran universities, being the best available institutions in their segment of Europe, fulfilled a similar function both socially and as far as scholarship was concerned: not least Wittenberg, where Luther's close associate Melanchton had taught, and where Tycho Brahe and Hamlet had studied – the latter according to Shakespeare. Everywhere, the soil from which the succession of Renaissance Humanism grew was watered with religious orthodoxy and service to those in power.

A different kind of continuity with Humanism was present in a particular approach to the study of language. As mentioned above (p. 102), a strong current in later sixteenth century French lawyer Humanism had done its best to prove that all valuable arts, including writing, had been taught by the ancient Gauls to the Greeks, the Egyptians, and the Chaldeans. A similar current had existed in the Netherlands, and in 1569

[98] The Jesuits also attempted to take over control of universities, emulating the Dominicans of the thirteenth century. They succeeded in many parts of Catholic Europe, but with less consequence than in the thirteenth century because of the diminished social role of universities.

one Goropius Becanus had published his proof that Dutch-Flemish had been the language of Paradise and the source of all other languages. The argument built on highly imaginative etymological constructions of a kind which suggests that precisely this kind of thinking represents a scholarly manifestation of the baroque style and mentality[99]. A number of seventeenth-century scholars took up the problem of etymological relation between languages, while rejecting many of Becanus' more fanciful ideas. At the same time they took over the idea that Persian, Greek, Latin, Celtic, Slavonic and Germanic languages had a common origin in Scythian – at times with the aim of using this to prove that precisely *their* language represented the common source most faithfully. In spite of this latter aim, ridiculed ever since, the insights which they provided made it difficult to hold that Latin and Greek possessed special letters of nobility, or that Hebrew was Adam's language, all other languages being created in the Babylonian confusion. Just as the victory of the Moderns over the ancients though less intentionally and with more modest effects, they contributed to prepare the Enlightenment and to undermine religious dogmatism[100].

The effort to connect the vernaculars and, on the part of some scholars, to prove their historical superiority[101], was a consequence of the general

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[99] This connection may be illustrated by an abbreviation of the initial steps of G. J. Metcalf's summary (1974: 243) of Becanus' 70 pages attempt to find the real meaning of the tribal name *saxon:* it must be connected to Latin *saga* (sooth-sayer); but this comes from Dutch *segunen* (to bless), a derivative from *sagun*. The latter is composed from *sac* and *gun*. *Sac*, on its part, means the opposite of the (apparently freely invented) *cas* (supposed to mean "diminish"), which has the same letters in opposite order; and so forth.

[100] This could still be done with reference to Biblical history. Leibniz (1646–1716), a direct continuation of the current under discussion and discoverer of the Finno-Ugric language family, was able to connect the Kelto-Scythian (now Indo-European) and the Aramaic (now Semitic) language with two of Noah's sons. However orthodox this may seem, it annihilates the Biblical explanation of the multitude of languages.

[101] Becanus' way to prove this was not the only possibility. French scholars, interested in the logic of grammar, would distinguish "between (1) an ancient type of language, with free word order and frequent inversions, and (2) a modern type in which the fixed arrangement of words gave a true picture of the natural sequence of thoughts or ideas" (Le Laboureur, writing in 1669 and summarized in Diderichsen 1974: 287).

higher status of these languages and thus, ultimately, a result of the gradual spread of general schooling to social strata who had no use for Latin (not to mention Greek and Hebrew) – it is no accident that the process had started around 1300 in Dante's Florence (cf. p. 101), where relatively many boys were taught elementary reading, writing and computation. The Reformation brought the wave to countries which it had not touched before, enforcing at the same time increasing literacy and that welding of vernaculars into literate languages which Italian Humanists had undertaken in the previous centuries. The Renaissance writers in the vernaculars had exerted themselves to increase the *copia* of the vernaculars, i.e., the abundance and differentiation of their vocabularies and stylistic possibilities. This had also been a deliberate policy of Ronsard and his circle in the sixteenth century. In the second half of the seventeenth century the process had gone so far in many countries and produced stylistic norms and appropriate terminologies for so many genres that it needed not be continued[102]. Boileau's attack on Ronsard, and the whole classicist attempt to simplify language and style, demonstrates once again that a watershed had been reached and left behind.

Already Machiavelli had used history as a fundament for political theory. Equally in the early sixteenth century, Thomas More had been inspired by Amerigo Vespucci's account of the customs of American Indians (1504/05). The later sixteenth century, as well as the seventeenth, continued this incipient development of anthropology and of some shared parent of political philosophy, political sociology, and philosophy and comparative studies of law. Part of this (represented not least by Hobbes, Locke, and Hugo Grotius) was formulated within the framework of Natural Law and was dealt with above. Early anthropology, on its part, soon developed from utopian-critical reflection into a practical tool for the Christian mission and for colonialism, and is better characterized as ethnography (*description* of unfamiliar people). Modern anthropologists still use much of the material collected by missionaries: these, indeed, have

[102] The integration of new fields of knowledge into vernacular culture might still call for systematic creation and perfection of terminologies. As a rule, however, new fields would from now on be quite new, and thus equally new in Latin and in the vernaculars.

produced the only available reports regarding many nations as they looked at the moment when their interaction with European colonialists began; many of them, furthermore, were sufficiently sympathetic to those whom they described to apply a broader perspective than that of their employing organization. None the less, the tie between the Mission and the European mother institutions and colonial administrations did much to determine the kind of questions which were posed and answered; by the seventeenth century, moreover, most European political philosophers (and intellectuals in general) had become so convinced of European superiority over the savages that they did not bother to draw on whatever material was available[103]. Finally, many missionaries' reports remained as manuscripts in the archives, and thus *were not* available. For these reasons, the influence of this early ethnography remained limited, and we shall not pursue the matter.

8. THE ENLIGHTENMENT

The appearance of the "public domain"

The absolutist states (not only the French) had supported art and scholarship (if occasionally "as the rope supports the hanged man"). Classicism and the rule of *taste* had resulted. The *public*, however, was not composed solely of court nobility and officials, and in so far as courtiers and officials were part of the public they did not participate *solely qua*

[103] The formation of this attitude in the course of the sixteenth century can be followed in the iconography of the Adoration of the Magi. One of these Three Wise Men, as it is known, was supposed to be black. In the beginning of the century, he appears in the same princely apparel as the other two and with a similar retinue; but towards its end he is currently depicted as masters would imagine their slaves.

courtiers and officials (the way they would participate in a ceremony). Late seventeenth century art is to be seen in the context of the incipient *public domain* of bourgeois culture[104].

The roots of this public domain are to be found in the peer organizations of the Medieval town, as well as in similar peer organizations of the Middle Ages. From the eleventh century onwards, towns had continuously given rise to the emergence of organized groups of equals, both within the (proto-)working class, the (proto-)petty bourgeoisie and the (proto-)bourgeoisie – cf. above, p. 61. From the Renaissance onwards, as we have seen, especially the members of the latter group, and of those courtly and intellectual circles which were closest to the mercantile patriciate, came increasingly to regard themselves as *autonomous individuals*, which colours their communities.

The Academies of the Renaissance present us with a related phenomenon: an organization of select intellectual peers (considering themselves as autonomous individuals *par excellence*) in a closed network based on discussion and argument (scholarly or around artistic products, depending on the case). Around the mid-seventeenth century, the Masonic and similar organizations imitated this pattern of the closed organization of equals (often, indeed, the social composition of the lodges was similar to that of the "amateur academies" of the Italian Renaissance: intellectuals, intellectually alert noblemen, wealthy bourgeois). Also related, but older and more broadly based socially, is the proliferation of heretic and dissenting religious communities from the twelfth to the eighteenth century.

The late seventeenth century, after the ultimate failure of absolutist attempts in England, brought a transformation of this pattern: *open* circles,

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[104] The term "public domain" is the best translation I can devise for Habermas' *Öffentlichkeit*. An *Öffentlichkeit* or a *public domain* can be explained as a *forum for the formation of shared interpretations of the world* and of *shared will*. The public domain, in other words, is the social substratum for the formation of ideology. Characteristic of the public domain of bourgeois culture (the *bürgerliche Öffentlichkeit*) is that interpretation and will are founded upon discussion and argument; the "public domain" of feudalism (and even of the absolutist state) is the *demonstration of the truth* in ceremony and ritual; it is thus no really a *domain of the public* but a scene at which the public is expected to gaze, accepting the message of authority and power.

centred for instance around coffee-houses, where any topic of general interest could be discussed, political, religious, moral, or artistic, and where anybody possessing the necessary cultural qualifications might participate. In the early eighteenth century, the *salons* of the modernizing, town-oriented fraction of the French nobility fulfilled a similar a role. These open circles are the genuine first prototype of the *bourgeois public domain*[105], where *truth is to be found in the middle*, but where each participant also possesses a *private life*, a sanctuary not to be revealed publicly – an idea which had not been present in Greek or primitive democracy – and where cultural level and neither mere citizenship nor social status *per se* determines who has access.

In this environment a number of writers moved around, not as random participants but as main actors. Here they discussed with each others and with other intellectuals, here they found their public, and here they presented their products to the public, setting or at least formulating the agenda for discussions.

Writers of all sorts can be found. Newspapers were studied, politico-moralist journalism and essay-writing found a basis in the environment, and the novel came to maturity as a literary genre (often no less moralist than the journalism and essays). We may sum up the central activities in three keywords: journalism, artistic production, intellectual debate.

The public was certainly no less inhomogeneous than the "active" participants, and its interests were directed at different parts of the literary production. Master artisans, bourgeoisie, enlightened nobility, officials can all be found. Even though Denmark was only peripheral in the process, many Danes will remember Holberg's *Den politiske kandestøber*, "The Tinkerer Turned Politician", and its satirical presentation of the Bremen pewterer Herman who wastes his time discussing politics instead of taking care of his workshop.

Given the heterogeneity of both kinds of participants, no general

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[105] This description (which, from the Masons onward, is grossly the one given by Habermas) is highly idealized; the actual minutes and organization of coffee-house discussions are much more fuzzy: some came to drink beer and chatter, other came to discuss *in other rooms*. The *salons* of noble houses, on their part, were certainly only open to a select class of people. Still, the idealization catches an essential structure.

characterization of the environment can be made. *Often*, however, the environment was politically-critical in one way or another. In France, *absolutism* was a main target, less often as a principle than because of its actual working, together with the irrationality of feudal privileges. In England, the adversary was often a political system dominated by the nobility in alliance with the King (but general or specific moral decay was not forgotten). In Germany, where educated officials made up most of the public, outworn local princely and noble power was under attack.

The Enlightenment movement and its staff

The writers involved in the higher levels of our environment (which excludes rank-and-file journalists and leaflet writers) constituted a milieu of *free intellectuals*, and came as such to formulate the intellectual movement which was baptized *the Enlightenment* ("les lumières", "Die Aufklärung"). In particular in France, the members of the movement came to be known under the name "the philosophers", *les philosophes*.

Part of the intellectual background was the victory of the Moderns over the ancients, in the sense that it legitimized both the presentation of new thought and the new literary genres in which the participants in the movement expressed many of their ideas. More direct was the impact of the philosophical interpretation of the scientific revolution: empiricism; the principle of Natural Law; the mechanistic view and the ideal of mathematization of fields where this made sense (the "geometric method", on the other hand, was given up, and was indeed unsuited for the undogmatic Enlightenment endeavour; only Kant would resurrect it in weakened form). Most important were unquestionably those changes which had shaken the real social world: the economical modernization of Britain and the institutionalization of constitutional rule ("English liberty") after the Glorious Revolution of 1688 (the changes which were reflected in the new philosophical doctrines); the development of French and other absolutisms into incurable routines that prevented similar changes from taking place outside Britain; and, of course, that emergence of the bourgeois public domain which provided the basis for the movement.

There is thus little in the intellectual luggage of the Enlightenment (beyond a general confidence in the Moderns and hence in the possibility

of intellectual progress) which has to do with the humanities. But like the "enlightenment currents" of Ionian Greece and of the early twelfth century, the movement was *humanist* in the sense that it presupposed and supported trust in *actual, living humanity* and its senses and reason as better sources of truth, knowledge and morals than traditional or theologically sanctioned authorities.

As a first step, we may approach the Enlightenment through its carriers, those intellectuals who from our point of view embody the movement, and who in their own time formulated its themes. Rather than trying to give a general definition of the category (for which the movement is too diverse) we may list some prominent representatives and groups:

An outstanding Danish/Norwegian example is *Ludvig Holberg* (1684–1754). He worked within the framework of the nascent Danish bourgeois public domain, which he himself helped develop (notwithstanding his persiflage of the poor pewterer Herman of Bremen who will rather discuss the business of princes than mind his own – Herman and his friends are shown not to possess the culture that qualifies for participation in the public domain; like many other Enlightenment writers, moreover, Holberg attacked not the *principle of absolutism* but its badly administered real-life versions).

Holberg's writings span widely: from satirical poems and culturally-critical comedies through politically and morally critical fiction (*Niels Klim*) to essays (the *Epistles*), history (concentrating on economy, institutions and customs and not on the history of glorious wars), and Natural law.

The main current was the *French Enlightenment*, which in its first generation was strongly inspired by English science (Newton), philosophy (Locke) and politics (constitution and relative tolerance). In particular:

Montesquieu (1689–1755), who wrote politico-juridico-philosophical theory (*L'Esprit des lois* from 1748, inspired not least by the English constitutional system) and political and moral satire (the *Lettres Persanes*, from 1721).

The best known thesis from *L'Esprit des lois* is the theory of the three powers (XI,vi): in any political system, there is a legislative, an executive and a judiciary power. If all three are united in the same person or the same social body, we get tyranny, as in the Ottoman Empire and in the Republic of Venice. Most European

kingdoms allow moderate liberty, because the power to judge is delegated to the citizens. The only system giving true liberty to the citizens is the one prescribed by the English law (not necessarily the actual English practice, as Montesquieu points out): all able-minded citizens elect representatives to the legislative power locally (the nobility is allowed a specific House, since they would be disloyal if not allowed special influence; the English experience had shown so); the King executes; and citizens are drawn by lot to judge according to the law.

But the work is much richer. Even if tyranny and liberty depend on actual social institutions, human temper is determined by the environment in which people live, in particular by the geographical climate (XIV; XVII). Good legislation (like that of the Chinese) is the one which opposes the vices generated by the climate; but actual government and legislation are largely determined geographically – too intense heat turns you into a coward prone to accept tyranny.

Voltaire (1694–1778), who became the apostle of Newtonianism, English empiricism and English liberty. Being himself only of moderate talent in mathematics and physical science (even though at one occasion he delivered an essay "On the Nature of Fire" to the Academy of Science) he had his friend and mistress Madame du Châtelet (who was a competent physicist and mathematician) translate Newton's *Principia* – evidence for the importance he ascribed to the new natural science as foundation for that moral improvement of society which was his central interest. His *bête noire* was the Catholic Church (of which he simply spoke as "L'Infâme") and its intolerance; as a result, he himself became the scapegoat of Lutheran as well as Catholic *dévôts*.

Diderot (1713–1784), who was the principal of the monumental *Encyclopédie ou Dictionnaire raisonné des Sciences, des Arts et des Métiers* (1751–1780), the greatest publishing success of the Enlightenment. According to its title it deals with sciences, arts and productive trades; in fact, however, it also deals with all the other central themes and concerns of the Enlightenment, including moral discussions, politics, theoretical science (under which also *arts libéraux*, now to be understood as "science as culture") and *arts mécaniques*. There is thus nothing reminding of our present distinction between humanities, natural sciences and social sciences; *reason is one, and its purpose is human welfare*.

Diderot also wrote novels in English "sentimental" style, presenting among many other things a Humean proto-behaviourist theory of knowledge (cf. below) in dialogue form in *Jacques le fataliste et son maître* (written 1773). In later years he formulated a break with the idea that all sciences should emulate Newtonian

mechanics (another version of the "geometric" ideal for scientific reasoning), and came very close to Freudian psychological perspicacity in *Le Neveu de Rameau* (written between 1761 and 1774, and repeatedly quoted with approval by Freud). Also in later years he formulated his rejection of absolutism very clearly: *just* absolute rule is not the best but the worst form of government, because it dulls the people's thirst for liberty and the sense of political responsibility; three consecutive generations of just rulers may transform any people into a horde of obedient slaves.

Rousseau (1712–1778), whose main immediate impact is in the theory of education (*Émile*, from 1762, where he developed ideas first presented by Locke); but who also wrote on the foundations of social life (*Le Contrat social*, equally from 1762), with acute awareness of the intrinsic contradictions of the Enlightenment project combined with a bent toward primitive-democratic lack of respect for pluralism and for the private domain. The possibility to read into his work the idea of intolerant and monolithic (totalitarian) democracy was demonstrated during the Revolution by Robespierre and others.

The *materialists* – La Mettrie (1709–1751), Helvétius (1715–1771), and Holbach (1723–1789) – who were openly atheist (many of the other *philosophes* were deists, professing belief in an abstract highest being who had created the world but did not interfere). They accepted Descartes' view of man as an automaton but rejected the mind-body-dualism, dispensing completely with "the ghost in the machine": La Mettrie's central work carries the title *L'Homme machine*, and its organic-deterministic view of the human mind contributed to opening the way to psychiatric *treatment* – if the mind is not free and responsible for itself, the physician may try to alleviate its pains by changing the conditions on which it functions; La Mettrie as well as Holbach used the machine-man model as the foundation for a morality based on human pleasure and contentment[106].

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[106] In this respect they follow the lead of Montesquieu. In the latter's discussion of the influence of the climate on human temper he speaks explicitly about men as "machines" which, in the South, "delicate, weak, but sensitive, render themselves to love which, in a seraglio, is born and calmed incessantly"; or which, in the North, "healthy and robust, but heavy, finds its pleasure in everything which may move the spirits: hunting, travelling, war, wine" (*L'Esprit des lois*, XIV,ii). No doubt that Montesquieu's machines can really feel; no more doubt that they are really *machines*, according to the discussion that precedes.

The Physiocratic school of economic thought (Quesnay, Turgot and others, active between c. 1750 and c. 1775), which rejected mercantilism and emphasized *agricultural production* as the real source of social wealth. This break was no mere shift of theoretical explanatory principles but another illustration of the new aims of Enlightenment thought. Mercantilism, indeed, had not been a *theory of societal wealth* but a *technique to create military power*. According to mercantilist thought, the state was to favour exports and minimize imports and thus to build up reserves of bullion – not as magical tokens of wealth but as the necessary means to pay soldiers and a navy. *Mercantilism*, the main economical doctrine of the seventeenth century, had thus been meant as a tool for statal power. Physiocratism, to the contrary, investigated the conditions for general human welfare within society.

Another important current was the *Scottish Enlightenment*, represented among others by

David Hume (1711–1776), who is important because of his radical continuation of Locke's empiricism – so radical indeed that he turns Locke's epistemological optimism upside-down: if all knowledge derives from sense experience, which by its nature is particular, no *necessary* fixed laws can be found; laws and causal connections are nothing but habits acquired through the repetition of similar experiences, and can have no higher status; and by

Adam Smith (1723–1790), who was a professor of moral philosophy and contributed to that subject, but whose fame and importance is mainly founded upon his *Wealth of Nations*, the fundament not only of modern liberalist national economy but also a necessary starting point for the Marxist concept of the economic structure as a relation between social classes.

In its essence, however, the Enlightenment was a broad and far from homogeneous *pan-European movement*, which cannot be adequately reduced to a single formula; which changes from the first generation (Montesquieu, Holberg) to the following (Diderot, Turgot, Condorcet, Struensee); and which involves writers as different as Vico (1668–1744), Swift (1667–1745), Jean le Rond d'Alembert (1717–1783), Lavoisier (1743–1794), Lessing (1729–1781) and Kant (1724–1804) (some of these names will be discussed

further below).

General themes and accomplishment

In spite of the diversity of the staff of the Enlightenment movement, some *main tendencies* can be singled out – first of all that whereas the French Enlightenment made direct use of the English example in its attacks on French feudalism (a word coined by Montesquieu), Enlightenment thinkers in the rest of Europe would be inspired by the English example mainly through its French interpretation. It is thus characteristic that the "enlightened" physician and statesman Struensee (1737–1772), when accompanying the young King Christian VII of Denmark to England and France in 1768, took care that Christian should become acquainted with *English industry* and *French Enlightenment philosophers*.

Independently of their nation, almost all Enlightenment philosophers believe in and argue for the possibility for science (natural as well as "moral", i.e., roughly "social") and reason to improve the social world – as Diderot formulated in old age, the only preoccupations in which a high spirit should take interest are "the laws, the customs, the abuses of authority, religion, government, vices, errors, prejudices" (*Lettre apologétique de l'Abbé Raynal*, ed. Vernière 1972: 648). The justification for the conviction that science and reason *could* improve the world was offered by the triumphs of seventeenth (and, as time passed, eighteenth) century natural science as interpreted by empiricist philosophy; and, no less, by the absurdity of existing habits and of the prevailing social order, which application of a bit of reason could so easily expose: France and England had fought protracted wars over a disagreement which was no more important than the question whether eggs should be cut in the narrow or the broad end (namely Catholicism versus protestantism – thus Swift, clergyman in the Church of England); and public office was only given to those who were hypocrite or infirm enough to see a square as an oblong (thus Holberg, Danish public official)[107].

[107] As regards the ambition to improve their world, the Enlightenment intellectuals were certainly no exception in their century; "projectors" with fanciful ideas both for technical inventions and for improvement of the body politic were plentiful enough to turn up as a recurrent laughing stock in Enlightenment writings; what

The ultimate purpose of knowledge was considered to be human utility and welfare. This holds for natural science and technological knowledge no less than for the disciplines of social and moral knowledge modelled upon the natural sciences. The Enlightenment thus turned the traditional ranking order of knowledge as explained, for instance, by Aristotle in his *Metaphysics* (see p. 23) upside down: supreme rank was ascribed to those arts which procure the necessities of life, and the theoretical sciences derive their legitimacy from their ultimate serviceability in the same domain. Aristotle's ladder had already become shaky during the Renaissance, when the purpose of natural philosophy was seen by Thomas More, Bacon and others as being *both* to honour God through study of his accomplishment *and* to improve the condition of mankind; few (if any), however, had ever been as radical as the Enlightenment *philosophes*, and only in the eighteenth century did the turnover of the classical stance spread widely.

It was at least in part a consequence of this understanding of the purpose of knowledge that Enlightenment philosophers rarely attempted to construct all-encompassing *systems* – even the materialists mostly argued less dogmatically about man the automaton than their seventeenth-century predecessors had done[108], although their better knowledge of the nervous system might have incited them to be even more self-assured. As Diderot explains in the *Encyclopédie* (article "Eclecticisme"), the aim was to combine "the best from all philosophies" – which of course makes no sense if you

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Enlightenment philosophers would see as the difference between themselves and the projectors was that the latter's proposals had an all too obvious character of isolated *schemes* which augmented the disorders of society instead of correcting them by means of comprehensive reason.

While the social criticism of the Enlightenment had taken its inspiration from the achievements of seventeenth century science, which represented the triumph of critical reason just as much as a heap of specific results, the projectors were rather inspired by the wave of *inventions* which had characterized seventeenth and eighteenth century technology.

[108] The seventeenth-century pious successors of Descartes would perform the most cruel experiments on animals with the argument that these were merely machines which could not feel, however much they screamed. The Enlightenment materialists accepted that *their* machines might be happy or unhappy, notwithstanding the contradiction between this observation and the consequences of the machine-model, and used this system-alien experience as the foundation for their moral philosophy.

believe that these philosophies (or one of them) are really coherent systems. Symptomatic is also an observation made about "truth, wisdom, prudence" in the article "Sens commun": no attempt is made to define them precisely, nor are they however reduced to mere subjective opinion; instead, they are told "not to be purely arbitrary". Montesquieu counters an objection to his climatic theory with the remark that its author "ignores the contradiction of the human spirit", which he has in fact discussed amply in the chapter which is criticized[109].

Even though the Enlightenment in general was no more inclined than Diderot and the *Encyclopédie* (cf. p. 128) to make an absolute distinction between natural and moral / social / human science[110], the Enlightenment contributed to the creation of genuine social science and human science. Both Montesquieu and Hume formulated explicitly that they wanted "to do for moral philosophy what Newton had done for natural philosophy"; it is quite clear from the accompanying expositions that none of them understood much more about Newton than that he had given a supposedly exhaustive explanation of his field; but this was also enough to propose the ambitious aim.

An aim, of course, is one thing, and the production of actual scientific explanations another. Even on the latter account, however, the

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[109] The absence of genuine system spirit is part of the explanation that the Enlightenment was never fully aware of a contradiction in its scheme that has been pointed out by later systematic thinkers: *Nature* was the argument and the recommended way to achieve human liberty (liberty from blind tradition and from irresponsible authority, allowing freely decided reform of social and moral life); but Nature was, on the other hand, seen as a deterministic, law-governed system leaving no visible space for free decision (most clearly by the materialists, but not by them alone). Only Diderot, who in many respects was close to the materialists, exposed the dilemma in depth in *Jacques le fataliste.*

[110] The Italian Vico is an exception to this rule. As Hume he is a sceptic regarding our knowledge of the natural world. But since we are ourselves part of the social world and know human motives from within, a much more certain science of history and human action can be established. Because of this deviant point of view, certain historians of philosophy do not count Vico as an Enlightenment figure at all but rather as a forerunner of the Counter-Enlightenment. His presentation of his views and results as a *Scienza nuova* (1725), however, shows him to share the aims of the early Enlightenment.

Enlightenment marks a divide, of which only the most important aspects shall be mentioned:

1. In two more or less consecutive steps, the Physiocrats and Adam Smith created the first genuine theory of "the societal household" ("political economy", later abridged as "economy" and again expanded as "macro-economy").

2. In their psychological philosophy, Diderot as well as the mature Hume went beyond the simple and mechanistic statements of the seventeenth and earlier eighteenth century, according to which ideas were supposed to collide, attach to or bounce off each other as material particles. Hume and Diderot, it is true, still built on everyday experience and observations, not on systematic observation and/or experiment as the psychology of the nineteenth and twentieth centuries – but systematic thought about everyday psychological experience and observation (accepting the inherent ambiguity of the psyche) instead of building on mechanistic metaphors or on postulates derived from a general theory of human nature was a decisive turn.

3. Montesquieu, Vico and Adam Smith integrated *sociological patterns* in their understanding of *historical processes*, originating thus the perception of history as a developmental process governed not by immutable laws of general validity[111] but by historically determined quasi-regularities.

There may seem to be a conflict between the Enlightenment belief in *Reason* as a seemingly abstract and suprahistorical principle and the recognition that different societies and social epochs induce different psychologies and attitudes. Yet Montesquieu *does* assert that a Christian baby when put into a Turkish crib will develop a Turkish conscience; similarly, Holberg claims in *Niels Klim* that males who, like European housewives, are forced to stay at home outside general social interaction will develop the habits and psychological characteristics of women (and, in *Jeppe på bjerget*, that the drunkard peasant has been forced into drinking by the treatment which a poor peasant receives). The contradiction evaporates when one observes that the Enlightenment belief in *absolute Reason* is an invention of later interpreters whose own (positive or negative) obsession with philosophical system building has made them read the open-minded eclecticism of the Enlightenment as yet another system.

[111] That had been the position of Machiavelli, who saw no difference between the situation of Moses and an Italian Renaissance prince – cf. p. 102.

Even though the Enlightenment was subversive with relation to existing regimes and social structures (with England as a partial exception), the perspective was still restricted by the horizon of the time. A good example of this is Holberg's play *Don Ranudo* (written c. 1723). The fools of the play – an elderly married couple – embody the high nobility, proud beyond measure but also impoverished beyond hope. Their *reasonable* counterpart is a double personification of the progressive forces: the prosaic peasant with his common sense, and the enterprising territorial magnate. This is precisely the (restricted) perspective of the Physiocratic school: the productive classes are, without distinction and without perceived conflict, *those who own the land* and *those who work on it*.

More generally it can be said that certain antagonisms were obvious while others would only become visible as a result of later social developments. The latent conflict between labour and capital, in particular, was veiled, not only for those who – like Holberg – might perhaps be characterized as associates of the bourgeoisie and the entrepreneurial nobility but even to those who formulated the points of view and the interests of the working classes. Only in England had the conflict materialized to such an extent that Adam Smith was able to formulate the modern class-based analysis of the social structure, distinguishing "those who live by wages", "those who live by profit", and "those who live by rent" (i.e., the working class, the capitalist class, and the land-owning aristocracy which leased its land to farmers investing their capital) in his *Wealth of Nations* from 1776.

It might be objected that Rousseau had been aware of some of the latent conflicts of the Enlightenment utopia more than a decade before Smith pointed to the possibility of this one (without seeing which huge impact it was going to have). This is quite true – but Rousseau's awareness had been that of the prophet rather than that of the analyst. Rousseau's criticism thus belongs to the same class as Swifts bitterly satirical castigation of the ultimate consequence of economic rationality which he set forth in *A Modest Proposal* in 1729: since Ireland was hit by deep economic crisis, the most rational way to help poor parents would be to prepare their children as food for the well-to-do. Both exemplify that certain Enlightenment writers were aware that their utopian *reason* was not an automatic consequence

of the generalization of strategic *rationality*[112]. But the Enlightenment was unable to go beyond the mere recognition that the problem was there. Only as some of the political aims of the Enlightenment were achieved in the Revolution would the conflict born in their womb come into the open.

It was this veiled character of the conflicts implied by the Enlightenment project that until 1789 permitted a number of absolute monarchs to make alliance with Enlightenment philosophy as a means to achieve political rationalization and modernization of their backward realms: Friedrich II of Prussia, Catherine the Great of Russia, and Joseph II of Austria.

Philosophy redefined

The Enlightenment philosophers were presented above simply as the leading intellectuals of the bourgeois public domain. They were thus philosophers in the sense of the pre-Socratics rather than in the sense which has been current since Aristotle. We might claim them to be amateurs with regard to philosophy, but it would be more pertinent to notice that much of what they did contributed to detach specific fields of knowledge from the grasp of the broad field of philosophy as understood till then, and to transform them into separate sciences. The Enlightenment gave up the notion of "experimental philosophy" while developing the approach covered by the term into a variety of experimental sciences; and the Enlightenment began speaking of "moral sciences", at the same time as it started to sever economics, political science and sociology from each other and from their common origin in philosophy.

One important Enlightenment figure, however, made his most important work within philosophy in the narrow sense (a sense which had become

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[112] The distinction between the two is more or less the same as Weber's distinction between *Wertrationalität* (value rationality) and *Zweckrationalität* (strategic rationality) – cf. below, pp. 169f. It is also close to the distinction which Socrates forces out of his sophist opponent in Plato's dialogue *Gorgias*.

Weber's ideas borrow from Kant, who in 1785 formulated the principle that "you should act in such a way that Humanity, as represented by yourself as well as by any other person, is always used as an aim, and never as a mere means" (*Grundlegung zur Metaphysik der Sitten*, BA 66–67). Kant, on his part, is inspired by Rousseau. A direct road thus leads from Rousseau's prophetic feelings to the terms in which contemporary philosophy discusses the dilemma.

narrower because so many fields of knowledge took their own way). This was Immanuel Kant, who actually held the philosophy chair in Königsberg. (But Adam Smith was also employed as a professor of moral philosophy; the position alone was thus not sufficient to create a "real" philosopher).

The works which primarily define as Kant as a philosopher in the strict sense are his three *Critiques: Critik der reinen Vernunft* (1781), *Critik der practischen Vernunft* (1788) and *Critik der Urtheilskraft* (1790), together with a number of affiliated shorter works from the same years. These are also the works which more than any other defined what "philosophy in the strict sense" came to mean – in a way, Kant did to "philosophy" precisely what Adam Smith did to economics, detaching it from the common mother discipline and establishing it as a particular type of knowledge (though in this case usurping the name)[113]. After Kant, the main current of philosophy came to inquire into the *conditions* for knowing and judging, leaving the acquisition of actual knowledge to the single scientific disciplines (actual moral and aesthetic judgement, on their part, have tended to be disconnected from the scientific world and to find their main professionalized soil in politics and art criticism).

The conditions for knowing are the theme of the *Critique of Theoretical Reason*. Roughly speaking, the aim of the work can be explained as an appropriation of the Humean rejection of rationalism and too easy empiricism (cd. above, p. 129), but reshaped in a way which permits Kant to avoid the scepticist conclusions which Hume had been forced to draw: knowledge cannot be derived from Cartesian "evident truths", thus far Kant agrees with the empiricists. Nor can, as rightly seen by Hume, experience tell us about necessary causal connections in the world we observe, or lead us by necessity to the truths of mathematics. But neither causality nor time and space can be reduced to mere mental habits or subjective expectations: they are, indeed, the indispensable prerequisites (*a priori* conditions) for knowing about the physical world. We have no possibility to ascribe these attributes to "the thing in itself", it is true; but *we* are unable to grasp things without using this framework. In a similar

[113] One may object that Hume had already launched the analysis of the conditions for knowing, thus foreshadowing Kant's undertaking (as actually admitted by Kant); but the difference is as great as between the Physiocrats and Smith.

way, the truths of mathematics (which Hume had held to be mere logical identities) are *a priori* prerequisites for any scientific-theoretical reason.

The *Critique of practical reason* (in the first part of which Kant returns to the "geometric method") pursues similar goals in relation to moral knowledge. Moral philosophy ("pure practical reason") does not tell whether one action or another is morally justified, but asks for the criteria which must by necessity characterize any directive if is to be considered a moral command, a "categorical imperative"[114]. What pure practical reason does tell is merely that "you should act so that the rule governing your will may always be valid as a general law" (A 54). Since such action presupposes *freedom to act*, the rule follows never to treat one's fellow beings as mere means, thus depriving them of their freedom[115].

What is morally right should thus not be derived from knowledge of Good and Evil, as moral philosophy since Plato had held. Instead, the discussion has to start from the "principle of moral conduct", which is an *a priori* condition for the determination of the will (A 110).

Critique of judgement, in its first part, attempts to define the foundation on which aesthetic value judgments can be made in a way which avoids both the regulation by rules known from French Classicism and that subjectivism which was on its way. In the second, it takes up the problem how to speak of apparent appropriateness in Nature (a favourite theme in "natural theology"), where (once again) *purpose* in Nature is seen as a product of "the particular constitution of my capacity to know" (A 329 / B 333).

Before Kant, and also for his Enlightenment precursors, philosophy

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[114] Kant opposes *categorical*, i.e., absolute imperatives ("thou shalt not kill"), and *hypothetical* imperatives, i.e., imperatives conditioned by strategic rationality ("if you do not want to go to prison / Hell you should abstain from murder"). Obviously, only the former constitute moral rules.

[115] Kant's formulation is beautiful enough to be quoted in the original:

> Der Mensch ist zwar unheilig genug, aber die *Menschheit* in seiner Person muß ihm heilig sein. In der ganzen Schöpfung kann alles, was man will, und worüber man etwas vermag, auch *bloß* als *Mittel* gebraucht werden; nur der Mensch, und mit ihm jedes vernünftige Geschöpf, ist *Zweck an sich selbst*. Er ist nämlich das Subjekt des moralischen Gesetzes, welches heilig ist, vermöge der Autonomie seiner Freiheit.
>
> (A 155f)

had told or analyzed the True, the Good, the Beautiful, and the Cosmical Order. Kant redefined it as the *investigation of the possibilities for human reason* to make such descriptions and analyses. Globally, the *Critiques* constitute a *critical examination* of the Enlightenment project: regarded in one way, Kant stood aside by being a professional philosopher and thus engaged in making this investigation *systematically;* otherwise seen, however, he argued philosophically what the Enlightenment had suggested through its practice: the grand philosophical system explaining everything True, Good and Beautiful cannot be constructed.

Enlightenment and Revolution

It is much too simplistic to see the French Revolution merely as a logical consequence of the Enlightenment movement – already for the reason that all-encompassing social processes like revolutions are never mere "logical consequences" of one or two isolated factors, and in particular not of a set of ideas. Concretely, political and economical structural immobility and even meteorological circumstances resulting in a bad harvest were important. None the less, the Enlightenment is an important part of the background of the Revolution, and many of the revolutionary parties, from the moderate to the most radical, took their ideas from one or the other component of the Enlightenment current. Of special importance in this connection is the belief in science, education and utopian "reason", which eventually led to the quasi-religious worship of, and building of temples for Reason during *La Terreur*, the radical phase of 1793–94, and to radical innovations in the educational system from 1794 onwards (cf. below, p. 143, on the École Polytechnique, which is one prominent example).

At the same time, the Revolution exposed the fissures and actualized the potential cracks and contradictions in the Enlightenment utopia: temple-building notwithstanding, Robespierre's policy of terrorizing the enemies of the Constitution into obedience turned out not to be rational; the rationality of Napoleonic warfare, on the other hand, was not conducive to a world of human reason; and much of what happened was neither reason nor rational.

As a consequence, both of the Revolutionary adoption of Enlightenment ideals and of the shortcomings of these ideals, the Revolution came to be

seen by its opponents as proof that the Enlightenment project had to be condemned as false prophecy. Schiller and Goethe, one-time sympathizers of the Enlightenment, were scared (though Goethe was perspicacious enough to see that the victory of the Revolutionary army at Valmy in 1792 inaugurated a new historical era, quite irrespective of philosophies). In England, already the early phases of the Revolution led the (utterly moderate) Whig politician Burke to formulate *conservatism* as an explicit political programme and philosophy: human reason is frail, and much more likely to err dangerously when it tries to change everything at a time than well-worn institutions as Church, Nobility and Monarchy that have been tested and have learned from their mistakes for centuries – thus the basic idea. Similar though less competent philosophies were formulated by French emigrants during and after the Revolution. The Romantic movement in Germany is another important constituent in this *Counter-Enlightenment*, the broad intellectual movement reacting on – and mostly against – the Revolution and its supposed origin in an unfounded trust in Reason.

Another consequence of the Revolution was that not only intellectuals but also the higher bourgeoisie gave up its Enlightenment sympathies, and did so much more thoroughly than the intellectuals. After the *de facto* social (though not political) victory of the new capitalist class, intellectual criticism of outdated and irrational power structures could be dispensed with: the critical potential of utopian reason had become a threat rather than a weapon. Strictly speaking, this happened already during the Napoleonic era in France. A group of intellectuals pursuing Enlightenment-inspired critical analysis of the origin and development of ideas – the *idéologues*, as they called themselves – became a favourite aversion of the Emperor himself, who preferred nobody to disturb when he made the necessary compromises with the Church, the wealthy bourgeoisie, and the returning *émigrés*.

Not all European intellectuals who reacted on the French Revolution in the outgoing eighteenth and the incipient nineteenth century reacted *against* it, however. There are pro- as well as anti-revolutionary Romanticists – as representatives of the former class we may recall the names of Blake, Byron and Fichte. After a couple of decades, several currents arose which in some way continued the Enlightenment movement and the ideas of the *idéologues* while learning from their shortcomings.

Some, like the Comtean positivists (cf. below, p. 151), developed what in recent terminology could be called its "scientistic" trend, i.e., its belief in the possibility to solve technical and social problems by means of systematic application of science, and to produce sciences (modelled on the natural sciences) which were suited to serve this purpose efficiently. Others related more directly to the radical Enlightenment, not least to the currents that had emerged during the peak of the Revolutionary period, and revived the humanist Enlightenment ideal on the conditions of the new political and social scene. Merging it with Romanticist insights, they became radical democrats (like Heine) or utopian socialists (some of these were actually quite close to Comte). Even the intellectual superstructure of the emerging labour movement is an heir to the Enlightenment tradition.

9. THE NINETEENTH CENTURY

The nineteenth century, however, brought much more than continuation adapted to changed conditions. It innovated in many respects – if the intellectual superstructure of the incipient labour movement was a continuation, *organized labour* itself was unprecedented[116]; but it certainly also innovated thoroughly in scholarly and scientific life. However much has been said above, for instance concerning the study of language, natural philosophy or mechanics in earlier epochs, it is only in the early nineteenth

[116] This example is not only chosen because it continues the end of the previous paragraph, but because it may have had a heavier impact than any other innovation on the world-view of everybody. As Nietzsche observed on the phrase "Wir sind alle Arbeiter", "We are all workers", a late nineteenth-century German ruling class cliché, it would have been regarded as an obscenity by the nobility of the *Ancien Régime*. "Wie nahe steht jetzt auch dem müßigsten von uns die Arbeit und der Arbeiter!" (*Die fröhliche Wissenschaft*, III, Nº 188). Work, the ordeal of most and the aversion of the happy few a century before, had become the meaning of life.

century that linguistic and physics emerge as *coherent fields with traditions and institutions which, while growing immensely in insight as well as complexity and manpower, continue into our own days.*

The institutionalization of unbounded scientific quest

Science as we know it nowadays, as *systematic, ever-continuous research*, is indeed a child of the nineteenth century[117]. Of course, science understood as *socially organized and systematic search for and transmission of coherent knowledge* is much older. As we have seen, the seventeenth and eighteenth centuries had produced revolutions in many domains of knowledge which underlay a number of present-day natural and human sciences, and initiated "scientific" organization of knowledge in many other domains. Yet the Enlightenment tended to see knowledge as something limited. Certain sciences were already close to having solved all their central problems – "Nature's laws can only be found once, and they were found by Newton", as stated by Lagrange, perhaps the most eminent mathematician of the late eighteenth century, who also believed that he and his contemporaries had left little but applications to future generations of mathematicians. In other sciences (especially the "moral", i.e., social and human, sciences – "moral" derives from Latin *mores*, and is close to present-day "behavioural" [science]), work had just begun, and they were further from the goal. But completion was still the goal, and Montesquieu and Hume can be taken at the word when they express the aim to do in the moral sciences what Newton had done within natural philosophy – namely to say the last word of real importance.

This attitude of scientific modesty may astonish us when we think of the immediate scientific experience of the eighteenth century, which looks to us like acceleration and impressing expansion rather than exhaustion. The seeming paradox is at least partially solved, however, if we remember the utilitarian orientation of the Enlightenment and the equally utilitarian institutions which produced scientific knowledge: when you are mainly looking for results which can be used you care less about the possibility

[117] I shall remind of a statement from chapter 1: the term "science" is used in these pages, and in particular from now on, in a wide sense corresponding to *"scientia"/ "Wissenschaft"/"videnskab"*.

that your new results may generate new theoretical problems and open up quite new scientific vistas.

In any case, and in spite of isolated thinkers who had formulated similar ideas in earlier times, generalized belief in the unbounded growth of human knowledge only materialized in the nineteenth century. As we have seen it in connection with other thorough transformations of thought, even this one was a reflection of institutional innovations. Ultimately, the new mood had its roots in the rise of the modern state and of modern society as they resulted from the technological and political revolutions of the late eighteenth and early nineteenth centuries.

The link between the general social structure and overall social needs on one hand and the changing structure and conceptualization of the scientific enterprise on the other is constituted by the need for *manpower* able to carry responsibility for working the new technical and administrative machinery, and thus for educational institutions where this key personnel could be trained. In different countries, different types of institutions emerged, affecting the development of sciences and scholarship in different ways.

The first important institution is the French *École Polytechnique* from 1794. It was founded in order to provide future civil and military engineers with a fundamental scientific training – in fact two years of basic studies in mathematics under the best mathematicians of France. After two years the students were transferred to other institutions where they would specialize in mining, in road- and bridge-building, etc.

One reason for the importance of the École Polytechnique is that it represents the first appearance of the *engineer in the modern sense:* a practician trained in the scientific knowledge of his own days, and not just in the ways of other practitioners combined with third-hand-knowledge of scientific results and methods created a hundred years or more ago. Today, as we know, engineers in this general sense not only build bridges and construct machines: social planners and practicing economists, for instance, make “engineering” based on social science; consultant psychologists and professional communicators use the insights of the humanities correspondingly. Another reason for the significance of the school is a consequence of the historical context within which it was created: the Revolutionary identification of public utility, scientific

rationality and utopian reason. The teachers were obliged to publish their courses in print in order to make this supposedly useful learning available to everybody. As a result, the school became a centre of mathematical *research* – not least because the teachers were recruited among the best mathematicians at hand, who used the opportunity to teach and publish their own results. The original design survived not only the transfer of the school to the Ministry of War in 1804 but also the Restoration. When a Romantic philosopher (the Dane H.C. Ørsted) made the discovery that an electric current influences a magnet, Polytechnicians were thus responsible for the transformation of this astonishing *fact* into an *element of scientific theory*. Even the very creation of *physics* as *one discipline*, encompassing mechanical physics, heat, light, electricity and magnetism, is mostly a product of the École Polytechnique.

Only around 1830 was it becoming clear that the highbrow research orientation of the École Polytechnique might not be the best way to train engineers for practical work. From that time on, the school lost its importance as a centre for scientific development. It remained an engineering school, but even in this domain it lost its prominent position as other institutions modelled on the same pattern but oriented toward the civilian domain were erected. In German territory, this creation of *Technische Hochschulen* soon became a widespread phenomenon; H.C. Ørsteds *Polytekniske Læreanstalt* from 1829 is an early Danish offshoot.

Even in England, a reform movement at universities in the 1820s brought some renewal: firstly by introducing the results of seventeenth and eighteenth century research into the teaching (introducing, for example, Newton's mathematics in French interpretation into the curriculum of Cambridge); secondly by gradually causing *research* to become a natural part of university life. Oxford and Cambridge were too dominant, however, and too much oriented toward the training of clerics, to leave much efficiency to the English reform movement. The *Mechanics Institutes* meant to train practitioners for industry, on the other hand, were too close to the improvement of workmen's practice to enter a direct alliance with scientific research.

For the humanities, the central development took place in Germany in the wake of the Prussian university reform of 1809, which we shall discuss in some detail below, and which soon spread from Germany to other countries.

In spite of their diversity, all these developments had the same ultimate background: the increasing need for qualified manpower. They also had a common effect: that science and research returned to educational institutions, primarily the universities, which thus earned the characterization as "research institutions engaged in teaching at the highest level" which they try to defend today.

The German university reform and the humanities

At the surface of historical events, the German development as well as the explicit integration of teaching and research took its beginnings with the Prussian reform of 1809 (whatever the outcome, research had not been an explicit institutional aim of the École Polytechnique). An important element of the immediate inspiration for this reform was the development of the Napoleonic wars: at the battle of Jena (1806), the Prussian and Saxon armies had been beaten decisively; in the succeeding Treaty of Tilsit, Prussia was reduced to half its former size. In the context of a still feudally coloured and absolutist Prussia, whose most progressive element was a "bourgeoisie of officials" rather than an industrial or mercantile bourgeoisie, the response to this "Sputnik-shock" was a claim for *spiritual renewal*[118]. Another reason for this orientation of the claim for renewal was evidently the existence of the Romantic movement, and in particular the Romantic response to the French Revolution. (The two explanations are not independent, since the orientation of the German Romantic movement was itself connected to the social composition of the German educated elite).

The central idea of the University reform was that the members of the German elite needed to be freed from that sluggishness which resulted from their education in dogmatic and fossilized universities and – before they got so far – in a secondary school whose teachers were no better, themselves coming from the universities. Therefore the quality of the

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[118] The response of the *polytechnicien* Sadi Carnot to the French defeat a few years later may be mentioned as an illuminating contrast: in the introduction to his work *On the Motive Power of Fire*, which marks the birth of thermodynamics, he argues that France had no lack of either skilled scientists nor brave soldiers; but the English had the advantage of *industry*. The fundamental need for France was therefore *more steam engines, and more efficient steam engines.*

teachers of the *Gymnasium* had to be raised, morally as well as regarding their scholarly level. This should be done by improving their level in the *Geisteswissenschaften* (the "spiritual sciences") considered identical with the *Altertumswissenschaften*, the "sciences about antiquity": Hebrew, Greek and Latin philology, history, and mathematics.

The name of the programme is *neo-Humanism;* it was, in fact, closely inspired by the Renaissance interpretation of antiquity, especially by German post-Reformation Humanism as formulated by Melanchton. In spite of many changes in the content of *Gymnasium* teaching it remained the ideological backbone of German secondary education until 1933, and was eventually resurrected in both Germanies between 1945 and 1960.

The only place where the future *Gymnasium* teachers could be taught the *Geisteswissenschaften* was in the Arts Faculties of universities. Since the Middle Ages these had been the preparatory school of universities whose main task it was to train priests, lawyers and physicians; but in the post-Medieval period the Arts Faculties had lost and never regained that central intellectual position which had been theirs during the thirteenth and fourteenth centuries. Now, however, they were given the status of "lucrative faculties", as it had been called in the Middle Ages, and students were to be given a complete education at the "Arts" or "Philosophical Faculty". The final level of students should be one of independent research, reflected in a dissertation – and in order to make sure that the quality of university professors was sufficient to bring the students to this level they would have to be appointed on the basis of their own scientific work, not according to family relationships or sociability as judged by future colleagues from other disciplines (since there was in principle only one professor from each discipline, future colleagues from the same institution would normally be unable to make a scientific evaluation). The aspiration was not only to provide the *Gymnasium* with a staff whose members had once made one piece of independent research. Gymnasium teachers were also expected to use part of their time on research; articles in the yearbooks of many gymnasia shows that quite a few teachers did in fact do so.

Research was not meant as an aim in itself. The overall purpose of the enterprise was moral improvement as provided by the *unified humanities* – in agreement with neo-Humanist ideology and with the anti-analytical, integrated and organic world-view of the Romantic movement. But the

undertaking was so efficient in creating new knowledge that unification became more impossible than ever. The totality of humanities was soon splitting up into disciplines, and these into subdisciplines, each possessing greater and greater knowledge of its own domain but also less and less understanding of neighbouring areas[119]. As a result, even the gymnasium teacher in the humanities stopped being an all-round humanist, becoming instead a specialist with some but rarely all-encompassing knowledge of other fields.

In spite of discipline formation and specialization of single scholars, however, *general attitudes* to the subject-matter and to the aim of the humanities developed which cut across the single lines of interest but built on their common research experience. This was not an exclusively German phenomenon, even though the rapid progress of humanistic research in Germany makes the phenomenon most conspicuous here. One of these attitudes is the *regard for the factuality of the material*. History is not (or not primarily) there to be used in moral and political argumentation – not to speak of strategical planning à la Machiavelli. The first task of the historian is to find out *what really happened* – "wie es eigentlich gewesen", as it was formulated by Leopold Ranke (1795–1886). This approach has been labeled "positivist" by critics for whom this term is negatively loaded. But since the main purpose was to find the general pattern *through* but not in ignorance of the confusing mass of details, the term is undeserved in its pejorative sense.

Another closely related stance is the *historicist* attitude: the world is continuously changing. We should not believe that *our* own reason and world-view are of general validity and suitable as suprahistorical explanation of events from other historical contexts. Historical material should be explained as something *specific*, on *its own terms*. We may go from the historically specific to general regularities and patterns, but

[119] The tendency to break up disciplines into subdisciplines was furthered by a peculiarity of the university system: growing numbers of students in a particular field at a university might make it necessary that another professorial chair was created to share the teaching; but since each discipline was only entitled to have one ordinary chair, creation of an extra chair had to be argued from the existence of a new discipline.

inference in the opposite direction is not legitimate. In this respect, the conditions of the historical sciences were seen to differ from those of the physical sciences: Newton may look at another apple, and Ørsted repeat his observation of the magnetic deviation produced by an electric current. But once Napoleon was defeated there could be no other battle at Waterloo with the same outcome and the same consequences – history is characterized by *Einmaligkeit*, "once-ness" (Ranke again).

We observe that the approach of nineteenth century history differs fundamentally from Machiavelli's use of Moses, Caesar and Cesare Borgia as illustrations of the same, ever-valid principles (cf. p. 102), and in its radical formulation even from the Enlightenment belief in sociologically determined quasi-regularities. Due among other things to inspiration from Hegel (behind whom we find both the Romantic movement and Vico), history was seen not as a *mere sequence of events* (of which the historian should write a chronicle) but as an *evolutionary process*. This point of view is of course in potential conflict with the radical interpretation of the *Einmaligkeit* postulate: if every event stands completely on its own and is unconnected to any other event, nothing but chronicle-writing is left to the historian. When forced to choose their side, most scholars would opt for evolution and historically determined quasi-regularities and against radical *Einmaligkeit*. Evolution, indeed, was a very widespread idea, accepted not only in history proper (the "history of events") but also (and perhaps more unconditionally) in other fields: linguistics, cultural history and history of ideas and philosophy, and even in anthropology, geology and biology. We might say that *history* was the ruling science, and that history was integrated in other sciences as their central perspective. History of the single sciences also came to occupy the role of philosophical justification of their accuracy and legitimacy[120].

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[120] This discovery of the general importance of history finds an evident parallel in general nineteenth-century experience. Admittedly, rapid change has characterized Western Europe at least since the late Middle Ages; but the general view of change had either been that it provided a restoration of lost values (the Renaissance and, on the level of popular piety, the heretic movements and the Reformation); or the present moment was seen as the final victory of the new over the old (*Le siècle de Louis XIV*); or one would see oneself as engaged in the battle which should lead to the final victory of reason (the Enlightenment). Only the

Not least the inclusion of anthropology, geology and biology shows that the evolutionary orientation was not an exclusively German affair. But whereas British evolution (represented by Lyell in geology and Darwin in biology) tended to be materialistic and "uniformitarian", referring to unchanging natural forces and mechanisms[121], German humanistic scholarship was predominantly bent toward idealism: evolution was not seen as the product of material social processes but (by Hegelians) as the gradual unfolding of the World Spirit or (by Romanticists and their offspring) as the product of the spirit of specific epochs or nations (*Zeitgeist* and *Volksgeist*). It probably goes without saying that the latter orientation was often coupled to nationalist and, increasingly toward the end of the century, racist persuasions. But this was not the starting point of the *Volksgeist* idea[122]; nationalism and racism, moreover, were certainly no German specialties but pan-European phenomena.

In the historical, textual and linguistic sciences, the factuality-, historicist and evolutionary orientations were the basis for new approaches. In the historical and textual sciences, they were responsible for the creation of systematic source criticism and textual criticism. Glimpses of these techniques can be seen in earlier epochs, both in the Hellenistic era, in the twelfth century counterposition of authorities, and in late Renaissance and

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nineteenth century discovered the present as a passing moment in the midst of continuous change, not only in the sciences (cf. above, p. 142) but as an all-pervasive situation. Only at the onset of the nineteenth century could Faust get the idea to accept damnation in that very moment which he wanted to remain without change: "Werd' ich zum Augenblicke sagen: / Verweile doch, du bist so schön! / Dann magst du mich in Fesseln schlagen, / dann will ich gern zu Grunde gehn!" (Goethe, *Faust*, 1699–1702).

[121] Lyell had formulated "uniformitarianism" as the principle that the surface of the Earth had been shaped by erosion, sedimentation, volcanic eruptions, earthquakes, and similar forces still to be seen in action; Darwin, in the same vein, claimed that species had been formed *naturally* by that same selection process which was used *deliberately* by human breeders in order to produce improved races of cattle.

[122] Herder (1704–1803), the creator of the *Volksgeist* notion, declares the equal standing of all nations forcefully in his writings. A striking example is offered by his strongly polemical *Neger-Idyllen*, where precisely those virtues and that high mind are ascribed to the slaves which it had been customary since the Renaissance to detect in ancient Rome. Unlike Rousseau, moreover, Herder does not present these virtues as expressions of "noble savagery". A black prince who has been caught by treason and sold as a slave is no less prince, and no less civilized than any princely peer of his.

Early Modern Humanist studies. But since the aim had then been to restore particular classical texts, to find the correct interpretation of an ancient authority, or to expose forgeries, the techniques had never developed into a general method, and certainly never been seen as the defining qualities of history and textual studies. This only happened when texts were read systematically as expressions of their time and *Zeitgeist*. In linguistics, the break was even greater. Until 1800, linguistic can on the whole be described as *grammar* – mostly grammatical descriptions of single languages, at times also as search for general grammatical structures or semantic categorizations (especially in fourteenth century scholasticism). The limited and often specious aims of the proponents of the sixteenth to seventeenth century etymological school and "Scythian theory" (cf. above, p. 120) had prevented it from gaining influence and from systematic continuation. To the Grimm brothers and to Rasmus Rask, grammar was only one of several resources used in comparative linguistics, the object of which was *understanding of the evolution of specific languages* and *description of their family relationships*. To them, etymology could not be "a science where the consonants count for very little and the vowels for nothing at all", as Voltaire is reported to have maintained scornfully about the method of Becanus and his successors: as important as grammar was the integrative investigation of the details of phonology and vocabulary, which allowed to put etymological studies on a healthy basis – and even grammatical structures had to be analyzed more closely than in the traditional formulation of rules and exceptions.

"Positive knowledge"

The integration of higher education and research and the ensuing explosion of research activities and results was not restricted to the humanities. The natural sciences, too, received new impetus, and did so still more unquestionably than the humanities. Whereas the Enlightenment *philosophes* could look back upon an accretion of epoch-making discoveries in natural philosophy which they might still see as essentially once-only events, the humanities of the mid-nineteenth century could look upon a natural-science neighbour in continuous and ever-accelerating development toward greater knowledge based on increasingly precise and certified

empirical foundations.

On one hand, this inspired the creation of a new humanistic discipline (initially) quite different and segregate from those based on texts and sources: experimental psychology. Since Aristotle, the "philosophy of the soul" had in principle been a branch of natural philosophy (from which, in fact, most other branches had deserted in the wake of Newton's *Principia*). In practice, common-sense psychological considerations had formed part of pedagogical philosophy; both Locke and (to a lesser extent) Hume had based their theories of knowledge on (dubious) psychological postulates; and Diderot, Stendhal and other authors had made acute intuitive psychological insights central themes of their works but not made a specialized field of study out of them. In so far as psychology existed as a scholarly field it was thus part of *theoretical* and *practical* philosophy, and only empirical to a limited extent.

Shortly after the mid-nineteenth century, however, a new approach appeared: man was regarded as a living being with a sensorial apparatus which could be investigated experimentally, as can other characteristics of living beings. "The soul", or at least its manifestations, can be measured and counted by methods not fundamentally different from those used by physicians to investigate human metabolism (it is certainly no coincidence that the first practitioners of the field were physiologists). Even though, as a rule, early work along these lines regarded only sensory psychology[123], they laid the foundation for one of the main trends in late nineteenth and in twentieth century psychology.

Only one trend, however. Toward the end of the century, a counter-movement set in, inaugurated by Freud's psychanalysis. Originally, it is

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[123] Anecdotal history often mentions as the beginning of experimental psychology the discovery and investigation in the 1860s of astronomers' "personal equation" (i.e., the fact that the difference between the registration times t_A and t_B of the same phenomenon by astronomers **A** and **B** differ by an approximately constant amount c, t_A-t_B=c). No less important than such studies of reaction times were the seminal investigations of the relation between impression and stimulus strength, leading to the "Weber-Fechner law", according to which the minimal increase in for example sound level that can be perceived is a constant percentage of the existing sound level (the law is indeed approximately true for sound perception, and the minimal increase which can be perceived is always of the order of one decibel, corresponding to an increase in energy density of 25%).

true, no counter-movement to the prevalent physiological approach was intended: Freud's starting-point was also a medico-biological view of human nature, combined with hypnosis therapy. But through work with this technique, and especially through its failures, Freud was led to psychanalysis as *interpretation* and as a midwife for the patient's *own understanding*. Through this integration of *meaning and interpretation* into its field of interest and its methodology, psychology (or at least this approach to psychology) was brought into contact with the main trend of the humanities, and emancipated from medical science.

On the other hand, the new triumphs of the natural sciences inspired Comte to formulate his *Positive Philosophy* (*Cours de philosophie positive*, 1830–1842), an expression of aftermath scientistic Enlightenment erected into a philosophical system and a theoretical partner of utopian socialism (inspired by the *idéologues*). According to Comte, every field of knowledge passes through three phases: in its beginning, its is integrated in *religion and myth;* next, it passes through the *metaphysical phase;* in the end, finally, even metaphysical and philosophical notions are found to be superfluous, and they are replaced by a science built exclusively on "*positive*", i.e., securely ascertained empirical facts. Social evolution follows the same scheme. In the sciences, the scheme provides the framework for theoretical progress; in social evolution, for social and moral progress.

Before identifying Comteanism with latter-day positivism one should be aware that already the nineteenth century produced a very different positivism: the "Empiriocriticism" of Mach and Avenarius. This current did not share Comte's scientistic optimism. On the contrary, its central claim was that the only certain facts are *sense impressions*. Whether something in some "outer world" corresponds to these impressions is a problem which for reasons of principle cannot be answered and which therefore makes no sense.

Whereas Comte's positivism can be characterized as a radical epistemological optimism, for which reason it inspired utopian-political radicalism, Empiriocriticism became popular in politically reactionary circles in Wilhelmian Germany because of its rejection of the (critical) possibilities of reason. If science and reason are unable to tell us anything definite, the way is open to religion and religious authority[124].

[124] This counter-enlightenment use of Empiriocriticism (amply documented in quotations) is the reason for Lenin's diatribe against the movement in *Materialism and Empiriocriticism* from 1908.

The "logical empiricism" of the twentieth century is yet another brand of positivism, within which currents of epistemological optimism as well as pessimism can be found.

Comte's positivism was probably not very influential in the natural sciences – their progress was determined by other forces. But it provided a tool for those inside the humanities who reacted against German historicism as an expression of Romanticism (or just because it was German).

Of great and long-lasting influence was Hippolyte Taine's "positivist" theory of literature[125]. According to Taine, every artistic product – and most forcefully the best – expresses the psychology of the culture within which it is produced[126]. This psychology of the culture is a combined product of "*la race*", "*le milieu*" and "*le moment*" – this attempt at causal explanation provides the actual link to Comtean positivism. "The race" is the ethnic fundament of the culture; "the environment" refers to the geographical circumstances in which the particular segment of the race has ended up, not least the climate: the Aryans who ended up in the swamps of the North developed quite differently from those who settled in Greece or Italy (the inspiration from Montesquieu is obvious and explicit); "the moment" stands for the actual history which shaped the culture (in the case of the English, Saxons by race, the Norman invasion turns out to be a main aspect). It is, according to Taine, the task of the historian (in particular the historian of literature and art) to decipher from the particular artistic production the psychology of the culture in which it was created, and to trace how this particular psychology has been produced by race, environment and moment.

No less important was the influence of the sociologist Durkheim, who claimed to base his sociology on objective "social facts" placed above human interpretation (a question to which I shall return, see note 157). Durkheim was one of the channels through which Comtean positivism influenced twentieth century sociology and anthropology. Another channel

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[125] Formulated in the introduction to his *Histoire de la littérature Anglaise* (1863–64).

[126] The *Zeitgeist* and *Volksgeist* ideas are near at hand, and Taine does indeed refer to Germany as the place where his approach was first developed, precisely since Herder, who is explicitly mentioned together with Goethe and others.

was more direct, though probably less important when it comes to methods and subject-matter: Comte indeed invented the very term "sociology" for that "social physics" (another term of his, shared with the utopian socialist Saint-Simon) which he tried to develop.

Popularized science and popular science

The "positive approach" to human nature and to human culture – be it physiological, be it Comtean – had a background and a sounding board in more general moods and broader cultural currents. The nineteenth century gave rise to the multifarious phenomenon of *popular science*, of which only a modest detachment (which we might call *popularized science*) aimed at broad diffusion of the results and approaches of academic science. Mostly, popular science was constituted by movements of "parallel science" or even "counter-science" emerging around figures who had created a doctrine of their own, inspired by some feature of academic science but often restricted, simplified beyond recognition or distorted when seen in the academic perspective.

In the *user perspective*, such movements served the purpose of self-assertion, "our own science" in a social world which was irrefutably dominated by science and by technological change purportedly derived from science; in distinction to "popularized science", this type thus fully deserves the label *popular science*[127]. The parallel to the "enlightenment" role of early Greek natural philosophy and early High Medieval astrology is unmistakable, and the first manifestations were indeed produced during the "low Enlightenment" of the 1780s. Jean-Paul Marat, the future spokesman of radical revolution, was by then deep in physical investigations on his own, and his undertaking was related in spirit to much of what other leaders of popular science movements did; yet he never gained an audience on *this* account. Immense success, on the other hand, fell to the physician Franz Anton Mesmer, who taught the doctrine of "animal magnetism" (mostly referred to nowadays as "Mesmerism"), a phenomenon which was later reinterpreted as hypnosis and thus made

[127] "Popular", but neither automatically nor predominantly "lower class" science. Most of the public was middle class, and part of it belonged to the educated classes.

a concern for academic psychology.

The failure of Marat and the triumph of Mesmer illustrates an important characteristic of the main body of nineteenth (and twentieth!) century popular science: it had to be immediately relevant to human existence. At the same time, its self-asserting role vis-à-vis the dominance of mostly natural and related science demanded that natural and medical science should provide the model for its humanly relevant insights. Popular science of this kind thus tended to be overtly scientistic. (Even the popularizers of the insights of academic science would of course tend to oversell the product, making new achievements more certain, more broadly consequential and more meaningful for the public than warranted, thus tending to make this popularization just as scientistic).

Many different examples could be mentioned: patent medicines and patent cures[128]; anti-masturbation machines; healing transformed into "Christian science"; spiritism and psychical research; etc. Several of these, as could be expected for movements giving meaning to human existence, served as alternative religion.

The examples which were just mentioned were too far from the academic sphere to produce much influence that way, or to illustrate the expectations and norms which prevailed in the vicinity of the academic environment. Others, however, had influence on academic science or are at least illustrative of its surrounding moods.

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[128] Mark Twain's portrait (1986: 53f) of Tom Sawyer's Aunt Polly is a picturesque illustration:

> She was one of those people who are infatuated with patent medicines and all new-fangled methods of producing health or mending it. She was an inveterate experimenter in these things. When something fresh in this line came out she was in a fever, right away, to try it; not on herself, for she was never ailing, but on anybody else that came handy. She was a subscriber of all the "Health" periodicals and phreneological frauds; and the solemn ignorance they were inflated with was breath to her nostrils. All the "rot" they contained about ventilation, and how to go to bed, and how to get up, and what to eat, and what to drink, and how much exercise to take, and what frame of mind to keep one's self in, and what sort of clothing to wear, was all gospel to her, and she never observed that her health-journals of the current month customarily upset everything they had recommended the month before. [...].
>
> The water treatment was new, now, and Tom's low condition was a windfall to her.

One discipline which illustrates the existence of an effective cultural demand for a "positive" approach to man modelled on medicine and natural science is *phrenology*. (Even though the movement got institutions and periodicals fashioned after the academic norms it is less sure whether it was directly academically influential). The doctrine had been developed by the Viennese physician Franz Joseph Gall around 1800, and its basic tenets have been summarized as follows:

> (i) the brain is the organ of the mind; (ii) the brain is not a homogeneous unity but an aggregate of mental organs; (iii) these mental organs or physical faculties are topographically localized into specific functions; (iv) other factors being equal, the relative size of any one of the mental organs can be taken as an index to that organ's power of manifestations; and (v) since the skull ossifies over the brain during infant development, external craniological means can be used to diagnose the internal state of the mental faculties.
>
> (Cooter 1984: 3)

The doctrine bears some resemblance with the ideas of the Enlightenment materialists, but has totally different implications. They, most explicitly Helvétius, had taught that the environment determined the function of the human machine, i.e., that *education* was all-decisive. The phrenologists, on their part, held that everything was a question of *heritage*. To Helvétius, men were thus fundamentally *equal;* to the phrenologists, they were *unequal* beyond educational repair.

The phrenologist creed, not least the belief in inheritance and the conviction that external measurement of the skull provided exact information on a person's intelligence and psychical makeup, became immensely popular, in particular in Britain, and stayed so until well after the mid-century. By then it mixed with and was gradually crowded out by the eugenics movement and Social Darwinism, spiritually related doctrines which explicitly held the upper classes to possess the better inheritance, and which obtained indisputable influence in academic science.

Both movements were inspired by Darwin's theory of evolution by natural selection (which, as pointed out by Darwin, had results analogous to the effects produced by means of that *artificial* selection used by breeders to bring forth better races of grain and cattle), and the champions of both would certainly have protested vociferously if they had been classified with phrenological and Mesmerian "quacks"; the dynamics of the process by

which their tenets became fashionable, however, was much the same.

It was Social Darwinism which summed up its view of the Darwinian process as "survival of the fittest". Darwin, who clearly saw the circularity of the argument ("fittest for what? Fittest for survival!"), espoused it in the end because it would ease the spread of his teaching in a public which had already taken Social Darwinism to heart. The central idea of the movement was that *social survival* (i.e., property acquisition) was understood through the image of *survival*, and that the *better fitness* that appurtenance to the propertied classes was evidence of was equated with *better (moral) quality*. The doctrine, which gained important influence in later nineteenth century sociological thought, was an unmistakable justification for economical inequality.

The eugenics movement was carried by people who knew too much about social statistics and about biology to accept the tenets of Social Darwinism: since lower-class people on the average produced more surviving children than their social betters, application of Darwinian standards would show that the social fitness-scale was an inversion of its biological counterpart. Fitness being understood by eugenicists according to the social scale, the programme of the movement was (though not told in these terms) to undertake artificial selection on societal scale, and thus to improve society by eradicating the inferior heritage of the socially inferior.

Ideas similar to these went into a particular applied science of man, *criminology*. Still other versions entered an unclear symbiosis with the more simplified among the versions of socialist theories that were spreading in working-class environments and were in part deliberately used by the Social Democratic parties in their agitation. These simplified theories are themselves instances of the phenomenon of "popular science" as self-assertive "proper science". Scientistic "popular science" serving as an underpinning for social identity and legitimacy and in the formation of a world view was a widespread characteristic of a century where God had come to be at work only on holidays (if at all), and on holiday when everybody else was at work.

Academic and non-academic humanities

The Prussian research-oriented university model spread quickly to other countries, and it was soon regarded as self-evident. The Battle of Jena and the ensuing quest of national moral resurrection can therefore be nothing more than the surface of historical events. As already suggested, the underlying cause of what happened was the general socio-economic transformation of Europe (and the United States), which gave rise to an increasing demand for efficient and well-trained officials, administrators, technicians, and teachers, in a society in constant change. If this need had not been urgent, the German reform would probably have been abortive – if only for the reason that the Prussian government would probably not have been willing to pay for the many new positions needed for its realization. Even outside Prussia it was also the demand for manpower (which was largely the demand of the state, either directly or via deliberate technology policies) that made public authorities willing to implement and finance educational reforms in agreement with a model which had proved successful.

General public needs, however, even if a necessary background, do not provide the complete explanation. The process soon became self-accelerating in all fields where the research orientation became effective: systematic work created new results and new understanding, which either (in the natural and technical sciences) increased the utility of (and hence the demand for) scientifically trained manpower, or (in the case of the humanities) opened the way to a specialized and technical approach to the intellectual realm which then came to be seen as a necessary qualification. To this comes the tendency of any similar environment (discussed both in connection with the Fara and Old Babylonian scribes and with the Medieval masters of arts) to connect status awareness (and pride!) with the probing of professional tools.

The prosperity of the new alliance between high-level teaching and scholarly research does not entail, however, that all professional intellectuals were absorbed by the academic environment, or that work of lasting importance within the humanities was undertaken only here. Many writers remained outside, and others wrote from within to the outer world, participating in or even creating general intellectual debate. Not

everybody lost themselves in scholarly specialization, and increasing (fertile) specialization did not prevent that many of the participants in general debate were important for the development both of the general intellectual climate and of the scholarly specialties.

In Denmark, Romantic authors and philosophers like Sibbern and Hauch could be mentioned in this connection, along with J.L. Heiberg and Kierkegaard and (toward the end of the century) Brandes, prophet of Taine's historicist positivism. Of pan-European importance were the utopian socialists, who influenced and received influence from the early labour movement. Later in the century, intellectuals within the mature labour movement – most important among whom were Marx, Engels, and Bebel – were no less important in the formulation of the world-view of this new social force than the Enlightenment philosophers had been in the formulation of the perspective of the early bourgeoisie (in neither case, of course, the relation between class and intellectuals is described exhaustively in this simple formula, cf. what was said on pp. 123f about the "bourgeois public domain").

10. TOWARD THE PRESENT: SCIENTIFIC HUMANITIES

It would lead much too far to investigate the development of the institutional contexts in which the humanities have developed in the present century. We shall restrict ourselves to the observation that the trends which began in the nineteenth century have persisted: that the number of universities and similar institutions integrating high-level teaching and research has gone on growing on an (almost ever-)increasing scale; that specialization has proceeded and resulted in greater accuracy and depth, though still in interplay with the formation of interdisciplinary

tendencies; and that the reactions of the general public as expressed in periodically recurrent surges of "popular science" have not changed much. The academic environment has not swallowed all activity in the humanities, but the numerical balance between academic and non-academic practitioners has shifted decisively toward the academic side. Only if one makes the highly dubious decision to regard university teachers as "free" is it possible to claim that twentieth-century humanities are carried by an environment of "free intellectuals".

As a result, work within the humanities has become "scientific" in the sense presented in chapter 2 to a degree which has probably never been equalled before. This situation, and in particular its novelty, has raised the question *how to secure – or how to justify – the scientific character of the humanities,* in a world where some 300 years of indubitable triumphs have endowed the natural sciences with the status of *sciences par excellence* (it is no accident, indeed, that the English term "science" acquired the specific meaning of "natural" or even "physical" science in the later nineteenth century).

Instead of attempting to fill out the generalities contained in the first paragraph of this chapter by particular accounts we shall look at some of the more important attempts to answer the question raised in the preceding paragraph.

One obvious possibility has been to assert that since natural science is real science, the way to make the humanities scientific is to emulate (what one believes to be) the distinctive methods of the natural sciences. This idea was already vaguely present one way or the other in the use of the "geometric method" in seventeenth-century philosophy and in Montesquieu's and Hume's aim "to do for moral philosophy what Newton had done for natural philosophy", and somewhat less vaguely in Saint-Simon's and Comte's "social physics". In the late nineteenth and the early twentieth century, such mere postulates and programmes were replaced by genuine methods and results in a number of disciplines. It is not astonishing that the first place where this happened was in experimental and related branches of psychology: being already built on exact and supposedly meaningful measurability and hence expected to be also exactly applicable (in psycho-technical tests, IQ tests, and the like), they made their

experimental and "positivist" orientation more explicit. Not very much later, advertisement and propaganda studies (in due course to develop into communication studies) and other kinds of sociology took up the torch. It has generally characterized fields dominated by a technical cognitive interest, which cannot astonish: if one wants to use knowledge for obtaining a specific result or to know whether it has been reached, it is important to be able to *measure* both the parameters which characterize the situation which is to be changed, the resulting changes, and the nature and intensity of the means which have been used to obtain them.

Around the turn of the century, other disciplines, in particular the classical sciences of culture (philology, historical sciences) formulated their scientific aim and character as *different from that of the natural sciences* around the same time. It will come as no surprise that this opposition against the conflation of *human science* with *human engineering* had its focus in the heartland of neo-Humanism, i.e., in Germany[129]. Various philosophical reasons for this segregation were proposed:

One formulation, due to Windelband (1848–1915), emphasizes the uniqueness of the single historical event and the single text (cf. Ranke's *Einmaligkeit*). According to Windelband, the aim of the humanities is to *describe the particular* – they are *idiographic*. The natural sciences, on the other hand, are *nomothetic*, *law-establishing*, they seek the general.

Another scheme, proposed by Dilthey (1833–1911), points out that the humanities (or rather, the *Geisteswissenschaften*) are not satisfied with (causal) *explanation*. The humanities investigate human *actions*, which differ

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[129] In contrast, applied sociology and psychology, though even they traceable to mid-nineteenth-century German beginnings, grew to maturity and prominence in the Anglo-Saxon world, in particular in the United States. Structuralism, to which we shall return, had foci in Geneva, Moscow, Prague, Copenhagen and Paris (British "structural functionalism", cf. note 157, does not qualify as genuine structuralism). Because *philosophies* of science have tended to reflect local *scientific* activities, it has become customary to speak of "Anglo-Saxon" and "Continental" schools in the philosophy of science, where the former encompass those which tend to see the natural sciences as paradigmatic for all science, while the latter emphasize the distinctive character of human and social science.

As one may guess, this rough division is not too precise. Most of what has happened in the Anglo-Saxon schools was thus sparked off by emigrants escaping from Austria (Popper, Wittgenstein, the members of the "Vienna Circle").

from mere *movements* by having *a purpose*, and which can only be described adequately if the purpose intended by the actor is considered. Therefore the humanities must aim at *understanding*, must use historical sources or the texts under investigation as ways to understand the *intention* of human historical action or the *meaning* which is expressed by the text.

Dilthey's thesis is seen to be akin to Vico's point of view: the humanities deal with human phenomena which we understand *from the inside*. But there is an important difference: Dilthey writes after the Fall brought about by historicism: in contrast to what Vico claims we have *no* direct access to the way of thinking of the actors of other historical periods. Understanding will only result from hard scholarly work, and never be definitive and exhaustive (cf. note 137 on Dilthey's concept of the "hermeneutic circle").

The existence of *different* philosophical legitimations of the same situation suggests that an underlying historical explanation of the declared separateness of the humanities can be found at a different level. A semi-sociological explanation might be that the emphasis on the distinctive character of the humanities was a reaction against the explosive development of the natural sciences and against the tendency to declare that *only* the methods of the natural sciences were scientific[130]. However, the claims that the humanities should look only for the particular and not for general regularities, and that their sole object is the understanding of

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[130] This explanation generalizes what Dilthey (1924: 139ff) writes about psychology. One type, aiming at causal explanation referring to "a limited number of clearly defined elements", does so in an attempt to imitate of the natural sciences, but can only grasp the complete mental process by entering a haze of gratuitous hypotheses which lack that foundation of experiment and measurement on which the natural sciences build. Moreover, it has to presuppose complete determinism. Therefore, a credible psychology which also comprehends the free and creative aspects of mental life must be descriptive, and analyze the mental totality of the fully developed human being instead of synthesizing a postulate from the isolated elements that can be studied by experimental psychology, and has to start from the way we *understand* ourselves and each other.

There is thus nothing wrong in natural science itself – Dilthey refers lavishly to their role in human cultural development – nor with experimental psychology in itself. Their potential for explaining human action and life, however, is limited, in part for reasons of principle, in part because the results obtained so far by experimental psychology, laudable though they are, are insufficient for such a task.

the actors themselves could also be seen as a contrast and a deliberate opposition to the outlook of Marxism and the Social Democratic labour movement: according to this outlook, the working of the human spirit not only takes place on historically specific conditions in a way which may be partly or fully hidden to the actors, but it can also to some extent and in a dialectical relationship be explained causally and in general terms.

In retrospective, this kind of "political" interpretation may look far-fetched. Today, the basic Marxist notion has been accepted by most historians (whether it is understood as Marxist or Weberian, or just regarded as common sense), and nobody will find it dangerous. No follower of Marx, on the other hand, will be unfamiliar with the notion that human *actions* are characterized by having *a purpose* (as emphasized by Marx), and few Marxists will claim that an explanation can be adequate which does not involve this purpose as one determinant. Yet before the "political" interpretation is dismissed one should remember that at least one other field changed its conceptual fundament in order to distance itself from Marxist theories – namely political economy, which abandoned the foundations created by Adam Smith and Ricardo not least in order to avoid the consequences derived by Marx from this framework. One should also take a second look at the speech which Dilthey made on the occasion of his seventy years' birthday[131] in 1903, and where he appears to tell precisely this:

In the first place, Dilthey demonstrates by his choice of words and themes that his own natural bent is to look for explanations just as much as for understanding. "Language, law, myth, religion, poetry and philosophy, each possesses an inner lawfulness which conditions its structure, and this again determines its development" (etc.). Next, in the closing paragraph, he tells that the ultimate purpose of his life-long work as a historian and in particular of his "critique of historical reason" has been to defeat "that anarchy of convictions which threatens to break in", which in the context can hardly be anything but the convictions of the Social Democratic movement.

Around the mid-nineteenth century, a very different explication why the humanities were different from the natural sciences materialized through the generalization of *structuralism*. Structuralism had taken its beginning within linguistics (Saussure, 1916), which it came to dominate from the 1930s onwards (Roman Jakobson, Louis Hjelmslev). Its first impact in the textual sciences goes back to the 1920s (Vladimir Propp's analysis of folktales), but only in the 1950s would it become important in this

[131] Dilthey 1924: 7–9. I use the opportunity to thank Kurt Flasch for directing my attention to this interesting item.

domain, due in particular to the influence of the anthropologist Claude Levi-Strauss.

The reason given by structuralism for the separateness of the humanities is wholly different from those which were advanced by Windelband and Dilthey. Structuralism sees human action as no less determined than physical phenomena. But human actions are determined by their place within a totality, *a structure,* not by a mechanical one-cause-one-result sequence (cf. below, p. 196f). Even though the model of causation is different, structuralist theories are thus more deterministic than Marxist explanations – and "vulgar structuralism" at least as deterministic as most of those variants of "vulgar Marxism" which have been produced by the various branches of the labour movement for agitation purposes.

A distinctive characteristic of many structuralist currents is the absence of historical development. This differentiates average structuralism from both Marxism and from nineteenth century historicism, and indeed from all evolutionary theories. Structures are presumed to be static, and their single elements seem to be permanently fixed by the totality in which they participate. Since historical change cannot be declared to be non-existent, it is relegated to the region of the *twofold unaccountable:* that which neither can nor should be explained scientifically[132].

In some cases, the dismissal of change results from theoretical system-building: the theoretical construction seems to leave no place for change. In others, it expresses the rejection of alternative theories or approaches: Marxism, or the particularistic philosophies of Dilthey and Windelband. (Of course, theoretical system-building and a-priori rejection of alternatives are not mutually exclusive). All in all it must be concluded, however, that although the formulation of certain variants of structuralism may have to do with the aspiration to provide a semi-political demarcation, it is hardly possible to give a single explanation of this kind to the whole movement,

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[132] This position repeats a traditional Aristotelian notion much more loyally than supposed by the less learned among the structuralists (cf. above, p. 41). Even Aristotle had supposed that science (*epistēmē*) had to deal with *necessary truths,* which could only be derived from the immutable forms. Single events, and change – indeed everything dealt with by the humanities according to Windelband and Dilthey – were things which *needed not* have happened: they were *contingent,* accidental, and thus outside the scope of science.

which is much too diverse for that. It is even possible to point at several important variants of structuralism which are strongly committed to dialectical explanation of historical change (Roman Jakobson's linguistic theories; Piaget's structuralist psychology; and some of the Marxist varieties of structuralism): structures, through their functioning in discursive, cognitive or social practice, engender tensions, which erode their stability; in the end, the old structure is exploded, and a new structure crystallizes.

Better than such external sociological explanations of the structuralist current within the humanities is the explanation via the subject-matter: as the humanities moved away from and beyond mechanistic psychology and from the neo-Humanist selective interest in ancient texts and history, the understanding of complexity became important. The evolutionary and historical approach to both linguistics and texts were unable not only to solve but even to formulate many pertinent questions. The structuralists took up that aspect of their subject-matter which was traditionally left aside in the historical and evolutionary approach – and in a first approximation they would then concentrate on the aspect of synchronous complexity, leaving the historical aspect to the tradition and the integration to a later generation (which has indeed taken up the job in recent years).

During the last two decades or so, the dogmatic first approximation has been left behind in many fields. Whether as part of academic career strategy or for other reasons, the change has been given high-flown names ("deconstructivism", to mention one example) by some of those who want to lead or to participate as pioneers in a scientific revolution. Others, seemingly more eager to till their field than to put up fences around it, tend to make judicious use of all the insights inherited from earlier generations – trying, like Diderot, to use "the best from all philosophies", but being perhaps more aware of the dangers which inhere in the combination of theories whose basic ideas contradict each other. It may be difficult to distinguish nowadays a Marxist who has read Weber and Levi-Strauss thoughtfully from for example a Weberian or a scholar who started out from structuralism with similarly open-minded readings.

For the sake of clarity, Part II of these notes will start to put up some fences between different approaches to the subject-matter of the humanities. The essence of the message will be, however, that grazing is unhealthy

if it is restricted to a single and dogmatic approach.

PART II: HUMAN SCIENCE AND PHILOSOPHICAL ANTHROPOLOGIES

11. COGNITIVE INTERESTS

Chapter 1 presented Habermas' concept of *Erkenntnisinteressen* ("cognitive interests", i.e., incentives for searching knowledge), and they have been referred to repeatedly in subsequent chapters. Habermas' categorization is inspired by other philosophers, but the total scheme is original, as is his way to connect three fundamental conditions of human existence with three *Erkenntnisinteressen* and with three prototypes of scientific knowledge.

First comes *work:* as human beings we *work*, i.e., we produce according to a conscious *plan*, in agreement with knowledge of materials and tools. *Work* provides us with the material fundament for our existence. To *work* as a condition of human existence corresponds the *technical* cognitive interest, *knowledge as power*, knowledge of how means can be used to attain a given goal.

Ultimately, this understanding of *work* is inspired by Marx (and, behind him, by Aristotle and Plato). But the actual formulation of the idea owes much to Max Weber's idea of *Zweckrationalität*, *strategic rationality*, which is precisely the rational choice of the best means to achieve an already given goal – a goal which itself is not subject to discussion.

Next we have *interaction:* as human beings we are parts of a human community built not least on *communication*. Communication, however, presupposes the possibility of mutual *understanding*. The corresponding cognitive interest is *practical:* the quest for *knowledge as a guide for practice*, i.e., for life together with others, within an existing social order and community. One will notice, firstly, that a distinction is presupposed between *that which is good for something (else)*, corresponding to Greek *technē*, and *that which is good (in itself)*, corresponding to Greek *praxis* (whence the

terms *technical* and *practical*)[133]. One observes, secondly, that "life together with others, within an existing social order and community", implies that the framework of this community is taken for given as the self-evident fundament for discussion. For this reason, the *practical* cognitive interest becomes *legitimizing*, a search for knowledge about the existing order as it *ought to be because it is* (namely because it is necessary for our existence in community) – knowledge implying that *we are OK*.

Since its beginning, this *legitimization of ourselves* has always been an important purpose of the writing of history (be it in the message of the *Old Testament* about the Select People, be it in Herodotos' lessons about the contrast between the Greek *polis* and the despotism of Oriental societies). In recent years it has again been taken up by conservative thinkers (including the present purportedly Liberal Danish Minister of Education) as the main purpose of history as a school subject: it is important that Danish children learn about the Danish colours (the Dannebrog) falling from heaven during a battle against the heathen Estonians in 1219: important because it tells us about the specific (and, given the story, superior) qualities of being Danish[134].

The third condition is *emancipation:* the given circumstances which determine our existence as human beings are historical products and not perennial. We can thus free ourselves from their compulsion (though not

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[133] We remember that a *techne* was, in the opinion of Plato, Aristotle and other ancient philosophers, knowledge about the vulgar and morally inferior production of useful goods (with "the art of medicine" and "the art of rhetoric" as exceptions). *Praxis*, on the other hand, was the subject of the most elevated branch of philosophy, the one dealing with *the Good*.

[134] This purpose has important implications for the teaching of history. If history teaching is primarily meant to inculcate awareness of what it means to be a Dane, it is less important whether the story is objectively true or (as I was told by a subversive teacher in 1956) an international anecdote imported from Portugal together with the Portuguese-born queen Berengaria. There is therefore no reason to oppress the children with the tools of scientific history: historical method, critical sense, etc. At best they are superfluous, at worst they undermine the *real* purpose of teaching the subject: the affirmation of national identity.

The story of Dannebrog is not to be learned by the children as an coincidental objective fact but *as a meaningful message* – they are to *understand it as Danes*. History is no science, but belongs at the same level as poetry (more precisely, the level of poems like *Britannia Rule the Waves* and *Deutschland, Deutschland über Alles*).

from the need for *some* social framework) – not arbitrarily, but if we know to distinguish necessities to which we have to bow from fetters which are not (or no longer) necessary. The corresponding cognitive interest is *emancipatory*. Whereas the technical cognitive interest can be correlated with Weber's *Zweckrationalität*, his *Wertrationalität* – the reasoned discussion of our ultimate aims, of their attainability, mutual relations and consequences – is thus associated with the emancipatory cognitive interest[135].

Habermas' scheme is often regarded as a reaction to Marx' social theories (which are then claimed to focus exclusively on the aspect of *work*). It has also occasionally been presented in this way by Habermas himself. In fact, however, Marx' concept of *social practice* encompasses all three domains: *work*, the process by which men reproduce their living conditions, always takes place within a social community, within and as part of the historical process. It is thus more accurate (as done by Habermas on other occasions) to see the threefold scheme as a detailed specification and schematization of ideas present in Marx' writings but forgotten by many of his interpreters (Marxist and anti-Marxist alike).

According to Habermas, three prototypes of scientific work corresponds to the three cognitive interests:

1. The *natural sciences*, regarded as mere means for technology: engineering physics, agricultural chemistry, agricultural and medical biology, mining geology – such "applied sciences" provide the model. The method of this type of science is claimed to be experimental and empiricist (on occasion hypothetical-deductive) – summed up as "positivist"[136].

2. The *humanities*, those disciplines in which we try to understand texts from other historical periods or other cultures, or just the expressions of the consciousness of others, *on their proper conditions which we have to accept*,

[135] The aspirations of emancipatory knowledge is illustrated by an old prayer (attributed at times to St. Francis of Assisi): "My Lord, give me strength to do what ought to be done; patience to suffer what cannot be otherwise; and wisdom to distinguish one from the other".

[136] This use of the term is not directly derived from neither Comte nor Mach nor from the "logical empiricism" of the Vienna Circle, but relates to Comte's original usage through a series of misunderstandings by social scientists claiming to emulate the objective methods of physics and by polemics against these formulated by other social philosophers (especially those belonging to and inspired by the "Frankfurt school").

in agreement with the radical historicist ideal. The method is *hermeneutic*, i.e., "dialogue" with the subject-matter.

The reason that *practical* cognition must make use of this method is the following: at our first approach to a foreign text (in the wide sense, i.e., to any spoken, written, sculptured, painted or similar expression of meaning) we interpret it in agreement with our own presuppositions and prejudices, which are in fact *our only access to the universe of meanings*. But if the foreign text does not fit our interpretive expectations on all points (which it rarely does), and if we investigate the points of non-compatibility seriously, we will be led to revise our prejudices. The revision will enable us to understand the presuppositions of the foreign mind (or understand them better) and hence even to understand ourselves from the foreign point of view. Understanding the other leads us to better insight into our own expectations to universes of meaning, and hence allows us to approach the foreign text (or other texts) with better prejudices. This "hermeneutic circle", as it has been called by Heidegger and Gadamer[137], is thus a generalization of the ideal dialogue between equals.

3. The *"critical" social theory*, which is not satisfied by knowing "how it is" but also asks the causal question "why it is so", namely in order to answer the ultimately decisive questions "which change is possible?" and "how can it be brought about?"[138]. The *principal method*, according to

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[137] The term is older, and was originally used (thus still by Dilthey) about the relation between the single parts of a text and its totality, which follows a similar pattern: only understanding of the totality allows us to choose a particular interpretation of the single sentence – but on the other hand, the meaning of the totality has no other source than the interpretation of its single constitutive parts.

If we see the meaning of the totality not as an objective horizon inside which the single sentences are formulated but as *our* construct, as an framework which *we* have to build up and presuppose in order to be able to understand, the step from Dilthey's notion to the present use is seen to be short.

[138] It can legitimately be asked whether there is necessarily anything *critical* in these questions. Aren't they the questions of any *applied* science, including applied social science? Does not the economical planner in a firm ask *why* it encounters losses, and what should be done in order to change negative profits into positive ones? On the surface of things the questions are indeed those of any applied science, and the particular character of the "critical" theory only appears if we distinguish *different levels of causality*.

In order to see that we may turn to Hume's classical example: the billiard-ball which *starts* rolling "because" it is hit by another ball (Humean causality, which, if we leave Hume's subjectivism apart, is grossly identical with Aristotle's "efficient" cause) – but which only starts *rolling* (instead of falling or sliding) because it is

Habermas, is critically reflexive hermeneutics – social structures and relations can neither be understood nor *a fortiori* be changed in a progressive way if we disregard the way participants understand their world.

This principal method has, however, to be supported by the methods of technical cognition. The inclusion of these "technical" methods in the project of emancipation can be explained by the need to step outside the *given* world and make it an object of your reflection, in the same way as the technician places himself above the objects he is going to change or construct. But while the engineer is no part of the bridge he builds, no revolutionary can avoid being himself a member of the social world, however much he believes to be in opposition; being in opposition simply means that he is involved in its inner conflicts. Emancipatory changes can therefore only be produced in dialogue with that social community; forgetting that fact is often a symptom that your deepest aim is not really to *change the world* but only to *change your own position within this world;* treating fellow human beings solely as *objects* is not possible; what you really do if you try is to treat them as *enemies*, trying to make sure that they shall not be able to do to you what you are doing to them[139].

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spherical, placed on a smooth table covered with cloth (here we might speak of "structural" causality, referring to the total structure of the situation in which the event of hitting takes place). The critical "how", "why" and "which" all concern the structural level, whereas normal applied social science only asks for efficient causes: which events should be brought about in order to engender the situation asked for. The possibility of distinguishing social technology from emancipatory *praxis* thus hinges on the possibility to distinguish the combination of multiple events from structure (a possibility denied by some social theoreticians with a nominalist bent).

The attempt of the Enlightenment philosophers to demarcate themselves from the projectors (cf. note 107) is obviously related to the present distinction between emancipatory *praxis* and socio-technical management. As pointed out by Gadamer, Habermas' very way to introduce the emancipatory interest presupposes the ideals of the Enlightenment; from Gadamer's conservative point of view, practical insight might also be that authority is legitimate – "what is under dispute is simply whether insight always dissolves the substantial [i.e., social, supposedly oppressive] relations, or it might lead to mental accept" (Apel et al 1971: 72ff, quotation p. 74).

[139] In the first instance, this is a purely philosophical observation which need not involve any feelings of enmity or hatred: an object cannot react with the intention

The meaning (and at the same time, the open-endedness) of this notion of the conditions for emancipatory change may be made more clear by a comparison with certain revolutionary theories. Most pertinent is Lenin's theory of the role of the revolutionary Party (as interpreted by Gramsci): the Party is the "collective intellectual", the group which formulates the world-view of the working class and creates the concepts required to formulate it; but it cannot do so by erecting itself above the working class (as done by Blanquism, Stalinism, and in certain of the "terrorist" offspring movements of the student rebellion). This is the point in Lenin's *What Is to Be Done?* from 1903: that *the newspaper* is the fundament for the effective realization of the Party, not vice versa. Only if a channel exists for communication with the working class will it be possible for the Party to act as its "collective intellectual", i.e., to *exist* as a revolutionary party.

Even Che Guevara's interpretation of the success of the Cuban revolutionary war elucidates Habermas' idea: the twelve survivors from Granma were not able to conquer Batista's armed forces. But they were able to demonstrate the vulnerability of these forces, and hence to awaken the terrorized population and make it believe in the possibility of successful change. The guerilla attacks on the Batista militia were thus in their essence *texts*, acts of communication, expressed in *the medium* of military action – and they were read as intended by the "target audience"[140].

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to escape your influence (even though the bridge you build may defy your expectations and fall down); an enemy is someone who possesses a will, and who might intentionally try to frustrate your plans – which you will then have to prevent. *An object*, in other words, possesses no will; *an enemy* is somebody whom you try to deprive of the ability to exert his will (cf. the related observation made by Kant and quoted in note 115).

In critical situations, however, the abstract philosophical categories materialize in psychology and behaviour: the torturer, in contrast to the blacksmith, tends to loose self-control during his "work" and has to be observed by a "neutral" physician in order not to kill the victim too soon – even the professional torturer is not able to regard a fellow being as a pure object.

[140] The term "target audience" is borrowed intentionally from the advertisement industry, because it shows the weakness of the Guevarist approach, especially as understood by European student revolutionaries: a "target audience" is an object: you check its reactions in order to find out whether you should change the way you present your message in order to make it buy your toothpaste or your revolution; but you do not listen to it in order to find out whether it really *wants*

There are good reasons to associate Habermas' idea of emancipatory knowledge with the theoreticians of the socialist movement. Already the Enlightenment believed in a natural alliance between knowledge and progress, it is true. But the Enlightenment never arrived at formulating clearly the relation between *technical improvement* (i.e., strategically rational change of society, where some members of society *know better* and improve on behalf of everybody but according to their private knowing-better) and *emancipation*, even though the contempt for projectors and the terms of Diderot's denunciation of enlightened despotism foreshadows the distinction; furthermore, as the dilemma had posed itself (all too) clearly during the French Revolution, the reaction of the bourgeoisie and its thinkers was to aspire only to technical improvement and to opt exclusively for strategic rationality. Only the radical intelligence and the labour movement stuck to the conviction that *reason* could be used to criticize and improve the fundaments of society, and discovered that reason was also required if one wanted to distinguish possible change from utopian dreams. The first clear formulation of this historical determination of possible progress is in fact due to Marx and Engels.

Politics, however, is not the only frame of reference for emancipatory knowledge. Another one is provided by *psychoanalysis*. Even psychoanalysis presupposes that the therapeutist, firstly, *understands* the patient; secondly, understands more about the patient than the patient is immediately willing to admit himself; and, thirdly, makes the patient understand even this.

Before we leave the problem of emancipation, it should be emphasized that Habermas distinguishes natural science, humanities and *critical* social science, not just natural, human and social science. A main point of his system is indeed that much social science is not critical but (socio-)technical, and that this constitutes a (philosophically and morally) illegitimate mistake of category: a science which *should* deal with emancipation (because its agents are themselves part of the "object" of their science) is misconstrued as a technique for the exertion of power and for the management of existing social relations[141].

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the product you offer (whether toothpaste or revolution).

[141] One may notice that the dilemma is not very different from the one which Plato

Useful though it is, Habermas' scheme still calls for various comments and critical observations. One has to do with its relation to Marxism. As it should already be clear, the scheme is inspired by Marxist thought; it differs from Marxism, however, by being more generalizing and abstract. One might regard it as "Marxism minus the class concept", i.e., as a retreat from the insights of the nineteenth century to the ahistorical, abstract human being of the Enlightenment. None the less, another interpretation seems more adequate and more fruitful: namely that the abstract scheme is there to be filled out, and that social classes as well as all other historical realities will turn up as soon as we ask the questions of emancipatory, critical social science: "How is the situation?" and "Is this situation really still inescapable?"

Another problem is presented by the purported one-to-one correspondence between cognitive interests, knowledge types and scientific domains. As it has been amply argued in Part I of the notes, Habermas' correspondence is not transhistorically valid, not even as an approximation. Admittedly, from the onset of neo-Humanism and historicism until recently, the humanities have largely aimed at non-critical *understanding*, being thus *practical* in Habermas' sense. But for long periods a number of humanistic disciplines, in particular rhetoric, have been *technically* oriented – aiming, it is true, at *communication*, but at *technicalized* communication where the receiver (the "target audience") is treated *as an object* (i.e., according to the above, *as an enemy*) and not as a dialogue partner. The leading questions may be formulated thus: how should I use speech in order to achieve what *I* want, how will I be able to make others see things the way *I* want them to be seen? Post-1968 humanities inspired among others by Habermas, on the other hand, tend to *understand themselves as*, and sometimes even *try to be* emancipatory[142]. Since the rise of sophisticated advertisement and

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forces the sophist Gorgias to admit in the dialogue carrying his name: if the teaching of rhetoric gives you the ability to achieve effectively any goal you may choose, how can it then lead us toward *the Good?*

[142] Also Dilthey, in his birthday speech (cf. p. 163), had spoken of the humanities, or at least "the historical world-view", as the "liberator of the human mind from that last chain which philosophy and natural science have not yet broken". His distrust of the [apparently Social Democratic] "anarchy of opinions" was precisely

of the "scientific" use of the media for propaganda purposes, finally, socio-technical humanities (similar in aim but broader in scope than classical rhetoric) have become increasingly important once again. After having retreated since the late Renaissance to the role of legitimizing the existing circumstances, the humanities find themselves today precisely in Gorgias dilemma.[143]

A third qualifying remark is that an absolute distinction between *interaction* and *technique* is philosophically problematic. A normal dialogue will rarely have as its only purpose to *understand* the dialogue partner – often, the conviction that *you yourself* are right is as important, together with the aim to *convince the other*. Understanding and participation on an equal footing are thus *prerequisites* for reaching that goal, a *means* for that technical interest which consists in making the other accept. Since dialogue may none the less lead to the discovery that you are less right that originally supposed, interaction and technique cannot be separated through a simple distinction between "real" and counterfeit dialogue.

This objection does not mean that the three fundamental conditions for human existence – work, interaction, emancipation – are worthless as concepts. The crux is that they should be considered as *poles* with respect to which our acquisition of knowledge is oriented, not as *classifying boxes* inside one (and only one) of which each act of knowing belongs.

The main source of many of the problems associated with Habermas' scheme is that he builds his understanding of the single scientific domains on the interpretations of other philosophers (often normative interpretations,

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due to his fear that it would prevent this liberation.

[143] The humanities are not alone in having sometimes deviated from Habermas' prescriptions. Until the late Renaissance, we remember, the aim of natural knowledge was not technical at all but "theoretical", which in phases of "enlightenment" character (early Greek philosophy, and the "twelfth century Renaissance" – precisely the phases where the interest in natural knowledge was most ardent) made it a contribution to the emancipatory movement: as Kant told, enlightenment is "Man's withdrawal from that state of minority in which he has placed himself"—"Ausgang des Menschen aus seiner Selbst verschuldeten Unmündigkeit" (*Was ist Aufklärung*, A 481). Even later on, natural science has been pursued not only as potential technology but also because of its role for the formation of a secular world picture.

stating what *ought to be* the methods and aim of the sciences), and not on original investigations.

His description of the natural sciences as nothing but technology *in spe* is thus borrowed from American pragmatism, in particular from James Peirce. His portrayal of the humanities, on the other hand, is taken from Dilthey and, in particluar, from Gadamer and other recent followers of the Dilthey tradition, and thus owes much to the German historicist and neo-Humanist tradition. The concept of a critical social theory, finally, originates with the "Frankfurt school" of Adorno, Horkheimer, Marcuse, Erich Fromm and others, who provide the nexus to Freud's psychoanalysis. Since these philosophers and philosophical schools fasten upon different aspects of the scientific activity, Habermas' eclectic approach causes him to miss the shared cognitive interest of the natural sciences and the humanities: the aspiration for world order and for comprehensive understanding of our *total* condition within the cosmos. This cognitive interest (which has something in common both with the practical and the emancipatory interests and with the "theoretical" interest of Greek philosophy) could be labelled "ordering curiosity" or "critical world order construction".

12. ANTHROPOLOGIES

The various theoretical and empirical objections which can be raised against Habermas' scheme do not prevent it from being an important contribution to the understanding of the roles of the sciences, not least of the different possible roles of the humanities. Apart from this direct importance it is, moreover, illustrative of an aspect of the fundaments of the humanities (and, to some extent, of all sciences *qua* human activity): it builds on *an anthropology*, a philosophical notion of what human beings

are / should be, and which are the fundamental conditions of human existence.

It should be observed that we are here speaking about a so-called "philosophical anthropology", a concept that differs from, and has often preciously little to do with "cultural" or "social anthropology" (≈ethnology), and shares nothing but the word with "physical anthropology" (a discipline which investigates the variations of the human body, for example the geographical and temporal distribution of skeleton types). Admittedly, the empirical discipline of cultural / social anthropology presents serious challenges to many dogmatic philosophical anthropologies – but too often these do not accept the challenges offered by inconvenient empirical evidence.

It goes by itself that a philosophy of the humanities as sciences dealing with the *specifically human* aspects of human life (as distinct from the medical aspects or the fact that our bodies are subject to the law of gravitation) must contain or presuppose an anthropology, formulated or hidden, not only because its object is (like the object of any philosophy of science) a *human* practice, but also because the *object of its object* – the object investigated by the humanities – is human practice.

Philosophical anthropologies may be specified instead of being tacitly presupposed. As the name suggests, the formulation of explicit anthropologies is an old preoccupation of philosophers, and discussions of human nature and of the nature of human society are a fundamental ingredient in moral and political philosophy. There is, however, no reason to present established philosophical anthropologies in the context of a general discussion of the humanities. More appropriate is a discussion of the main types of tacit anthropology, since it may sharpen the awareness of the anthropological presuppositions which one makes in one's own work.

A handy first division to be used in the following is the dichotomy between *created man* and *creative man*. *Created man* is the approach of the anthropologies that undertake to describe man and human action (etc.) as the products of some *external* factor. Here, "external" may then refer to very different instances:

Man may be seen as a products of *his body*, considered either as a physiological mechanism or as a set of biologically determined possibilities, drives, or instincts ("biologism").

Instead, people may be viewed as products of *their environment:* of their

childhood experience or conditioned reflexes, or of their social and geographical environment ("sociologism").

Finally, single individuals may be regarded as pawns in a larger game which surpasses their understanding, and where no choice is left to them outside the role assigned to them ("structural determinism").

Biologism has a tendency to dismiss states of the mind as causes of human action. ("The brain secretes thought as a working body secretes sweat", in a classical aphorism; sweat, as we all know, is a by-product and does not in itself effectuate anything). The same tendency prevails within behaviourism (to be presented below; aphoristically, "we do not run away because we are scared; we become scared because we run away"). It is not true to the same extent for sociologism and structural determinism. They accept that my actions result (or result in part) from my conscious decision. But my consciousness is determined by my past experience, my passions, etc., and these, on their part, are determined from the outside, by my social environment, the structure of my language, my societal conditions, my class situation, etc.

Some brands of determinism suppose that every single move we undertake is determined, as the movements of a mechanical device (say, a clockwork or a car) are determined by its inner structure and by the external influences to which it is submitted (whether the clock is wound, or whether the car is provided with gas and somebody activates the speeder)[144]. Others are more modest in scope, and only look at the average of our actions, or at the general patterns which govern people's actions in a given society. To a large extent, total determinism is favoured by those approaches which reject mental states as possible causal agents.

Creative man is the stance of those anthropologies which concentrate on man as the possessor of free will, and which see the *specifically human* in human action as the ability to transcend external determination. More on this below.

For clarity's sake, it will be convenient to discuss many of the anthropologies in their crude or "vulgar" version, where their distinctive

[144] Twentieth century physics and information theory have rejected total predictability even in the case of physical mechanisms. Nobody will probably believe human beings to be more strictly determined than clocks, but on the other hand most of us believe that the working and wearing of the clock is determined for all practical purposes, irrespective of the niceties introduced by quantum physics. The objections to determinism in general as formulated by modern physics are thus probably not the ones which first come to the mind when human action is discussed.

features stand out more clearly. It is true that the conspicuous weaknesses of the vulgar versions need not characterize the corresponding sophisticated theories – but is is no less true that the weaknesses of the vulgar versions are very close at hand when anthropologies are presupposed in work dealing with other matters, since sophistication (like other external adornments) is easily worn off in use.

13. THEORIES OF CREATED MAN

Determination by the body

This type of anthropology has always been a close reflection of the technical and biological knowledge of its time. It came up for the first time in the seventeenth century, when the emerging mechanical technology inspired Descartes' conception of men (and animals) as clockworks, as automata. To Descartes and his contemporaries it had been obvious that the human automaton would have to contain a non-material soul, whose relations to the mechanism was an unsolved riddle. La Mettrie and the other eighteenth century materialists, as we remember, solved the puzzle by dispensing with the hypothetical "ghost in the machine", but ran into other antinomies – what does it mean that an automaton is happy?

The seventeenth-century mechanical understanding of life was a postulate with little empirical support beyond the newly acquired understanding of the bone-muscle mechanics, the pipe-line system of arteries and veins, and the character of the digestive apparatus as a chemical plant. It was a postulate that *the functions of life had to be explained that way* – at best it was a "research programme". The nineteenth century advances in physiology demonstrated the clockwork model to be much too naive. At the same time, however, they seemed to promise explanations

of the same kind but on a higher level – and the advent of the electronic computer made a new model available, which for a while could be believed to contain the principle of the human mind. For a while, indeed, man was claimed to be a fully automatized plant governed by a central computer.

Even the computer model was a postulate without genuine empirical foundation, no less naive as an anthropology than the clockwork model. It should not be forgotten, however, that both have been fruitful – not least *as challenges*, namely through the questions "through what is man *more* than a physiological clockwork?" and "what is the *difference* between the human mind and a computer?"[145].

More important in certain quarters of contemporary humanities than this physiological mechanicism is the conception of man as identical with his *biology*. In one variant this notion is the fundament of that psychiatrical current which considers psychical disease as nothing but organic disease affecting the biochemistry of the brain and thus the mental state of the patient (for which reason the best cure is also chemical). Directly, of course, this regards only psychical disease – but indirectly it implies that all mental states result from chemical causation. This current thus identifies *biology* with *physiology*, nowadays mostly by searching for the connection between particular chromosome defects and specific mental diseases.

In contrast to the classical clockwork and computer models, the medico-psychiatric view is thus built on the most advanced *biological* research of

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[145] Many of the advances which took place in linguistics in the late 1950s can be seen in part as reactions to the failure of the naive computer model, more specifically the inadequacy of early attempts at computer translation from Russian into English, which demonstrated language to possess an unsuspected structural dynamic. As told by Chomsky (1979: 125–127), the originator of transformational grammar: "All these theories [inspired by the mathematical theory of communication, information theory, and the theory of automata] left me very skeptical. [...] I wanted to prove that these models were not appropriate for the grammar of natural language". In part the new developments also interacted directly with the computer model: "generative grammar" is strikingly similar to the way computer languages are defined.

A computer model for language is not in itself the same as a computer model for human behaviour, it is true. Yet if language, a fundamental tool for, and a constitutive element of behaviour, cannot be expressed in computer terms, nor can behaviour in general.

the day and not on more or less gratuitous postulates. Seen in the context of earlier physiological determinisms it can be claimed to fulfill some of the promises made by La Mettrie on genuine treatment of psychiatric disease. Postulates creep in, however, when it is concluded that behaviour and intelligence must be just as directly correlated with genetics as for example mongolism[146].

Quite different in character are two biologistic levels of psychoanalysis: on one hand Freud's theoretical superstructure, on the other popularized "vulgar psychoanalysis". They do not build on actual results of biological science but on their own, prescientific concept of human biological nature as a lump of "drives" – firstly the "sexual drive" (in the case of which, however, the observations only fits the "vulgar" version, cf. below), secondly (in the late version of Freud's metapsychology) the "death drive".

The term itself is telling. A "drive" is something to which you feel pushed, in a way which makes it difficult or impossible to desist from doing it. It thus designates a subjective feeling; when used as an objectivist description it belongs on the level of Comte's "metaphysical" explanations, on a par with the "sleep-provoking force" of opium made famous by Molière. This is at least the character of the "death drive". Even Freud's "sexual drive", it is true, is borrowed from traditional pre-scientific parlance. But this traditional term is transformed and given a precise meaning as a description and recapitulation of psychoanalytical empirical evidence (in a way similar to the transformation of common sense and "metaphysical" concepts like "force" and "energy" in classical physics). Experience with neurotics, in particular, who were not able to desist by simple decision (for instance, from being claustrophobic), called for a scientific conceptualization of the causation mechanism giving rise under specific circumstances to this neurotic anxiety. The "death drive", on the

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[146] What is said here concerning the medico-psychiatric view regards the advances made in some branches of psychiatric medication during the last one or two decades. Until then, philosophical inferences of the kind which are described here were no less postulates than Descartes' automata. Pills were used simply *because they worked*, and without any insight in their biochemistry (i.e., worked better than *no* pills, in the perspective of the therapeutist). Justifications of the method were either craftsman-like pragmatic or vulgar-positivistic, and not analytical. For many chemical cures they still have to be.

other hand, was appealed to as a universal key to the incomprehensibly dreadful: the mass slaughter of the World War, perpetrated and accepted by otherwise peaceful and seemingly reasonable people. The explanation of these horrors as resulting from an irreducible "drive" is nothing but the pessimistic observation that "apparently our fellow beings are unable to desist from doing it".

It should be remembered that Freud himself only uses this pseudo-naturalism or -biologism as an explanation of human behaviour up to a certain point (in contrast to much "vulgar" or "newspaper Freudianism"). The very aim of psychoanalysis is, indeed, to give the patient (and, *a fortiori*, the non-patient majority) so much understanding of himself that he is able to master his drives and their expression by means of reason.

Somewhat similar in character, but not supported by empirical evidence comparable to Freud's analyses, are the so-called "aggression theories". They play a lesser role than psychoanalytical anthropologies, for example in the interpretation of literature – where various variants of Freudianism have sometimes taken over the once primordial role of *race*, *milieu* and *moment* as the inevitable starting point – but are of some importance because of their distinction within miscellaneous grandiose speculations about human society and culture past, present and future. Making use of superficial observations of the behaviour of select animal species and of superficial Darwinism they claim that man is, because of his evolutionary past, *nothing but* an aggressive animal.

A favourite "empirical" argument for this principle is that sexuality need not be an irreducible "drive" but may express aggression and submission. This is a nice argument against vulgar Freudian pan-sexualism, but not relevant as an argument in favour of anything. It should be well-known to anybody willing to open his eyes that sexuality can serve as a symbol with many functions: for example religious – just read Pietistic religious poetry; or social – the classical myth of revolution, as exemplified in the tale of the abolition of kingship in ancient Rome, speaks of the sexual offenses of the rulers and of the just revenge of the offended.

The pan-sexualist, of course, may claim that this is just a proof that religion and social protest are *nothing but* (misdirected) expressions of sexuality. Similarly, the aggressionist may claim that amorous behaviour and smiles are nothing but veiled aggression. The arguments are wrong: as a rule, evolution (as exemplified for instance by biological evolution) makes use of the Biblical principle of "pouring new wine into old bottles" – bottles which then in the long run are transformed

so as to fit the new content better. Our auditory canal *is* no gill slit; the swimming bladder of the cod *is* no lung; and so on. The auditory canal and the swimming bladder bear witness of an evolutionary history, no doubt about that; smiling may do so, too. But this is quite different from *identity*.

Since the scientific foundation for aggression theories is meager and highly ambiguous it seems reasonable to explain them sociologically. Like that social Darwinism which they perpetuate (cf. above, p. 156) they naturalize a specific historical situation: that of the mature capitalist epoch, where competition is no longer believed to be conducive to the equilibrium between all legitimate interests (as it could still be assumed when Adam Smith wrote his *Wealth of Nations*) but as a system where those who survive and breed do so because they are morally entitled to do so *qua the best* (to survive and breed). In an era of militarization, furthermore, the aggression theories explain why we should accept prevailing conditions and policies.

The sociological explanation is most relevant if one considers a popular writer like Desmond Morris, who is probably the best known exponent of the current. The ethologist[147] Konrad Lorenz argues to a much larger extent from his own research. He is thus not only a popularizer on a higher scientific (and stylistic!) level than Desmond Morris but also to be taken more seriously as a scientist. Even *his* theories, however, must be understood as political arguments depending on their historical context – as his argumentation from 1943 that the eugenicist programme should to a larger extent take *physical beauty* and not just *race* into consideration: evolution, so the argument goes, has selected an aesthetic feeling in us which gives the most healthy genes a higher transmission probability by making us find their carriers more sexually attractive than the carriers of less healthy genes. In other words (granted the year and the country *inside which*, and the idiom *in which* the article was written): the *ugly*, not necessarily Jews and Poles, should go to Auschwitz[148]. Socrates, according

[147] Ethology: the study of animal behaviour.

[148] See Lorenz 1943, *passim* (pp. 397–401 of the summary provide convenient clues), cf. also Kalikow 1980: 204–206. It is a noteworthy challenge to all facile identifications of moral and political acceptability with scientific importance that precisely Lorenz' 1943-paper has become the starting point for an influential line of philosophical thought ("evolutionary epistemology") quite devoid of racist implications. On the other hand one may observe that the basic points had already

to Lorenz's choice of pictorial representations of degeneracy, would have had to go. Physical beauty is a token of valuable genes.

Related to aggression theories but seemingly more firmly anchored in biological science is the recent field of *sociobiology* (Edward O. Wilson and others). The basis of their argument is supplied by the social insects: termites, bees, ants. To a larger extent than individuals in non-social insect species, a working bee or ant shares its genes with its companions and, in particular, with the queen which takes care of reproducing the group. When the genes of the ant makes it behave altruistically, for example by extinguishing a fire in the ant hill by throwing its own body into it, the chances *of the genes* to survive are augmented, since they are also present in the other ants of the hill and in particular in the queen. The apparently altruistic action on the level of individuals is thus reduced to an egoistic action on the supposed *real level* of evolution, that of the genes.[149] Ants, as a consequence, are nothing but the means by which ant genes reproduce (in the well-known manner in which human beings are nothing but the means by which cars proliferate).

Obviously, similar arguments of shared genes do not fit the social behaviour of human beings, who share as many genes with their siblings as other mammals whose pattern of social behaviour differs widely from theirs. In order to explain human social behaviour, altruistic as well as egoistic, analogies with other species (in particular chimpanzees) are appealed to. It is claimed that the leading male monopolizes access to the females of the band, at the very least during the period where they are fertile; in this way *his genes* ensure their optimal chance of survival. The

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been made, without Lorenz's dubious implications, by both Friedrich Engels and James Peirce, and speculate why it is always Lorenz that is referred to as the founding father.

[149] In justice it should be emphasized that the theory implies (and that Wilson points it out explicitly) that egoistic behaviour at the level of individuals is just as much in need of genetic explanation as altruistic action. Individuals are no more naturally egoistic than naturally altruistic. Whether one strategy or the other is most advantageous for the survival of a gene depends on concrete conditions.

But as so often in this domain since publicity reasons made Darwin accept the meaningless survival-of-the-fittest slogan of social Darwinism, such fine points are lost in the popular version of the theory.

genes of the female, on the other hand, are best protected if she ensures the protection of a strong male for her offspring. *Therefore* human males ought to be polygamous, and human females monogamous[150].

Precisely the reference to chimpanzee behaviour, however, demonstrates the weakness of the programme: the image of chimpanzee life which serves as argument is outdated. It was invented at a time when primatologists thrusted a duplicate of their own ideal human society on the chimpanzees, looking only for sexually monopolizing dominant males and compliant females. Since then (especially since woman primatologists invaded the field!) females have appeared to possess most of the initiative as regards the choice of partners, and the sexual behaviour of the dominant males has turned out to be uncorrelated with the period of fertility of females[151]. Like many similar undertakings, sociobiology has bought its all-encompassing synthesis at the cost of irrelevance with regard to much of

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[150] Evidently, this will not fit arithmetically, since the numbers of males and females are roughly equal; but this paradox can then serve as moral justification for economic inequality: the strong (males) should be rich and thus able to buy themselves a harem; the poor (males), on the other hand, unable to afford a wife, will not transmit their second-rate genes to future generations.

It was the constant nightmare of nineteenth-century eugenicists that their own class of people, educated, knowing about and having access to contraception and using it actively, tended to get fewer children than poor and supposedly less worthy people. Today, where easy access to contraception has come to depend quite as much on geography as on social class, the nightmare of their heirs has changed its appearance but not its contents: there are too many Non-$W_{hite}A_{nglo}S_{axon}P_{rotestant}$s on this earth, and their proportion is growing!

[151] This link between the perspective and the gender of researchers is (of course) not restricted to primatology. An eminent example is offered by a recent attack made by the anthropologist Derrick Freeman on Margaret Mead's work on the sexual behaviour of young girls in Samoa. Margaret Mead had interviewed the girls about what they actually did (and may have been told what they daydreamed of doing). Freeman interviewed old men of high social standing about what young girls should do.

Evidently, both the actual behaviour and desires of young girls and the moral expectation of the aged elite are constituents of a culture, and neither of the two is wrong – none of us can ask all questions at a time. But your particular situation as an individual research worker – who you are, what problems come to your mind immediately, with whom you communicate most easily – opens your eyes to certain questions and closes them to others.

that world which it wants to explain.

Environmental determination

That environment which is supposed by environmental determinisms to govern our development and our character is sometimes understood as the more or less accidental sum of events making up individual experience ("type I"), and sometimes as identical with that culture or global social structure which each of us shares with many fellow beings ("type II"; "sociologism" in the strict sense); it may also be understood as that sum of planned experiences and events which make up an education ("type I*a*", a specification of "type I"). Since the Enlightenment openly rejected the acceptance of everything *existing here and now* as *natural* and hence inescapable and timelessly valid (a tacit tendency no less inherent in Scholasticism and Aristotelianism than in sloppy common-sense thought), type I*a* has been the supposition underlying much *socialization theory:* the child is an infinitely malleable lump of clay in the hands of the educator. Type II, on the other hand, is implied in Montesquieu's statement that a Christian child placed in a Turkish cradle will grow up with a Turkish conscience (cf. p. 134) as well as in his climatic semi-determinism. Somewhere between type I and II we find Holberg's claim that in a country where women force their husbands to stay at home like housewives, the males will be prone to gossiping and in possession of all the vices stereotypically ascribed to females in *our* world.

A common variant of type I from our own century is offered by vulgar psychoanalysis (often in obscure mixing with the "drive variant" of biologism): everything we do results from childhood experience and childhood traumas, in ways we do not recognize; the rational reasons we may give for our actions are nothing but *rationalizations*, the cover-up stories by which we hide to ourselves and others their real, inadmissible cause[152].

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[152] Evidently, vulgar psychoanalysis, as other "vulgar" versions of grand theories, deserves its name by taking over prominent features from the original theory. "Rationalization", for instance, is Freud's concept and represents an important insight: much of Freud's analytical work aimed precisely at finding the childhood experience which had patterned the psyche of his patients and made them act in ways they did not understand properly and therefore explained by such

Of greater theoretical and philosophical interest is *behaviourism*. Originally, this was simply a psychological research programme of positivist colouring: which *"positive" empirical facts* are accessible to the psychologist? Not states of mind, since they are not objectively measurable, and the statements of people concerning their feelings and thoughts are not reliable. The only thing we can observe is their behaviour (John B. Watson, 1913). A supplement to this principle of epistemological sobriety came from Pavlov's experiments on conditioned reflexes (starting around 1900 and continued for three decades): a dog begins salivating when presented with food. If food is repeatedly offered to it while a bell rings, its will start salivating at the sound of the bell – even if no food is actually offered. And if a lamp is then turned on each time the bell rings the lamp alone may be sufficient to provoke salivation.

The idea that the Pavlovian principle could apply to learning was in the air around 1930 and one of the key themes in Aldous Huxley's *Brave New World* from 1932. Genuine scientific work in this direction took its beginnings with B.F. Skinner's experiments around 1950 (preceded by his World-War-II training of pigeons as pilots of bombs and torpedoes). As Skinner showed, a rat in a cage that receives food when it happens to step accidentally on a pedal will end up learning to step on the pedal when it is hungry.

So far, only sound methodological reflections and experiments were involved. However, Pavlov's and Skinner's results soon led to the familiar "positivist fallacy", which can be summed up in two points: firstly, that which cannot be investigated by means of "objective" methods *does not exist*. (Of course, this statement may simply be understood as a definition of "existence", in which case it can neither be confirmed nor disproved but only deemed appropriate or irrelevant). Secondly, that valid scientific

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"rationalization". But vulgar psychoanalysis is not only vulgar because it presents these features in cruder versions – this happen even in the best popularization of a theory; more important is that a few constituents of a complex and potentially dialectical network are picked out as absolutely valid. This is why vulgar psychoanalysis can be classified as a determinism (or a bastard breed of two mutually exclusive determinisms), while the original theory cannot.

In the idiom which was proposed above (p. 154), "vulgar" theories represent "popular", not "popularized science".

explanations *can* be constructed which refer exclusively to positively "existing" entities (which may of course be true, but which is still a fallacy in the sense that it does not follow from the premisses)[153].

A further consequence has been Skinner's "social engineering" as described in his book *Beyond Freedom and Dignity* from 1971. The first step in the argument deals with the nature of learning: *all* learning is assumed to follow the pattern suggested by the rat learning to use the pedal in the "Skinner box", i.e., through conditioned reflexes. We learn to write "4" when we see "2+2" simply because the teacher gave us "positive feedback" (praise) when we happened to give this answer. All talking of "understanding" or "truth" in this (and any other) context is nonsense. From this follows that we cannot learn to behave peacefully and decently toward each other through "understanding". Clever experts (the psychologists) will have to construct a programme for the training of other people (and themselves, for that matter) in *globally adequate* behaviour. This implies that we abandon the illusion of human freedom, and will by many be felt to hurt human dignity; but since the survival of the human race is at stake (and highly threatened) we cannot afford freedom and dignity – whence the title of the book.

The argumentation may seem attractive to intellectual desperados. None the less it is highly fallacious, for philosophical as well as empirical reasons. Firstly, it follows that Skinner cannot have written the book because it "is true", but only because he has been conditioned to do so (as he also states himself). In school he got praise, a piece of chocolate or a scrap of Jesus when answering as required by the teacher; at university he got degrees, appointments and higher salary when writing publishable books. *Beyond Freedom and Dignity* is thus simply a continuation of a behavioural pattern which was once *adequate for its author as a person* (but does not even need

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[153] The treatment given to *colour* by early seventeenth-century science may exemplify the fallacious character of the arguments. Galileo regarded colour as a secondary – i.e., purely subjective – quality, which science could not be concerned with; Descartes tried to explain it by mean of what he considered "existing" entities, namely from the rotation of "light particles" (cf. note 96). The latter approach brought no new insights, but later physical science has demonstrated that Galileo's epistemological pessimism was exaggerated: colour *could be* treated scientifically, but not in terms of what "existed" for seventeenth century science.

to be so any longer; the dog's salivation continues even if the bell stops being accompanied by food). But *personal* adequacy of *book-writing* is totally irrelevant to the question whether the advice dispensed by *this particular* book is *globally adequate*.

Secondly, it is questionable whether much of human behaviour can be described appropriately in analogy with the behaviour of rats in a cage, and whether our complex activities can really be described as composite conditioned reflexes. "Human beings are not rats", as the objection has often been formulated[154].

Thirdly, even rats are, according to more careful empirical investigations of animal behaviour, not [Skinner] rats. Skinner rats only learn to use the pedal after maybe fifty accidental releases of the pedal. But a colony of rats finding a new type of food only needs that one of them becomes ill a single time before they all keep away from the nourishment in question. At least for rats, Skinner learning is a very poor and ineffective simulation of natural learning. In other animal species, furthermore, Skinner learning has been shown only to work in connection with the instinctive patterns already present (doves can learn to use their beak on a coloured dot, but not to step on a pedal); this makes all attempts to use Skinner learning as a model for the highly flexible learning of humans even more dubious. Yet if behaviourist planning does not work, nor can behaviourist explanations tell as much about our socialization and the shaping of our actions and conduct as claimed by their proponents – if type I*a* behaviourism is radically insufficient, then type I must also be.

[154] Neurophysiological results from the last three to four decades may be more convincing than elegant slogans. It turns out, indeed, that conditioned learning and learning involving conscious awareness make use of different mechanisms and different brain centres (Kandel & Hawkins 1992: 53f). Huxley the novelist, when claiming that only subconscious attitudes and not factual knowledge can be inculcated by means of Pavlovian methods, had better foresight than Skinner the psychologist.

Sociologisms

Let us now turn to type II, the genuine sociologisms, those theories of environmental determination which see the total constitution of the external world and not the sum of random individual experiences as determinants of human consciousness and behavioural patterns. Normally, such theories are not as much interested in predicting the behaviour of single individuals as in the broad average of individual thought and actions that determines the flow of historical and social processes.

One current of this type is *vulgar Marxism*. In its most simplified form, it sees history as a sequence of stages: first comes primitive communism, to be followed by the slave holders' society (at times, an "Asiatic mode of production" is inserted between the two). Slave holder's society is replaced by feudalism, itself to yield to capitalism. In the end, capitalism will have to capitulate, and socialism – to unfold as mature communism – will succeed. Within each stage, culture and consciousness is determined in full by the individual's position within the "mode of production" – the framework within which the exploitation of the producing class by the upper class is organized (whether the producers are owned by slave holders, personally bound to them as serfs, or free but forced by economic necessity to sell their work power to capitalists). Two concepts which have been much used by historians of literature and mentality during the latest decade demonstrate that this conceptual straitjacket has been widely accepted as common sense: "non-contemporaneity" and "everyday consciousness" (*Alltagsbewußtsein*). If authors writing in the same moment of history differ in their understanding of or attitude to social life in a way which cannot be reduced to differences in class position, then they are considered to be *not really contemporaneous;* and if the working class looks at commercial TV instead of brandishing its class consciousness as anticipated, then class consciousness must have been supplanted by the "consciousness of everyday". The two concepts allow scholars to eschew the suffocating effects of the straitjacket and to come to grips with the complexities of real mentality and history; but their wording shows clearly that the vulgar Marxist theory of consciousness is a background expectation which the users of the terms have to elude.

An oft-quoted maxim in the quarters of vulgar Marxism is an

abbreviated version of Marx's sixth Thesis on Feuerbach, claiming that "man is the sum of his social relations". The full formulation is rather different in tenor and states that "[...] the essence of man is not an abstraction inherent in each particular individual. The real nature of man is the totality of social relations [...]" (MEW **3**, 6 & 534). The thesis is thus a polemic against all attempts at metaphysical definitions of Man, ascribing to the species *an essence* carried by each individual as an Aristotelian form (and at that, as Engels tells, a notice for further elaboration, rapidly penned and certainly not meant for publication); from Marx's hand it has nothing to do with the assertion of complete sociological determinism. As stated in another Feuerbach Thesis (N° 3), "the materialist doctrine that men are products of circumstances and education, and that changed men are thus the products of other circumstances and another education, forgets that circumstances are changed by men and that the educator must himself be educated" (MEW **3**, 533f, transl. Bottomore). Other writings from Marx's and Engels' hands (not least their letters) make it clear that they did not accept the vulgar sociologism attributed to them by eager friends as well as ill-willed foes[155]. Vulgar Marxism relates to Marx more or less as vulgar psychoanalysis relates to Freud.

Related to vulgar Marxism, and occasionally derived from it, are various other "vulgar materialisms" (cf. the above quotation from the third Feuerbach Thesis, which attacks precisely such theories). One, classical type (going back to Montesquieu, cf. p. 127) is *geographical determinism*. Certain climatic conditions (in most varieties the temperate European climate) are supposed to force society to develop technology and civilization, whereas others make it superfluous (the bountiful tropics) or impossible (the arctic zone).

A particular Cold War variety of geographical determinism – much more deterministic than Montesquieu – is the "Wittfogel thesis", formulated in 1957 by Karl Wittfogel. The great "Oriental" civilizations had developed around the great rivers (the Nile, the Euphrates, the Indus, the Ganges, the Mekong, the Hwang-Ho, and the Yangtze). "Evidently", the purpose

[155] In older age, Marx refused emphatically to be labelled a "Marxist", since this term was already used by vulgar-deterministic followers.

of civilization and of state formation was the management of irrigation by a centralized despotic power – and "evidently" the Oriental state (firstly the Soviet Union, secondly the Peoples Republic of China) was still despotic, and the Free West was both entitled and obliged to fight it.

Weberian sociology: an example

The "vulgar" deterministic theories can be contrasted with another famous thesis: the *Weber thesis* on the relation between capitalist development and Calvinist Protestantism. This example is important because of its demonstration that sociological explanations need not be one-dimensional nor assertions of automatic determinism. In very rough outline it runs as follows:

In a number of European centres, not least in Italy, in England, and in the French Atlantic cities, the early sixteenth century had produced the beginnings of capitalist development. Religion, however, was an obstacle on the full unfolding of a capitalist economy, because the head of a business house would normally bequeath an appreciable part of his capital to the Church or the poor (a large-scale merchant might have good reasons to fear his fate in the next world, not least according to a religion which had proscribed usury and tended to equate profits on trade with this nasty crime). A new creed which disapproved of such extravagant habits – as Calvinism did – was thus psychologically attractive, which made many accept it precisely in the proto-capitalist environment.

An essential theological theme in Calvinism is the doctrine of predestination: already before creating the world God has decided who is to be saved and who to be condemned, and we can do nothing to make him revise his decision. This, of course, is psychologically almost unbearable: I dedicate my life to HIM, I renounce this and that in which the godless indulge; and yet eternal felicity may be promised *to them*, while *I* may end up in the cosmic basement as firewood in the stove! Within a single generation a "folk level" was thus added to the doctrine: the belief in *signs:* we cannot *know* who are chosen, but signs have been given to us which permit us to make an opinion about our future prospects: salvation will fall to those to whom it has been granted to live virtuously down here, and who have success in their secular trade. A life in dissipation and sin

and failure in business, on the other hand, are portents of future *definitive* failure.

To the businessman, this folk theology was a powerful incentive to be thrifty in his private life and to avoid squandering his means, and to invest what could be saved so as to make sure that his business would prosper and ensure him of his predetermined salvation. To the germs of capitalist *economic* structure the conscious and unconscious choices of human agents (the Calvinist creed and the spontaneous invention of the lore of signs, respectively) had thus added a "capitalist spirit" in harmony with the potentialities of the economic structure.

But even in many geographical regions where (for one or another reason) Calvinism did not succeed, the capitalist spirit developed, often through adaption and reinterpretation of prevailing religious doctrines. For instance, Weber is able to point at specific varieties of Lutheran *Pietism* which served the purpose – even though neither Lutheranism nor Pietism seem directly fit for that.

Finally, after some 200 years, the Calvinist scaffold had become superfluous, and a generation which had grown up together with an aggressive and enterprising capitalism was able to formulate an ideological basis for the capitalist spirit which was independent of religion.

In contradistinction to vulgar determinisms (including, by the way, a "vulgar Weberianism" ascribing to Weber the simplistic point of view that *Protestantism produced capitalism*), Weber thus investigates the interplay between *several* factors and levels; he describes this interplay as the result of human choices, conscious as well as unconscious; and he demonstrates how these choices influence the development of "given" circumstances – frequently in a way which was neither intended nor foreseeable. The same complex stance, as we have seen, was also Marx's position – as illustrated for example by that third Thesis on Feuerbach which was quoted above.

Structuralisms

Particular formulations of the thesis of determination through the global pattern of the external world, theoretically more stringent than vulgar materialism, are offered by various *structuralisms*. The principles of structuralist thinking can be illustrated by means of two simple examples

taken from totally different domains:

All correct Danish main clauses are arranged according to the same underlying scheme: "(■) | V S A ; v s a". "(■)" is the "fundamental position" to which one of the other sentence members is moved unless the sentence is interrogative or imperative. "S" and "s" are nominal sentence members, "V" and "v" are verbal members, and "A" and "a" are adverbial members. One or more places may of course be empty or doubled. For instance:

> "Jeg (I;■=S) går (go;V) nu (now;A)".
>
> "Har (has;V) han (he;S) allerede (already;A) kysset (kissed;v) sin mor (his mother;n) på kinden (on the cheek;a_1) i morges (this morning;a_2)?".
>
> "Vil (will;V) løven (the lion;s) ikke (not;a) spise (eat;v) sin dyrepasser (its keeper;n), nu hvor han har været så uforsigtig at gå ind til den (now he has been imprudent enough to enter its cage;a)".

Irrespective of the meaning of the clause, its members will have to fit a sequence of fixed places.

In his discussion of the English Factory Acts in *Das Kapital* (vol. I, IV.13.9; MEW **23**, 515), Marx tells about two capitalists, Mr. Cooksley and Mr. Simpson, who appealed to the Children's Employment Commission for the introduction of compulsory protection of working children: on their own they had introduced certain protective measures; thereby, however, their competitive position had been undermined – Mr. Simpson even complained that "he always felt restless at night" because of the contracts he lost when he had closed his own shop while those of the competitors were still at work. Capitalists, like adverbial sentence members, have to obey the rules belonging to their position, or they will soon be out of business, their position being taken over by others.

Observations like these are elevated to the rank of supreme principle in structuralism. Structuralists do not deny that "I", "its keeper" and "his mother" are different words, referring in all probability to different physical persons. But they claim that these accidental individualities cannot be made the objects of *scientific investigation*, which can only deal with laws and regularities *of general validity* – the ultimate consequence of the nomothetic ideal, and in fact another variant of the criterion by which Aristotle distinguishes "science" (*epistemē*) from other types of knowledge (cf. note 132).

Structures can be of many kinds, as we see from our two examples. Structuralist explanations are equally diverse. Michel Foucault, for instance, claims that each historical epoch has its own inner coherence (the organization of Medieval culture around *relics* as a core concept can be used as an exemplification of the idea[156]). How the passage from one epoch to the next takes place is not clear at all, nor is this, however, the problem with which Foucault's "archaeology of knowledge" is concerned: it rather looks for the demarcation which sets off one coherent conceptual structure from the other. In the same way as Taine's principle of *race*, *milieu* and *moment* is an adaptation of the *Zeit*- and *Volksgeist* notions to the Comtean search for causes, thus Foucault's "archaeology" assimilates them to a structuralist thinking in which the *sentence scheme* can be claimed to be the model.

Mr. Cooksley and Mr. Simpson, on the other hand, provide the model for Althusser's structuralist version of Marxism: history is the history of class struggle, individuals are bound to play the parts already written into the manuscript of the play. Althusser classifies his approach as "theoretical anti-humanism", individuals are (notwithstanding our private illusions) nothing but interchangeable actors, passive intermediate links between the role structure of class society and the action of history's grand stage play.

Althusser does not deny the existence of development, nor does he claim that development falls outside the scope of scientific explanation. Quite the contrary, indeed, since class struggle, the inner conflict of the structure, is the motor of history. Another problem remains, however: it does not open the possibility that the two English capitalists might introduce protective measures of their own, nor that they might appeal to the Parliamentary commission in order to circumvent the structural constraint on their freedom of action – clearly individual actions not written into their part of the dialogue between class representatives. The strict structural determination also makes it hard to conceive that Althusser as a French professor of philosophy should engage himself in the class struggle, be it on the level of theory.

Admittedly, it is possible to read Althusser merely to the effect that *the essence of history* can be painted with the coarse brush of class struggle

[156] The example is my own and not taken from Foucault.

cleaned of personal intervention. But if this is the message it implies that everything which goes on at the individual level remains individual, disappearing from the view when the societal average is made: class relations would have been no different today if Marx had become a rabbi and Engels an accountant, if Lenin's famous locomotive had run off the rail in Poland, if Hitler had died from his gas poisoning, and Stalin from tuberculosis at the seminary.

Not all structuralist thought is dogmatic-deterministic or anti-historical like the examples just mentioned (which, however, are not the only ones of these types). Structures can also be seen as conditions which (more or less forcefully, and with a more or less wide margin for coincidence and / or individual decision) drive development (including structural change) in a specific direction.

One example of this is Marx's thinking, as it was illustrated by the Cooksley-Simpson story. Another example is presented by the linguistic structuralism of Roman Jakobson and of the "Prague circle", to which I shall return in the second year's course. A third important instance is Piaget's theory for cognitive development and the more general structuralist theory which he has formulated on that foundation. Even this will be taken up later.

Functionalism

A final formulation of the social determination of the individual and of its behaviour (and, not least, of single societal institutions) is *functionalism*, which is primarily used in sociological explanation[157]. I shall not go into details but exemplify the approach by pointing to functionalist

[157] Functionalism arose as a formulated approach with the French sociologist Durkheim around the turn of the century, who took the *functions* of social institutions to constitute those "social facts" which were to provide the fundament of his sociology. It was soon taken over by the anthropologist Malinowski, who emphasized the function of social institutions for the biological survival of the group. A different approach was formulated by Radcliff-Brown, another anthropologist; according to his "structural functionalism", social institutions are to be explained by their function with respect to the *existing social order*. In later sociology the latter, "conservative" approach is probably more important than Malinowski's vaguely "progressive" idea.

interpretations of two of the above examples.

One is the Weber thesis. A crude functionalist will assert that Calvinism arose *because* emerging capitalism *needed* a religion which encouraged capital accumulation instead of Christian charity. A less crude colleague of his will explain that the institutions of Calvinism and capitalism, by being functional with regard to each other (i.e., fulfilling the needs of each other), stabilized each other and thereby that societal complex in which both participated.

The other example is represented by the British Factory Acts. Functionalists will assert that protective acts were introduced (and that our two friends claimed their introduction) *because* English capitalism of the 1860s *needed* a working population whose health was not worn out too quickly.

None of these claims are totally mistaken. But there are at least three important problems to functionalist explanations of this simplistic character.

Firstly, they presuppose that the society whose institutions they explain by their functions is cast in one piece. Yet no society is: the needs of emerging capitalism in the French Atlantic cities were not identical with the needs of the paupers who were supported by Christian charity in the hospitals of the Church, nor with those of the French Absolutist state which fought the Calvinist huguenots the best it could. Similarly, *some* industrial branches needed a stable and acceptably healthy working class, whereas others lived excellently with (and from!) extreme exploitation. In spite of the inherent tendency of many functionalists to regard social institutions as virtually permanent, the real point of the functionalist explanation is, if we stick to Weber's example, that the mutual pressure and the possibility of a "positive feedback" between incipient mercantile capitalism and protestant theology happened to grind them into a complex of strong institutions, attitudes and beliefs which supported each other; in other words, they made a social pattern appear within which certain components grew strong because they were highly functional with regard to each other; their mutual functionality thus stabilized the global pattern.

Secondly, an institution or action is supposed to have only *one* consequence, which is identified as its function. In any complex structure this is obviously wrong. Any physician (and most patients) know that *effects* without *side effects* are rare.

In order to get around the latter point, the sociologist Robert Merton (1968: 73–138, in particular 114) has introduced a distinction between "manifest functions" (the "*conscious motivations* for social behavior") and "latent functions" ("its *objective consequences*"). The main advance stemming from this distinction is, however, that it highlights a recurrent fallacy in functionalist thinking, namely the mistaking of an intended effect for an actual function and vice versa (that this *is* indeed a mistake is illustrated by the Calvinist example: Calvin had no intent to further the development of capitalism when stressing the predestination dogma). Only "latent functions" can be relevant for functionalist explanations.

A global conclusion to be drawn from the discussion of environmental determinism is then that *all* vulgar versions (vulgar Marxism, vulgar geographical determinism, vulgar structuralism, and vulgar functionalism) are misleading and impossible already for reasons of philosophical principle[158]. But few of them are completely off the point, and the less vulgar mother theories are less so. There is nothing wrong with an explanation just because it is (for example) structuralist; the error comes in when (*in casu*) structuralist explanations are claimed to exhaust the question. One should only remember when trying to combine approaches none of which "are completely off the point" that each of them rests upon a set of underlying tacit assumptions, and be aware that these may be in mutual conflict[159].

[158] Cf. what was said above, p. 190, on the self-defeating claims of Skinner's *Beyond Freedom and Dignity*.

[159] Several instances occur above. As one example we may think of La Mettrie's machines which are able to feel pleasure and contentment (p. 129).

14. HUMANITY AS FREEDOM

Let us return once more to our two English friends, Mr. Cooksley and Mr. Simpson. They served the purpose of introducing the notion of structural determination, of a fixed pattern of social roles which individuals have to fill out in a manner already defined by the role in its relation to other roles. But the way in which they demonstrated the constraint of their role was by stepping a bit outside it. They *did not* identify blindly with the role but tried (however hypocritically) to act morally in spite of it. Just as much as the constraint of the structure they can thus exemplify the principle that man is *free*, not completely fettered by the *already given* – by biology, nature, social roles, language. Man is *free* in the sense that he will regularly encounter *alternatives* among which he has to choose. If we claim that the actions of men are causally determined we must as a minimum acknowledge that this can only be true if we admit that their own consciousness (their own values, their own rationality, their wishes) is a (co-)determinant of their actions. Whereas the various determinisms discussed above under the heading *created man* aim at "explanation" in Dilthey's sense, the acceptance of *human creativity* as (part of) the object of the humanities entails that his "understanding" must be (part of) their approach. In order to confront the question, *how* this is to be done, we may look at a philosopher – namely Jean-Paul Sartre – who by his earlier works has come to embody more than anybody else the anthropology of freedom, and who in later year struggled with the elusive connection between freedom and explanation.

The early Sartre: freedom as an absolute principle

Sartre's early philosophy takes the freedom visible in the action of the two capitalists at face value, and draws the full consequence of the stance: man is *identified* with his freedom – man is, he claims, not human through *what he is* but through *that which he chooses to be*, and thus through *that which he is not (yet)*. Man is pure negation of the already given (*la facticité*), and he only exists through his incessant separation from the given. *Man is* by being conscious of that which *merely is*.

Man, furthermore, has not only got *the possibility* to choose. He is *forced* to do so, even when he attempts – in *mauvaise foi*, dishonesty – to hide behind apparent objective necessities and non-choice.

Choice, however, is even more: according to Sartre's booklet *L'Existentialisme est un humanisme* (originally a lecture from 1945), choice is a *moral obligation*, namely the obligation to make a choice which you would accept as a *general principle*. Any choice which you will accept to be such is, on the other hand, legitimate. The freedom to choose between diametrically opposed possibilities, moreover, is *always* present, "dans n'importe quelle circonstance", "under any circumstance whatsoever" – even in a concentration camp and when in the hands of the torturer[160].

This moralistic and abstract interpretation of human freedom exposes some of the inherent paradoxes of Sartre's existentialist philosophy: how can that which is inescapable be an obligation? And why should moral double standards be *philosophically* illegitimate while consistent fascism (as claimed by Sartre the anti-fascist in 1945) is not?

To the first question, sort of answer is given in Sartre's stage plays from the same years. They demonstrate that his central problem is *responsibility; freedom* is only secondary, but essential because it is impossible to speak of responsibility unless you have at least a theoretical possibility to evade it, i.e., of choice (this primacy of responsibility recalls Kant's argument for freedom, we may notice; cf. above, p. 137).

Concerning the illegitimacy of double moral standards it will be observed that the request that choices should have general validity is

[160] In 1969 Sartre commented upon this statement with the words "it is unbelievable; I really thought so".

nothing but a repetition of Kant's determination of the "categorical imperative": a rule can only be a moral command if it is of general validity, if it can be asserted irrespective of actual conditions and of the identity of the persons involved. Yet Sartre's argument is paradoxically Platonic: *MAN* (as "cuphood") does not exist along with or as a model for single individuals; but then each of us *is* MAN, *is* the human cuphood, and we should honour that obligation by acting only in ways which fit man in general.

In other respects the philosophy is radically anti-Platonic, for which reason the argument advanced in favour of generalizability of course becomes untenable. Sartre soon discovered that, and he was highly displeased by the popularity which fell to his booklet (no doubt the most widely read of all his writings). During the later forties he wrote voluminous drafts for a treatise on the foundations of morals. However, he was unable to finish them, and they were only published in 1984, years after his death.

What Sartre formulated between 1935 and 1945 is thus an *abstract philosophy of freedom*. Freedom only *is* as "annihilation of that which is". Everything is formulated in abstractions. These are filled out with everyday illustrative *examples*, and plays and novels suggest *possible concrete interpretations* of the abstractions; but Sartre's illustrations and concrete interpretations do not *lead* to the abstractions.

At times they lead away from them. One example of this is the story of the young man from *L'Existentialisme est un humanisme:* he addressed Sartre in order to be told whether he should join the Resistance or stay at home to take care of his mother. Sartre refused to make his decision, thus forcing him to choose by himself. In the very last sentence of the discussion following upon the lecture Sartre then says that "By the way I knew what he would do, which was what he did" – a clear confession that abstract freedom is an empty concept which describes the real process of human choice badly.

Beyond being abstract, the philosophy is characterized by extreme orientation toward the isolated individual. Human consciousness is not described in its emergence through interaction with others, through the upbringing, through common action ("work") or communication. "The other" is somebody by whose "gaze" (*regard*) you discover to be fixated –

a gaze which makes you see yourself as the object of a foreign subject, and which makes you objectify ourself and *feel ashamed*.

The innermost core of this partly contradictory philosophy can be gotten at in different ways, all of which elucidate it (though the third less than the first two), allow us to interpret its intentions, and thus permit us to use it as the starting point for further reflections.

Firstly, Sartre's ideas can be seen against their *philosophical* context. When Sartre formulated his early philosophy in 1935–1945, France was Catholic, and its bourgeois class was prudish-ecclesiastical in orientation. The prevailing philosophical attitude was a kind of Christian Platonism, according to which the order of the World was guaranteed by the Platonic ideas present in the Divine consciousness: the *essence*, the *idea* of things (the cuphood), is thus prior to *existence*, the concrete-real, singular (the particular cup) – that which men produce through their actual choices. This whole theory is then turned upside down by Sartre; *existentialism* becomes *a humanism* by being *an anti-theism*[161].

Sartre's early philosophy is thus a (non-dialectical) reversal of a heteronomous anthropology (in case Divine determination).

Secondly, the *political context* of the formulation of the ideas may be taken into account – Sartre, indeed, was politically active, and combined philosophy with political action. An interpretation along these lines is thus made in agreement with Wittgenstein's *dictum* "Don't ask for the meaning; ask for the use" – namely, for the actual use in that particular historical situation where the philosophy was formulated.

It should be observed that this "political" interpretation is only relevant for the formulation given by Sartre to his philosophy after the outbreak of war and after his experience as a prisoner of war. In contrast to the philosophical and "private" interpretations, this one does not touch the philosophical treatise *L'Etre et le néant* (published 1943) nor the novel *La Nausée* (1938) directly – although the novel discloses a disgust for the *honnêtes gens* which suggests that Sartre knew quite well how they were going to behave during the occupation.

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[161] Originally, Sartre does not use the term "existentialism"; he only adopts it as is was becoming modish towards the end of the war, in order to enforce "the right" interpretation of a philosophy to which "everybody" professed allegiance.

The political interpretation should hence be seen at the background of the war and the defeat to Germany, where the vast majority of the French upper class threw itself into the arms of the Nazis. "Not choosing" meant the choice of collaboration dishonestly disguised as an inevitable necessity. References to the pressure of society, to the given (*la facticité*) meant to shun your responsibility by claiming to "act according to order".

To Sartre (and to many other French intellectuals), we should remember, the Resistance was no obvious continuation of an anti-fascist class struggle or of the Spanish civil war; nor was it carried by the "anti-teutonic" chauvinism present in some quarters of the political Right. It was a choice of something which *according to his personal conviction was morally correct* irrespective of prevailing social norms (a *completely personal* conviction rejected by many members of his social class, experience would tell him).

Thirdly, the philosophy can be interpreted with relation to *Sartre's private history*, as reflected, for example, in the childhood memoirs *Les Mots* from 1964. On one hand they demonstrate that the concentration on the isolated individual, which recurs in all phases of Sartre's philosophy, is in fact a formulation and a continuation of his chronic childhood experience. On the other hand, the equally recurrent anti-Platonism turns out to be a rejection of the young Jean-Paul's belief in *security provided by a higher meaning* with his life. The rejection of a higher meaning is indeed so violent a theme precisely in the early *La Nausée* that it suggests an origin deep in private experience.

The elusive connection: freedom versus explanation

The "empty" concept of abstract liberty thus turns out to be provided with substance as soon as we see it in contrast to a background. As long as this background remained actual, the abstract concept remained the centre of Sartre's philosophy. Yet when the background was *no longer actual* – namely because the philosophical confrontation had been brought to a successful end – Sartre's philosophical development demonstrates the need for *a new substantiation*. It was formulated in various ways, all of which include the *facticité* as an *inescapable aspect* of the choice, always in interplay with freedom.

One formulation of the new approach is found in a comprehensive,

psychoanalytically grounded biography of the novelist Flaubert (whose *Madame Bovary* is often considered a starting point for literary modernism), written in 1960–1971. The reliance upon psychoanalysis is remarkable – nothing could stand in more violent contrast to the previous rejection of references to "the given", to those circumstances which condition our consciousness and our actual choices, as nothing but dishonesty and bad excuses.

Another expression is the philosophy formulated in the treatise *Critique de la raison dialectique* (1960), also a large-scale work, and summed up in an introduction (*Questions de méthode*) first published separately (1958). The work is meant as a *critique* in the Kantian sense: an attempt to put "dialectical reason" (Marxism) on a firmer basis. The starting point is the historical materialist conception of history as a sequence of modes of production, each of which has its own characteristic philosophy. Thus Enlightenment philosophy is the "living philosophy" of early, still progressive capitalism, whereas the "living philosophy" of the epoch of mature and overripe capitalism is Marxism – the philosophy which formulates the world view of that working class which *by capitalism* is brought into position as the carrier of a new society.

So far the point of view is a very orthodox Marxism – more programmatic perhaps than Marx and Engels would have formulated themselves. But the critique also becomes *politically* critical (in the everyday sense) by pointing out where the Stalinist interpretation becomes (literally) mortally dangerous: namely when the group in power is so sure about the long-term perspective of history that it disregards all those particularities which do not fit their vision. If, instead of seeking the general in the particular, you take to the "intellectual terrorist practice" of "liquidating the particular" *in theory*, you end up all too easily in "la liquidation physique *des* particuliers" [physical liquidation of particular *persons*] (Sartre 1960: 28 n.1).

What remains of "existentialism" in this phase is thus primarily *anti-Platonism*, the insistence that *cuphood is derivative from cups*, the perspective of history from people, not vice versa. Another reminiscence of the early philosophy is the basis in the isolated individual, not the *individual belonging irreducibly to a social community*. Analyzing the mobilization of the Paris population the 13th and 14th of July 1789, Sartre claims that only *fear* of

a common oppressor was able to produce common action, common struggle (namely the taking of the Bastille, with all that followed). Otherwise a plurality of people is, to this no less than to the Sartre of 1940, nothing but a *sequence of elements*.

Even this phase of Sartre's philosophy can be seen on the background of Sartre's political commitment and activity. After World War II Sartre had devoted much of his intellectual force to resisting the cold war, cooperating among others with the French Communist Party. In the second half of the 1950s, furthermore, he was one of the most strongly formulated intellectual opponents of the French colonial war in Algeria. His opposition to the repression of the Hungarian rise in 1956 never made him forget that what went on in Budapest was modest compared to the one million corpses produced by the French in their southern department – with the decisive difference that those who were responsible for the oppression in Budapest belonged on the side where they *ought* to behave differently, whereas nobody should expect anything but ruthless brutality on the part of the colonial power.

The continued concentration on the *isolated individual* is probably best understood on the background of Sartre's private history. One thing, of course, is the persistence of childhood imprinting and the tenacity of personal inclinations. But Sartre's actual experience from the period was certainly not of a character to change his experience of isolation – too many of his old companions from the resistance joined the ranks of the colonial army morally, or at least refused to dissociate themselves clearly (Camus is one well-known example).

This interpretation through private history notwithstanding, we should remember that *nothing private is completely private*. Sartre's extremely individualistic "phenomenology", grounding the understanding of being an individual among others on the immediate experience of being observed in a moment of scratching oneself indecently (or whatever hidden reason Sartre has for feeling ashamed when being unexpectedly observed), *is* part of common human experience. This experience of being the object of a foreign subject is not the totality of human experience of interaction with others, yet it is no less real than the "complementary" phenomenology: the *pure subject-subject experience* of ideal dialogue. Together, the two phenomena are *aspects* of a total interaction situation, which always (except

perhaps in the limiting cases of psychosis) includes *both* objectivization of the other, each participant being primarily *himself* and outside the other; *and* a subject-subject relation, because dialogue and every other communication (be it the tactical communication of advertisement) is meaningless without this presupposition (from note 139 we remember the difference between the torturer and the blacksmith – the torturer, instead of doing a "technical" job, "answers" the screamed or suppressed protest of the victim by supplementary acts of violence).

15. TOWARD SYNTHESIS: HUMAN NATURE AS DIALECTIC AND HISTORY

Dialectic

Taken at bare face value, Sartre's early philosophy was a non-dialectical response to the various determinisms. But looking at the *total* course of his philosophy, and seeing its different phases *in context* and *as responses*, we have discovered that the postulate of freedom is *not abstract and empty* but *substantiated through contrast*, and we have found in the later phase a (preliminary) suggestion of *independent substantiation*.

The challenge with which the total course of Sartre's philosophy presents the humanities as *investigation of the particularly human* can be summed up as follows: central importance must be given to the authenticity of human choice – human beings produce their own history, and so does the human race as a whole. But we must transcend the empty abstraction, which ultimately reduces human "freedom" to an uncommitted cliché, and the one-sided concentration on the isolation of human individuals. With regard to the first, "existentialist" phase, one must understand choice and freedom as being relative to a given historical, social and personal

factuality, instead of treating the two aspects of human existence as irrelevant to each other. And with regard to the second phase we must attempt to substantiate the relation between "freedom" and "necessity" not only in principle but through understanding of the interplay under concrete historical circumstances.

We may supplement with a short fable from everyday Denmark:

Thursday Morning, we meet Jeppe in the public assistance office telling his sad life to the social worker Nille. He has been a habitual drunkard for years and would like to quit alcohol. At the same time, however, his mind and his mouth are full of excellent excuses, marvelous reasons that Jeppe should drink. Of course, Nille may start being kind and demonstrate her sympathy through interspersed remarks as "Yes, I understand" and "Certainly". But she has chosen the easy and irresponsible way out if she contents herself with showing compassion and understanding and does not go on to tell that in spite of all excuses "Only *one* person can stop drinking, and that is *you*. *You* must pull yourself together, because nobody but Jeppe can pull Jeppe together".

Friday afternoon, Nille participates in the weekly meeting of the Social Welfare Committee, trying to get special permission to pay Jeppe's rent while he is in long-term treatment in a home for inebriates, in order that he may not find himself in the street at his return. Here, the Baroness from party X insists that the only solution to Jeppe's problem is that he pulls himself together – everything else is nothing but squandering of tax money. In this context it is Nille's professional duty *not to repeat* what she said to Jeppe the day before; here she must make sure that Jeppe is given the material possibility to pull himself together not only while he is in treatment but permanently, and insist that the reasons for Jeppe's drinking are real and massive. Any solution proposed by the Committee which does not provide Jeppe with substantial reasons *not to drink* is hypocritical moralizing and likely to fail.

A short poem by Brecht may serve as supplementary illustration of the problem:

> General, dein Tank ist ein starker Wagen.
> Er bricht einen Wald nieder und zermalmt hundert Menschen.
> Aber er hat einen Fehler:
> Er braucht einen Fahrer.

General, dein Bombenflugzeug ist stark.
Es fliegt schneller als ein Sturm und trägt mehr als ein Elefant.
Aber es hat einen Fehler:
Es braucht einen Monteur.

General, der Mensch ist sehr brauchbar.
Er kann fliegen und er kann töten.
Aber er hat einen Fehler:
Er kann denken.[162]

The immediate reaction to the fable of Jeppe and Nille might be the word "complementarity": Jeppe's free choice and the circumstances of his previous life (or his hereditary biochemistry?) which made him an alcoholist are *two aspects of the same matter* – aspects which can neither be separated nor reduced to one. Brecht's poem might be seen as calling for the same interpretation. Still, simple explanation by complementarity is not sufficient, and amounts to little more than an admission of defeat. Saying to Jeppe and the Baroness alike that "well, of course you are right, but on the other hand" will only make each of them persevere; so will, even more clearly, agreeing with Jeppe on the aspect of Necessity and with the Baroness on Freedom. If the "complementary contradiction" is to be *made productive* it is important to see, firstly, that each of the two aspects can only be meaningfully applied in a particular *practical* perspective – Jeppe's freedom in the perspective of *Jeppe's practice*, his conditioning in the perspective of that Committee whose practice is going to *determine his*

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[162] *Gesammelte Werke* **9**, 638. In my non-versified translation:

General, your tank is a powerful chariot.
It knocks down a wood and crushes a hundred people.
Yet it has one flaw:
It needs a driver.

General, your bomber is strong.
It flies more swiftly than a hurricane and carries more than an elephant.
Yet it has one flaw:
It needs a mechanic.

General, man is very useful.
He can fly and he can kill.
Yet he has one flaw:
He can think.

conditions. Secondly, it is essential to understand the relation of the two aspects to each other: how can *adequate* material conditions be created which will permit Jeppe's pulling himself together to develop into an inveterate habit (which, as discussed in connection with the problem of emancipation on p. 173, will hardly be fruitful if not decided in dialogue with Jeppe)? Turning to Brecht: we may feel satisfied by using the poem simply as consolation through paradoxes. But if we want to cash the cheque of consolation we will have to focus our interest on the questions, *when* people begin thinking beyond and at cross-purposes with their usefulness, and *how* they are brought to this decisive point.

The established term for this *productive complementarity*, the *generation of something qualitatively new* from contradiction, is *dialectic*. A main point in dialectic can be formulated in an aphorism (which should of course be taken precisely as an aphorism, not as a full-fledged philosophical theory): insight is never final and definitive. Insight emerges *in process* in a world in perpetual development – which, when it comes to the development of the human world, is often development determined in part by the preliminary insight attained in each moment of the process; *new* levels of insight (with new types of answers) are *only made possible* through new development (procuring new kinds of questions and new conceptual tools).

This possibly somewhat opaque formulation is illustrated by the hermeneutic circle (cf. above, p. 172). In the Dilthey- as well as the Heidegger / Gadamer variant, *we as observers* undergo the change, not the dialogue partner, which is a fixed text – in contrast to what will hopefully happen to Jeppe and the mechanic. In this example, dialectic is thus a tool for theoretical insight, not for practical change.

A third illustration will show dialectic at work in a broader historical process, where it is not the observer's but the participants' insight that is involved. For convenience I shall refer to Sartre's formula of a "living philosophy" for each historical epoch (but the point should not be understood as depending on that particular example, which is just one particular expression of the idea, and even a rather simple expression): the living philosophy of the early bourgeois world was the Enlightenment; it conceptualized a world which was only emerging, and assisted in its unfolding. No philosophy could do more during the eighteenth century; in that case, indeed, it would have had to describe and reflect upon a world

order of which even germs were not existing. Only the breakthrough of industrial capitalism and the emergence of organized labour made possible a new level of philosophy – the one which took the form of Marxism, the world view of an organized working class which had undertaken to change the world and to abolish the capitalist relations of class power (and thus, which is an essential Marxist tenet, *all* class power)[163]. Marxism, on the other hand, is (and *must be*) just as unable to predict the contents of the philosophy or world view with which a future society will respond to its problems[164] as was the Enlightenment philosophy to foretell the philosophy of a revolutionary working class whose appearance on the scene was itself totally unexpected.

The principles of classical logic are summed up in the formulae "*A* is *A*" and "*A* is not *non–A*". Dialectic, in contrast, has been said by the Swedish philosopher Arnold Ljungdal to deal with "an *A* in the midst of being transformed into a *B*". Seen in this light, dialectic is the framework for understanding *change in spite of continuity* and *continuity across change*, which has much to do with the role of the insight acquired at each moment in the process; but it also opens the horizon on the role of those historical forces which transcend the insight of participants, either because they are too evident for being submitted to reflection, or because every human action has consequences beyond our foresight and even our comprehension. We may continue the example just given: utopian socialism, and thus eventually Marxism, did not start from scratch, but as a continuation of central aspirations of Enlightenment philosophy[165]. Yet in spite of this

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[163] Marxism is evidently not the only mid-nineteenth-century philosophy which could not have been formulated in the context of the eighteenth century – which is one of the vulnerable points of the idea of *one* living philosophy of the epoch. Though less momentous outside Denmark, Grundtvigianism is a parallel example. "Organized farming" was no less of a novelty than organized labour, and produced its own intellectuals and its own philosophy.

[164] At present, more than a century after Marx's death, we are able to see that it will not least have to respond to problems of global survival which were not, and could not be, anticipated concretely in the mid-nineteenth century.

[165] In synthesis, by the way, with strains of popular culture and political demands going back to the High Middle Ages. Through the very choice of its name, the *Commune de Paris* of 1871 did not only take up the institution of the Sansculottes

continuity, the total picture which emerged was quite new, both because a new social situation had permitted the formulation of new dilemmas, and because old themes had come to mean something new within a new social situation, whether those who formulated them knew or not. And reversely: a socialism which (forgetting about dialectic – concretely, about the actual continuity of many necessarily repressive structures) considers the civil rights formulated in the early bourgeois epoch as *merely bourgeois and hence irrelevant for the working class* will (according to historical experience) be no workable expression of the power and authority of working people. Instead of the continuity of human rights we end up with the continuity of actual repression, in spite of changes.[166]

Summing up

Dialectic is, in this formulation, no precise *method* and even less a universal key. It is a suggestive pattern of thought and nothing more – but still a pattern in agreement with fundamental conditions of human existence.

– or at least with structures which necessarily turn up when *we* try to describe human existence. Whether their necessity follows from "reality in itself" or merely from *our* need to describe (certain aspects of) reality in absolute but mutually exclusive terms is parallel to Kant's problem whether "time", "space" and "causality" characterize "things in themselves" or merely form necessary prerequisites for *our* conceptualization of things. As the Enlightenment physicist d'Alembert resolved in the "Discours préliminaire" to the *Encyclopédie*, we may decide that as long as the use of the framework seems unavoidable it does not really matter whether the spectacles are to be counted as part of external reality or of our own equipment, and for convenience we may consider dialectic an aspect of human reality. We may also observe, however, that since *we* are part of

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of 1793 but also the glorious banner under which the popular movements of the twelfth century had claimed (and often gained) autonomy from feudal power.

[166] These observations are no rationalization of the events of October to December 1989. Apart from the explanatory passage "concretely [...] repressive structures", they are translated literally from Danish notes used in earlier lectures on the subject.

the human historical process and contribute with our understanding and our will, dialectic, by being a prerequisite for understanding, is *eo ipso* part of social reality "in itself".

In order to transform the dialectical generalities into at least a rudimentary guide for work within the humanities we may return to the problem of anthropologies, and mention some issues which should be included in a dialectical understanding of anthropology and history:

All the anthropologies considered up to here make a point. That is the reason that they have not only been formulated but have also evoked a certain response. But none of them when taken absolutely is satisfactory (which would astonish few of their originators – most of them were formulated as part of a polemic, in order to counterbalance other, prevailing opinions). Montesquieu, for instance, would hardly have believed that a shotgun placed in a Turkish cradle would develop Turkish morals. That aspect of human nature which we might call "the potential for developing morals" is taken for granted, as something not worth discussing.

As regards those anthropologies which understand man through his relation to society it is important to remember that "society" is *no simple entity but a complex relationship,* made up by social groups, institutions, ideologies and habits in interaction and conflict. Dialectical explanations involving our social existence will thus become *at least as complex* as Weber's interpretation of the interplay between Protestantism and capitalist development. In this connection one may observe that the (not quite uncommon) counterargument to social determination, "How should society be able to generate opposition to society?", is about as bright as the corresponding "how should a stick of dynamite be in possession of characteristics permitting it to destroy itself?". Both questions presuppose (in the kindest interpretation) the trivial functionalist belief that all characteristics of a system serve to conserve or protect the system; in a less kind interpretation they build on the tacit anthropomorphic assumption that "society" and the dynamite cartridge are conscious beings which ("who"?) would never *get the idea* of destroying themselves – actually a naive assumption even regarding human beings.

As a guiding principle we may thus state that *men create their own history,* individually and collectively; but they do so on given historical

conditions, involving both a material fundament and a complex web of institutions and ideologies which structure the relation of men to each other and to the material fundament. Rarely they have more than rudimentary insight in these conditions. All the more often their creation of history produces unanticipated results[167]. Our theories and our understanding of the world are, indeed, created in response to *that world which is already there*, or (still more restricted) *the world which is already there to the extent that we have come to know it*. In the likeness of generals we must plan our strategy according to the experience of the previous war. When we create something new (or merely outside the range of the familiar) it is far from sure that traditional winning strategies will have the anticipated outcome. As formulated by the American historian of philosophy John Herman Randall (1962: 10):

> *History is made by men, by groups of men living in a natural environment, partly intractable and inescapably there, partly lending itself to human efforts at its reconstruction. Those efforts are always particular and piecemeal. But they have consequences, and those consequences, even when not intended or even envisaged, are as inescapably there as any other part of man's environment. Men do something in their need, and then find that they have to do something else. In solving one problem they find they have created others. In learning how to grow more grain and better wool, they find they have undermined a whole culture, and have to create a new science, a new ethics, and a new theology. In a different jargon, we can say that changes in the instruments of production demand ultimately the creation of new ideologies – because they have changed the character of man's experience. The architects are men, and there is much in the structures they build that is the product of what Aristotle calls chance. But the purposes for which they are built, the needs they are to serve, the materials that are employed and the tools that are used, are not due to chance, though they are equally beyond human control. History is a human achievement; like everything human, one within natural limits, but nevertheless an achievement.*

[167] These principles could be legitimately referred to Marx. Yet Marx of course did not discover them. Both the ancient Babylonians and the ancient Egyptians spoke about *the future* as "that which stands behind your back [ready to attack you]", whereas *the past* was "that which is in front of you".

The one who has really digested these words is well equipped to avoid the traps presented by the many vulgar anthropologies discussed so far, and to let himself be inspired by their mother theories for much less vulgar purposes.

More precise rules of methodological conduct in this domain cannot be given since, as another sage summed up many years' experience, *dialectic is the logic of the unpredictable.*

BIBLIOGRAPHIC ESSAY

The material on which these notes are based is too extensive to allow anything approaching adequate documentation in a supplement – just as any attempt to give documentation within the running text beyond the sources for major quotations and for a few specific points would have made it illegible. What can be done in a bibliographic essay is to list a number of readable or important titles dealing with central subjects covered in the course. Works on single historical figures will not be included, nor are editions of sources except for a few anthologies of illustrative excerpts (both genres can be looked up in specific bibliographies).

The bibliography which follows lists all works which are mentioned in the present essay, together with the those referred to in the running text (with the exception that citations of classics where a standard system of references exists make use of these and do not refer to a specific edition unless I have quoted an existing translation). References are made according to the "author-date" system (superscript years in square brackets indicate the first edition).

Much valuable material including rich bibliographic information can be found in the five-volume *Dictionary of the History of Ideas* (DHI in the following; 1968–74). The 16 volumes of *Dictionary of Scientific Biography* (DSB; 1970–1980) contain biographies with mostly extensive bibliography of all major figures who can somehow be connected to the history of science (for former centuries the gauge is quite liberal; not only Aristotle and Hume but also Plato, Thomas Aquinas, Voltaire and Marx are included). Topics which can be related to the social sciences (once again according to a liberal gauge) are covered in the 17 volumes of the *International Encyclopedia of the Social Sciences* (IESS; 1968; equally with bibliographies for further study). Each of the three encyclopedias contains

a most helpful index volume.

Randall 1962 can be recommended as a broad interpretation of the history of philosophy in socio-cultural context – in fact, of philosophy regarded as a series of responses to problems raised by this context – from 1100 to 1800. Bowen 1972 is a broadly oriented history of education, of educational ideas and of educational institutions – and since so much of what relates to the humanities has also been related some way or the other to education, it can be consulted with profit on many issues dealt with above. A detailed treatment of the main currents in twentieth-century philosophy in Danish is *Vor Tids Filosofi* (1982).

Chapter 3: The two "modern classics" on general state formation theory are Fried 1967 and Service 1975, to whom most subsequent discussions of the subject refer. More recent collections of studies applying the theories to single cultures are Claessen & Skalník (eds) 1978; Gledhill, Bender & Larsen (eds) 1988; and Herrmann & Köhn (eds) 1988.

Classics on the importance of the shift from oral to literate culture (somewhat overstating their points according to the opinion of the majority of recent workers) are Havelock 1976; Ong 1967; and Goody (ed.) 1968. More recent and more balanced are a number of important publications by Jack Goody, in particular 1977, 1986 and 1987.

Intensive work on the first beginning of Mesopotamian literacy has been done during the last 15 years, and is still in progress. Until 1991, most results were only accessible in specialists' publications (if at all published). Then, however, a companion volume to an exhibition on the topic held in 1990 was reprinted for general circulation (Nissen, Damerow & Englund 1991). A documented synthesis along the lines presented in the lecture notes is given in the first half of my 1991, which also follows the relation between state formation, transformations of the social structure, and scribal culture through the mid-second millennium B.C.

A number of path-breaking Soviet works on the developments of the third millennium will be found in Diakonoff (ed.) 1969. A readable account of the social and ideological characteristics of Old Babylonian society is given by Klengel (1980). Lucas (1979) and Sjöberg (1976) describe the scribal school.

Chapter 4: The characterization of ancient society as a *slave holders' society*

and in particular the claim that this social structure conditioned the development of ancient thought has been the subject of much discussion. Most objections, however, have been aimed at a rather mechanistic use of the concept read (wrongly) into Farrington's classical statements of the connection between class structure and philosophy (1965[1939], 1969[1944–49]). An overview of the controversy (until 1960) can be gained from Finley (ed.) 1968[1960]. Austin & Vidal-Naquet 1977 combines a survey of central issues in ancient Greek economic and social history with select excerpts from ancient sources.

A concise and stimulating discussion of the connection between the appearance of philosophy and the emergence of the Greek city state is contained in Vernant 1982[1962]. A more thorough discussion of the roots of Greek philosophy and rationality along similar lines is Lloyd 1979.

The standard work on Pre-Socratic Greek philosophers is Kirk, Raven & Schofield 1983 (revised from Kirk & Raven 1957). Guthrie 1962 is an extensive history of Greek philosophy until Aristotle (6 volumes), whereas Guthrie 1967[1950] contains a concise survey of the same subject-matter. Mean proportionals (as to extension) are Seidel 1989 (a university course) and Jürß 1977 (on Presocratic philosophy only). The history of Greek philosophy from Plato onwards, and including Christian philosophy until 1100 and Islamic philosophy until c. 950, is dealt with in Armstrong (ed.) 1970. Seidel 1989 is a briefer presentation of ancient philosophy from Aristotle onwards. Trond Berg Eriksen 1983 (in Norwegian) describes the development of Greek philosophy from the beginnings until Aristotle, mostly through its doctrines concerning specific questions, and the "sciences" of the Hellenistic age (including philology, legal and social thought, and Christian as well as non-Christian theologies).

A classic on Greek educational ideas, with particular emphasis on the sophists and Plato, is Jaeger 1973[1933–47]. Actual education is dealt with in Marrou 1956, Clarke 1971 (on "higher education") and Bonner 1977 (on the Roman world).

Much information on ancient culture and philosophy can of course be taken directly from the original authors, many of whom (from Plato through Augustine and Cassiodorus) are accessible in modern translations with introductory explanations.

Chapter 5: A general, very readable (and beautifully illustrated) introduction to the broad features of Medieval economic history is Bautier 1971. Works concentrating on the formation of feudal structures (and seeing them in different ways) are Anderson 1974, Duby 1973[1969?], and Gurevič 1979 – all footing on the classic Bloch 1965[1940]. A stimulating account of the interaction between technological innovation and social change in the Middle Ages, from the adoption of the stirrup onwards, is White 1962.

A description of the passage from antiquity to the incipient Middle Ages on the level of culture is Brown 1971 (no less beautifully illustrated than Bautier's book). The interpretation of the (literate) Middle Ages as an "age of renaissances" is set forth in my 1985 and 1988. Non-literate Medieval culture is the subject of several works by Gurevič, e.g. 1986[1981]. A recommendable history of the Medieval Church arranged thematically rather than chronologically is Southern 1970.

Early and Central Medieval education and literate culture are dealt with in Riché 1962 (English translation 1976) and 1979 (both include the Carolingian age and educational effort). The cultural situation of the centuries following upon the Carolingian failure is part of the subject of Southern's stimulating 1953 (Danish translation 1962).

The thesis of a "twelfth century renaissance" was formulated in Haskins' classic 1976[1927]. More recent but inspired by the same approach are Brooke 1973[1969] and, to some extent, Southern 1970a. An eminent exposition of rationalist and other philosophical and theological currents from c. 1050 to 1200 in social context (connecting the topic to the rise of towns and to the specific character of the urban environment) is Werner 1976. Related in spirit are Chenu 1966[1957] and his brief 1977 (an avowedly historical-materialist analysis written by the Dominican Father who was quoted in note 73). Further references to discussions of the cultural meaning of High Medieval astrology and naturalism can be found in my 1987. Haskins 1924 remains a central work on the twelfth century wave of translations.

Much has been written on the early history of universities, and on that of single universities. A classic which remains astonishingly vigorous is Rashdall 1936[1895], which was reprinted at least as late as 1964 (my copy). Among recent books on universities and university culture, Pedersen 1979

and Piltz 1981 can be recommended (both have much to tell about the scholarly traditions behind the universities), along with Cobban 1975 and Baldwinn 1971. Thorndike 1944 is an anthology of excerpts from original sources in English translation.

A recommendable and extensive survey of thirteenth century philosophy is van Steenberghen 1966; a more concise introduction to the topic is his 1955. The prohibitions of Aristotelian natural philosophy are the subject of Grabmann 1941. These and related conflicts are also dealt with extensively in Zimmermann (ed.) 1976. Much material can of course be found in the extensive literature dealing with Thomas Aquinas, Albert the Great and other scholarly churchmen.

Chapter 6: Since modern practitioners of the humanities indulge in thinking of themselves as the legitimate heirs of Renaissance Humanism, no soil has probably been cultivated more intensely by historians of ideas than the Renaissance. As a consequence, including the Renaissance in a brief bibliographic essay is an hazardous affair. First of all I shall therefore point to Burke 1972, the initial chapter of which is a fine survey of research traditions and approaches to the cultural and social history of the Renaissance since the publication of Jakob Burckhardt's seminal *Kultur der Renaissance in Italien* in 1860. Further on, Burke's very informative book revolves around writers and visual artists, their products and their cultural significance, and the particular and general social conditions of artists and humanist writers.

The two main approaches to Renaissance Humanist culture are probably those presented by Kristeller (e.g., 1961+1965, and the collection of articles in his 1956), concentrating on the relations of ideas to other ideas and to professions, and Garin (e.g. 1965), more oriented toward the Renaissance as a general civic movement. The latter approach is also prominent in Martines 1983[1979], which sees Humanism in the context of Italian city-states as these had developed since the twelfth century, and Bec 1967, which explores its relations to the commercial development of Florence. An original attempt to characterize Renaissance society and culture as a coherent structure is Batkin 1979. In his provocative 1950, Haydn characterizes much of what is normally considered part of Renaissance culture, including Elizabethan literature and the empirical scientific tradition which

established itself in the sixteenth century, as a *Counter-Renaissance*.

Eisenstein 1979 is an important exposition of the importance of the "Gutenberg revolution" for many facets of late Renaissance society and culture. Important and conflicting views on Renaissance art are found in Gombrich 1971[1966], Panofsky 1960 and the pertinent parts of Hauser 1979[1951] (Danish) = 1962 (English). The way from Renaissance *studia humanitatis* to humanistic scholarship is dealt with by Grafton & Jardine (1979), while the emergence of historical scholarship in a fairly modern sense is dealt with by Kelley (1970) and Huppert (1970).

Mathematics as part of the concept of *humanity* via its civic utility and mediated by the image of Archimedes is dealt with in my 1987 and 1992. The "scientific Renaissance" of the sixteenth and early seventeenth century is in itself a vast subject; more or less at random I shall point to Debus 1978, a concise survey more open to the occult aspects of Renaissance science than those traditional "Whig histories" which seek present science in the past; Zilzel 1976, a collection of articles originally published 1940–45, and emphasizing the relation between "higher artisans" and the new science; Heidelberger & Thiessen 1981, a more recent book applying the same perspective; and Schmitz & Krafft (eds) 1980, which deals with the interconnectedness of the scientific and the Humanist movement. In her now classic 1964, Yates insisted that there is a strong bind between magic and Renaissance science, founding however the argument on philosophers and phantasts who did not participate in the scientific movement.

Chapter 7: The early history of the Academy-concept is described in the first part of Pevsner 1940. A concise survey of the quarrel between Ancients and Moderns with further bibliography is A. Owen Aldridge, "Ancients and Moderns", in DHI I, 76–87. French classicist culture is the subject of Hauser 1979: I, 479–498 (=1962: II, 172–191). Much information on the philosophy of the epoch can be found in DHI, in Randall 1962, and in the biographical articles in DSB. Metcalf 1974 describes the "etymological" school in linguistics.

Chapter 8: The Enlightenment is another favourite subject of historians of ideas, and the literature on the theme is of exorbitant extent. Only a very superficial introduction can thus be given.

The idea of a specific *bourgeois public domain* was formulated by

Habermas (1968[1962], Norwegian 1976). Though original, the book of course draws upon and synthesizes a number of older observations and ideas, some of which are set forth in Hauser 1979 / 1962.

A comprehensive interpretative treatment of Enlightenment philosophy is Gay 1967, the first volume of which ("The Rise of Modern Paganism") deals with the tension between Enlightenment and Christianity, whereas the second is adequately characterized by the title "The Science of Freedom". The two volumes includes bibliographic essays of 133 and 135 pages, respectively. Another large-scale synthesis, emphasizing the new world view and the "revolutionary spirit" of the *philosophes*, is Wade 1977. Reformist and utopian Enlightenment ideas are dealt with by Baczko (1978) and Venturi (1971). A brief presentation with select bibliography is Pappe, "Enlightenment", DHI II, 89–100. A recent book on the specific Scottish Enlightenment is Daiches, Jones & Jones 1986.

An annotated selection of texts highlighting the Enlightenment philosophy of knowledge (heavily biased towards English and Scottish authors) is Berlin 1956. The attitude of the Enlightenment philosophers to science and to single sciences are dealt with by Kiernan (1973, whereas the reverse question (the situation of the sciences seen in the Enlightenment context) is treated by Hankins (1985). A selection of texts illustrating the impact of Enlightenment philosophy on the educational reform ideas of the French Revolution are contained in Baczko 1982. A short introduction to the Counter-Enlightenment is Berlin, "Counter-Enlightenment", DHI II, 100–112.

Chapters 9–10: The continuity from Enlightenment thought over utopian socialism to Comte is the topic of Manuel 1965. The Prussian university reform, its background and consequences for the emergence of systematic academic research in the natural sciences as well as the humanities have been dealt with by Turner in a number of papers (1971, 1974, 1981). The historicist attitude, from Vico and Herder over Ranke until the early twentieth century, is traced in Iggers, "Historicism", DHI II, 456–464. Specific developments within the single branches of the humanities are best looked up in studies of the history of single disciplines (a valuable first approach to many of these can be made through articles from IESS); a broad survey of nineteenth century humanities (including in fact certain social sciences and certain early twentieth century developments) is found

in Störig 1957[1954]: 589–752. Darnton 1968 and Cooter 1984 offer broad perspectives on Mesmerism and phrenology as instances of "popular science".

Chapters 11–15: For this final part of the notes, I shall not endeavour to present a general bibliography. As it stands, the text is too much of a personal synthesis for that. Still, a number of books are quoted or more or less explicitly referred to; for these, bibliographic references should of course be given if relevant information has not been presented before:

— Habermas' *Erkenntnisinteressen* (pp. 169ff) are presented in Habermas 1973[1968].
— Wilson's sociobiology (p. 186) was first presented in Wilson 1975 (cf. Montagu 1980).
— Skinner's *Beyond Freedom and Dignity* (p. 190) is Skinner 1973[1971].
— The Wittfogel thesis (p. 193) is stated in Wittfogel 1957, and the Weber thesis (p. 194) in Weber 1984[1904–06].
— Sartre's "early philosophy" (p. 202) is presented in his 1976[1943]. *L'Existentialisme est un humanisme* (p. 202) is his 1946 (Danish translation 1964), and *Les Mots* Sartre 1964a. *Critique de la raison dialectique* (p. 206) is Sartre 1960; the methodological preface was translated into Danish as Sartre 1969.
— Ljungdal's provocative explanation of dialectical logic (p. 212) is taken from his 1967[1947].
— The anonymous sage (p. 216) is L. Gudmund Damgaard; the source is a private letter.

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DHI=*Dictionary of the History of Ideas*.

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