

6.4.2. Issues in contemporary ontology (reality theory). 1986/1987

Part II p. 201 to 375.

H.O. 198.

E. Coreth, o.c.,14 adds, to that list, Nikolaus of Kues (Cusanus; 1401/1464; the first German-speaking Modern thinker).

Coreth, o.c.,14, says that the forerunners of humanism did oppose the decaying Scholasticism (H.O. 129: Late) and the exaggerated Sic-et-non method (H.O. 109v.), which they replaced with belletrism, but were not either "naturalistic" (relying purely on nature) or anti-Christian. On the contrary, against Averroism (Ob. 129 f. Islam. thinkers), which claimed that there were two truths (e.g. one truth, valid for the believer, and one truth, valid for the thinking man, in the believer), the Humanists defended the one truth, proclaimed both in Sacred Scripture and the Fathers of the Church, as well as in ancient, pagan thinkers, in Hellas and Rome.

It is true that "classical formation" (H.O. 190: paideia) - soon - gains the upper hand over Christian faith, with the result that the Humanist movement, in many of its representatives, falls into antique paganism (neopaganism).

The typical Renaissance rediscovery of antiquity (art, thought) showed a culture of very high achievement. This, now, was pre-Christian, pagan, -- established on a purely natural basis. One saw, in it, the proof that, even outside a supernatural sphere, a natural culture was very possible.

The typically 'supernatural', Christian Middle Ages became, as a result, superfluous (immediately: Church, Bible, etc.)-- What can be called --, then, naturalism (in the sense of: relying only on nature, without supernatural, regarding culture).

This is then what J.Burckhardt labeled as "discovery of the world and man" (understand: this world (of pure nature, secularized), pagan man)., Out of this grows, then, a "humanism," as Blackham, Humanism, denotes it: "free" (understand: liberal) inquiry, "open" (understand: not dogma-bound) society, free exchange of ideas and goods (Liberalism), the will to excel through knowledge and technology,--development of an exchange solution for religion, relativism (no "absolute" truths or values) as the basis of society and so on (O.c.,112).

H.O. 199.

(B).2.-- The modern reforms.

We say: reforms! The Lutheran, the Calvinistic (which gives rise to the so-called Reformed Church) the Anglican, -- the Catholic or Counter-Reformation, -- they are all reforms, with common traits and yet irreducible to each other.

1. *E. Coreth, Einf. i. d. Phil. d. Neuzeit*, I (Rat.-Emp.- Aufklärung), 15f., attributes to "die reformation" "the turn toward the subject" (o.c., 16).

2. *P.L. Berger, The Heavenly Canopy (Contribution to a Theoretical Sociology of Religion)*, Utrecht 1969, 127, says: "The idea that Protestantism played a special role in the construction of the modern world has, of course, been the subject of extensive thought among sociologists and historians for the past fifty years or so.

Nevertheless, it may be useful to summarize this idea, here, briefly. The following summary follows *Max Weber* (1864/1920), especially in his *Die Protestantische Ethik und der Geist des Kapitalismus* (Protestant Ethics and the Spirit of Capitalism), (1905). See also *Ernst Troeltsch* (1865/1923), *Die Bedeutung des Protestantismus für die Entstehung der modernen Welt* (The importance of Protestantism for the emergence of the modern world), (1911); *Karl Holl, Die Kulturbedeutung der Reformation, in his Gesammelte Aufsätze zur Kirchengeschichte*, I (Die Kulturbedeutung der Reformation, in his Gesammelte Aufsätze zur Kirchengeschichte), (1932).

For a connection of this to the problem of secularization, compare *Howard Becker, Säkularisationsprozesse*, in: *Kölner Vierteljahreshefte für Soziologie* 1932, 263ff.; 450ff..

Compared to the "fullness" of the Catholic universe (*op-ed*: lifeworld), Protestantism looks like a radical retrenchment, a reduction to "essentials; at the expense of an abundant wealth of religious content.

This is true, especially, of the Calvinist version of Protestantism, but, to a considerable extent, the same can be said of the Lutheran and, even, the Anglican reforms. (...)-- One can describe Protestantism (...) as a tremendous shrinking of the scope of the sacred within reality."

Up to there Berger, as a descriptive sociologist : It is a whole ontology, which is at stake! Reality, -- all that is 'real"--, is desecrated to a much higher degree than in the Catholic Church.-- Steller sums up:

H.O. 200.

(1) The sacramental devices are, in Protestantism, reduced to a minimum and, in the process, still stripped of their numinous (*note*: 'numen', in Latin, is both sacred energy and bearer / carrier (deity, spirit) of it) qualities.

(2) The miracle of the Mass disappears altogether.

(3) If less routine miracles are not completely denied, they still lose any real significance for religious life.

(4) Likewise, the amazing network of intercession that connects the Catholic in this world to the saints and, in fact, to all the deceased faithful, disappears. Protestantism stopped praying for the dead.

Steller, as a positive sociologist, continues, "At the risk of simplifying matters somewhat, it can be said that Protestantism, as much as possible, divested itself of the three oldest and most powerful phenomena, which accompany the sacred: mystery, miracle and magic.

This process is very correctly captured in Max Weber's expression "entzauberung der welt" ('disenchantment of the world'). The Protestant believer no longer lives in a world, in which sacred beings and forces constantly pervade.

Reality (*note*: one notices the ontological) is polarized (*note*: divided into two radically opposite extremes) between

(a) a radically "transcendent" deity and

(b) a radically "fallen" humanity, which is ipso facto (*note*: precisely because of this polarization itself) devoid of sacred qualities.

(c) in between these two lies a universe that is in all respects 'natural', God's creation admittedly, but in itself devoid of any numinous character.

Against the radical transcendence of God, in other words, stands a universe of radical immanence, of "closedness to the sacred"! religiously speaking, the world becomes, indeed, very lonely.

The Catholic, on the other hand, lives in a world in which he is connected to the sacred through a variety of channels:

(1) The sacraments of the Church,

(2) The intercession of the saints,

(3) The repeated breakthrough of the "supernatural" in miracles.

There is, in other words, a gigantic continuous being-continuity between the visible and the unseen. -- Protestantism largely abolished this mediation". (O.c., 127v.)

H.O. 201.

To measure somewhat the enormous break between e.g. archaic sacrality and what is at stake with Protestantism, desacralization in the modern sense, one reads, very briefly, H.O. 27/31 and, likewise, H.O. 196/198 (especially 198), -- the latter to see how Humanism as naturalism is, to some extent, parallel to Protestantism.

The old testament as "desecration"

Berger, o.c., 129vv, is of the opinion - he is, with that, far from alone, of course - that a degree of disenchantment (entzauberung) is already actively present in the Jewish Old Testament.

Berger says that this is, only, evident, insofar as one compares Israel's "religion" to the surrounding civilizations - e.g., the Mesopotamian and the Egyptian - which had not yet extensively eradicated mystery, wonder and magic, in the name of a radicalizing monotheism and an ethic knotted to it.

Both cultures, the Mesopotamian and the Egyptian (they are by no means alone in this: Greek culture was also fundamentally 'numinous'), are called 'cosmological' by the sociologists of religion. One should not misunderstand this term: 'cosmological' is that type of religion which identifies culture (H.O. 194: profane c.), i.e. the daily activities of Mesopotamian or Egyptian man (work, leisure, family, agriculture and animal husbandry, etc.), as 'embedded' in the culture of the people.), denotes as "embedded (situated) in the 'cosmos' (universe, universe, 'nature', 'fusus')", where 'cosmos' is at the same time the realm of deities, spirits, souls, demons,-- along with the energies ('forces', 'dunamis', 'virtus'), which said beings, of an invisible nature, either emit or steal.

One understands the term 'cosmos' -- for once -- not in our, already thoroughly desacralized sense! -- In such a sacred-cosmic religion and civilization, there is, at the same time, both a sharp distinction between sacred and non-sacred (profane, secular,-- 'secular') and no separation accepted between the two real spheres.

Berger called this, just now, continuity of being.

1. Berger gives an - exasperating - example. "For example, it would be very misleading to think that the enduring appeal of 'sacred prostitution' (H.O. 22; 28) - against which spokesmen of Yahweh, for centuries, thunderously raised their voices - was a matter of 'worldly lust'.

H.O. 202.

Finally, we may assume that there were many non-sacred prostitutes, in the area (against whom -- it seems -- Yahweh's objections were very few). The attraction lay, rather, in a comprehensive religious desire, viz. in the nostalgia for the continuity between man and the cosmos, -- whereby 'sacramental' (*note*: here in the broader sense of 'through sacred rites') was mediated through sacred sexuality." Thus -- literally -- an applicative model of (sacral) cosmic religion.

2. Another applicative model.

O.c., 130, Berger speaks of "disobedience" to the god -- king of Egypt. This is, on a purely natural level, an ethico-political crime, of course, -- just as with us a violation of e.g. state taxes, something that the Belgians -- without any conscientious objection -- engage in daily, with ease:

"What does God have to do with that?" (is his/her reasoning). After all, since the secularization of e.g. state finances, God has nothing to do with it: he is completely "transcendent" with respect to this purely "natural" phenomenon.

In a (sacred-)cosmic religion, however, evasion of city taxes is not only a crime against Pharaoh, but, also, a crime against the cosmic order, as we have described them above. Not as we understand (i.e., interpret) them in his Western way, i.e., desacralized thanks to God's tremendous 'elevation' (transcendence) above "such day-to-day things as a tax matter."

The ancient Egyptians called the cosmic order "Maät," i.e.

- (1) deity as order-establishing,
- (2) The founded order itself,
- (3) The ethical duty to respect that order.

He who took advantage of 'maät', e.g. by lack of respect towards the son of God, who is the Pharaoh, endangered ipso facto one of the many consequences of a respected cosmic order, namely, e.g. the annual Nile irrigation, -- or: e.g. the social relations, -- or: e.g. the state security.

Conclusion.-- By situating the sacred deep in the cosmic order, deep in the social order, deep in day-to-day life,--in a word, deep in nature around us and deep in nature within us, ancient man was held deeply responsible, yes, co-responsible.

H.O. 203.

Israel, now, defined itself as a "twofold exodus", exodus; namely, both from Mesopotamia (Abraham leaves that area) and - later, under (Moses - from Egypt.

This exodus was both geographic - political and religious. 'Religious' in the sense that Israel broke with the cosmic side of the religions peculiar to Mesopotamia and Egypt.-- Berger -- always descriptive -- sociological -- notes three aspects of the break with the cosmic side of the non-Israeli cultures.

a.-- In place of place- and nature-bound deities, spirits, demons, healers, now comes the one God, Yahweh, who is not bound to any place or natural reality (although He does settle there temporarily ('mobile' says Berger), - e.g., in the Ark of the Covenant).- - Berger situates this not only from the VIIIth century BC, but already, somewhat before that.-- Berger labels this as 'radical transcendentalization' of the deity.

b.-- In place of a cosmos, both profane and sacred, with in it literally 'established' people (continuity between man and cosmos), comes, in Israel's system, a nature, free from deities, demons, spirits, souls, and, immediately, people, living directly 'for God' - in the highest - as free individuals (though not yet in the Greek or - later - Western sense).

Not the extra-naturally charged cosmos, but the "disenchanted" (disenchanted, disenchanted, Demon-free) nature provides the framework, in which man, included in the covenant - a historically grown fact - is directly responsible to the "wholly other" (in the sense of boundlessly exalted, transcendent") God, Yahweh.

This is called Berger "historicization" in that well-defined sense that god, in the course of an irreversible history - the famously "consecrated," "sacred," history of salvation establishes a new order, radically independent of cosmic data.

c.-- In place of the ethics, outlined above, based on the cosmic order comes, now, the ethics, based on the relationship to the transcendent, purely historical acting God, Yahweh. The nature-religious acts - e.g., sacred prostitution (a radical misnomer, but common), e.g., concern for cosmic obligations - are radically eliminated and replaced by "rational" acts.

H.O. 204.

This aspect Berger calls "ethical rationalization. It is laid down, in a way that is amenable to popular opinion in the Decalogue (the Ten Commandments).

The New Testament as a partial "re-sanctification".

According to the descriptive sociologist Berger, o.c., 138vv, Christianity is a partial resacralization, in the sense described above.

a. -- In place of the one, radically transcendent Yahweh, now comes both the triune deity -- three persons, one divine nature -- and the incarnated second person, Jesus. Both the Jews and, also, the Islamites feel this dual aspect as a violation of Yahweh or of Allah.

a. Thus, in Mohammedan doctrine, the essence of apostasy, of which Christianity is guilty, is "hullul," which one can translate by "incarnationism," i.e., accepting that a radically exalted God would "lower Himself" to live in a human, biological, body and thus become subject to the cosmic order.

b. - Thus a Berger - and, with him, very many - sees the Catholic analogy doctrine (H.O. 78) as a re-cosmization, re-sacralization.

b. -- In the place of the 'ethical rationalization', outlined above, there comes, now, in Christianity, well, on the one hand, the rational legalism (law piety), peculiar to ancient Rome, but, on the other hand, a sacramental system (H.O. 199v.: sacral devices), - Berger forgets what the Church was called (but what, since the "demythization" of the last Council, disappears) "the sacramentals" (holy water blessings of all kinds (e.g. of the house, even of ... guns)).

These "numerous loopholes" ... of a re-sacralizing nature sometimes greatly mitigate the Old Testament Ten Commandments.-- More to the point, the typically Catholic conception of *lex naturalis*, natural law, -- foundation of an ethic -- situated before the Decalogue promulgated by Moses, in a purely historical event -- is, for Berger and thought-leaders, a veritable "re - naturalization" of morality.

c. -- Only the historicization phenomenon is preserved, integrally, by Christianity. Human acts are situated, still, as in the Mosaic system, first of all, in a sacred history, which consists of 'singularia', singular facts (according to S.Thomas).

H.O. 205.

On this point, the Eastern Orthodox Churches and the Latin Roman Church do differ greatly. "Latin Christianity, in the West, remained, in every case, thoroughly historic in its world view." (O. c.,139).

Berger does make an exception of some marginal mystical movements, which he does not specify.-- It is true that the Roman Church, especially, because it kept the "spiritual" welfare, also called "faith and morals," strictly, as its sphere of power, for itself, made "the secular" - all the more easily - become purely secular in the long run.

Berger calls this a 'very unusual case of institutional specialization', concerning religion (o.c.,140). In other words: the separation - not only the distinction, which is very general - of powers, in 'secular' and/or 'spiritual' matters, has facilitated the secularization of the already 'secular'. This, then, is the specifically Catholic contribution to the secularization so typical of the West, since the Transition Period.

The idea of "secularization."

Berger, o.c.,123, further defines his idea of "secularization.

(1) *Reg. model.*

The withdrawal from the domination of religious institutions and ideas (he calls it, with a certain use of language what has interest today, "symbols") of either some or all sectors of a society (with its culture).

(2) *Appl. models.*

(2).a.-- Things like separation of Church and state (H.O. 133: confession-free state), the expropriation of Church lands, an education free of any Church power (in our country : 'official' education),-- these are examples of institutional secularization.

(2).b.-- When art, rhetoric, philosophy, even "theology" (so e.g. the so-called "theology of the death of God"), most: professional sciences,--when such things are withdrawn from the sphere of power of e.g. the Roman Church, then these are models of idealistic ("symbolic") secularization.

In an anticlerical, 'progressive' consciousness, such a process comes across as "the liberation of modern man from religious patronage"; in a religious consciousness, however, as "de-Christianization", desacralization.-- In other words: the value judgments differ (plurality).

Decision.-- Coreth points to the turn to the (modern) subject. -- Berger on the secularization, -- Behold two main features of the Protestant reforms.

We note - and with Coreth and with Berger - that these Reforms did not immediately carry through all the traits of Modern Subjectivism and of Modern Secularism.

a. As explained by *D. Chantepie de la Saussaye* (1848/1920), the phenomenologist of religion, in a remarkable book last century, Christianity at a given moment displays a multitude of orthodoxies. In his *De godsdienstige bewegingen van dezen tijd in haren oorsprong gescheduled*, (The religious movements of our time, outlined in its origins,), Rotterdam, 1863, the religious authority, in the Greek-Orthodox churches that of the established doctrine, - in the Roman Catholic Church that of the living government, - in the Lutheran Churches that of the written confession, - in the Reformed (Calvinistic) Churches that of the confessing congregation (o.c., 42v.).

Moreover, in the first of the four explanations in this book, on orthodoxy, Chantepie de la Saussaye says that orthodoxy has three phases, indeed three phenomenal manifestations: it begins with its "glory" (i.e., it flourishes, captivates the masses, founds cultures); it comes to "decay" (it stiffens, becomes habitual, is eroded by the merely reasoned); it knows "future" (it revives) (o.c., 16vv.).

Conclusion.-- The picture, which we, with Berger, have put up of Protestantism, needs to be nuanced (which he himself says first). Orthodox Protestantism - in its three main forms (Lutheran, Calvinist, Anglican) - competed with "orthodox" Catholicism and was, for the most part, an antagonist. We will return to this in relation to Rationalism.

b. But -- says Berger, o.c., 174vv.-- for the XIXth century, the Protestant establishment went through two major shocks:

(i) Pietism (Lutheran,-- Methodism (Angl.),-- Revival (Revival; Kalv.)), which interprets religion sensitively-innerly, with a tendency to charisma, and

(ii) (theological) rationalism, which transforms (straight) Protestantism into liberal Protestantism (H.O. 141; cf. Catholic Modernism).-- The two challenges are, incidentally, related.

H.O. 207.

The verification of Berger's thesis.

To recap:

(1) the Protestant Reforms, compared to Catholicism, which they seek to reform, are rather secular (though to varying degrees);

(2) its secular traits are only gradually getting off the ground: to begin with, the Reformed Churches are only against orthodoxies, as "authoritarian" (fundamentally), certainly Calvinism, as the "authoritarian" Church, which they are fighting.

The same applies, incidentally, to the trait emphasized by Coreth, subjectivism: the modern subject, although present from the outset, only gradually comes into its own.

Can one, now, in the historical facts, peculiar to Protestantism, "live up" to this double trait?

a.-- *The term "reform" itself.*

Bib. stitch pr.:

-- C. Santschi, *2000 ans de réformes (L' Eglise entre le monde et le désert)*, (2000 years of reforms (The Church between the world and the desert),), Geneva, 1986;

-- P. Chaunu, *Le temps des réformes*, 1 (*La crise de la Chrétienté: 1250/ 1550*), 2 (*La Réforme protestante*), Paris, 1983. 1.

1. As you can see, Chaunu situates a long period of reform between 1250 and 1550. In other words: the Reforms, specific to Protestantism, have their roots in the medieval Catholic Church itself.

A most curious fact: none other than St. Hildegard of Bingen (1098/1179), a famous mysticess (H.O. 118), adviser to Popes, princes, people of all kinds, Benedictines, reformer, clearly sensed and, prophetically, predicted the wave of reforms,--in full twelfth century (H.O. 129 teaches us that this is the early scholastic).

This remarkable monastic woman lives on, even today, by the way, in her "natural science" approach to medicines (tested by some university professors and still found valid).

2. Catherine Santschi, a Calvinist, sees the whole history of the Church, in an ecumenical spirit, moreover, as one long history of reforms: "Since the origin of the biblical message, in the Judeo-Christian revelation, this message has been a call for change, renewal, repentance, conversion. In 1986, we commemorate one of those 'reforms', which had an extensive resonance in Geneva and the world, as it divided Christianity." (O.c.5).

H.O. 208.

(i) Very specifically, Santschi distinguishes (what she calls): 'la prereforme' (= the pre-Reformation), i.e. the religious movements, proper to the end of the Middle Ages).

(ii) Her sharply defined idea may be inferred from a narrative. The Catholic Church - she says, o.c., 49 - also "went into the desert" ("going into the desert" is one of the slogans of French Protestantism), namely at the time of the French Revolution (1789+).

The unruly priests, who refused to accept under oath the purely "bourgeois" (H.O. 133v.) situationality of the French Clergy, were, under the reign of terror ("la Terreur": May 1793/July 27, 1794), persecuted. Many were sentenced to the hanging of the neck (la Guillotine) or to be taken away; many went into exile. (...)

At Geneva, throughout the XIXth century, the memory of these priests, these "vicaires généraux" (literally vicars general), all heroic, remained alive: they crept away into the valleys and mountains, to administer the sacraments and provide comfort, in the midst of these deeply Catholic populations.

"But, in such a case, one could not possibly speak of 'reform,' since the clergy - on the contrary - testified to a general fidelity to the old rite.

Heroism is something, reform is something else" (o.c.,49). In other words, to "reform" is to intervene deeply in the structure itself.

(iii) Other model - pietism - is, well, a small-scale 'reform', which, especially, in the XVIIIth and XIXth centuries, goes against the creeping Rationalism (H.O. 206). But it is the reawakening (le Réveil, - the name of it e.g. at Geneva) of an already established 'orthodoxy' (orthodoxy, orthodoxy;-- H.O. 206: the 'future' of Righteousness). This is not a 'reform' as intended in the XVth and XVIth centuries.

Santschi sees, thoroughly, two main points in Church history that give rise to real reform.

(i) The first or primordial church was divided into two strands:

a. an extreme, which thoroughly repelled pagan society (H.O. 77: dilapidated Rome; 97: Satan's Idea; 99: Pelagianism; 100 societyr.); she went, incidentally, to blood-witnessing (martyrdom); she was hot-tempered, though.

H.O. 209.

b. Opposed to these "marginals" (by their own decision) were, very soon, people -- also Christians -- who, usually of a possessing class, did not want "marginal" Christianity, but sought a reconciliation between paganism and Christianity,--often on the basis of a philosophical education. St. Klemens of Alexandria (H.O. 67v.) may be considered the prototype of this.

The "marginals" who prized the message of "metanoia" (poenitentia, expiate) inherent in the Gospel of the first hour, regarded the second, "worldly" form, of Christianity, not infrequently, as a "source of heresies," but also as "treason. They went so far as to interpret the last Church persecution of Emperor Diocletian (245/313; emperor from 284 to 305) - persecution, which lasted from 303 to 305 - as "a punishment from God for the reason of the progressive secularization ('la secularisation progressive') of the Church" (Sentschi, o.c., 8).

(ii) The "Constantinian church" (*l' Eglise constantinienne*" is a French expression) came into being when, after Diocletian, the emperors Galerius (emperor from 305 to 311), Licinius (emperor from 308 to his death in 324) Maximinus Daia (elector from 305 to 314) and Constantine (Konstantin I, the Great (280/337; emperor in 306), in 311, proclaimed the end of the persecutions of the church. The edict of tolerance of 15.06.313, issued in Milan by the two emperors Licidus and Constantine, grants to Christians, as to all others, the freedom and opportunity to live according to the religion of their choice.

This, so that 'all that there is of deities in the heavenly abode', would be benevolent and salutary towards us (the emperors) and towards all our subjects."

Listen to Santschi: "The Christian religion, the God of the Christians is, thereby, enabled as useful for the salvation of the (Roman) empire. Which amounts to a trap, from which the Church will not escape unscathed." (o.c., 10).

She explains: "From 313 onwards, the Emperor Constantine shows an active benevolence for the Church. He enriches her with donations, in mobilia and immobilia. He surrounded himself with Christian counsellors, who exerted an increasing influence on the state and gave the Church (...) a great political position. (...). Gradually the Church grows into a state religion. In these measures one should see the origin of the temporary ('secular') power of the Church". (ibid.)

H.O. 210.

As writer says, some Christians fear that their high ethical and even ascetic ideals will be compromised; after all, to convert, in Constantine's framework, is to no longer follow Christ while leaving everything and risking martyrdom; it is to allow oneself the opportunity to pursue a fortunate career in state service.

Decision.-- "Reform" means, on that background, to counteract the secularization of the church! at least in the perspective of those, who want to return to the primal church, in its marginals.-- This is also, apparently, the main perspective of a Santschi. But, with that, we stand for just the opposite of a Berger!

b.-- A word about the Luther statues.

Luther (1483/1546) is at the heart of the reforms. -- Let us see what impression he makes.

(i) The image of Luther, according to *Pope Leo XIII* (HO 137; 142), someone, who, among the more recent Popes, was, at least, "broad-minded. In his Encyclical *Immortale Dei* (19.11.1885) he says: Luther stands at the cradle of modern liberalism (H.O. 135f.); with him the one, established Church splinters (*note*: what the Protestants also assume, of course); this religious splintering ends up, inevitably, in a philosophical splintering of the minds (Leo XIII means the typically Modern, i. e.i. liberal thinking (with all its contrary opinions; see below)); once philosophically elaborated, this liberal spirit revolutionizes the whole of society, economic life (capitalist Liberalism) included.

This is consistent, in its way, with what Berger claims: over time, Protestantism is undermined by Rationalism. Something Santschi, o.c., 50, also, in her way agrees with.

Conclusion: Leo XIII-de 's view is not as factually alien as more than one (even Catholic) intellectual, today, since the Second Vatican Council, especially (1962/ 1965), claims. The later evolution of Protestantism is, unmistakably strongly rationalist - and therefore secular - in nature.

H.O. 211.

(ii) *The image of Luther, as a folk hero.*

In 1983 Luther was celebrated, grandiosely, across the two Germanies (1483/ 1983). Dr. Erich Honecker, President of the GDR (East German People's Republic), as Chairman of the Citizens' Committee to Commemorate M. Luther, of which the Churches are not members, but are invited as observers, came to visit the infamous Wartburg, near Eisenach, with its Lutherzimmer (where Luther translated the Bible).

The Communists' attitude toward Luther was revised: he was given a place in the series of popular heroes.

Dr. Günter Deschner, Luther (Eine Bilanz nach 500 Jahren), (Luther (A review after 500 years)), in: *Bunte* (10.11.1983), 114/127, agrees with this nationalistic aspect in his own way: "Long before the French Revolution the monk from Wittenberg created the German Revolution. He was the first non-aristocrat in Germany to change people's consciousness:

(a) moved millions of people, from the feudalistic past (H.O. 133vv.), into the individualistic modern age (H.O. 148);

(b) With his personality and with the reformation provoked by him connects the signal of

1. The fact that the individual is allowed to be himself and
2. the right to religious freedom of the entire people, concepts, without which our modern world is unthinkable.

There is no one in the history of the world who has worked more assiduously on this revolution" (A.c.,126). (A.c.,126).-- Although a journalist from *Bunte* does not have the same political stance as the East German Communists, the same nationalistic image is striking. Admittedly mixed either with Volksdemocratic or with Liberal Democrat motives.

(iii) *The image of Luther, understood as "right image".*

The League of Evangelical Churches of Germany has also set up a committee to commemorate the event: it wants to resurrect Luther from the "dust of the ages" and make his personality, his thinking and his actions more transparent scientifically and theologically.

A. Ebnetter (ed. Orientierung), *Martin Luther: a common teacher?* , in: *Strive* 1963, June, 771/782, briefly outlines this picture.

H.O. 712.

-- As early as 1939, the "Nestor of Catholic Luther Research," *Joseph Lortz*, *Reformation in Deutschland*, launched Luther as

(i) A deeply religious nature,

(ii) who has inadvertently removed himself from the Catholic Church.

Which is confirmed by Deschner, a.c.,126: "Nothing was further removed from Luther than the founding of a new ideology. Even the splintering of the Roman Church was not in his intention (...). His success was fueled by other forces: these lay both in him and in the structure of his period".

Notes.-- K. Löwith (1897/1973), Weltgeschichte und Heilsgeschehen, (World history and salvation events), in: W. Otto u.a. Anteile (Martin Heidegger zum 60. Geburtstag), Frankf.a.M.,1950, 150, writes: "However inconceivable it may, to begin with, appear that the radical secularization has its origin in a religious 'entweltlichung' (withdrawal from this world, - world flight, if you will), yet this would only confirm a general rule of history, namely, that in the process of history something else always emerges than what was intended at the beginning of a movement. (...). The great innovators of history prepare paths for others which they themselves do not tread.

Thus JJ Rousseau (1712/1778) prepared the French Revolution; thus K. Marx (1818/1863) prepared the Russian (*op.*: Leninist) Revolution; thus Fr. Nietzsche (1844/1900) prepared the Fascist Revolution: none of them would have recognized themselves in Robespierre (1758/1794; he played a decisive role in 'la Terreur' (H.O. 206)), in Vl. Lenin (1870/1924; the founder of Bolshevik Marxism), in A. Hitler (1889/1945; he gave, in 1942, in the Brenner Pass, the works of Nietzsche as a gift to the Duce, Mussolini).

The paths of history turn, between origin and goal as between intention and consequence". Vico (H.O. 85), *Bossuet (1627/1704; Discours sur l'histoire universelle (1681))* - as religious philosophers of history - see, in that turning over, a sign of divine providence; Hegel (H.O. 124), the Freethinking Protestant, denotes that turning over as "eine ruse der vernunft" (a ruse of the universe speech); Marx as "social dynamics," (A.c.,151).

H.O. 213.

Löwith does not speak of one more interpretation, which, perhaps, is the best: "By the deity everything is clean and good and just. But men conceive of the one as unjust, the other as just" (*Herakleitos of Ephesos* (-535/-465; *Fr. 102*).

W.B. Kristensen, Verzamelde bijdragen tot kennis der antieke godsdiensten, (Collected contributions to the knowledge of ancient religions), Amsterdam, 1947, 231/290 (Circuit and totality), expounds the demonistic explanation of the turning (into something else). He bases himself, among other things, on the Heraklitean dialectic: the deities of Paganism, which Christianity brands as 'demons', know only one interpretation: "Everything is good", -- even what people, on earth, call 'bad'.

This, because, as nature deities (H.O. 201: cosmic deities), they are indifferent to our value judgments (good/evil e.g.) and distribute both salvation and calamity ('fate', 'share') to earthly humanity: its nature - so says Kristensen, o.c., 272, is explicitly 'demonic' in the religious sense (not in the Catholic sense, where 'demonic' usually means, without question, 'bad') the cosmic deities (as nature spirits) are inscrutable, incalculable; more to the point: they hand out both good and not-good-.

Kristensen cites, o.c., 289, Herakleitos as a philosopher, who, like all the Antiques, saw this clearly: what we call 'constructive' or 'destructive' forces - the Antiques used 'life' or 'death' for this - are, in their origin, the 'demonic' natural or cosmic deities, i.e. one and the same reality.

Kristensen uses the Dutch term 'zelf.verkering', (turn to the opposite), i.e. something that, at first sight, is 'good', turns, suddenly, into its opposite, 'not-good'. But it is the same reality that acts, namely the 'demonic' deities.

Reference should be made to Platon (H.O. 95): Platon, like Herakleitos, whom he held in high esteem, sees that the idea, once realized in this phenomenal world, carries opposites, indeed contradictions, within it. In Kristensen's language: the idea, once turned into a phenomenon, is "demonic" in terms of structure (it ignores itself).

Reference should also be made to Derrida (H.O. 96): his de.constructionism is, o.i., only a modernly formulated Antique, Heraklitean, Platonic doctrine.

H.O. 214.

It is, of course, what also S. Augustine (H.O. 94) recognized: to hold the Holy Trinity, directly, as Bossuet and Vico insinuate, responsible for the evil in this world, does not stand up; indeed, it is not even necessary: the demonic, cosmic entities and energies, which, within the cosmos, are at work, explain a universe structure, which is beyond humanity, on earth.

The Trinitarian ideas, once within creation, the phenomenal world, "deteriorate" into something other than pure beauty, goodness, truth, unity. So much for this explanation.

Attention is drawn to an applicative model, which we have already seen: H.O. 150 (Ockham, too, meant well of the Church, but ... it erred in something else).

Theodice.

G.W. Leibniz (1646/1716), well-known Rationalist, who did not write off the Scholasticism without question, introduced the term "theo.dicee": "theodicee" means to "justify" God in the face of the manifest evil that, in God's own creation, is at work.

That figures like Ockham or Luther mean well by the church, but break with it, without actually wanting it themselves, is one of many aspects of "evil" in creation.

The ancient Greek tragedians (Aischulos, Sophocles, Euripides) also saw the "self-reversal," but, of course, in Antique Heathen's cosmic-religious framework. One can, indeed, call the ending of a life like Ockham's or Luther's tragic.

Luther, the common teacher.

Luther, as a truly religious nature, achieved what he did not want (Lortz).-

The recent Catholic position goes even further: Cardinal J. Willebrands, president of the Roman Secretariat for Unity, said, in 1970, at Evian, before the full assembly of the Lutheran World Federation, "Has not the Second Vatican Council (1962/ 1965) done what was demanded of the church by Martin Luther, among others - already - and as a result of which numerous aspects of Christian faith and life are better expressed now than in the past?"

In the same context, Willebrands labeled Luther as a common teacher of Christendom, on central questions of faith.-- This position was, later, adopted by other Catholic researchers.

H.O. 215.

Ebnetter, a.c., 774, draws attention to three "central questions of faith.

(i) Luther improved the Pope's one-sided position of power (end of the Middle Ages) by elevating the authority of Scripture: how could the then Pope of Rome be forced to tackle the reformation everyone was longing for, except by pointing him to the Bible and its demands on Church life?

(ii) Luther emphasized faith in the face of often misrepresented works, which were often, self-righteousness and self-aggrandizement, forgetting that only God's grace saves;

(iii) Luther corrected the ministerial priesthood, overemphasized by the Catholic clergy (to the point of "clericalism"), by insisting on the universal priesthood of all believers.

These three points prove. Luther's theological understanding (apart from his deeply religious nature).

Decision.-- When we summarize the third Luther picture, we come to a similar conclusion as already established on H.O. 210: this is not "secularization" as Berger (H.O. 199v.) said. But it is the elimination of - Biblically speaking - intolerable abuses. In which a core of secularization was at work, of course.

c.-- Luther's nominalism.

One must not, now, fall into a Luther worship! This is best demonstrated when one examines Ockham's influence.

(a) Luther's nominalistic idea of God .

(a) William of Ockham fled, in 1328, from Avignon (H.O. 160), to the court of Louis of Bavaria, in Munich. There he died in 1350.

He had great influence in England and France, but especially in southern Germany, where the whole education system was steeped in Ockhamism.

(b) "Luther faced, at Erfurt, a god of arbitrariness (H.O. 156) and of unreasonable rigor and impossible demands. (...).

Luther's receptive soul, which tended to become melancholy and despondent, could not stand the ockhamistic ideas of God and the practice based on them. According to Ockhamism, the moral law (H.O. 156) was not based on the nature (*or* essence) of things, but on an arbitrary institution of God. The doings (*op.*: in that view) of the believer possessed no intrinsic (*op.*: *essence*, essential) value.

H.O. 216.

"Its merit, i.e. its acceptance or rejection by God, depended on an arbitrary decision of God." (W. Van De Pol, *World Protestantism*, Roermond/ Maaseik, 1956, 35v.).

Luther's personal, "existential" experience.

"When I was a monk, I thought, soon enough, that I was absolutely damned as soon as I once felt the desire of the flesh. For example, if I once felt an evil urge, a bodily lust,--wrath, hatred, envy toward one of my brethren.--I tried everything--such as confessing every day, etc.--I was damned.

But it didn't help: my carnal desires returned again and again. So that I had no rest and was continually plagued by thoughts like e.g., "Thou hast committed this and that sin." -- "Thou art defiled by envy, by impatience, and such sins more. Therefore the fact that thou hast entered this holy order (*note*: Luther had entered the monastery against his father's will) is in vain: all thy good works (H.O. 215) profit thee nothing" (*J. Kent, The Protestantism*, in: *R.C. Zaehner, ed., This is how man seeks his god*, Rotterdam, 1960, 118).

This is understandable in Ockhamian terms: only God knows whether Luther is good or not; his natural mind - in Ockham's hypothesis (H.O. 156) - cannot decide whether his "works" are good or not (they have no being of their own, analyzable by the natural mind).

But when - compare with Lacan's "poésie involontaire" (H.O. 162) - Luther, constantly, hears a voice saying, "All your good works profit you nothing," God gives no sign inside, in his conscience. Unless a negative sign: "Thou art defiled...". In other words: if natural reason, illuminated by the supernatural light, can give no assurances (that's Ockham), then just wait for a sign or take the "leap of (Biblical) faith". Which Luther did.

(b) *Luther's ockhamist pelagianism.*

H.O. 99 we saw how S. Augustine criticized Pelagius for holding a kind of "naturalism" (belief in nature and its possibilities without the supernatural).

Van De Pol, *ibid.*: "Ockhamism had a distinctly Pelagian slant: man was dependent on his own natural forces.

H.O. 217.

The Augustinian and typically Catholic view of grace (...) Ockhamism did not know".

In other words: notwithstanding Ockham's adherence to a kind of Biblical theology (H.O. 157), still, practically, the natural ability of man weighs in. "Grace - like justification (*note*: the inclusion of man in God's friendship) - was conceived as a covering, with which God covered the sinner who believed." (Van De Pol, *ibid.*).

Applied to Luther and his inability to achieve monastic perfection: he is and remains a "sinner," in his deepest self; grace has given him only a shell.

(c) Luther's ockhamist view of faith.

"Added to this was the fact that the act of faith itself also bore an arbitrary character. The goodness of the act of faith could not, in any respect, be reasonably founded. Ockhamism was, on principle, anti-intellectualist". (Van De Pol, *ibid.*)

That Ockhamism Luther took for Catholic doctrine, -- where it was only a lapsed Scholasticism: he fought a caricature of Catholicism, under that point of view. Thus Van De Pol,

Note.-- One will wonder if Luther, then, underestimated reason so much, also later, after his peak experience (to speak with Abraham Maslow, the humanist-psychologist), in 1514 (= the so-called, *Turnerlebnis*), when it suddenly became clear to him that God's righteousness in man is neither an own merit of that man nor a result of the mediating role of the Church, but the effect of God's grace on the basis of faith.

The answer remains, somewhat, yes: "Reason (*vernunft*) is the devil's biggest bitch. By her nature and manner of being, reason is a harmful bitch. She is a whore, the devil's bitch par excellence,--a bitch that perishes from the scab and leprosy.

One should trample them underfoot and destroy them,--her and her wisdom (...). Throw her filth in the face,--to make them ugly. She should be drowned in baptism. She the reprehensible, would deserve to be thrown into the dirtiest place in the house,--into the toilet.." (*J. Maritain, Trois réformateurs (Luther, Descartes, Rousseau)*, Paris, 1925, 43ss.).

Behold a sample of the infamous Lutheran invective prose (he was, in this, incidentally, not alone).

H.O. 218.

Maritain also cites a few statements by Luther, in which he scolds the two great "rationales" of High Scholasticism (H.O. 114: Arist, Natural Law.; 106: Thomas v. Aq.).

1. "Aristotle is the godless fortress of the Papists (Pope supporters). To theology he is what darkness is to light. His ethics (H.O. 62 (virtue ethics); 59 (happiness ethics)) is the greatest enemy of grace; Or still, "He is a snare, whom one should put in the swine pen or in the asses' stable." (O.c.,43).

Now we know that Aristotle was by no means "godless"; quite the contrary (H.O. 25v.): his theology served as a run-up to the deity idea of High Scholasticism to be re-established.

2. "Thomas Aquinas never understood a single chapter of the Gospel or of Aristotle." (O.c., *ibid.*).-- Now it is true that Luther hardly knew Thomas' works (H.O. 107). More to the point, Thomas did know the Gospel and at least as well as Luther. As for Aristotle, one will be hard pressed to find a thinker in the entire West who knew and processed Aristotle so thoroughly.

Note: please note: the invective prose about reason, above, Maritain takes from Luther's last sermon at Wittenberg, at the end of his life;--it is the mature man who speaks.

d.-- Luther's rejection of natural (merely philosophical) theology.

(A) The Catholic Doctrine of God.

Thomas Aquinas (*Summa theologica* 1, 2, 2) says: "The existence of God and of analogous realities, which can be known "per rationem naturalem" (by natural reason) concerning God as it is called in *Paul's letter to the Romans* (1:19vv.) are not articles of faith, but *praeambula*, introduction, to them.

For, just as grace presupposes nature and perfection presupposes things susceptible of perfection, so also faith (*note:* which is supernatural) presupposes natural knowledge."

The First Vatican Council (1869/1870) says, "Our Mother the Holy Church firmly holds and teaches that God, as the origin and purpose of all being, can be known with certainty thanks to "the natural light of reason, from the created realities."

H.O. 219.

Note: the God proof, which, potentially, is locked in the proposition that our natural mind, beyond all supernatural revelation (= Bible), can know God, in one way or another, is updated, completed by the fact that our reason:

(1) The creation of the universe,
(2) the freedom of the human will and the immortality of the human soul, likewise, can attain and, eventually, prove.

In other words: universe, man and deity form a whole,-- the classic theme of any ontology.

Catholic apologetics.

'Apologetics' or rationally sound faith defense is such an ontology, but as the 'praeambulum', vestibule, of a biblical theology.

Its main purpose is: to prove that the act of supernatural belief can be a rationally justifiable act. - We say "can be," because most people, who believe, virtually never engage in rational proofs of their faith. But they can, eventually, do it. Their minds (= reason and intellect) are, in principle, capable of it.

The great Catholic tradition in this regard.

K. Leese, Recht und Grenze der natürlichen Religion, (Right and limit of natural religio), Zurich, 1954, 30, underscores the fact that this Catholic thesis is firmly rooted in the great tradition.--

(a) *The patristic* (H.O. 69).

1. The Apologetics (e.g. S. Justinus of Flavia, Neapolis (100/165) et al;)
2. The Alexandrian Catechists (including Klemens of Alexandria (H.O. 67), Origenes of Alexandria (H.O. 69) and others)
3. the Cappadocian Fathers (including Basileios the Great (330/379; founder of an order of monks), Gregorios of Nussa (335/394; greatest philosopher of the Greek Church Fathers) and others;
4. especially against the Gnostics (a widely spread sect): S. Eirenaios (Irenaeus: 130/208).-- The Western Church Fathers : Tertullian of Carthage (H.O. 196); S. Augustine of Tagaste (354/ 430; HO 63/103), the greatest Church Father of the West.

(b) *The scholasticism* (HO 129).

Just about all the Scholastics helped to realize, in one way or another, the rational foundation of the act of faith,--especially S. Anselmus of Aosta (H.O. 129) and S. Thomas Aquinas (H.O. 106; 129).

Conclusion: the First Vatican Council (1869/1870) does nothing but formulate once more the great tradition on the subject.

H.O. 220.

Situation of Catholic natural (philosophical) theology in the great philosophical tradition.

(1) The "patriarch" (thus typifies K. Leese, o.c.,19) of the Stoa is Herakleitos of Ephesus (H.O. 213);--he stands at the origin of rationally justifiable theology. The cosmos or universe forms one whole (of harmoniously existing opposites). In that cosmos is the 'logos', (universe-spirit: universe-sense and universe-speech (H.O. 212: Hegel)), which, at the same time, coincides with it and yet reaches above it.

The universe spirit is, at the same time, the universe law or natural law, as a steering power at work in and also above (H.O. 46) the universe. Humanity situates itself in that cosmic-divine universe. For, indeed, Herakleitos characterizes that Universe-spirit as deity.

Conclusion: Universe/humanity/goddess, -- they make up a rational-mental triad, theme of classical ontology.

(2) The Stoa (H.O. 68), a Pagan philosophy, which, rather, fell into the taste of patristics (among other things, for its strict ethics (morality of duty) and its deeply religious attitude to life), is the founder of natural or philosophical theology, in its more elaborate form.

Reason is the faculty of "natural religion. The object of that reason is:

- (a) God's existence (and some properties) and
- (b) the natural law (moral law), basis of rationally justifiable behavior.

These two basic insights are, in principle, present in the spirit of all people, - this, because God imprints them in the spirit from the beginning. It is because of this that all men, by virtue of their human nature, are able to behave properly and in a God-fearing manner. Without books,-- without theories of any kind. Thanks to the natural light of reason.

Thus K. Leese, who analyzed the matter, thoroughly, summarizes the doctrine of the Stoa (o.c.,31).

(3) Patristics and, later, scholasticism have adopted this basic scheme of Heraklitean-Stoian natural theology and, on a higher, Christian plane, have re-established it, as explained above.

(4) The Humanists of the Renaissance adopted this same scheme - either Stoic or otherwise (H.O. 192) - and re-founded it Humanistically.

H.O. 221.

Leese names Thomas morus (H.O. 197), *Jean Bodin* (1530/1596; magistrate: *Traité de la république* (1576)), the Fleming Justus Lipsius (1547/1606; Stoicer).

1. In *Morus' Utopia* (1516), the "natural religion" of the Utopians consists of the belief in

- a. divine providence,
- b. the immortality of the soul and
- c. retribution after death.

This triad will, later, constitute the fundamental ideas of enlightenment.

2. *Johannes Bodinus* (= Bodin) introduced, as the first, the term "natural religion," in his *Colloquium heptaplomeres* ("Sevenfold Dialogue") (1593). A Jew, an Islamist, a Catholic, a Calvinist, and a Lutheran, -- five 'confessions' (confessions), appear in the dialogue,-- as well as two others, including Toralba (= Bodin), as representing the 'natural religion', which seeks to stand outside the five confessional religions. The 'natural religion' is the oldest; it is instilled in all human souls by God:

- a. God's existence,
- b. freedom of will and
- c. nada retribution are the structure. Natural law, which is "rational," is the basis of morals.

The church dogmata, such as Trinity, Incarnation of the Second Person (Jesus),-- also Original Sin,--all these are, for natural religion superfluous,--yes, they are false.

Decision.-- As, already H.O. 196 ("not yet actually Rationalist"), noted: Machiavelli's Realpolitik, Erasmus' struggle against superstition and dogmatism are truly enlightened-rational. Natural religion, especially Bodin's, is a third typically enlightened-rational trait. Humanism is, in part, emancipation from the grip of the clergy and church dogmas. In other words: enlightenment!

(5). The Enlightenment, in the stricter sense, is yet another re-foundation of the Heraklitean-Stoian natural religion.-- K. Leese, o.c.,22, mentions: Herbert Lord of Cherbury (1581/1648; officer and diplomat), Hugo De Groot (Grotius: 1583/1645; opponent of Machiavellianism (H.O. 168v.); Dutch statesman), Anthony Cooper of Shaftesbury (1671/1713);

John Locke (1632/1704; founder of enlightenment, the Enlightenment in the stricter sense), John Toland (1670/1722; freethinker (Freethinker), Deist, who thoroughly subjected all positive religions (the denominational ones, which rely on a revelation, which is a "positive" (definite) fact and not a general, natural, all men always and everywhere common fact) to "criticism.

H.O. 222.

J.J. Rousseau (1712/1778), Voltaire (1694/1778), G.W. Leibniz (1646/1716), Chr. Wolff (1679/1754), I. Kant (1724/1804), Fr. Schiller (1759/1605).-- In other words, a good portion of the top figures of the English, French and German enlightenment.

Founder, *stricto sensu*, of the Enlightened "natural religion" is, according to Leese, o.c. *Cherbury* in his *Tractatus de veritate* (Treatise on Truth; 1624) and *De religione gentilium* (On the Religion of the Heathen; 1645), Cherbury says that -- in the Stoic sense -- every man carries within him "common notions," yes, "sacred principles," thanks to a "natural," innate instinct, -- principles, which concern deity and morality (ethics),-- principles, which resist every attack against them.

He reduces them to five:

a.-- There is a supreme Deity.

b.-- This Deity should be worshipped.

c.-- Virtue (H.O. 62), existing in one with piety, has always been and should continue to be the chief component of that worship.

d.-- Vice and crime are to be repaired and expiated by repentance,--yes, only by repentance; repentance is, after all, "if not the highest, at least the most general and best attainable sacrament of nature or of divine providence" (o.c.,23).

e.-- After this life there is both reward and punishment.

Just one more testimony: "All distinguished people - from Peking (Bejing) to London and Philadelphia - are theists (*note*: God-believers) and they always were. All sages say and always have said: there is a God and one should be conscientious. The dervish, the fakir, the bonze, the talapoin (Buddhist monk in Siam), -- they all agree among themselves: "Pray to God, be thoughtful and righteous and fulfill your duties. The voice of the heart as well as that of reason assist this testimony of history" . (Voltaire).

Decision.-- The thesis of the Catholic Church is but a single appl. model of a long Western, philosophical tradition.

H.O. 223.

(B) *The Lutheran-Calvinist doctrine of religion.*

This position can be outlined in two stages.

a.-- (1) *Luther's doctrine.*

"If the natural law ('das natürlich Gesetz; in the original text) were not, of God's own accord, written in the heart, then one would have to preach a long time before the conscience is affected." (Leese, o.c.,31).

In another text, speaking of the Ten Commandments (with which one can identify the natural law), Luther says, "Nature also possesses these laws. Nature imposes that one should call on God. The heathen also demonstrate this, for there has never been a heathen who did not call upon his idols. This is in spite of the fact that the Gentiles have missed the true God ('des rechten Gottes'). Just like, by the way, the Jews. For the Jews also had idolatry, just like the Gentiles.

Except for this one point: the Jews received the law (*note*: Moses' law). But the Gentiles have that law "ym Herten geschrieben" (written in the heart). Immediately there is (*note* : under that point of view) no difference, as also, in another way, S. Paul (*Rom 2:14*) shows: the Gentiles, who do not possess "the law" (*note* : as the Jews received it from Moses),---they possess "the law" "ynn yhem Herten geschrieben" (written in their hearts). But, as the Jews fail, so do the Gentiles". (O.c., *ibid.*).

Another text: "In all men's conscience is inculcated, by the will of God, the knowledge of God. That God exists,--all men know this, under the guidance of pure nature, without any knowledge of arts or sciences. (...). Nor was there ever a people so wild or uncivilized as not to be convinced that somewhere there exists something divine ('irgendein Göttliches'), which created everything." (O.c.,33). Cfr. H.O. 179: Las Casas reasons in an analogous way.

Note.-- Jean Calvin (Kalvin) also speaks in the same vein: "We establish - as undeniable - that in the human mind there is a well-defined sense of the deity ('divinitatis sensum'). This, thanks to a natural instinct. For God himself - so that no one can pretend ignorance - has imparted to all men a well-defined knowledge of his being ('numinis') and is constantly renewing the awareness of it." (O.c.,33).

H.O. 224.

So far - at first glance - radical agreement between Catholic and Protestant philosophical understanding of God.

a.-- (2) *Luther's doctrine.*

We have, in previous citations, underlined the words, where Luther speaks of

(i) idolatry, common to Gentiles and Jews and

(ii) failure of both.

And here it begins. "Uncommonly weakened and broken, with Luther and Calvin, natural theology comes through. It stands, with them, under the sign of the Fall and original sin (H.O. 77; 208; -- 79; 92). Its dark and faded knowledge possesses no immediate and direct relation to salvation in Christ,--at most it possesses a merely referential relation to salvation in Christ."

(a) The 'natural' (i.e. original sinful) man knows how to do nothing with the truths of the natural knowledge of God and the moral law that will bring him/her true salvation (i.e. in Christ). In particular: out of those insights, valid in themselves, he/she, soon, forges idols, idols, further: a religion, supported on "righteousness" (right God relationship), which relies only on (good) works (H.O. 215; 216) and on self-salvation (H.O. 216: Pelag.).

Here Luther is thinking, of course, of e.g. the indulgence praxis and the like.

In other words: the dogma of original sin, with Luther and Calvin, coincides with the nature of non-Christian man (the 'natural' man). Or to put it another way: pure nature, as God designed it (Platonic: as God's idea), does not exist; since the Fall, it is fallen nature. Nothing more!

(b) The "justified" man, however, who finds the right God-relationship and morals, possesses, besides the supernatural knowledge, in the act of faith, the again made healthy natural knowledge, immediately. Only the Christian possesses at once the true natural, because accidental knowledge of God and moral law. (K. Leese, o.c., 30f.).

Leese summarizes, "Against the unbroken optimism of the stoa, the enlightenment, and Catholicism, the Reformation attitude toward natural religion is notable for its pessimism which is thorough. Distrust comes through again and again". (Ibid.).

H.O. 225.

Note.-- The 'fallenness', when viewed closely, exhibits phases:

(i) the decay of the "cosmic" (understand: natural) religions (H.O. 201), which, in their mystery, wonder, and magic (as Berger - H.O. 200 - puts it), are "disenchanted" (M. Weber's term) by the Old Testament, i.e. stripped of their purely natural character, as well as of their decay, on their level (Luther says that the Gentiles too, notwithstanding natural knowledge of God and morals, failed and became idolatrous);

(ii) the decay of the religion of Israel, which, notwithstanding the "disenchantment" applied by it to the Heathen religions, has nevertheless - according to Luther's own terms - on its level, become both failed and idolatrous;

(iii) the decay of Catholic, Middle Ages religion, especially in its folk-religious aspects: "Luther overcame the law-religious and good - works type of the Middle Ages 'Vulgärfrömmigkeit' (folk piety), thanks to a deepened interpretation of grace and faith." (Thus K. Leese, o.c., 42).

It is abundantly clear that Luther - after what we know of him - from H.O. 199 - absolutely did not want to eradicate the healthy core of Catholic piety! This fact - together with the established 'decay' and 'fallenness' of the Jewish religion - proves, in Luther's eyes, that even man, renewed by grace and (supernatural) faith, is susceptible to failure and to 'idolatry', -- to use Luther's language.

b.-- (1) Luther's individualism.

Cf. H.O. 164.-- *E. Coreth, Rationalismus*, 16, says that the changes, which Luther introduced, can be traced to the following, principal groups:

(a) instead of emphasizing Church Tradition, whose spokesman is the Pope, Luther emphasizes the pure word of the Bible;

(b) Instead of the visible structures of the traditional Church, Luther emphasizes the justification (inclusion in God's friendship) of the individual; instead of the Catholic emphasis on the Church's Magisterium (H.O. 136), Luther emphasizes the consciousness of the individual formed by grace and faith; (c) Instead of the Catholic emphasis on the objective doctrine of faith, as proclaimed by the Pope (and sometimes by the Councils), Luther emphasizes the importance of the individual's life in God's friendship. Instead of the emphasis, typical of the Catholic tradition, on the objective doctrine of faith, insofar as proclaimed by the Pope - possibly, also, by the Councils - - this, in unity with the world-Episcopate, Luther emphasizes the individual's understanding of faith bound only to the Bible and its interpretation.

H.O. 226.

This view is confirmed by *J. Kent, Protestantism*, in: R.C. Zaehner, ed., *Thus man seeks his God*, Rotterdam, 1960, 119:

"Personal judgment existed (...) in the Middle Ages as much as in modern times: no man ever accepted a religion solely on authority. -- It was not until a period, after the rise of the reform of Luther and Calvin (H.O. 211), that people began to advocate an "absolute" right (H.O. 135; 210) to "personal" freedom of opinion. The XVI th century Protestants did not wish to exaggerate the significance of the individual.

Tolerance too (H.O. 134) dates, only, from the XVII -th century.-- Authority was one of the aspects of Catholicism, which the Reformers wanted to hold." (H.O. 206: straightforwardness).

As an aside, this will, over time, make the profound difference between orthodox (orthodox) and liberal (liberal) Protestants (H.O. 206: Theological Rationalism). Cf. *C. Santschi, 2000 ans de réformes*, Geneva, 1986, 33s. (*L'emancipation des citoyens de Genève*),-- regarding the Calvinist variant.

Cf. *Berger, The Heavenly Canopy*, 175vv: "The real crisis of Protestant orthodoxy came to light in the XIX - century". "The father of the Waldorf synthesis (*op.*: coherent system) was Friedrich Schleiermacher and the main traits of later Waldorf theology can be seen, already, clearly in his own thinking." (O.c.,175;176). Cfr H.O. 141.

Schleiermacher (1768/1834) is, indeed, notorious for his *Reden über die Religion* (1799), addressed to "die Gebildeten unter ihren Verächtern" (to the "intellectuals" among the despisers of religion).

This is, the offshoot of the intelligentsia, which, end of Middle Ages, arises, as we saw H.O. 186. The 'intellectuals - and not (any more) the sources of faith (Bible, tradition, Church authority) - are, henceforth, the arbiters of the rationality (cognitive value) of Christianity, yes, of any religion.

H.O. 227.

b.-- (2) *Luther's individualism.*

a. Already the decision taken against paternal authority to enter the monastery indicates that, in Luther's deeper soul, a - what would now be called - "anti - authoritarian" tendency was at work.

b. Also - what Berger (H.O. 199v.) calls secularization, as "tremendous contraction of the sacred within reality" (sic), is, in its Lutheran interpretation, individualistic.

"When the Reformation failed to win over the ruling Church hierarchy, it was a proof of the seriousness which animated the Reformation that Luther and Calvin agreed to the separate Church organizations, which arose wherever the secular power - *note:* 'secular' is 'secular' - was willing to accept and support them.

These new congregations proved that it was possible to faithfully revive the first Christianity (H.O. 159: already Occam; see also 207vv: Santschi),--which was still different from reinventing it.

This, without the authority of the Pope, rejecting some aspects of the veneration of the Blessed Virgin Mary, under the invocation of the Saints and without the systematic use of indulgences and masses of the dead, without monasticism and compulsory ear confession (though not entirely without confession) and without sacrifice of the Mass as it is usually understood.

The worship service was to be conducted in the common vernacular (H.O. 211: the whole people), the fellowship aspect of the Lord's Supper was to be restored, and salvation from sin, above all, was to be seen as an undeserved gift 'from God.'" (J. Kent, o.c.,119).

What we - H.O. 126 - called 'authoritarianism', in Church Central, in the Middle Ages, has, apparently, caused a reversal into its opposite (H.O. 213: courtship,-- truly, a peculiar form of causal process! For -- at least partly -- causal process it is! Does not, for example, - what the English educationalists call - the terrible mother (the mother figure suffocating her child under her maternal care and tenderness) cause the revolt of the child? That is what - so masterfully - Ortega y Gasset (163.1: crisis) meant when he spoke of the suffocating atmosphere of authority and tradition in the Time of Transition.

H.O. 228,

Note.-- *The influence of von Staupitz.*

At Wittenberg, when Luther was in full crisis, he found much support from his confessor von Staupitz. This one was

- (i) a convinced Thomist (H.O. 106) and
- (ii) an adherent of modern devotion.

Notes.-- Geert Groote (1340/1384) founded, at Deventer, "the friars of the common life;-- a monastic order, which he, from friends and disciples, addressed around 1380. Education and the care of the poor were the two great objectives. This type of religious life -- after a certain time, as well secular as spiritual -- spread in the Low Countries, the Rhineland and northern Germany.

Among other things, Geert Groote wanted to return to the primordial church (H.O. 227) (and thus belongs to the pre-Reformation (H.O. 206) as *Hand. v. Ap. 4: 32/35* describes it, Noteworthy: a "tremendous contraction of the sacred" (H.O. 199).

The Brothers (and, in time, Sisters) of the Common Life - along with the Congregation of Windesheim - are specimens of what is called "devotio moderna," Modern piety.

According to A. Bolckmans, *Overzicht van de wijsgerige currents in de wereldliteratuur*, (Survey of philosophical currents in world literature), Gent, s.d.,13, in 'modern piety' education plays a major role and from those circles of life

- (i) some educators,
- (ii) who, in their turn, vigorously prepared humanism (H.O. 187vv.), in the Netherlands and in Germany. In other words: a pre-humanism! Thus Erasmus (H.O. 191; 197; 221), top figure of Dutch Humanism, as a boy, came deeply under the influence of the Brothers of the Common Life.

"I have everything from Von Staupitz. Von Staupitz started the doctrine, because he said, "One must look up to the man called Christ." Thus Luther.

Along with this devotio moderna, learned from a thomist, goes, at some point, thanks to his personal Bible study, the typically Lutheran rediscovery of the gospel.

"Deliver me, Lord, in your righteousness"-this is how a Psalm begins. In the Gospel, as Luther interprets it, God's righteousness (understand: God's transforming grace working in us) is revealed, obtainable through an ever-growing faith. Luther refers to *Rom 1:17.-- Rom 3:21v.* also puts Luther on the same path.

H.O. 229.

The Lutheran idea of "justice."

Luther always talks about "God's righteousness," -- and this is thanks to faith in Jesus Christ,-- available to all who "believe.

Van de Pol, World Protestantism, 44/47, has it that:

(i) Up to the re-definition, in an individual Lutheran sense, of the Gospel, he understood the theological term "righteousness" in the occamist sense, i.e. as the strict demands made by God upon one who - pelagian - self-willed (H. O. 216) - must keep the natural law (H.O. 223v.) and the revealed law of the Gospel,--as we saw: to the point of suffocation (H.O. 216).O. 216) - must keep the natural law (H.O. 223v.) and the revealed law of the Gospel,--as we saw: to the point of suffocation (H.O. 216: "I tried everything"; 227: Ortega)). With as 'poesie involontaire (H.O. 162), to speak with Paul Eluard, the Surrealist, a voice of conscience, which points out to him, incessantly, the impracticable!

(ii) From his personal reinterpretation, -- tragically for him: in a truly Catholic (and at once truly Biblical) sense, "righteousness" becomes, for Luther, the fact that God reveals Himself, in the Biblical word of God, as in a "justifying" (i.e., transforming man into friendship with God) power to be accepted with the leap of faith.

All this, in mercy: as von Staupitz had told him, Jesus, the human Jesus (that is, -- not the high Second Person of the Holy Trinity, as e.g. the Byzantine liturgy sees him primarily -- though far from exclusively), establishes on earth, in a human existence, in flesh and blood, precisely that "justice" which Luther, after his failed monastic life, needed so much.

Jesus, the man, who suffers and dies, viz. communicates that "righteousness" to the "sinner" (H.O. 224), who wants to confess his sinfulness, believing that Jesus saves him/her. "Justification, i.e., coming to terms with God, sola fide (by faith alone),---such is the rediscovered Gospel of Luther." (Van De Pol, *ibid.*).—In other words by (even 'good') works!

Ad fontes.

From the suffocation 'back to the sources', -- so cried the humanists (H.O. 195), but they chose differently from Luther, namely the Antiquities. Luther, following in the footsteps of the pre-Reformation, including the Franciscans (H.O. 159), the devotio moderna (linking the two), escaped the same suffocation by going back 'ad fontes evangelicos'.

H.O. 230.

a.-- Luther's rhetoric.

H.O. 217v. gave us samples of Luther's wordcraft. Yet there is more.

G. Deschner, Luther (Eine Bilanz nach 500 Jahren), (Luther (A review after 500 years)), in: *Bunte* (10.11.1983), 126f., describes the situation, in which Luther's eloquence worked.

In 1514, year of the Turmerlebnis, in which, suddenly, Luther realized that "righteousness" was not the result of his own "good works" or "church service," but solely from the leap of faith, he was not alone. The German people were ripe for analogous ideas'.

(i) The whole sacred Roman Empire 'Deutscher Nation' was in a boiling state. Wars in Italy and with France; the threat from the Turks. Power struggles between secular principalities and spiritual dominions had weakened the political position of the Emperor.

(ii) The Church in herself, her body and her limbs yearning for reform, her worldliness, her limitless need for money, had aroused a discontent that rose to the top. Luther himself had the same impressions when he went on a pilgrimage to Rome: the Pope was unreachable because he was engaged in a warfare; for the rest, the disappointed professor from Wittenberg was confronted with all kinds of examples of impiety and immorality in Rome (the priests - he complained - still only read the mass "rips, raps,--just as if they were conjuring").

(iii) German public opinion had been thoroughly turned upside down by the indulgence sermons of the Dominican Johan Tetzel. After all, since the Crusades (1096/1270), indulgences (*note*: a reduction of temporary punishments for sins), which - in return for payment in money - reduced the punishments in the hereafter for repentant and paying sinners, had been one of the main sources of income of the Papacy.

Both the indulgence practice itself, which resulted in pure financial gain, and the unashamed manner in which the clergyman Tetzel knocked the guilders out of the believers' pockets, grew into a scandal: "Would the little people, who didn't have much on earth, now have to suffer in the kingdom of heaven (due to lack of money)? Behold the situation.

How does Luther respond to this?

With his 95 Theses (on the door of the Castle Church at Wittenberg), which he had hung out, as a flaming protest, he unleashed a storm of uproar and approval (...).

H.O. 231.

1. Yet his voice, probably, would not have penetrated so far, had he not availed himself of the most revolutionary invention of the then known world, the printing press (H.O. 181/185). Just as, in antiquity, Cicero (H.O. 190) exploited eloquence and, in our century, Hitler (1889/1945) availed himself of the newly emerging radio, so Luther purposefully exploited the mass medium of his day.

He packaged his Theses (theses on indulgences) in leaflets and pamphlets, which in large quantities, for the first time in history, enabled the population to be informed quickly.

2. Of course, his opponents also had this means of information at their disposal. But they were no match for Luther's command of language - which included rudeness and rudeness. His German was unaffected, powerful, crammed with comprehensible imagery.

"One should ask the mother in the house, the children in the street, the common man in the marketplace; one should 'aufs Maul sehen' (look at their mouth), to see how they speak. In this way they will understand and notice that they are being addressed in German. Thus Luther.

3. Luther was, through and through, a politically minded man of the church (H.O. 227: influence of the secular power),--namely, the political conscience of the church. (...) This, in the sense of steadfast concern for basic moral attitudes, inculcating responsibility and distinguishing between good and evil. Such is Luther's political message, which he moreover delivered in a popular way.

4. Another example of his folksiness: he gained the sympathy of the masses because, like the people, he valued music. His songs - 'Ein feste Burg ist 'unser Gott', (A stronghold is our God), (Von Himmel hoch, da komm ich he)', (From heaven on high, that's where I come from), 'Wach auf, wach auf, du Deutsches land', (Wach auf, wach auf, du Deutsches land), are, - come across, now, as before five hundred years, as fresh.

5. His open-minded nature, open to all that this world offers, is among what stands out most, in Luther. It is, therefore, no coincidence, when he wrote as many drinking songs as religious songs,--as "ein Humpen Bier" (a goblet or large glass of beer) pleased him more than all possible gloom.

6. His decided confessional courage and death defiance contributed, too, theirs.

H.O. 232.

f.-- Calvinism and economic rationalism.

Helene Védrine, Les philosophies de la Renaissance, 61s., says that the Reforms "thoroughly reshaped Renaissance thought and, above all, its philosophy."

(i) the Humanist man of the Renaissance (H.O. 194v.) was human-centered ("anthropocentric") and secular;

(ii) the Reformations emphasized man's radical inability to live up to the God-given task imposed upon him,--which is evident in sin and original sin, which require salvation by grace. In other words: was the Humanist "diesseitig" secular, inner-worldly, -- the Reformed man was at home in two worlds.

He was both the pious, Bible-reading, who arranges individual salvation with God and the laborer, who, within this "earthly" world, fulfills God's calling through working life.-- Here *H. Védrine* situates *Max Weber* (H.O. 199), *Die protestantische Ethik und der Geist des Kapitalismus* (1905).

a. M. Luther (1483/1546) remained, in terms of economics and, especially, finance, very Middle Ages. Even in 1571 the Catholic Church refused to approve the loan against interest.

b. Kalvin (1509/1564) and his successors, on the other hand, think economically modern. They condemn idleness and unemployment, favor labor and investment; without condoning usury, they excite the banker and the industrialist, who make a profit.

Puritanism-especially in the USA-has also played an analogous role. Presbyterianism is a Protestant variant, which rejects the authority of the Anglican bishops, in the Anglo-Saxon countries, to recognize only the vicars. It originated in Scotland, where John Knox (1505/1572), main figure of the Reformation there, founded it. In 1688 it was recognized by the English monarchy.

A "Puritan" is a member of the Presbyterian Church. Puritanism, which is a "rigorism" (strict way of life emphasizing view), arose as a reaction against frivolous morals under Elizabeth I (1533/1603; Queen: 1558/1603) The Revolution of 1648 was, largely, the work of the Puritans.

The persecution of the Puritans under the first two Stuarts greatly aided the colonization of North America.

H.O. 233.

f.1.-- A little word about Calvinism.

H.-L. Matter, *Réformation*, 1 (*Calvin le juste*), in *Illustré* (Lausanne) 1986: 20 (14.05.86), 144/152, typifies the atmosphere of Geneva, world center and of Reform and of Calvinism, on May 21, 1536:

"When the drum and the bell of the cathedral of Saint-Pierre called the electors together, on that infamous Sunday (21.05.1536), the inhabitants of Geneva, who had remained faithful to the Church of Rome, crawled as it were into the earth and buckled their valises. For there was no longer any doubt about the outcome of the deliberations of the General Council. Had not the prince-bishop Pierre de La Baume, three years before, chosen the path after having tried in vain to regain a semblance of power?"

Look: Bern, Zurich, the friends of the North, have, since recently, switched to "the new faith."-- The influence of these precious allies--Geneva is, eternally and three days, threatened by the Duke of Savoy, the hereditary enemy--is not small. But the Council's decision did not spring solely from politics.

The corruption of the Catholic Church in those days arouses deep revulsion in all quarters. One has had enough -- of those priests with their filled pens ('panse'), who live like parasites, if they had not degenerated into lecherous and debauched beings. The trade in indulgences (H.O. 230) - "Quand la pièce tombe dans le tronc, le péche s'envole" (When the coin rings in the offering box, sin dissipates)- arouses aversion, even among believers, who, for the rest, were little suspect of antipapism (anti-Popeism). It is this hateful horse-trading that prompted the German monk Martin Luther, in 1517, to take the measures that made him notorious."

To there what, on the 450th anniversary of the Reformation at Geneva, a Calvinist writes. The same writer, in a second article (2 (*Le Calvinisme par la face nord*), (Calvinism from the north side), in: *Illustré* (Lausanne) 1986: 21 (21.05.86), typifies what the new faith entailed. Like the Presbyterians, so also the Calvinists: they are rigorists, i.e. they breed people, who at Geneva are characterized, today, as 'coinces'. Bad temper, moralizing, sad ruminations, self-aggrandizement, - such is what this Calvinist, himself, gives as the content of understanding!

H.O. 234.

Steller gives, first, the opposites of the pictorial impression "embarrassment.

(i) "Check it out in the publicity: the relaxed smile and the engaging fat belly of priests and monks favor the sale of camembert cheeses, salamis, pasties and liqueurs. One has, however, never seen anyone salivate over the cutting-edge portrait of a 'pasteur' (Calvinist minister) of our national Church. Literally translated! One attributes to Luther the following distich (two-line verse): "Who does not love 'wein weib und gesang', ('wine woman and song), he will remain, all his life, a fool" Indeed: didn't H.O. 231 teach us that Luther wrote as many drinking songs, for the Germans, as religious songs?

An applicative model of Calvinism, style 'new faith' at Geneva "If anyone is caught drunk, he shall, if it is only the first time, pay 'trois sous' and he shall be surrendered to le Consistoire.

If this occurs a second time, then he is obliged to 'cinq sous'. At the third time it is 'dix sous' and he is thrown into prison: Thus a Geneva ordinance of the time.

So much for the pictorial impression of 'rigorism' and the facts on which that pictorial impression is based, for analogous punishments were meted out for 'paillardise (horny behavior, fornication)' and also for 'chansons deshonnètes, dissolues ou outrageuses ou danse en violette (H.O. 175) ou autrement (for song and dance of that nature stood

(a) 'three days in prison and

(b) 'appear before the consistory').

That is, of course, a little different from "Wein, Weib und Gesang" in Luther's style!

The question arises: which philosophy of life and world is hidden behind this punitive action? In other words: what ontology (sense of reality)?

A new way of behaving ethically well.

Matter, after this surface phenomenon, reveals the depth structure,-- the predestination theory.-- As one knows, Calvin had a fondness for S. Augustine (H.O. 90/100: conflictology; 197: cultural criticism). This concerned conflictology and cultural criticism, of course; but it had another reason: S. Augustine had, already, his doctrine of predestination. Eternal salvation, in Christ, is such an effect of grace that, from all eternity, the destiny of every man is determined by God himself. after all, all that takes place in time is "foreseen" and "willed" by God himself!

H.O. 235.

a. Broadly defined: 'predestination' (prior-determination) coincides with Divine Providence.

b. Narrower view: God predestines well-defined, singular creatures gifted with reason and freedom of will to eternal salvation. The will (decree) by which he does this is called "predestination.

In the process, three opinions emerge.

(i).1.-- Pelagianism (H.O. 99; 208; 216) attributes salvation (or calamity) solely to man's own ability,-- with God merely noting the result and assisting.

(i).2.-- Highscholastic predestinatianism, advocated by some exaggerating disciples of S. Augustine, asserts that God alone predestines some to salvation, while He predestines others to eternal doom.

(ii) -- The Catholic position is in the middle a.k.a.:

(a) The dispensation of mere graces may, incidentally, include divine preferences, by which some creatures have something in preference to others;

(b) All other creatures, however, without distinction, receive from Godhead the necessary and sufficient conditions so that they themselves - and not God - are radically responsible for their/their salvation or calamity.

Now it is true that Calvin, in his contemporary way, resurrected the predestinatianism of the Middle Ages (extreme Augustinians), "Calvin did not hesitate to go a step further than S. Augustine, by asserting that damnation was not the outgrowth of sin, but the cause of sin. In other words, the wicked are not damned because they sin, but they sin, because they are damned."

With these words *Henri Babel (Calvin, le pour et le contre,--as well as: Pourquoi Genève adopta la Réforme)*--cited by Matter--characterizes Calvin's predestinatianism.

By analogy, the "chosen ones" are held to exhibit behavior befitting their dignity as "chosen ones. The ethical inference.-- Such opinion founds "le stress de la sanctification" (the overstrain concerning self-sanctification) (Olivier Fatio).

H.O. 236.

Matter cites Prof Franco Giaccone, echoing the Italian thinker Benedetto Croce (1866/1952), "Calvinist rigor founded a new mode of ethical good living: it shaped characters; it incited to labor, where 'labor' was understood as the mission assigned by God to each man, in his own profession."

The so-called 'Protestant ethic' (understand: 'Puritan Calvinist ethic') manufactures - says le pasteur Henry Babel - "a more active and enterprising type of man. Perhaps this one looks less happy. Sometimes he knows less humor.

But (1) the Dutchman, (2) the Parisian Protestant, (3) the inhabitant/resident of "les Cevennes (*note*: the eastern side of le Massif Central in southern France; le Cévenol) and (4) especially the American Presbyterian (Puritan),-- they are all purposeful people ('des types efficaces').

After all : God will, in time, hold them/ her accountable. They know themselves, therefore, responsible. -- Thus a Calvinist minister on the different types of Calvinism spread across the globe.

The Calvinist money ethic.

Take, immediately, an applicative model.

"All that each of us possesses has not fallen into his/her hands by chance, but thanks to the distribution of the One who is: the sovereign master and lord of all (*note*: Calvinist theocentrism) (...). We obey, therefore, 'le commandement' (the commandment), if, though satisfied with our lot, we pursue profit only within the limits of honesty and legality,--if we do not wish to enrich ourselves by harming our neighbor (...If, on the contrary, our aim is to help everyone (H.O. 88: subsidiarity), - as much as we can manage, by our counsels and our 'substance', (possession). - What he/she possesses, to maintain". (Inst. 2.8, 45s).

One can see that rigorist ethics - that is a more correct term - is absolutely not "absolute-Liberal" capitalism. But - history will show it, later on: capitalism can emerge from it or, easily, merge with it.

H.O. 237.

Decision.-- The Calvinist-Puritan ethic is, essentially, a work ethic. -- The world, indeed the universe, is a field of work. In that field of work, which is "being," there are two types of being:

a. either is a "being" labor, worker;

b. either a 'being' is workable, resp. already workable.

Behold the ontology peculiar to the Calvinist-Puritan man-in-the-world.

f.2.-- A. Weber's capitalism-calvinism view.

We possess, now, the necessary and sufficient conditions of understanding to understand Weber's sociology of the relation "puritanism (Calvinism) / capitalism.

(1).-- The occasion.

According to A. Akoun, *Max Weber* (1864/1920), in: d. Huisman, dir., dict. d. phil., Paris, 1984, 2635, Weber came up with the idea of this comparative sociology through a text prepared by one of his students, who had made a comparative analysis of occupational choices within a number of religious groups. The student had observed a strong presence of Protestants among the major industrial patrons.

(2).-- The method.

A. Brand, *M. Weber* (1864/1920), in: L.Rademaker, ed., *Sociological Encyclopedia*, 2, Utr./Antw., 1978, 805/814, notes mainly, two aspects.

(i) The understanding (comprehensives, 'verstehende' (dilthey)) method.

The interpretive understanding of action involved on others (= social action) is the main purpose, This praxeology (action verger) asks, mainly, three questions:

1. "What does / does the one who acts say?"

2. "What does the one who acts mean, when he/she does/says something?"

3. "Why / why does he / she cherish that intention?"

(ii) The axiological method.

Understanding one's fellow man, as it were, "from within," as Weber puts it, is primarily concerned with values. After all, practical purposes depend on the values espoused. -- Here a distinction is to be made between what he calls 'value involvement', i.e. the interest in values and value choices, and 'appreciation', i.e. the actual endorsement of values.

Praxeologically: the why/why of social action is either value-involved or even actively value-choosing ("valuing").-- We can, already now, surmise how the rigorist both sees values and actively realizes values.

H.O. 238.

(3).-- *The main theme.*

According to A. Brand, a.c., 809, an important part of Weber's "substantial" (fundamental) work is dominated by the question of the meaning, "value" of

(1) the rational and

(2) the rationalization (H.O. 144/146) for our Western culture.

Yet, soon, Weber broadens his questioning: the meaning (and, immediately the emergence) of economic rationalism -- in this context: the meaning of capitalism and the capitalist spirit, in the West. Cfr. H.O. 147v.: 168; 186; 194 (citizen).

Excerpt.-- Characterization of modern, western capitalism.

(1) labor (H.O. 236v) is the main idea.

(2) sub-ideas are: rational (reasoned, possibly mathematically reasoned) organization of that labor, -- orientation (goal) of that labor towards profit, by means of 'calculation' (calculation);-- immediately, if there is scale, implemented separation of household and business,-- business subject to a reasoned accounting system,-- business constituting a labor system.

One sees that, although Weber himself does not place this emphasis, labor, with its "rational" aspects, is central.

Conclusion.-- The God-given mission of the Puritan-Calvinist, in this world, is labor to the greater glory of God and to the fulfillment of one's own individual election (predestination),--as we saw it, above.

Well, there is an analogy (H.O. 13v.): both Modern economic Rationalism and Rigorism (Purit. / Calv.) revolve around the idea of 'labor', although both objectives (value commitments) do differ thoroughly, -- at least if both live up to their typical idea.

Which is mostly not the case (H.O. 95: conflict between pure idea (ideal) and realized idea (phenomenon,--also called "reality"; cf. H.O. 140: the thesis becomes "entfremdet" (to speak with Hegel and Marx) of itself in the hypothesis (= praxis) ("self-confirmation (H.O. 212/214)").

(4).-- *Meaning and rationale / motive.*

Weber characterizes Capitalist action as (1) restless and methodical industriousness, (2) frugality, (3) sobriety ("businesslikeness"), and (4) being responsible with respect to the professional task.

What meaning and motive (conscious)/drive (unconscious) are contained within it?

H.O. 239.

(i) Note, first of all, that being friends and co-workers with God, thanks to Election (predestinarianism), and this in professional work itself incites to (1) professional responsibility, (2) pragmatism, (3) thrift and (4) diligence.

Akoun, a.c.,2635, sums this up in his way, "The Puritan, who establishes an industrial firm, is by no means a 'matérialiste sordide' (a filthy materialist). Weber says: "It was only because (professional) labor was merely the expression of a transcendental ('transcendent') purpose .

Note: To increase God's glory, within creation itself -, only thereby could economic "rationality" fully take hold. After all:

(1) to labor is to pray and

(2) succeeding (*note:* in the result of that occupational labor (possession increase)) is the obscured sign of God's graciousness."

Popularly expressed, "With my occupational labor I serve God and with its result, its success, I see that I am, truly, 'chosen one'(friend(s), co-worker(s)) of God, whose glory in creation I increase (precisely by working and earning my living)."

(ii) To there is more required, to have capitalism, i.e. capitalization.-- Akoun: the harmony of two opposites is, in the Puritan, visible! On the one hand: restless labor (H.O. 236: le Commandement), for to resign oneself to the acquired possession is not to increase God's glory any more,-- laziness, 'sluggishness' (inertia) is sign of damnation (predestinarianism); on the other hand: given an ascetic lifestyle (no luxury, no consumer society), capital formation is ever increasing.

Result: capital surpluses, which give rise to reinvestment. Akoun: "Travailler - ne pas consommer les produits de son travail" (Working hard and, at the same time, living like a poor person)! Result: accumulation of capital. Capitalism, although deeply religious. Or much more accurately: thanks to that religion!

Decision.-

(i) is the ACD (antecedent, sign),

(ii) is the CSQ (consistently, continued).-

Immediately we understand Brand's summary better: "The restless occupational work had as its motive (*note:* why/why) the desire for the certainty of one's own salvation; it had the meaning of acting 'for the greater glory of God' (*note:* to increase God's glory in creation).

He had, as an (unintended) economic consequence, the promotion of modern capitalism. (...)

H.O. 240

Furthermore - as far as the factor of 'labor' is concerned - the Protestant religious asceticism (*op.*: sense of mortification) created a type of 'labor(st)er', which fitted into the discipline (*op.*: sense of discipline) of the Modern industrial labor organization." (A.c., 810v.).

(5).-- *The aspect of "secularization"*.

We saw this in two places, among others: H.O. 194 (laicization) and H.O. 199vv. (Weber's concept of secularization).-- Brand, a.c. 810, mentions two aspects. What the monk, resp. the mystic of the Middle Ages sought either in the monastery or in solitude, that someone like Calvin relocated in this world itself and namely in professional work.

In other words: the monastic or mystical mortification in the face of "this 'earthly' world" - the monastic - mystical asceticism - is not rejected in itself,-- but rather the worldly escape, in which one encapsulates it. as a monastic - mystical life in the midst of a family and a business,-- behold 'die innerweltliche Askese' (Weber's expression: inner-worldly or 'secular' asceticism)! Or as Brand says: "the profession as a (religious) vocation". Yet, in so doing, asceticism became 'secularized' (secularized). or even better : laicized.

(ii) The term "rationalization"--at least in Weber's parlance--is the exclusion of mystery, miracle, and magic (H.O. 201),--this, in order to put, in its place, the one high God (monotheism) and his rigorous ethics (ethical monotheism).

Result - says Brand - : no sacraments, no confession, no intermediaries between God and the individual! This leads, among other things, to "great inner loneliness" (Brand, a.c., *ibid.*). The Calvinist-Puritan individual stands -- without confessor, without miracle workers, without sacraments -- alone, immediately before God,-- with the question, "Shall I be of the elect or of the damned?"

Through labor and successful labor (the result proves for the method: God "blesses" labor!) the rigorist reassures himself. Secularization - understood as elimination of the sacred - leads, thus, to occupational labor.

H.O. 241.

Decision.-- 'Rationalization' - understood as 'secularization' - has at least two variations of meaning:

(i) negative: the elimination of the archaic 'sacred' (world flight included) and (ii) positive: the situating in the earthly professional work of what - in the past - took place in isolation (monastery, solitude).

Note.-- One can compare Weber's approach to the phenomenon of "capitalism," of course, with other approaches.

(a) *J-Fr. Lyotard, economie libidinale*, Paris, 1974,--under Freudian influence, sees in Marx's view of "capital" a duality:

a. on the one hand, Marx admires Capitalism, for its "power.

b. on the other hand, he is shocked by it (exploitation; inhumanity of wealth, etc.).

Lyotard vaunts the 'godless' character ('le caractere impie') of Capitalism. The capitalist does not respect higher ('transcendent', theological) values according to Lyotard.

That contains truth, but one should be careful not to generalize: the rigorist-religious capitalist does respect them. This has now become abundantly clear.

(b) *Michio Morishimai, Capitalisme et confucianisme*. Paris. 1986; is the work of one of the best mathematical economists of today, at The London School of Economics. The thesis of this Japanese is that the economic-capitalist rise of present-day Japan is the result of - a fifteen centuries ago - religious mentality, the Japanese variant of Confucianism. And not of a Westernizing revolution in the course of the XIXth century.

Four religious factors made the typical Japanese "worker": Confucianism, but enhanced by Shintoism (native religion,--that of the Emperor) and Buddhism (Indian religion, which had the "little people" of Japan as its religion). This new (different from Chinese Confucianism) Confucianism honors, as central virtues, devotion, filial reverence, and obligation to nobility. It has, moreover, notwithstanding its nationalism, had the good sense to open up to foreign cultures (Western, industrialized among others),--this in the Meiji Revolution (Mutsu-Hito (1852/1912; Enlightened despot, who advocated a policy of expansion)).

H.O. 242.

One does not forget that Morishima is responding against Weber. A. Weber did, after all, engage in comparative sociological research outside of Western European religion. The other world religions-Hinduism, Confucianism, Taoism, Buddhism, and Jewish religion-also interested him.

Well, of Confucianism Weber says that it is rational as Protestantism, but this rationality is not aimed at controlling the earth with the mind (intellect / reason), as in Modern Western Rationalism, but at fitting oneself into the universe with the mind (what was once called 'Universism', as a characterization of the Chinese religion). Weber was talking, first and foremost, about Chinese religion in this regard.

Consequence, according to Weber : Chinese Confucianism, although "rational", could not develop economically and become "Capitalist".

b. -- Now Morishima has brought a correction to this. Japan, although Confucianism is so strong there, has nevertheless developed economically and become "Capitalist". The explanation: Japanese Confucianism differs from Chinese - studied by Weber first of all - in that Japanese incorporated three other religious influences within its Confucianism.

This new input said Morishima began in 604, when Prince Shotoku Taishi introduced a new constitution. It reached its full effect under Mutsu-Hito, last century, when Western-Christian influences applied a final corrective. At that point, capitalism is possible. "The Confucian virtues of frugal living and temperance had been forced into the Japanese people, -- so much so that any individualism was impossible. A bureaucratic elite ingrained itself in all techniques".

Immediately begins Japanese Capitalism as State Capitalism.-- Morishima's book reveals (...) the Confucian character (*note*: Confucian in the typically Japanese sense) of

- (1) The company,
- (2) University,
- (3) Japanese society today.

It indicates the source of the spirit of devotion, all in the service of the state,-- spirit that still prevails there." (*J. Attali, L' électronique de Confucius, in: Le Nouvel Observateur* of 30.01.1987, 84/85). Cf. H.O. 165vv; vrl. 167 (Mercantilism).

H.O. 243.

The Catholic Reform (counter-reform).

The Counter-Reformation can be reduced to the following characteristic.

Introduction.-- "The state of the Church, in the XIVth and XVth centuries, was marked by crying abuses, and among the Christian people and -- especially -- among the clergy. For example, the highest ecclesiastical dignities were, as it were, the prerogative of the nobility; the canonical degrees and prebends (the income from a canonical degree) were simply the refuge of the benjamins of a family, who, moreover, were often directed to ordinations without having the vocation or the desire for them. (...).

The cathedral chapters in Germany, and even elsewhere, had, in the moral sphere, no fame of exemplarity -- All the worse was that fame among the lower clergy, who were compelled to play the roles of the priesthood, without suitable honorarium. Unmarried cohabitation became so frequent that a French synod (meeting of bishops), in 1429, complained that the opinion that "la simple fornication" was no longer a mortal sin was gaining ground.

King Sigismund, at the Council of Basel (1431+), moved to make celibacy abolishable.-- Attempts at reform were not lacking, but they remained ineffective. Thus, the Council of Vienne (1311/1312), already at that time, confessed that its main task was to sanitize morals, even those of the clergy." (*E. Vacandard, Réforme catholique*, in: *J. Bricout, dir., Dict. prat. d. conn. relig.*, V, Paris, 1927, 1050).

Behold a pure Catholic judgment, in a Catholic, yes, pure Church work.

g.1.-- The Council of Trent (1545/1563).

Beginning in 1311, a series of conciliar attempts to "do something about it" (Pisa (1409), Rome (1412/1413), Constance (1418), Lateran (1512+)),--all without much result.

In 1545 -- far too late -- the Council of Trent began,-- under tense circumstances: the Pope, Paul III (1534/1549), wanted to postpone the aspect of morals and church discipline to a later date; Emperor Charles (1500/1558), of the Holy Roman Empire, wanted the Council fathers to postpone the dogmatic issues (related to the "errors" of Protestantism, of course) to a later date. It was decided to deal with both aspects simultaneously.

H.O. 244.

It became an eventful Council.

For example, Maurice of Saxony, a supporter of Protestantism, overwhelmed Emperor Charles in Tyrol. The city of Trent was threatened by it. Several Council fathers, terrified, fled (this, in 1552). It was not until ten years later that the next Council session could take place. This, thanks to the pressure exerted by the Emperor of the Holy Roman Empire and the French crown on the Pope, who was not eager (for fear, by the Council, of getting the bishops as a reduction of their own position).

Besides issues like original sin, justification (H.O. 229), sacraments (especially baptism and confirmation), means of salvation, especially the artery of Protestantism was criticized: not only the Bible, but also, in conjunction with it, tradition are sources of faith (H.O. 69: Patristics). 225; 229: only the Bible); the interpretation of the Bible has as its hermeneutical rule (norm) the ecclesiastical authority and the unanimous authority of the Church Fathers (H.O. 69: Patristics),--this, against the Protestant thesis that the autonomous subject (the individual: H.O. 225v.) can validly interpret the Scriptures.

What makes *C. Santschi, 2000 ans de reformes*, Geneva, 1986, say: "This condemnation of free inquiry includes a condemnation of the entire doctrine of the Reformers concerning salvation, grace, sacraments, church organization, religious life. By inflating the theses, it has made the schism (*op.*: division) of Christendom final." (O.c., 42).-- Behold a Calvinist judgment.

Santschi adds: "The Council of Trent has, however, done edifying work and, in addition, reforming work, within the Catholic Church itself. For example, the decrees on the life of religious, the jurisdiction of bishops, the duty of pastoral care, formation in seminaries for priests, the conditions for becoming a priest (...)" (Ibid.).

g.2. -- *The new monastic orders.*

Santschi, our Calvinist: "Yet the real Catholic reform of the XVIth and XVIIth centuries came (mainly) from the regular clergy." (Ibid.).

She credits: 1526 (Capuchins), 1537 (Jesuits), 1611 (Oratorians);-- the female congregations were even more brilliant : 1535 (Ursulines), 1633 (Daughters v. Love) 1610 (Visitation).

H.O. 245.

"In this way the Catholic Reform continued the line of the pre-Reformation (H.O. 206; 226), i.e. the religious movements of the end of the Medieval Ages." (O.c. 43).

g.3. -- *The Catholic Monarchs.*

The principle - often proclaimed by the Protestants - that the religion of a state (H.O. 167vv.: understanding) depends on the personal conviction of the ruler, turned, suddenly, against them.

(1) The Duke of Bavaria, Albrecht V, closed his states against the Lutheran heresy, obliged the professors of Ingolstadt to sign the creed published by the Council of Trent, and entrusted the education of youth to the Jesuits.

The ecclesiastical princes imitated this (between 1570 and 1585), in S.- Germany.

(2) The Duke of Austria, in 1578, acted in a similar way. Also in 1598.-- *Ranke* (1795/1886), in his *History of Germany during the Reformation* (1839/1843), says that the catholicization, statewise, in S. Germany and Austria, proceeded "silently, without being noticed."

(3) The Southern Netherlands and the Seven Swiss Cantons (the Golden League) underwent an analogous political Catholicization.

General Decision.

the reforms - Protestant, Catholic - superseded by ecumenism.

Already last century, Pope Leo XIII (HO 137) initiated the reunification of the churches - with the Anglicans and the Orthodox.

In 1938, at a Conference in Utrecht, it was decided to found the Ecumenical Council of Churches. This was a further development of the Edinburgh Conference of 1910 and the Lausanne Conference of 1927. The Council of Churches was established in 1948. The Catholic Church sends observers there.

Pope John XXIII (1881/1963), in 1959, proclaimed the Second Vatican Council (1962/1965), which confronted the Catholic Church and the modern world and laid the foundations of Christian unity. Protestants and Orthodox were invited as observers. "Inspiration inouie!" exclaims Santschi (o.c., 56). Liturgy, Church, Sources of Revelation (H.O. 244), Church in the world of today,--these are the four great "constitutions! "Vatican II fut un véritable concile de réforme" (Vatican II was a true reform council), says Santschi, o.c., 57.

H.O. 246.1.

g.4.-- The Catholic School.

R. Lenaers, *Is there still 'Catholic School' after secularization?*, in: *Streven* 1987, 579/593, claims that, if after the Counter-Reformation and in its wake, secondary education has existed as a Modern type of 'school-in-Catholic-sense'. This, in the Catholic countries: Italy, France, Spain,-- the Southern Netherlands,-- Southern Germany, Austria, Hungary, Poland. Two objectives:

(i) overcome the ignorance and degeneration of Middle Ages Catholicism through knowledge and moral formation;

(ii) overcome Protestantism, by a counter-offensive. The so-called Jesuit College was, however, the main weapon

1. The first was founded - make no mistake - in Messina (Sicily), in 1548. Petrus Kanis (Canisius (Nijmegen 1521/1597)) was a teacher there. As an aside, Kanis was born in the year Luther apostatized and Ignatius of Loyola (1491/1556; founded the Jesuit Order in 1534/1537), left "this world.

2. In 1710 there existed, already, 612 such high schools,--in which (Christianized) humanism, as one knows (H.O. 196/198), was one of the overtones.

A second overtone recalls the Calvinist secularization (H.O. 235v.: le stress de la sanctification) "The success of that type of school was, in the main, due to the fact that - for the religious educators of the day - no effort (compare with the 'labor' of the Puritan/Calvinist) was too much: they were concerned with the eternal salvation of people and that was worth everything to them. (...). Advertising was, therefore, superfluous (...)" (Lenaers, a.c. 580).

One still knows the slogan: "Ad maiorem Dei gloriam" (For the greater glorification of God). Cf. H.O. 240 (For the greater glory of God, - proper to the Calvinist).

Lenaers, a.c.,580v., emphasizes that "only half an hour of religion in the week, as a lesson, had to suffice"! The Catholic view was present - silently - in all subjects, including the purely profane. This, in the spirit, incidentally, of the Christian Humanists of the first hour.

Lenaers, in my opinion, places far too much emphasis on making students churchy:

(i) that was precisely, in the context of the Counter-Reformation countries, escaped the Protestant grasp;

(ii) but the first purpose (the foreground) was to form secular Catholics, with a view to their eternal salvation (the background),

H.O. 246.2

II.B.(B).-- *The intellectual factors* (186+).

Introduction.-- The Rise v/d Modern intelligentsia : the economic basis (186); the freedmen two-pronged: Musical and Rational (186v.);-- Gramsci (187).

(1) *Renaissance Humanism* (187/1981).

Definition: general and Renaissance humanism (187v.).

a.-- Dating (188/109).-- 1. Petrarch (1336: Ventoux ascent); 2. Fall of Constantinople (1453); 3. Discovery of America (1492).

b.-- geographic extent.-- Italy, W.-Europe; Central Europe;-- Spain (Vives) (169v.).

c.-- characteristic **1** . (190/194). a. Paideia;-- Scipionic Circle: two-sided (Hellenism + Roman Realpolitik; 190);-- Machiavelli different from Erasmus (191).

b. studia humanitatis (191/194): gramm., rhet. poetica, -- geschied., ethics;-- rhetoric and philology (Vico);-- distinction with respect to the previous Renaissance (192);-- classical and Mannerist: Pontormo (appl. mod.); the world as maze (193v.).

d.-- Characteristic **2**. (194/196).-- a. The Citizen (194); b. the uselessness of monks and mendicant orders; laicization of culture (194); c. man as independent (195); d. 'Ad fontes' (to the sources): early and later Renaissance (Rationalism-progress) (195); e. transition (195) d. distinction between Renaissance humanism and actual Rationalism (Machiavels; Erasmus) (196).

e.-- Humanism and Christianity (196/198).-- The relation 'Humanism' (= secular culture) and 'Christianity' (or 'Nature / Super Nature') : five positions : from radical rejection of profane culture to radical identification.-- Christian Humanism.

(2) *The modern reforms* (199/245).

Two features: the subject and, especially, secularization (199/206).

a. Secularization : downsizing v/h sacred (mystery miracle, magic); - the Old Testament as desecration (201/204), the New Test. as partial re-sanctification (204v.); idea 'Secularization' (205), Rightism (206)

b. Verification

(207/245).-- a. the term reform (207/210).-- b the Luther imagery (210/215): Leo XIII, 'People's Hero', theolog.-scientific.-- Explanation: self-confirmation (212/214; theodicy).-- c. Luther's nominalism (215/218).-- d. Luther's rejection v. d. natural theology (218/230): the Catholic doctrine (218/ 222 ; the great philosophical tradition (220/222 .-- e. Luther's rhetoric (230v.). f.-- Calvinism and economic rationalism (M. Weber) (232/242) : Puritanism and Calvinism as rigorisms;-- f.1. Calvinism (predestination - ethics (233/237)); f.2. Weber's capitalism - Calvinism view (237/242; method; theme; praxeology; secularization;-- comparison with other views). g.-- the Catholic reform (243/254): Council of Trent, the new monastic orders, the Catholic princes (states), the Catholic school.

H.O. 247.

(B).3.-- *The modern natural science.* (247/279)

E. Coreth, Einf.i.d.Phil. d. Neuzeit, I (Rat.- Empir.- Aufkl.), 21/24 (neue naturwissenschaft), says that one of the main factors, of an intellectual nature, preparing Modern Rationalism is the "new" (natural) science.

Introduction.-- Coreth, o.c., 21f., distinguishes mainly three mid-century approaches to this.

(i) As we saw, H.O. 114/117 (esp. 117), the empirical element, which the Scholasticism, notwithstanding its book-bound thinking (H.O. 109vv), nevertheless carried within itself, has been one of the pioneering factors. It was through this aristotelian element (H.O. 8vv) that the West emerged from an all too mystical-worldly Platonising Augustinianism, characteristic of monastics, secular clergy and mystics.

(ii) Even more strongly empirical, even toward the naturalistic, was the mid-century contribution of Islamic thought, at least in its averroistic form. Averroës (Ibn Rosjd (°Cordoba: 1126/1198), an independent thinking Aristotelian, was, at the time, very influential, in Church-Scholastic thought (H.O. 129; 198).

(iii) Essentially empirical was, indeed, empiricist-naturalist tendency exhibits, of course, the Late Scholastic nominalist philosophy (H.O. 117; 247; 156 (Ockham)), which becomes hostile to ontology, at least insofar as "ontology" deals with realities (soul, God; moral law) that escape sense perception. Oxford, as well as the University of Paris, were strongly nominalizing.

Conclusion.-- New in the absolute sense, the new natural science was, certainly, not. It did, however, like e.g. humanism and, reform, come in ever-increasing opposition to the rigid scholastic interpretation of Aristotle's natural scientific insights (H.O. 21/24: appl. mod.)

A.-- *Internalist analysis.* (247/262)

One can, as a number of Anglo-Saxon epistemologists do advocate, view (professional) science in two ways:

i. Internalist (then one dwells on the strictly subject science aspect, the essence core);

ii. Externalist (one examines how, outside the strictly subject science domain, subject science either affects or is affected).

We begin with the first aspect, which in any case remains the core.

H.O. 248.

A.1.-- The "new" science for Galileo.

(1) The first, 'genius' elaboration of the reductive method whose induction (H.O. 116v.) after hypothesis (lemma) and prediction (deduction) , is the testing stage, -- in short: the inductive method, -- and its application gives us Leonardo Da Vinci (1452/1519).

What's more, da Vinci already establishes the beginnings of exact natural science by introducing mathematics within the framework of the reductive method.

He founded, immediately, the first lineamenta (fundamentals) of modern mathematical physics (including mechanics).

(2) Astronomy (astronomy) experiences its "Copernican revolution" in the person of *Nicholas Copernicus* (1473/1543), who, in his (published in 1543). *De revolutionibus orbium coelestium*, advocated heliocentrism. He wrote this work - not conforming to a very sustained, sometimes fanatical tradition - at the urging of his friends and of Pope Pius III (1439/1503; pope only in 1503). Which proves that "Rome" was not as anti-progressive as it is sometimes, today, tendentiously portrayed.

Curiously, epistemologically speaking, that

(i) Copernicus himself, soberly, denoted heliocentrism (the sun - and not the earth - center of earth and other planets) as an astronomical (cosmological) hypothesis, (lemma),

(ii) while hot-bitten - polemically - 'read' into it a theory which claimed that the universe is both infinite and divine. Which of course, pure science and ideology (sham science), already at that time, unhappily, saw together.

(3) Copernicus' insights are further developed by Johannes Kepler (1571/1630): he calculates (mathematically physically) the orbits of the planets; he works in optical (light theoretical), acoustic (sound theoretical) and other typically mathematical-physical areas. "ubi materia, ibi geometria". (Where there is matter, there is geometry) sums up his ideas. Kepler founded, thus, decisively, the mathematical-physical method in the natural sciences.

A.2.-- Galileo Galilei (1564/1642).

A controversial figure like no other, Galileo was nevertheless the brilliant expounder of the "new", that is: mathematical-physical knowledge of nature. That is why we will dwell on it, somewhat more extensively.

H.O. 249.

Up front we refer to some works:

-- *Al. Koyré, Etudes galiléennes*, Paris, 1935/1939; 1980;

-- *G. Canguilhem, Etudes d'histoire et de philosophie des sciences*, Paris; 1975, 37/50 (Galilée: la signification de l'oeuvre et leçon de l'homme);

-- *E. Vanden Berghe, "Heavily suspected of heresy" (350 years after the Galilei trial)*, in: *Collationes* (Flemish Journal of Theology and Pastoralism), 1983: 3(Oct.), 308/ 330.

The literature surrounding Galileo is, of course, immeasurable.

A.2.a.-- A new paradigm.

Th. Kuhn, The Structure of Scientific Revolutions, Meppel, 1976-2, 140vv, describes the revolution, in the epistemological field, of Galileo as a change of world view.

In it, Th. Kuhn, one of the four great epistemologists of the day, employs the term "paradigm

The Antique Greek word 'paradeigma' (cf. H.O. 44: paragon) - Latin: paradigm - means e.g. the model of, a painter or an example for illustration (appl. mod.)-- is).

(a) The broad, "sociological" meaning:

In this sense, 'paradigm' is the whole set of principles, values techniques etc., common to a given community of professional scientists - e.g. the Aristotelians, the Galileans -; this is the positive expression of understanding (H.O. 83; 89);

(b) The narrower, 'epistemological' meaning:

This is part of the broader meaning. It is the tonal or model solution to a problem. Thus e.g. Galilei's Archimedean geometric-physical model. About which more later.

The perception itself changes.

We face, here, a pure case of metabletics (H.O. 163.1) -- Kuhn explains.

(i) Since gray antiquity, most people have seen some body swinging back and forth, on the end of a cord, chain, until finally it came to rest.

(ii) Aristotelian1. paradigm.

For an Aristotelian, the starting point was: a "heavy" body is moved, thanks to its "nature" (creature form; H.O. 12) -- from a higher position to a lower position, where it finds rest; a pendulum motion was, in that perspective. (H.O. 140: perspectivism 180),

1. a falling motion,

2. which has been hampered.

Briefly: movement decays to rest (impassiveness).

H.O. 250.1.

(ii).2. Galilean paradigm.

When Galilei looked at the body swaying back and forth, he "saw", in his perspective, a body that

1. moved,

2. yet such that it managed to repeat the same movement, almost, an infinite number of times. In short: movement remains movement, restless.

This, as a lemma (hypothesis), is all the more improbable, since, in his time (H.O. 143: situation; context), he did not yet possess the inertia or inertia principle: "Every physical body -- of itself -- does not change its kinetic state; whether it, now, rests or it moves with a uniform rectilinear motion, it persists in either state,-- unless, from without, by forces acting upon it, it is forced to change."

Such a thing contradicts, of course, the uncritical pendulum observation (because it, due to air resistance, runs dead). Only in a vacuum can such a thing be "proved". Cfr E. Vanden Berghe, a.c., 322.

Kuhn: both perceptions, within the situation (perspective, context) in which they are situated, are equally accurate, as pure sensory contact of a phenomenon. But the paradigm i.e., in Platonic terms (Kuhn is not a Platonist, but we interpret): the idea (H.O. 34: ideation), the thought-image, thought-model, is not the same. One approaches the same phenomenon from a different idea (paradigm), which slides into the perception itself and makes them, at once, different.

Isokronism of the pendulum.

W. Cabus, *Galileo Galilei (on the outpost of Modern Science)*, in: *De Nieuwe Gids* 80.02.1964, 10, says that Galilei - according to a story - already at the age of nineteen, established that the oscillation time of a pendulum is independent of the size of the pendulum, by ..., in the cathedral in Pisa, checking a moving chandelier: with the help of his pulse he would have established that, regardless of the size of the described arc, the oscillation time remained invariably the same.

He even designed an instrument, related to it: his pulsilogium, a small pendulum of variable length to measure the pulse. Which is the same idea, but in opposite application (phenomenon).

Furthermore, Galilei determined that the oscillation time was independent also of the weight, which is e.g. attached to the end of a rope.

H.O. 250.2.

On what, then, does the swing time depend? It depended, in his experiments, (and indeed directly depended) on the length of the rope.

Free-fall tests.

Let us examine a little further the paradigm shift that took place, in Galileo's mind.

(i) The previous theory, the Aristotelian, claimed that the speed of a body's fall depended on its weight. Application: weight an object with additional mass, and it will fall more quickly. Lighten it, and it will fall more slowly.

(ii) The behavior of a pendulum, as, cited above, is one type of falling (H.O. 249: hindered falling motion). The lateral deviation "complicates" the falling,... viewed vertically, toward the deepest point. But it is a real falling.

(iii) We stand, with the observation that the pendulum time is independent of weight, before - what we call, with *K. Popper* (1902/1994), *Logik der Forschung* (Research logic), (1934) - a refutation ('falsification') of Aristotelian theory. It was precisely this refutation that forced a scientific mind like Galileo into a new paradigm.

(iv) This prompted him to test his lemma (hypothesis) by analysis (investigation). One story says that he dropped - from the leaning tower of Pisa - two different weights, of roughly the same shape (to keep the air resistance the same), down at the same time. They both landed on the ground at the same time. Much to the amazement of onlookers.-
- again, that isochronism.

Again and again it could be seen that - if the air resistance was the same - the falling weights, however different, showed the same falling velocity.

Law of free fall.

We stand, with this, for an induction, i.e.

(i) the confirmation (verification) of a predicted trial (whatever the weight, the object falls just as fast) and

(ii) this in a repeatable manner,-- such that generalization is possible: for all falling objects, if not hindered by difference in air resistance, they fall equally fast, regardless of their weight.

With *K. Popper*, one could say: there is no falsification; therefore, that law is provisionally true.

H.O. 251.

Platonically expressed: every falling phenomenon, however varying in weight, is the manifestation of the same general idea or invariant.

A foray: the "dilute" movement.

P. Feyerabend (1924/1994), one of the four most current epistemologists, in *Against Method*, London, 1975, says that so-called rules of inquiry, in the strict sense, are an irresponsible simplification of - especially the most 'progressive' - science. (*Alan Chalmers, What Is Science Called? (On the nature and status of science and its methods)*, Meppel/ Amsterdam, 1984-3, 164/166 (*Anything goes*)).

Chalmers underlines: 'anything goes!' 'Rules' that counted Galilei, then, what he had to do - methodically - to establish new findings, were not there. There were, however, 'raids'. Galilei's equipment - to his liking - did not work quickly or accurately enough to measure the different phases of free fall.

1. Then he had an "invasion": he would "dilute" this movement -- Now a truly scientific invasion is not an absolutely free fantasy! It is incorporated into a research program, to quote Popper and Imre Lakatos (1922/1974). As *A. Chalmers, What is called science?*, 103, says, "Galileo was making an important contribution to the construction of a new mechanics, which -- at a later stage -- detailed experimentation proved capable of supporting. It should come as no surprise that his efforts involved thought experiments, analogies and illustrative metaphors, rather than detailed experimentation."

2. What was the - according to Feyerabend, the anarchist, rule-less - idea (raid)? What was the thought experiment? Galilei reasoned as follows : "there is analogy",

(i) Instead of free fall or pendulum fall, we take a body rolling down a slope (that too is falling, but with deviation from verticality).

(ii) similarity: an object that, on an incline, slides down, falls (has the same law), if, at least the resistance is zero.

Difference: part of the gravitational force is derived, absorbed, by the slope; but the rest-the other part of the gravitational force, acting parallel to the slope, is proportional to the original, whole gravitational force. Cfr. H.O. 13 (Analogy): partial identity.

H.O. 252.

Conclusion. -- By introducing an "inclined" falling motion, he could slow down the fall. This would allow him, in time, to establish the laws of uniformly accelerated motion.

Modern mechanics.

1. Throughout his scientific life, the analysis of the motion of bodies was his great concern.-- Already Leonardo da Vinci (H.O. 248) had sought a mechanics or theory of motion,-- preferably in mathematical terms. With Simon Stevin (1548/1620; Bruges mathematician,-- works on mechanics and hydrostatics), Galilei became -- thanks to better experimentation and more appropriate mathematics -- the founder of -- what he called -- "two new sciences" viz. statics, the analysis of bodies (and forces) in equilibrium, and dynamics, the analysis of bodies in disequilibrium.-- *Cfr P. Wolff, La grande aventure de la physique*, Paris, 1968, 39/61, tells us more about this: Salviati (Galilei himself), Sagredo (an understanding conversational partner), and Simplicio (a ... late Aristotelian) are the characters of a dialogue about the uniformly accelerated motion.

2. Indeed: in 1604 Galilei is in possession of the first law of the mathematical (mathematical) physical.-- This law -- according to G. Canguilhem *Etudes*, 41, connects the duration of the fall of a body (without air resistance) with the space traversed. This, as we saw above.

a. Canguilhem admits that;

(i) Galilei tried to derive this law (ratio 'through space/time') from a principle (premise) -- part of his paradigm, that is, which could not account for this law (which is the rule of 'trial and error', -- of 'guess and miss');

(ii) Galilei, to some extent, depends on the impetus theory, peculiar to the Parisian Nominalists of the XIVth century (Buridan, Albert of Saxony, Oresme; H.O. 129),-- theory, which was accepted by Leonardo da Vinci, Geronimo Cardano (1501/1576), Gianbatista Benedetti (Cfr. A. Koyré, *Etudes gal.*, 47ss.), Tartaglia).

b. Canguilhem says:

this first law of mathematical physics is the basis of dynamics. Further: it is radically new, under one point of view, viz. motion is a bodily property, which is of itself (H.O. 250) unchangeable.

H.O. 253.

Such a thing is, of course, right. But Canguilhem sees more than that in it: "Precisely because of this, one should no longer seek 'causes' for the motion, but only 'causes' for the modification of the motion of a body. We are faced with a fact: Galileo discovered and determined the essence of the first invariant - scientifically speaking - expressed in mathematical language".

In other words: the Aristotelian 'cause' is set aside. One stays within the scientific physical and this is formulated in mathematical terms.

a. This refers to *Galilei's Dialogo sopra i due massimi sistemi del mondo* (Dialogue on the two greatest systems of the world), (1632): the traditional 'physical', with its 'causal' principles - Aristotle's style -, which are not both experimental and mathematically approachable, must make way for a new physical: a set of statements, representation of the phenomena according to geometric (mathematical) model worked out into a logically coherent whole. This implies that the phenomena, object of the analysis, are central, insofar as they are measurable and insofar as mutual relations are at stake. The mutual relations of measurable phenomena, expressed in mathematical language. Behold Galilei's physical.

Conclusion.-- The mathematical-experimental or exact physical comes -almost completely - apart from philosophy, as Aristotle conceived it. It is autonomous. Rein subject science, purely positive or 'stellar' science.

A new "ontology".

Analyzing reality, insofar as phenomenal, measurable, experimentable, mathematical,-- good! Reacting against Aristotle's and others' (i.e. the Scholastics) ontology, -- good too! But this is, at the same time, founding a new ontology or, at least" updating the old one, in part.

The new substance designation.

For Galilei, 'All that is material' H.O. 19/26; 38: // All that is gold), consists of two sets of characteristics:

a. Taste, smell, color, which are "secondary" properties (they exist, after all, only in the perceiving subject itself, bodily speaking);

b. Magnitude, geometric 'form' (H.O. 12), how-big (quantity) and motion (in the geometric sense),-- the so-called primary properties, reflecting extensiveness, situationality (localization) in space and density (degree of accumulation). These are the object of the "new" science, the physical.

H.O. 254.

A 2 b.-- A new paradigm: instrumentally based.

1. K.O. Apel, *Szientistik, Hermeneutik, Ideologiekritik*, (Scientistics, hermeneutics, ideology critique), in: K.-O. Apel u.a., *Hermeneutik und Ideologiekritik*, Frankf. a. M., 1971, 8, says: "The sense of the problem, peculiar to the physical (...) has (...) as its premise:

- (i) a linguistic understanding of naturalists regarding meaning of nature and
- (ii) in addition, the possibility of a bringing about of that problem by an instrumental intervention in nature, -- which, in any experiment, is assumed a-priori (as a presupposition) (...)."

Steller specifies: measuring oneself against nature by man, the explorer, grows into the measurement proper to experimental science.

Applicable model:

(i) The pre-scientific idea of 'heat' e.g. arises from the biological organism measuring itself against nature, against the environment,-- e.g. against a stone heated by the sun;

(ii) but the scientific idea of 'temperature' arises from the instrumentally accurate intervention of the thermometer e.g., which is a measurement intervention, - along with the scientific language, which defines the idea 'thermometer' etc., preferably in testable terms.

2. Gaston Bachelard (1884/1962), the dialectician on epistemology, in his *Le nouvel esprit scientifique*, (The new scientific spirit), Paris, 1934-1, 1975-13, 16s., says: "the phenomenon must be shifted, filtered, purified,-- poured into the mould of the instruments, -- 'made' at the level of the instruments.

Well, the instruments are only materialized theories: out of the instruments emerge phenomena, which exhibit whole and all the characteristic of the theory." Bachelard calls this "phenomenotechnology.

3. Auguste Comte (1798/1857), the father of French positivism, notes that scientific experimentation - in its deepest essence - is "un artifice" (an artifice): "One observes the bodies

- (i) outside their natural conditions,
- (ii) in artificial conditions, deliberately introduced to facilitate the investigation of the course of phenomena." (*Védrine, Les philosophies de la Renaissance*, 54).

H.O. 255.

(i).-- From the glasses (Arno valley) to the telescope.

J. Rosmorduc, De Thales à Einstein (Histoire de la physique et de la chimie), (From Thales to Einstein (History of physics and chemistry)), Paris/ Montréal, 1979, 48s., links to the first industrial. revolution, about which H.O. 147.

This turnaround, regarding technology, also covered optics. Antiquity never knew the lens or the binoculars. The first representations of these optical instruments and their first use appear on engravings of the late XIIIth century,--in the ... Middle Ages so scorned by some!

This, in the form of spectacles, which improved vision. According to the historian of optics, Vasco Ronchi, the latter showed up between 1280 and 1281 in the Arno valley (Italy).-- But these harnesses were very crude and deformed the objects viewed. Scientific use of them was, for the time being, unthinkable.

Two changes were necessary:

(a) The purely technical improvement;

(b) a change in consciousness. The former is the work of the lens and viewers (telescopes) for three centuries; the latter is the result of the Copernican and Galilean revolutions.

(ii).-- The Dutch viewer.

In 1609, Galilei learns of the invention of the telescope, in the Low Countries, with plan-convex objective and plan-concave eyepiece (two lenses, one convergent, the other divergent),--the work of the Dutchman Jakob Metius, it seems.

Following the said scheme, *Galilei* himself makes a viewer with triple magnification. He continues to improve it until a magnification of 32 was reached.

"When he pointed this viewer at the sky, he discovered one miracle after another. He saw the moons of the planet Jupiter, the structure of the lunar surface into mountains and ring walls. He came to the conclusion that the Milky Way was not a kind of nebula, but a great mass of stars, "well-nigh incredible in number."

He made these findings known to the world in his work *Sidereus nuntius*, in 1610, which - besides much contradiction, also - won great approval (among others from J. Kepler (H.O. 248)) and made him, as an astronomer, world famous. The same year he was appointed, by Cosimo II, court mathematician and left Padua for Florence." (W. Cabus, a.c.)

H.O. 256.

Then Galilei observed the phases of the planet Venus,--also "a peculiarity" in the phenomena involving the planet Saturn (which, later prove to be the "ring of Saturn"). He also discovered the sunspots.

The Copernican Revolution (H.O. 248).

The Polish Canon Copernicus formulates, in 1539, in a little work published by one of his pupils, Joachim Rhaeticus, as well as in 1543, in a more detailed exposition and signed by him, his heliocentrism.

After 1610, Galileo felt strong enough to actualize that new paradigm, regarding cosmography. Until then, there were mathematical arguments regarding heliocentrism. Galilei wanted to add optical and kinematic (movement theorems). This, thanks to the perspicillum, the binoculars.

"Behold, then, the first scientific knowing instrument. In doing so, it is important to note that Galileo founded the scientific use of the viewer in its dual dimension: towards the astronomically large and towards the biologically small (...).

Ask ourselves but for what reason Galileo cites such physical arguments either valid or invalid, to account for the first true revolution in thought, which can be labeled "scientific.

No doubt it is actually in 1543 that *De revolutionibus orbium coelestium* (Copernicus' work) announces the end of - what Al. Koyré is called - the 'cosmos', the so-called 'finite' world, the living world of Antiquity and the Middle Ages. (...). Yes, certainly: 1543 announces. But 1610 (publication of *Galileo's Nuntius*) and 1613 (*Letters on the Sunspots*) proclaim "the great Copernican system,--a doctrine, whose universal revelation dawns, now, at this moment, supported by favorable winds, which leave little to fear on account of opposing clouds or winds." (G. Canguilhem, *Etudes*, 43).-- Such is the judgment of Canguilhem, one of the great French epistemologists.

A.2.c.-- A new paradigm: expressed mathematically

We specify, now, a third aspect: mathematization. We already met it (H.O. 248) with da Vinci, Copernicus and especially Kepler: *ubi materia, ibi geometria*, - as well as H.O. 253 (new matter indication).

H.O. 257.

(I). -- *The Book of Nature.*

According to A. Weber, *Hist. d. l. phil. Européenne*, Paris, 1914-8, 238, the physician Raymond de Sebonde (+1436) prof at Toulouse, dared, around 1400 -- instead of books written by human hands -- to recommend the book of nature itself: it is, after all, the work of God and -- what is more -- it is readable by all (cfr. *Raimundi liber naturae sive creaturarum* (Theologia naturalis; H.O. 218/230), Strasbourg, 1496).

According to K. Vorländer, *Phil. d. Renaiss.*, Hamburg, 1965, 120, Galilei knew perfectly well the Aristotelian tradition, yet he definitely adhered to the Platonic tradition.

1. Well, listen to him: the book of nature -- apparently a common expression at the time -- can only be read by those who know "the letters" of it,-- said Galileo. It is written in a mathematical language: its characters are triangles, circles and other geometrical figures.-- This evokes *Kepler: 'Ubi materia, ibi geometria.*

2. But *Galilei* is more theologically Platonic:, mathematics is "a meeting point, where human reason meets divine reason" (*Dialogue on the Great Systems of the World* (1632).-- We are staring here at yet another Platonism but now in mathematical-physical elaboration, Reference be made to H.O. 58: Theological Idealism. The book of nature is read **(i)** Platonically, **(ii)** mathematically-physically.

In other words, Galileo is convinced of the "rationality" of reality. Something, which reflects his full ontology. "Created by an Infinite Being, the world is large in scale as the reason of that infinite being and not small in scale as human reason, which acquires an insight into it within the limits of its capacity. This ability is situated in what human reason has in common with divine reason.

Mathematics situates itself here: our knowledge, however limited, can, in the areas, which are accessible to it (*note: e.g., motion, fall, etc.*), achieve certainty, precisely because of it.

Conclusion:

(i) autonomous (H.O. 257) in its principles and its methods, the new science, which Galilei builds, therefore, preserves, in his eyes, an undeniable ontological scope;

(ii) though breaking with traditional philosophy, Galilei 's science by no means rejects the realist (H.O. 8; 27) mentality of it." (*M. Clavelin, Galilei in: D. Huisman Dict. d. phil.*, 1984, 999/1000). Galileo was not a positivist.

H.O. 258.

W. Fuchs, *Thinking with Computers*, The Hague, s.d., 170v., claims that Galileo, "out of positivist resignation" (understand: because, in virtue of the skepticism, peculiar to the Positivist, he gives up), eliminated the 'why' and the 'what is' questions,--in order only to measure, weigh, count.

This view is, among others, formally contradicted by Clavelin. Also Al. Koyré, already in 1939, pointed out that Galilei's *Second Day*, in his *Dialogo*, is platonic. Koyré concludes so, among other things, because Galilei's "experiments" are succinctly rendered and a-priori reasoning takes precedence.

Exact science.

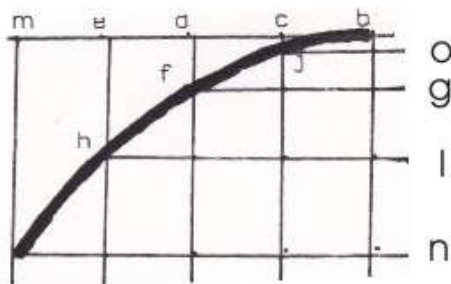
Arzachel of Toledo (1029/1087) had suggested that the motions of the planets - Mars especially - were elliptical. Kepler (H.O. 248) had elaborated on this. But Galilei did it exactly;

This is twofold:

(i) observation.; he was, at one time, prof in physical and military genius at Padua; with the aid of the telescope (H.O. 255) he saw -- besides the moon (with its seas and mountains) -- the planets Venus (with its phases), Saturn (with its discs), Jupiter (with its three moons);-- i.e. he proceeded on physical realities;

(ii) he recorded these observed facts in the mathematical description of bodies in free motion.

Applicable model.



Clavelin, a.c., 998, gives the model shown here.-- Given two rectangular axes bm and bn . bm is divided into equal parts such that $bc = 1$, $bd = 2$, $be = 3$, $bm = 4$, etc.

bn is arranged so that the parts bo , bg , bl and bn represent the squares of the integer, natural numbers ($bo = 1$; $bg = 4$; $bl = 9$; $bn = 16$).

One draws perpendiculars from the points c , d , e , m and o , g , l , n .. One draws the curve through its intersection points.

Since Apollonios - according to Galilei himself - we know that this curve is a parabola.

So much for the geometric model.

H.O. 259.

Now a kinematic, application (appl. mod.). Do we, now, imagine (H.O. 251: thought experiment) that the classifications of bm and bn are the representation of the effects of two movements, which a weighty body exhibits simultaneously:

(i) uniform, horizontal movement and

(ii) a uniformly accelerated motion downward (governed by the law $e = t^2$). It is thus clear that the real trajectory, which a mobile thing goes through, coincides with, the parabola. It is also clear that, if one could equate the action of a projectile with that of the said mobile thing, the way would be open for a geometrization of the movement of projectiles.

What lemmata (propositions) does this equivalence involve? Right two:

(1) two motions can make up a compound motion (which Kopernikus already encompasses and Galilei has no difficulty in doing);

(2) motion is preserved, at least in some cases, (H.O. 250.1: inertia); 252),--a property, which uniform, rectilinear motion exhibits. Which, in his time, raised a number of objections for Galilei (to which we will not go further).

Conclusion: one sees the thought model, first purely geometric ("mathematical"), then physical.

(ii).-- *The measurement (the measurement model).*

Mathematical accuracy - akribeia, in Antique Greek - involves measurement, measurability, measuring instrument, unit of measurement (measurement model).

Al. Koyré has written, once, an, article '*Du monde de l'à peu pres à l'univers de la precision*', (From the world of the "à peu pres" to the world of precision).

Socrates of Athens (-469/-399) is credited with saying: "Man's capacity to weigh, measure and count allows him to free himself from the appearance of the senses"! Such a thing sounds Platonic.-- This fits, certainly, into Galilei's stall: the theory (geometrization) is completely separate from the commonsense or common-sense perceptions. Sensory impressions are deceptive if they remain in the day-to-day sphere (of "it must be something like this"). A scientific perception draws strictly against the common-sense perception: in this Galileo is one of the first to emphasize this.

Indeed:

(1) archaic man, the Antiques and the Middle Ages - not counting the exceptions - weighed, measured and counted for economic reasons, out of habit;

(2) Galileo does it systematically and with scientific intentions.--In this, too, he, with other pioneers of his time, establishes a path still committed today.

H.O. 260.

A.2.d.-- The new paradigm: an update.

Al. Koyré, *Etudes galiléennes* 16, claims: "The forerunner and teacher of 'classical' (i.e. pre-Einstein) physics is not Buridan or Nicole Oresme (H.O. 252), but Archimedes. One could - so it seems to us - summarize the scientific work of the XVIth century as the reception (*note*: absorption, processing) and the understanding, in a gradual way, of Archimedes' work.

As for the history of scientific thought, the widely held view of 'renaissance' (H.O. 129; 187vv.) -- Koyré means: revival of antiquity as thoroughly true" -- appears. As a characteristic of Archimedes, Koyre mentions 'mathematism' (ibid.).

(i).- The Antique-Greek Technology.

B. Gille, *Les mécaniciens Grecs (La naissance de la technologie)*, Paris, 1980, 8, tells us that, at Athens, one argues (H.O. 3: eristics),--that one reasons there (Platon, Aristotle among others are there to prove it).

1. But in the periphery of the Hellenic world one "constructs.

at Miletos, in Ionia, with Thales of Miletos (-624/6545), the founder of the Milesian philosophy of nature ('fusus'); Thales was, also, a scientist and mechanic;

on the island of Samos with Puthagoras of Samos (-580/-500) does mathematics, theoretical and practical;

in Sicily, was Empedokles of Akragas (-483/-423), who was both physician and experimenter.-- This, not to mention a number of other figures.

2. Archutas of Taras (-430/-348), disciple of the Paleopythagorean Philolaos of Kroton (in Z.-Italy: - 469/-399; ll. of Puthagoras), occurs as the heir of the aforementioned figures from the periphery.

"We are confronted with a peculiar confluence: philosophers who -- like scientists - show no aversion to technology; statesmen, who, of necessity, pay attention to the whole material world.-- Just that reflects Archutas in a way:

(1) he comes from all over this paleopythagoretic middle;

(2) he is scientist, technician, statesman. According to Ploutarchos of Chaironeia (+45/+125; a Platonist), because of Platon, he incurred a reproach for reason of this set of activities; (O.c., 37).

H.O. 261.

(ii) -- *The School of Alexandria.*

Gille, o.c., 54/820 (L ' école d' Alexandria), gives us, of this, an overview.-- Alexandria, one of the many cities, which Alexander the Great (-356/-323), the great Macedonian conqueror, once founded, lies in the region of the Nile estuary. The city, as an intellectual center, began to take off, especially after -305. The Mouseion - dwelling of the Muses or Nymphs, protectors of cultural work - at Alexandria, became the great cultural center of the Hellenistic world; it became famous, among other things, for its library, the last remnants of which were destroyed, in +641, by Caliph Omar (= Umar) I (581/ 644), second successor of Mahomet.

Mathematics - one thinks of Eukleides (Euclid: -323/-283; the famous author of Elements of geometry) physics, medicine, astronomy - one thinks of Eudoxos of Knidos (-406/-355, pupil of Archutas of Taras, - and his influence -, were some of the subjects of learning at Alexandria.

To the second generation of scholars, now belongs Archimedes of Surakousai (Syracusae) (-287/-212),--as well as the H.O. 258 already named Apollonios of Perga (-262/ -190; nicknamed 'the great geometrician', known for his Konika (work on the cone/cut), a.o. the 'parabolè' (parabola)).

(iii).-- *Archimedes of Syracuse.*

The Oxford Classical Dictionary (1950-2) labels him "the greatest mathematician of antiquity". "He represents the technical-scientific ideal of the School of Alexandria" (*Gille, o.c.,72*).-- Although famous -- he was of noble blood -- not much is known of his life. He is known as the inventor of the 'water screw' (spiral water pump, 'kochlias'), of ingenious devices against the Roman besiegers. Known, too, is his blustery utterance "Give me a fulcrum, and I will move the earth." His "*Heurèka, heurèka* (I have found it)" is tied to being able to determine the proportions of silver and gold in a crown intended for Hieron of Syracuse (-270/-216). Cicero (H.O. 190) once admired his planetarium at Rome.

"His familiarity with the laws of practical statics (concerning equilibrium states of bodies) led him to assume the existence of a center of gravity (gravitational center), in every weighty body.

H.O. 262.

Starting from a minimum of premises, he logically builds up the laws, -- of these premises, the origin is undoubtedly technology. Technology is truly, the originator of his theoretical works: the laws of the lever; the center of gravity of flat figures. The theory of floating bodies - based on hydrostatics (theory of bodies situated in fluids and their equilibrium) - has the same origin." (Gille, o.c.,72).

Also with Galilei we see that the technique (instrumentation), plays a decisive role, even though he situates the theory in the sphere of pure - Platonic - thinking.

Curious is what Gillet o.c.,77, says.-- "He caused -- at the cost of great efforts, on account of a numerous body of workers -- a three-masted transport ship of the royal navy to pull out of the sea on the coast. He ordered that a large number of men, together with the ordinary cargo, go on the ship.

He set himself down at a distance to actuate, effortlessly, with a gentle movement of his hand, a machine with several pulleys (ship's blocks),---so that the ship moved toward him, by making it glide without jerks, as if it were sliding into the sea." (...). This history of the ship pulled onto dry land served primarily to prove that Aristotle was wrong and that Aristotle's two postulates were false and had set science on a disastrous path:

- (i) The law of velocity, proportional to the ratio of force to resistance;
- (ii) the so-called law of powerlessness when it comes to values below a limit.

We are, with this, before an important turning point, namely, where the scholars of Alexandria - or, at least, those scholars, who visited that middle - tried to work their way out of the physicality of Aristotle.

One sees that the critique of Aristotelianism, in Antiquity, especially in Pythagorean-Platonic midst, got under way and that, in the transitional period, when this critique arose, e.g. with Galileo, one could, in a "true renaissance" (dixit Koyre), orient oneself starting from antique paragon,-- in this equal to the humanists.

H.O. 263.1

B.-- *Externalist analysis.* (263/279).

Do we, now, view Galileo's new science - no longer as science (epistemologically), but - as cultural phenomenon (*G. Canguilhem, Etudes*, 15).

"Before the effects of the (Galilean) revolution in the world of thought could be felt in praxis, it was necessary that the possibilities offered by the new science should penetrate not only to the scholars, but to the new class of enterprising people, who were in the process of making their own political revolution,-- merchants, seafarers, manufacturers, statesmen and the early and progressive capitalists. With this Galileo had begun, but he lived in a country, which had already lost its élan and was rapidly being frozen into a reactionary attitude by the counter-reform." (*J.D. Bernal, Science in History*, in: *B. Tierney et al, Great Issues in Western Civilization*, II, 9).

In other words: just like Kristopher Columbus (H.O. 171 v.), so also Galilei: the idea of power, which Galilei had mastered, blazed a trail, founded a paradigm, which many others, inside and outside strict science, would follow. We now dwell on what has been called "the Galilei trauma," (*E. Vanden Berghe, "Heavily Suspected of Heresy;* 319/330).

(i)-- *The fate of Copernicus and Kepler.*

"The main opponents of the new heliocentrism were precisely the established academics (H.O. 186: intelligentsia): they stuck to Aristotelian science and could, in doing so, appeal to an impressive tradition (...). The Aristotelians swore by their auctoritas (H.O. 111; 126; 196); Galilei, on the other hand, by empirical research with completely new techniques". (*E. Vanden Berghe, a.c. 311*).

This should be kept in mind if one wants to understand something of the resistance encountered by the beginning of modern science.

Nikolaas Koppernigk.-- Copernicus was condemned by Protestants. As soon as his book was published in 1543, Luther, in his own right, felt obliged to attack both the person and the work (system). Reason : it was all contrary to the Bible (H.O. 225)! "If anyone shouts scandal and speaks of sacrilege - even before the publication of *De revolutionibus* (HO 248) - it is Luther:

H.O. 264.

"This fool wants to turn the whole of astronomical science upside down!" (G. Canguilhem, *Etudes*, 44).-- We are used to something from this juicy Augustinian monk (H.O. 128: abusive prose).

What strikes one is that Luther advocated, at least in principle, the individual interpretation of the Bible (H.O. 226). But, for him, the Bible, before all else, is *auctoritas*.

Philipp Melanchton (1497/1560), Humanist (H.O. 188vv.), friend and associate of Luther, as well as Martin Kuhn, nicknamed Bucer (Butzer) (1491/1551), student of Luther, Protestant theologian, continued the campaign against Copernicus.

In 1578 the senate of Tübingen (composed of the Lutheran universities) solemnly condemned Copernicus' theses. The reason: they were contrary to both Aristotle's system and the Bible.

Joh. Kepler (H.O. 248) was a devout and faithful Protestant: he was treated with the bitterest hostility by his fellow believers.

One figure does surprise us: Tycho-Brahe (1546/1601), Danish astronomer - incidentally Kepler's teacher -, himself a Lutheran, undertook the refutation of Copernicus' doctrine in the name of geocentrism, which, in his view, was the only defensible one.

Rome's attitude.

The Church takes an interest in his work. In 1532, the former private secretary of Pope Leo X (1475/1521; pope: 1513/1521), at the Vatican, gives a lecture on heliocentrism, which is favorably received.

In 1535, Cardinal Schoenberg, who enjoyed the confidence of Leo X, Klemens XII and Paul III, induced Copernicus to communicate, in a printed text, his discovery to the world of scholars. Cfr. A. Koestler, *Les somnambules*, Paris, 1960, 168. Canguilhem, *Etudes*, 44, notes that the Council of Trent is plainly silent on heliocentrism (H.O. 243),--that many ecclesiastical friends of Copernicus and many Jesuit astronomers interpret it as

- (1) mathematical hypothesis,
- (2) relied on the optical relativity of motion.

Conclusion: One does not condemn Rome too soon for obscurantism!

A comparison.-- All encompassing social systems, when they see "dangers," are unmeaning.

H.O. 265.

Appl. model.- Antoine de Lavoisier (1743/1794), the founder of modern chemistry, was, under the First Republic, convicted by the court (le Tribunal révolutionnaire), on May 8, 1794, and, the same day, put to death with the guillotine.

Hippolyte Taine (1828/1893), in his *Origines de la France contemporaine* (Origins of contemporary France), (1875/1893), 1. IV, CH. 1, mentions this fact: "At the same court, the founder and organizer of chemistry, the great inventor, Lavoisier, asked for an extension of fifteen days to finish an experiment. The president Coffinhal answers him, "La République n' a pas besoin de savants!" (*H. Perrachon, L'affaire Galilée*, in: *Permanences*, 152 (1978): juill./août,15). Cfr H.O. 133v. (Fr. Revolution)

(ii).-- *The Holy Inquisition.*

To properly understand Rome's reaction to Galileo, a word about the Inquisition (Gr.: 'historia; investigation).

a. There is the monastic-papal Inquisition, which mobilizes monastics as heretic judges.-- Especially from 1139, Inquisitions arise, which are only episcopal or legatal (via legati, representatives) and of a local nature. Pope Gregory IX (1145/1241; pope: 1227/1241) establishes the monastic-pope Inquisition, from 1233 (France) and 1238 (Spain).

b. There is the Roman Inquisition; since 1542, under Pope Paul III (1468/1549; Pope: 1534/1549; he convened the Council of Trent, in 1545). This court had proxies over all Christendom and they carried far. Before it appeared Giordano Bruno (1548/1600; he defends a pantheistic Neoplatonism and, therefore, after eight years of dungeon, is burned at the stake), as well as Galileo Galilei.

c. There is the Spanish Inquisition,-- instituted by Ferdinand and Isabelle in 1478 -- approved by Sixtus V and Paul IV; it was directed against the "dissidents" of that country: Moors, Jews and -- later -- Protestants, witches and other "suspects.

It is about this type of Inquisition that Pope Paul II, in Madrid in 1982, confessed that "it committed errors"; that, at the time of the Inquisition, there had been tensions as well as "errors and excesses" that today's Church now sees "in the objective light of history."

The Inquisition, in its three forms, covered, at one time, the whole of Latin Christendom,--except England.

H.O. 266.

The great occasion for the establishment of Inquisition was the flowering of inner church heresies,--this, from +/- 1000.

H. Office.

This is the name for the Roman Inquisition, which is more common.-- It will be remembered that, in 1962, some of the works of P. Teilhard de Chardin, by that "Congregation," were given a "warning. It also condemned the theory of Dr. A. Terruwe, a psychiatrist. However - and these are the changes of such an authority -, in 1956 this female Catholic psychiatrist - together with Prof. Duynstee, with whom she worked, was reinstated in 1965, by the same Holy Office.

The Catholic Criticism.

(1) the ancient-patristic church (H.O. 69). as well as the high or early medieval church (H.O. 129: pre-scholastic) did not have an inquisition against heretics.

The movement for "the rights of man" (understand: the rights of the individual; H.O. 135) was launched, philosophically, in Stoic political philosophy, peculiar to Renaissance humanism (H.O. 58; 69 (Patr.); 192; 220 (Natural Law)) -- think of J. Lipsius (H.O. 221) and Grotius (= Hugo De Groot: 1583/1645), both from the Low Countries -- and in the School of Salamanca (Spanish Scholasticism; H.O. 131).

Politically, it was expressed in. the revolt of the Netherlands against Spain (1568/1648) and in the English (1668), American (1776), and French (1789; H.O. 133v.) revolutions.

Both - the Antique and Early Middle Ages tradition, as well as the human rights idea - have penetrated, gradually, into the Church and have eaten away at the Scholastic authoritarian tendency (H.O. 126).

1. Thus, Kard. Frings, Archbishop of Cologne, during the second session of the Second Vatican Council (H.O. 245), raised the scandal of the Holy Office - sic! - brought up: among other things, he reproached it for the methods used (condemnation without interrogation).

2. The scheme on religious freedom, recited in the Report of Mgr De Smedt (Bruges),--this, not without influence from the American Jesuit Courtney Murray, testifies to the adaptation of the present world church to modern freedom of opinion.

Together with H.O. 132/143 (Neoscholastic reasoning on modern freedoms), this chaplet forms a whole: the Church discovers freedom of thought.

H.O. 267.

Conclusion: The dissidence problem.

In current parlance, "dissident" is, "All those who advocate an opinion, a doctrine, which differs from the opinion or doctrine of either those in authority or the majority.

In the narrower, political sense, "dissidence" means the unwillingness to recognize the authority of a government.

For us, here, it is mainly about the first, the doctrinal meaning.-- We refer, now, to H.O. 172/180: the discovery of the "savages" as a problem of understanding. The one who adheres to another opinion, another doctrine, is different! This is again the problem posed by the differentialists: people like G.Bruno (Neoplatonic pantheism), who, as a dissenter, spends eight years in, the dungeon and then, in 1600, is burned at the stake, because of the Church - the Inquisition,-- as Galilei, who, as a dissenter (because of his heliocentrism), is indirectly notified in 1616 and condemned in 1633, because of the Church - the Inquisition, they both ask, in a poignant way, the question of 'To what extent can the Church of the day handle a person who thinks differently?' and the question of 'To what extent is her behavior of the time in line with Christ's figure, which she, as a community, as the 'people of God', represents?!

The scheme on religious freedom has, all things considered, a different tonality than the Inquisition of 1600 and 1633.-- That's "Galilei trauma"!

(iii). -- *The case of Galilei.*

Let us begin with the "beginning": before 1610 Galileo was held in high esteem both by the Jesuits of the collegio romano (he gave several lectures there) and by the Pope. He was admitted, among others, as the sixth member to the "academia dei lincei", which had just been founded at the time. It was all well processed as a scientific hypothesis (H.O. 264: Copernicus).

(Natural) science and Bible (interpretation), resp. Theology.

The problem of 'knowing/belief' has been treated a great deal. One sample: *Fr. Dessauer, Natuurwetenschap en theologie*, (Natural Science and Theology), Tielt, 1962 (introduced by M.Wildiers), situates Galilei in that framework (externalist) and points out the 'separation, indeed, enmity, between science and theology.

Already in 1959, *Dessauer's The Case of Galileo and Us*, Antwerp, appeared, in which he says : "The new world of the spirit is emerging mainly outside the church and the Catholic countries.

H.O. 268.

With Galileo, the naturalists had been driven out. Who, as a Catholic, could still venture into nature exploration? Who, as an explorer, could avoid the banning of his works and other conflicts? If, at first, for a long time, God-fearing men of other confessions (H.O. 206) are to be found among the greats of physics, yet they become rarer. Catholics among them are extremely scarce". (O.c.,60v.).

Again : the secularization or secularization issue.

We have touched upon this problem, frontally, H.O. 199/205, in mainly sociological terms, following the reform also already in the question of the relation "Christianity/culture" (H.O. 196vv.) - It dates from the desecration of reality (hence the ontological character) by Antique Greek protosophism (-450/-350), of which the nominalism of Protagoras of Abdera (H.O. 1/7) is an applicative model.

P. Bollengier, Reflections on the 400th anniversary of Galileo Galilei's birth, in: De Nieuwe Gids 15.02.1964, Spectator, 2/3, says:

"Galileo was right. He did his purely scientific work, as such, free from the Bible, free from ecclesiastical tradition, and free from any ancient philosophical system.-- He practiced positive science in the right way, treating it as a mature or mature channel of truth, capable of standing on its own feet and working according to its own methods and its own truths.-- Thus he ushered in what may be called the secularization of exact science.

Note: Galileo was not an "anti-authoritarian. Bollengier quotes Galileo: "I do not claim that one should stop listening to Aristotle. On the contrary; I think it good that one should consult and study him.-- What I disapprove of, however, is the fact that one surrenders to him, like a prey, -- that one accepts, blindly, whatever he may say, -- without discussion, as an unchanging decree." (Bollengier's quote, *ibid.*).

Galileo was not an "anarchic" thinker or - to speak with Nietzsche - he did not harbor "misarchy" (contempt for authority). We shall see how he speaks of the second great authority, the Bible.

H.O. 269.

The conflict.

Initially, Galilei, as mentioned, was accepted,--as was Copernicus, so many decades earlier. But, everything changes the day that, on biblical hermeneutic grounds, *Ludovico delle Colombe*, in 1610, writes his *Contro it moto della terra*.

Luther (H.O. 263) had, already in 1539, said about Copernicus : " The fool wants to reverse the whole art Astronomiae (*note* : astronomy). But, as the Holy Scripture indicates, Joshua called the sun to stand still and not the earth. "

Indeed: a kind of "sun miracle" is recounted in *Josue 10:12/14*. "Thereupon Joshua turned to Yahweh (...). In the presence of Israel he said, 'Sun, stand still over Gabaôn, and thou, moon, stand still over the valley of Ayyalôn; And, indeed, the sun stood still, and the moon kept motionless, until the people had avenged themselves on their enemies."

Delle Colombe cites other Bible texts (*Eccles 1:5; Psalm 19:6/7; Sir 43:2/5*). -- Florence saw preachers in the pulpit openly attack Galilei. The Dominicans Lorini and Caccini brought the case to Rome. At the end of 1613 the subject literally "came up on the table," following a dinner, at the Duke and Duchess of Tuscany (the Duke's mother). Galilei was not there, but his friend Castelli, a Benedictine, was. Christina cited Biblical texts against Galilei.

***Letter to grand duchess christina* (1615).**

E. Vanden Bergh, a.c., 313, summarizes.-- Galilei defends himself in that letter.

(1) The Bible itself contains divine, perfectly certain truth. 'Errors' cannot be found in it.

(2) Otherwise the Bible interpreters: those who interpret the Bible (hermeneutics of the text) can, in many ways, err (fallibilism).

This, especially, when they invariably adhere to a "literal" meaning of the words: e.g., when the Bible speaks of God's "eyes," God's "feet," the "hand of God," etc.-- Then Galilei turns to the Augustinian theme (H.O. 257) of the two "books": the Bible as well as nature are the word (language) of the one God, who is the "author" of them.

a. the Bible exhibits the language of the common man (commonsense criticism: H.O. 259)),-- in that language he does not speak of professional scientific problems; rather, he speaks of the salvation of the soul.

H.O. 270.

b. Nature is strictly law; the laws, which govern it, are the ideas of the Creator,-- who is the same as the Holy Spirit, who inspired the ordained writer.

Well, the laws of nature can be known thanks to accurate observation and repeated experimentation, translated into mathematical language.

c. If, thanks to the new science (H.O. 248v.), one has come to unshakable conclusions, then an appeal to the Bible is meaningless: as far as scientific analysis of nature is concerned, the Bible, as such, has no 'authority' that it is, in essence, talking about something else, namely the salvation of souls, and, not natural law. Well, both 'books' have the same author, God: how can one, on the basis of Bible texts, question a scientific analysis, let alone declare it 'heretical'?

Conclusion H.O. 225 taught us that Luther regarded the Bible as decisive for the practical realization of salvation. Also that the individual, outside of church authority, could interpret that Bible.

Modern professional science teaches us that, apart from the Catholic and Protestant interpretations of the Bible, there is a professional science Bible hermeneutics. This, with its own inalienable method, namely, the reductive method (lemma (hypothesis), deduction of testing, induction).

1616: The response of the Inquisition.

The theologians of the Holy Office, after six days, made the following statement.

a. "The sun is the center of the world and entirely immovable as to local motion."

Verdict: all have claimed that the said sentence

(i) 'foolish' (H.O. 264 ("this fool"); 269 ("Der Narr") in his Lutheran way) and 'absurd' is, philosophically speaking, and

(ii) 'formally heretical: in so far as he contradicts statements, which the Holy Scriptures make, in many places,--according to the meaning of the words and according to the usual interpretation and interpretation of the Fathers of the Church and Doctors of theology.

b. "The earth is neither the center of the world nor immobile, but it moves as a whole and, also, with a daily motion."

Judgment: all have said that this sentence receives the same judgment philosophically and that, concerning theological truth, it implies at least an error of faith."

H.O. 271.

Note: That the earth moves as a whole refers to the earth's annual rotation around the sun, of course. Bearing:

(i) the Inquisition - so reads, explicitly, the Church's thesis - is fallible (it is neither the Pope nor an Ecumenical Council, - both on faith and morals, not outside of them);

(ii) neither Copernicus' nor Galileo's name is mentioned: neither was, thus, condemned, -- rather, it is a purely doctrinal, ('doctrinal') statement on heliocentric, which is both philosophically unacceptable and, above all, biblically hermeneutically heretical. Bible and traditional biblical interpretation are at odds with it.

(iii) practical: only those texts (books), which ex professo (explicitly) seek to prove. - Here the reductive method of Galileo's science is meant, not the merely "hypothetical" assertion that heliocentrism is not in conflict with biblical hermeneutics (both biblical text and traditional interpretation of that text). Thus Galileo, who had previously been in Rome, could return to Florence and continue his scientific work undisturbed, ... as long as he did not violate the book ban.

1624: nominalism in a private conversation with Urban VIII.

In 1624, Maffeo Barberini, Galileo's friend, became Pope as Urban VIII (1568/1644; Pope: 1624/1644; known for his condemnation of the Augustinian of Jansenius, Bishop of Leper).

Galilei dedicates to him his study *Il saggiatore*, which the Pope read with great pleasure; a number of private conversations follow.-- One of the Pope's arguments is -- under point of view of rationalism -- analysis -- very important.

"How could professional scientists ever explain the workings of nature, if it is assumed that God, as omnipotent and wise, is the visible phenomena of nature

(i) in many ways and

(ii) can create incomprehensible to small mind"

"The Pope saw, therefore, in the omnipotence of God a radical reservation against any 'rational' explanation." (E. Vanden Berghe, a.c., 316).

Following on from this, it has been argued that the truth of power (Urban VIII) was opposed to the power of truth (Galileo), in, those talks.

H.O. 272.

"The omnipotence clause is more than a brutal claim to power by the pope or by theology, which, thus, would set itself above all other sciences"--it has its roots in the nominalism of the early XIVth century (H.O. 149/160; 215v.: Luther's nom.).

This philosophical movement was carried by a peculiar religiously based skepticism:

(1) with our concepts we cannot know the true reality,
(2) for God, the omnipotent Creator and Lord of all, is not bound by "rationality."--
This opens the way for a revelatory positivism: the only "truth," left to us, then, is that revealed by God himself.

In such a climate of thinking reflecting an entire sense of life, science could not really thrive. 'Science' is, after all, only possible on the basis of a few fundamental presuppositions:

(1) the knowability of reality (= objective rationality) and
(2) the ability of human cognition to know that reality as it is (subjective rationality).-

In Galilei 's time not only a new method of observation and proof had to take hold: also this basic trust in rationality had to be recaptured from theologically based skepticism." E. Vanden Berghe, a.c., 328).

Put differently: what, since Platon, has been called 'the noble yoke' (the unity of subjective and objective rationality; H.O. 8v.) was, even with the Pope of the time - justified with deeply religious 'humility' (our little mind cannot explain that which God, in his omnipotence, created - not present : not the analogy (H.O. 12), but the difference, the gulf, the abyss (differentialism; H.O. 3; 152; 157) between God and 'our little mind', between 'our little mind' and nature (lawfulness) was, in that conversation, the basis - with a Pope, even so - for the scepticism concerning not only heliocentrism, but every scientific method, which could be labelled 'rational'.

Commonsense thinking (commonsensism).

E. Vacandard, Galilée, in: *J. Bricout, dir., Dict. prat. d. conn. relig.*, Paris, 1926, 3, 447s., cites the following.

H.O. 273.

(i) In 1614+, the Carmelite Foscarini, likewise, came out in favor of heliocentrism as not contradicting the Bible. Cardinal Robertus Bellarminus (1542/1621; a Jesuit,-- canonized) implored, in writing, the Bible not to interfere with a scientific question. -- But note his reasoning.

(1) Thesis: one will never succeed in proving that "the sun does not revolve around the earth but the earth revolves around the sun",

(2).1. Argument from the Bible: Solomon, an ordained writer, who, at the same time, was a writer inspired by the Holy Spirit and a first-rate scientist, writes that the "sun rises and sets and, immediately, returns to its place" (*Eccles 1:5*).

(2).2. Argument from common sense ('common sense', not to be confused with 'common sense'): "For another thing - says Bellerminus - the testimony of our eyes,--is this not a sufficient guarantee of truth? Everyone (*note*: typical 'common' sense) knows, by experience (H.O. 116: pre-scientific, 'popular' induction), that the earth is immovable and that the eye does not deceive, when it judges that the sun moves -- just as it does not deceive itself when it judges that the moon and stars move.-- That is, for the moment, sufficient.

We, with today's science, smile at the (naive type of) common sense, of course. But nascent rational professional science had to deal with such 'epistemology', as late as 1614+ ! The - incidentally, learned - Cardinal did not yet know that every observation is already an interpretation and must therefore be open to criticism. One understands, then, the rationalists, when they are annoyed by such 'obscurantism'. For that is what it is in their eyes.

1632: Dialogo sopra i due massimi sistemi del mondo.

Vacandard, a. c., 449, says that *Galilei*. inwardly divided, lived through a conflict situation (H.O. 90):

1. in conscience he wanted to submit to the Church (understand: the Inquisition) (book ban);

2. as a professional scholar, he could hardly avoid heliocentrism. After his *Saggiatore* (1624) was well received, he became overconfident: notwithstanding the title, the text was too clearly adherent to heliocentrism. Pope Urban VIII, his friend, was displeased (August 1632) and had the *Dialogo* examined' ('inquisitio') by an extraordinary commission, with only unofficial (= non-official) character.

H.O. 274.

This one soon decided: Galilei must appear before the court of the Inquisition. On 20.02.1633, Galileo - who was sickly, yet sufficiently valied - arrived in Rome on the orders of the Inquisitor in Florence. He did not have to be put in the dungeon, but was allowed to occupy the residence of the Florentine ambassador and, later, a spacious apartment of the Vatican. He had a chambermaid, two men on duty, and a riding animal at his disposal. Galilei comes out ahead: he was treated well (even under the point of eating).

He was questioned - between April 12 and June 21 - four times on three issues:

a. he has not kept to the agreement to abandon Copernican doctrine and no longer teach it in any way;

b. he has not merely restated them, but, instead of treating them hypothetically, he has confirmed their scientific value (this is the question of the factum (fact) or dictum (statement) 'haeretice' (heretical));

c. since this doctrine has been condemned (H.O. 271), did the proposer, in spite of everything, still consider it to be true and adhere to it in his 'forum internum' (in his inner self)? (This is the question of 'intentio' (inner intention)).

On 21.06.1633 he was questioned about his inner intention: he answered - at one point - that, since the conclusion of his superiors, he had never inwardly considered the condemned doctrine to be the true one.

Since the Dialogo testified to the contrary, they insisted and added that "if he did not get around to confessing the truth, the appropriate means would be used against him, in law and in fact."

Answer: "Again: in my 'forum internum', I never support and have never supported the teachings of Copernicus, since the day I was ordered to leave them. For the rest, my fate is in your hands: do as ye think fit".

Inquisition: "tell the truth. If not, torture will be resorted to".

Galilei: "I came here to obey. After the conclusion of the Index, I never considered this doctrine to be the true one. I already said so". Galilei signed the minutes. He was not tortured or confronted with the instruments of torture.

Only threats were made. In other words, the Inquisition was not allowed to torture elders.

H.O. 275

Solemn renunciation followed the next day.-- The same day Pope Urban VIII changed the imprisonment imposed to exile.

Galileo -- after another week in Rome -- went to Siena and, at the end of 1633, to Arcetri, near Florence. He was not allowed to leave Arcetri,--not even to have his eye disease treated, --not even to visit his daughter, when she, in the Tuscan capital, was dying.

Which, nevertheless, reminds one, downright, of e.g. the dissidents in the Soviet Union. Soviet Marxism is more traditional than one might think (H.O. 168vv.: Machiavellianism): it can find a model in the Catholic Inquisition.

History continues.

In 1638, his *Dialogues on the New Sciences*,-- published by Elsevier, at Leiden, in the Low Countries. Galilei dies on 08.01.1642, the year of birth of Isaac Newton, who will further develop his scientific insights.

(iv).-- *The Galileo Images.*

As in e.g.. Luther's case (H.O. 210/215), so too for Galileo: he is interpreted in more than one way.

Arthur Koestler, Les somnanbules, Paris, 1960, says e.g. what follows: "Contrary to the assertions, of many textbooks, even recent ones, of history of science: Galileo did not invent the telescope (H.O. 255). Nor the microscope. Nor the thermometer. Nor the clock with a pendulum.

He did not discover the law of inertia (H.O. 250.1) nor the parallelogram of forces or of motions nor sunspots (H.O. 256).

He made no contribution to theoretical astronomy.

From the tower of Pisa he did not drop weights (H.O. 250.2).-- He did not prove the true character of Copernicus' system.

By the Inquisition he was not tortured; in the dungeon he did not languish.-- 'Eppur si muove' (Yet she (the sun) moves) he did not say.-- he was not a martyr for science." O.c., 416s.).

With this, *Koestler*, -- Jew, born in Hungary (1905), famous for his "*Le zéro et l'infini*," liberal, hostile to any dogmatism, fighter of Nazism and Communism,-- free from any preference for the Catholic Church, which he likes to accuse of "totalitarianism," -- responds against what he calls "la mythographie rationaliste" (the myth-making of the Enlightened Rationalists).

H.O. 276.

By the way: Galilei's remains were not "scattered in the wind," like Kepler's (H.O. 264). It rests in the church of Santa Croce, at Florence, next to the tombs of Michelangelo and Machiavelli.-- Which Koestler emphasizes.-- To that - belied - the enlightened-rational view.

Koestler: "What he did do is to found the dynamics (H.O. 252) - which comes through in his work published in Leiden and contains his true 'glory' (according to Koestler) - which is sufficient to rank him among the men who determined our fate. He gave Kepler's laws the complement which was necessary for Newton's conception of the universe. "If I have been able to see far"- says Newton (1642/1727; mathematician, physicist, astronomer, thinker,-- discoverer of the law of gravity; famous work: *Philosophiae naturalis principia mathematica* (1686)) --, "Then it is because giants have lifted me on their shoulders." -- Those "giants" were Kepler (H.O. 248; 255; 258;-- 264), Galilei, Descartes (1596/1650; founder of modern, rationalist philosophy):-- Behold the cowering Galilean image.

The conflict with the Inquisition.

Koestler: "I am convinced that the conflict 'Church/Galilei' (or 'Church/Copernicus') was not inevitable;--that it was not a fateful clash between two opposing philosophies (...), but rather a clash of temperaments, of individuals,--clash which was aggravated by unfortunate circumstances. In other words: I consider it naive and false to see in Galileo 's process a kind of Greek tragedy or a rare struggle between 'blind faith' and 'the light of reason' (Koestler, o.c.,)

Conclusion : Koestler demystifies the illuminated image of Galileo .

E. Vanden Berghe, a.c., 329, says that én Inquisition én Galilei, each had their share of the right.

"Galileo could not suppose that one could ever read the book of nature (H.O. 257; 269) without reference to its author (God),-- more so, to be able to prove that there is no 'author' (God), at all!"

H.O. 277

It is these same atheistic readers (*note*: of the Book of Nature), who have glorified Galileo as a 'heroic martyr of clerical obscurantism', a cult, which surely stands out, and against the life history and against the spirit of the great Florentine."

In other words, Vanden Berghe -- like Koestler -- goes straight against the atheistic interpretation ("image"), as he labels it.

The "flair" of the inquisitorial church.

Koestler: "Cardinal Barberini became (as stated H.O. 271) Urban VIII, in 1623.-- He defended Galilei,-- noting, "The Church did not condemn his teachings as 'heretical,' but only as 'fatuous.'" (Koestler, .c.,563).

1. Well, *Galilei* committed the clumsiness (H.O. 273: overconfidence), curious for a man like him, to attack with humor and meanness this friend - pope, whose particular virtue was precisely not modesty - this we must admit -.

His 1632 work, *Dialogo sopra i due massimi sistemi del mondo*, Dialogue between the two greatest world systems, was highly ironic toward the h. father. It ignited the fire. (H. Perrachon, a.c., 14).

2. Moreover, Galilei obtained the' ecclesiastical 'imprimatur' (publication authorization), deviously, in such a way that one can speak of a kind of scam.

Consequence: Urban VIII--which, of course, is not very exemplary either, as seen from Christian morality--had only one thought: to undo the insult done to him personally--through the dialogo. (H. Perrachon, a.c.,14,--with reference to Koestler, o.c.,578).

Nevertheless, the historians, who do not succumb to Enlightenment-Rational bias, confess that the three experts of the Inquisition, who initiated the trial, from 1632 onwards, "accurately and impartially" made their reports.

3. Galilei drove his awkwardness to the top by denying what was evidently (the 'sunlight', viz., as seen H.O. 274: intentio, that he had never defended the theses of Copernicus as more than mere hypothesis; -- on the contrary, he had the impudent audacity to claim that he had 'contested' them.-- "This was neither 'worthy' nor expedient." (H. Perrachon, a.c., 14,--joining, always, to Koestler).

H.O. 278.

This provokes, on our part, two reservations.

(1) Cornelius Tacitus (H.O. 85), the "depth psychologist" among the ancient writers, who also, with "flair" (psychological insight), saw through e.g. the "soul" of Roman emperors and other figures of Roman history, warns the "scientific" historians not to engage in the science of history unless "sine ira et studio" (without resentment and without prejudice).

We may extend this -- this "good advice" -- to all science without question, -- including Galileo's. By mixing passion into his rhetoric in the face of a proposition which he never proved, but only intuitively perceived and supported by debatable arguments (think of the inertial law formulated only later, or of his tidal argument (once a day)), he has perverted the healthy and even perfectly accepted by the Inquisitorial Church debate by Extra-Scientific ingredients.-- Something which the Inquisition does not whitewash, but which Galilei disconcerts and rightly so.

Now we understand Koestler, with his "clash" of temperaments (H.O. 276).

(2) *Conclusion.*-- We have titled this section of text "the 'flair' of the Inquisitorial Church.

(i) It deals, in fact, with the (wrong) rhetoric both of the Inquisition and of Galileo - each in relation to his 'thesis'. One may compare Luther's "rhetoric" which, also, perverted the true debate, at least in part (H.O. 230v.): what have e.g. "wein, weib und gesang", songs (H.O. 231) to do with the true stakes, of the Reformation (read e.g. H.O. 216: exist. experience, and think, in the process, of Luther's many drinking songs).-- Are those drinking songs more than "cheap success"?

(ii) This explains, in our view, the striking mercy, with which 'Rome' treated Galilei - in contrast to e.g. G. Bruno, who did years of dungeon and ended up burned at the stake in 1600, i.e. 33 years before. 'Rome' did not want to make Galileo a 'martyr'!

Overall conclusion.-- H. Perrachon, a.c. 15, following up on Koestler, says: "From A. Koestler's vivid account -- with desirable documentation -- it appears that 'the Galilei affair' amounts, in the end, to an angry quarrel between scientists and theologians, aggravated by the rudeness of the one (Galilei) and the touchiness (Inquisition) of the others."

H.O. 279.

Rome retraces its steps.

The Galileo trial of 1633 did not oblige most Catholic princes (H.O. 245) - including the king of France - to forbid the spread of heliocentrism (recalling the "thesis/hypothesis" relationship (H.O. 132/143)). Also, many ecclesiastical personalities remained convinced of the scientific correctness of heliocentrism without harm.

1820.-- Canon Settele, prof, wants to provide his *Elements d'optique et d'astronomie* with an Ecclesiastical Imprimatur. Anfossi, a Church personality, still invoked the 1633 condemnation to refuse this.

The canon, over Anfossi's head, appealed to the Pope, who ruled against Anfossi.

1822.-- On 11.09.1822, the Sacred Congregation of the Inquisition decrees that the printing of books (H.O. 271), which teach that the "earth moves as the system, which the Modern astronomers usually advocate, claims, is permitted in Rome. Pope Pius VII (1740/1823; pope from 1800) approved the decree on 25.09.1822.

1979.-- On 10.11.1979 the present (*note:* in 1987) Pope John-Paul II, before the Pontifical Academy of Sciences, expressed the wish that the Galileo case be explored.

This is the reason why we dwelt, so extensively, on this "case."-- Father D. Dubarle, O.P. (1907/1987), nuclear physicist among others, expressed, before the Pope, the wish to rehabilitate Galileo.-- On 22.10.1980, Msgr. Poupard, vice president of the Pontifical Secretariat for the Unbelievers, announced that John Paul II's wish -- deepening -- would soon become a reality.

(v).-- Galilei founded "scientific" essentialism.

What 'essentialism' is, we saw H.O. 10/12. - H.O. 257 M. Clavelin taught us that Galilei 'ontology' in the traditional sense, wants, with his mathematical physical. "The experiment has the same function (role) as a mathematical proof: just as a mathematical proof, if successful, transforms a conjecture - once and for all - into a proposition (theorem), so does the experiment, if it verifies: it transforms a hypothesis - once and for all - into a truth that reflects the nature of the matter. (M. Clavelin, a.c., 999).-- That is essentialism but professional science.

H.O. 280.

(B).4.-- *Modern mathematics*. (280/295)

We take, of course, the term "modern" in its broader sense of "what, since the Late Middle Ages, has emerged as "new," nothing more.

It is, thereby, the intention, in the spirit of this course, to trace and actualize (reestablish) the Pythagorean - Platonic tradition.

One figure deserves, in this well-defined context, to be treated: François Viète (Vieta,--relativized; 1540/1603)). He was a lawyer, but also had political functions. Astronomy, trigonometry, -- general mathematics occupied his attention.-- He was very well versed in ancient and contemporary mathematics (the algebra of the XVI century).

Among others, Apollonios of Perga (H.O. 258; 261) from the Alexandrian tradition, who was strongly Pythagorean-Platonic -- was the object of his analyses.

1591: Isagoge in artem analyticam.

J. Itard, Les mathématiciens, in: *J.Bouveresse et al." Histoire des mathématiques*, Paris, 1977, recounts how, by Viète, in this Patronizing book, a main idea is worked out.

a. He discovers the thorough isomorphism (model identity) between, on the one hand, numerical algebra and, on the other, geometric analysis.

This is, in passing, a type of model theory: numerical algebra can model geometric analysis and vice versa (depending on whether one of the two is known (= model)).

b. In order to give this isomorphism a typically mathematical form, *Viète* invents his *logistica speciosa* on it, - freely translated, but extremely correct: the arithmetic ("logistica") with "species" (H.O. 12) - the Latin for essence, idea. This arithmetic had, in its intention, to be able to handle both numerical (numerical) and geometrical (geometrical) values (applicative models).

Itard, who ascribes to Viète "only historical importance" (he was overshadowed by Descartes), does not, however, see what genial intuition, philosophically speaking (and this is our position here), lies in that ideative mode of calculation.

He does, however, summarize the method.

(1) *The first step* in 'analysis' (analysis) is called 'zetetics'. The Greek word 'zeteo', I search, sticks in that technical term. 'To zètètikon', by Aristotle, e.g., means 'search work'.

H.O. 281.

The first stage, according to Viète, in the analysis consists in the introduction of 'symbols' (mathematical signs) such that both the known (consonants: B, C, Z, etc.) and the unknown (vowels: A, E, etc.) values are represented - instead of in numbers (numerically) - in letters. This, in order to establish in an equation the relations linking these values to a mathematical whole (totality), so that, at once, the demand inherent in the given is established, in a provisional form.

J. Itard, L' algèbre, in: *J. Bouveresse et al, Hist.d. math.*, 13s., notes, contrary to what he writes o.c., 246, that the historical development of algebra, end of XVI- the century, leads to letter calculus ('calcul littéral') or *logistica speciosa*. Someone like Michael Stifel (1487/1567) was already writing down mathematical values using letters (capitals: A, B, C, etc.). Also Nicolas Chuquet (1445/1500), Simon Stevin (= Simon of Bruges:1548/1620; H.O. 252), Raffaele Bombelli (+ a little after 1572), René Descartes (1596/1650) advance the signs (numbers, letters).

"But Viète in particular takes a decisive step when he decides - by means of A, B, C, etc. - to represent all the values included in a calculation, whether known or unknown. He reserves the consonants to denote the given (known) values and the vowels to represent the unknown.

Further: he notes the sum by $A + B$, the subtraction by $A - B$, the product by A in B (we would now say $A \times B$) and the quotient by A/B . The square he denotes by A Quad. And so on. Thus, he records the calculations by means of a 'trace' (a sign).

Finally, Viète decides to use letters, not only to indicate numerical value, but to represent spatial mathematical (geometrical) quantities.-- Thus he fuses the ancient geometry, as he had found it in the Sunagogè (Collection) of Pappas of Alexandria (around -300; H.O. 260v.) and the algebra of moderns."

Itard gives an applicative model: an equation of the second degree says Viète as follows: "Proponatur B in A quadratum, plus D in A , aequari Z solido" (Given the product of $B \times A$ Quad, plus the product of $D \times A$ as equal to Z).

In the mode of denotation known to us, which essentially stems from Desartes: $bx^2 + dx = z$.

H.O. 282.

Thus Itard, o.c., 13s.-- It is, at once, clear why the Cartesian algebra prevails over the Vietian: its literal calculus is much more straightforward.-- But Itard does not hide it; the "decisive step" dates from Viète.

(2) *The second step* in the 'analysis' is called 'poristics'. The Greek 'poristikos' means 'what provides' (here: further elaboration). The 'poristic stage' further analyzes, transforms the initial equation into an equation, which is nearer the solution.

So that we note a dual phase:

(i) turning an equation into letters, which shapes the initial data;
(ii) the further analysis, which transforms the initial form such that one approaches the requested solution.

(3) *The final step* in 'analysis' is called 'exegetics' or also 'rhetical analysis'. Here Viète returns to the concrete problem: he solves the equation either by geometrical constructions (if it concerns a spatial mathematical problem) or by calculations (if it concerns a numerical problem).

The ideative scope of Viète 's letter account.

With Itard we know, now, the outside of Viète's method.-- Let us, now, with O. Willmann, *Geschichte des Idealismus*, III (*Der Idealismus der Neuzeit*), Braunschweig, 1907-2, 46/69 (*Einfluss des Pythagoreismus auf Mathematik und Astronomie*), esp. 48/51, elaborating on this point.

(1). -- A. Warusfel, *Les mathématiques modernes*, Paris, 1969, 5, says that all the great mathematical thinkers -- since Carl Fr. Gauss (1777/1855) -- were eager to work - - instead of with numbers -- with ideas. This statement underlines the importance of Viète's method, which, well before Gauss, was already based on this point of view.

(ii) -- Platonic Situation -- W. Klever, *Dialectical Thinking (On Platon, Mathematics and the Death Penalty)*, Bussum, 1981, 44v., emphasizes a dichotomy in the Platonic method.

A.-- "I do believe that thou knowest that those who practice geometry, arithmetic, and other such sciences -- the even and the odd, figures, three kinds of angles, as well as analogous data,--according to each one's method, are thereby presupposed --: as if they knew everything, they use all these things as hypotheses.

H.O. 283.

They do not consider it necessary--neither for themselves nor for others to account for them, as if they, were obvious to all. Starting from there, they go through the rest (of their scientific work),---to end, finally, in accordance with the stated, at what was the object of their inquiry." -

So much for Platon himself: any positive science is "positive" (adamant) to the extent that it

- (i) lemmata, prepositions, hypotheses, at the beginning 'states' (firmly) and
- (ii) proceed from there, methodically. This is the forward method.

B.-- The backward method, however, proceeds differently. Whereas the 'forward' method started from lemmata, presuppositions, without going into them (unanalysed), as supposedly known, the 'backward' method goes deeper into those axiomata or postulates. It goes from the - in ordinary professional science - assumed to the unconditional 'origin' (archè, principium, principle, presupposition of the lemmata).

The use of language, in the backward way of thinking, is no longer 'speaking in imagery', but proceeding with the ideas themselves. -- The mind, here, also proceeds with hypotheses -- not as principles or premises, as in the stellar sciences, but -- as hypotheses, so as to arrive at that which is no longer a 'hypothesis', the universe origin itself, on which all hypotheses are based.-- This backward thinking Platon calls 'dialectics' (H.O. 38vv.).

Compared, in brief:

(A) in mathematics - particularly in geometry, but also in all other non - dialectical disciplines - one starts from assumptions, to reassure them, in themselves, later and make of them an axiom (postulate) to reason further;

(B) in dialectics, however, these same hypotheses are only points of departure for going deeper into them so that one finds a first, absolutely justified starting point, from which these hypotheses can be justified (as inference, as part e.g.).

More than that, the dialectical deepening goes back to the possibility condition of all positive sciences, to understand the unity of them.

H.O. 284.

One compares this with Max Scheler's ideative act, as we have briefly sketched him H.O. 42v.: "How must the universe be assembled - with Aristotle one might as well say: how must it be (H.O. 14) assembled - that there can be such a thing as subject-scientific principles (lemmata, hypotheses)?" Essentially the same thing: ideation (Scheler) and dialectic (Platon), All philosophy stands or falls on this insight.

Second point: the conditional sense, so typical of Aristotle's logic (H.O. 14), is central to Platon, at least equally so: subject science is conditional (in its hypotheses); dialectic (= Platonic philosophy) is conditional to begin with, but situates it in something unconditional.

In doing so, we are far from the so-called "dogmatism" that some attribute to Platon and Aristotle - in the epistemological field.

Bibl. stitchpr.: Ph. Davis/ R. Hersh, *L'univers mathématique*, Paris, 1985, 335/349 (*Lakatos et la philosophie du doute*).-- This article discusses 'foundation(al)ism' -in a mathematical context, of course: 'foundationalism' is the attempt to elaborate the lemmata, the principles, 'fundamentals' (foundations) of mathematics e.g. to elaborate in such a way that that mathematics, which is 'founded' on it, is unquestionable ('apodictic' Aristotle would say).

Imre Lakatos (1922/1974; H.O. 251, one of the four notorious epistemologists of the day claims, in contrast, that - as his teacher K. Popper says - a scientific theory is more likely to be invented as a hypothesis, as "speculation," if necessary as conjecture.

Mathematics, too, 'becomes' - literally - in the midst of a question and a conjecture, to continue in this way, without ever offering 'absolute certainty' - Not that Platon or Aristotle claimed precisely the same thing: not that, but the lemmatic (hypothetical) of subject science they - with their strictly logical minds (since Zenon of Elea) - realized very well. The need for an ontology became all the greater for it.

(iii).-- Platonic subject science.

"One of the most fruitful starting points of more recent mathematics, the principle of analysis, is of antique and indeed Platonic origin. It is reported of Platon: "He was the first to found the research by means of 'analysis' and taught it to Leodamas the Thasian." (Diogenes Laertios (tss. +200 and +300; Lives, Learning Systems and Sayings of Famous Sages, 3:24).

H.O. 285.

Platonic analysis consisted of entering the requested as a given and examining it for its conditions,-- conditions, whose complex (coherence) was disassembled (analysis, to break down into its elements).

The distinctive feature is the prior introduction of the sought. Immediately, fundamentally, the name 'prolepsis' (prior introduction) or 'lemmatic method' would be more correct than 'analysis'. After all, the analysis, i.e. the breaking down of the coherence into its components, is only the second step." (O.Willmann, o.c.,48).

In his *Abriss der Philosophie (Philosophische Propädeutik)*, Wien, 1959-5, 137, Willmann proposes the term "lemmatic-analytic method" as a real-world designation.-- One could also call it "black-box method" (H.O. 47): without knowing accurately what precisely is in the requested as a given, one works with it anyway.

It is clear that this method relies on the systechie -- oppositional pair--: given/ asked, as is customary in problem solving. The (as yet) 'unknown' is assumed to be 'known' and captured in a sign (semiotic, semiological aspect). That sign ('symbol') then stands for the idea which is signified in it. Platonic: both given and demanded are 'noèta', intelligibilia, know- and think-content 'realities'. Precisely because of this they can be included in a rational operation, which is the setting and transforming of a mathematical equation.

One sees that presupposition, here, is: the assumption that one already knows (confusingly) the demanded thing and that one can rationally perform operations with it, reasoning "forward" (H.O. 283).

(iv).-- Application Model 1.

On the lemmatic-analytic, principle rests the finding of unknowns in mathematical equations.

The stranger becomes

(i) lemmatically assumed to be known and entered into an equation with an appropriate sign (res, x) and

(ii) transformed into known ones through processing.

Arithmetic problem : Elsje gave $\frac{1}{5}$ of her pearls to Gretel and still kept 20. How many pearls did she have, originally? This can, now, be 'analyzed (solved) in more than one way.

H.O. 286.

a. The mere, haphazard guessing method (as in riddles, guesses):

(Maior) Every whole is $5/5$ or $5 \cdot 1/5$.

(Minor) Well, $1/5$ of this whole is 5 pearls.

(Conclusio) So the whole of the pearls is 5×5 or 25.

We choose, deliberately, the syllogism form, to demonstrate the rationality implicit in pure conjecture. Children, adults, even mathematicians reason conjecturally (Popper, Lakatos emphasize it).

b. Another - child or adult - 'analysis' :

x is the whole (collection);

x - according to the statement - is $1/5 \cdot x + 20$ pearls;

20 pearls is $4/5 \cdot x$; or still:

x is $5/5$;

the structure, which gives the key to the solution (analysis), is : $5 - 1$ or $x - 1/5$ pearls;

if x is 25, then $15 - 5 = 20$.

One sees: in a multitude of semiotic thought operations, the unknown invariably appears in a sign that allows it to be processed as a known.

c. An "economic" (effort-saving) analysis is, of course, the rule of three: (if $(20 =) 5/5 - 1/5$, then)

1. $4/5$ is 20;

2. well, $1/5$ is $20/4 = 5$;

3. so : $5/5$ is $5 \times 5 = 25$.

This analysis is the most 'rational' because, apart from reasoning, it is still sparse in the operations to be performed.

Note

(i) Middle-century books of arithmetic call the unknown 'res' (matter, that about which it is concerned) and designate them by a curl, which one, later, since Descartes, designates by 'x.' (H.O. 281).

(ii) Viète's letter calculus continued the analytic principle: it designates indeterminate values with letters and manipulates them in this way.

The ideas 'sum', 'difference', (subtraction),-- 'product', (multiplication), 'quotient' (division) possessed -- since archaic times -- all mathematicians, But, to perform operations, they must introduce numbers (singular numbers).

There was - between the idea (sum, difference, product, fraction) and the computation - no intermediate term. Viète introduced precisely that intermediate term. His $a + b$ is universal as the idea 'sum' and yet operation as e.g. $3 + 4$. In other words: before Viète's letter calculus, only applicative models (digits, singular numbers) were operational, amenable to operations.

H.O. 287.

We can clarify this schematically;

<i>universal idea 'sum'</i>	<i>formula speciosa</i>	<i>formula numerosa</i>
value 1 + value 2 = value 3	$a + b = c$	$3 + 4 = 7$
mere thought; but not operational (idealistic regulatory model)	operational, as well as universal (regulatory model, semiotic)	operational but singular (applicative model, semiotic)

One sees it: by introducing letter calculus (*formula speciosa*, semiotic formula, but meant ideally) Viète introduced a kind of intermediate term between the pure inner idea 'sum' and the long-established '*formula numerosa*' (numerical formula).

That it is precisely Platonists who search for this intermediate term should not come as a surprise. Read H.O. 95 (about the gaping, interval, gap, between the pure idea and the phenomenon, in which it shows itself). Never can a figure (numerus) exhaust the idea 'number' (species). 'All that is digit' or 'all possible digits' are, after all, summarily thought in the same idea 'number'. By introducing letters that, formally, represent the idea - and not a single numerical value - Viète has made arithmetic 'ideative', ideal, 'platonian'.

That this was Viète's explicit intention, appears from what he says: "(The type account is called) *logistica speciosa*, quae per species seu formas rerum exhibetur utpote per alphabetica elementa" (account, which is comprehensible (*speciosa*), d.i. which takes place by means of the 'concepts' or 'forms of being', (H.O. 12) of things (*note*: here the number operations and/or the numbers themselves), viz. expressed in the letters of the alphabet).

As Willmann, o.c.,49, says Viète's philosophy of mathematics is conceptually realist (essentialist; H.O. 10 ; // 179: Galilei): the letter (sign) represents the general (universal); this universal is the form of being.

Platonic: idea, principle, in the given itself (here: the operation and its parts); e.g. ' $a + b = c$ ' is the universal, expressed in signs, which is present e.g. in ' $3 + 4 = 7$ ', but also in ' $2 + 10 = 12$ ' and in an infinite collection of sum operations, as the being, the essence, of it. In it (for it is an applicative model of it), above it (for it is the regulative model; H.O. 46).

H.O. 288.

The position of A.N. Whitehead (H.O. 33), *Mathematics, basis of thought*, Utr./Antw., 1965, 11, says:

(i) Mathematics began, as a science, when someone - probably a Greek - first, attempted to prove theorems (judgments, propositions)

a. about all (= you), and about some (= private)) data,

b. without specification (singularization) of certain, "separate" (understand: one-time, unique, singular) things.

So much for the regulatory model or "idea" "scientific mathematics.

(ii).a. First applicative model mentioned type of theorems, which mean the idea (universal theorems), were, by the Greeks, first, established for geometry, in so far as 'mathematical science' - for the Antique Greek intellectual - coincided with geometry.

(ii).b. Second applicative model after the rise of geometry, it takes centuries, before algebra really gets off the ground,--this, notwithstanding a few feeble attempts by the later Greek mathematicians.

The ideas "all" and "some" are introduced, in algebra, by using letters instead of numbers.

Appl. mod.: instead of saying, e.g., " $2 + 3 = 3 + 2$ ", we generalize in algebra, saying "For all the numbers x and y , it holds (= the range) that $x + y = y + x$ ".

Appl. mod.: instead of claiming that $3 > 2$ (greater-than relation) we say : "For all numbers x , some numbers y exist such that $y > x$ ".

Whitehead immediately adds to both examples, "We (...) note that this last proposition (for, if we bring it into its final exact form, it is a proposition) is of vital importance to both philosophy and mathematics, for with it one introduces the concept of infinity.

Perhaps the Arabic numerals (which completely abolished the use of letters, used for certain numbers, in mathematics) had to be introduced to make clear, to mathematicians, the technical ease of using letters for the concepts of "all" numbers and "some" numbers.

The Romans would have called the number of the year, in which this book (published in English) was written, MDCCCX. We write 1910,--with which we leave the letters open for another use". (O.c., 11v.).

With which the decisive role of the acronym of Vièta once again becomes very clear.

H.O. 289.

Yet Whitehead continues:

"(1) After the rise of algebra, I. Newton (H.O. 276) and G. Leibniz (1646/1716; top figure, preparing the Aufklärung in Germany), invented the differential calculus, (*note*:1686). Thereafter - as far as the concepts of "all" ("some") are concerned - the progress of the philosophy of mathematical thought remained.

(2) Only in recent years - Whitehead says this in 1910 - has it been realized how much the notions of 'all' and 'some' belong to the foundations of mathematics. As a result, more and more subjects have been made accessible to mathematical investigation". (O.c., *ibid.*). - Whitehead means set theory and logics (symbolic logic), as well as what is related to them.

In contrast to Itard and in unison with the idealist Willmann, Whitehead appreciates Viète's genius move.

(i) The set theory is one of the integrating components of Platonic theory of ideas, as H.O. 41v. explains. The partial ideas 'all' (univ. collect.), 'some' (particul. collect.), a single (element) (singularly given),-- together with the partial ideas 'equal', 'greater than' ('less than', etc.) -- all belong both to Platonism and to Cantor's set theory.

(ii) Logic - via logical algebra, past century - is just a letter reasoning theory extended to the whole of logic. Which, by the way, was Viète's work, albeit only in prelude.

Whitehead's Models.

"Let us set up simple algebraic statements, to make it clear when these fundamental notions ('all', 'some') occur.

(i) For all numbers x , it holds that $x + 2 = 2 + x$.

(ii) For some numbers x , $x + 2 = 3$ (*note*: Whitehead ranks, apparently, the singular case with the private), (Matter of terminology, of course: we too say of an individual that he is a 'private').

(iii) For some (not all) of the numbers x , $x + 2 > 3$.--(...)" ; In this third type of equation, i.e., partial identity (analogy; H.O. 12) between the two members of the equation, every number x , which is greater than 1, gives $x + 2 > 3$. Therefore, in this type, there is an infinite number of numbers -- thus, literally, Whitehead, O.c.,12 --, which satisfy.

Note: Whitehead's terminology defines "some" as "everything between all and only one, including both borderline cases," -- which is the typical logistic definition.

H.O. 290

How Whitehead judges an "exegetics," -- H.O. 282 taught us that Viète returns to the concrete issue in a third stage of "analysis" (which amounts to our present concept of "algebra"), after theorizing in two stages.

(i) Whitehead thinks it only natural that statements (ii) and (iii) - H.O 289 - are replaceable by the following questions:

(ii) bis "For what number x is $x + 2 = 3$?" and

(iii) bis "For what number x is $x + 2 > 3$?".

For (ii), it is intuitively obvious: the "solution" (i.e. Viète's full notion of "analysis" is $x = 3 - 2 = 1$. This, owing to the syntactic rule, which says: "In a mathematical equation, each member, -- if given an opposite sign (+/-; -/+), may be moved from one side to the other,-- without changing the quantitative identity.

"When we ask the question - says Whitehead - which is locked up in the equation ' $x + 2 = 3$ ', x is called the unknown (H.O. 285). the purpose of solving the equation is to determine the unknown." (O.c., 12). No problem so far.

(2) Whitehead, however, makes a striking caveat. "Equations - he says, o.c., 12v. - are of great importance in mathematics. In doing so, it seems as if the example (*note*: applicative model (ii) bis ("For what number is ' $x + 2 = 3$ ' ?", as well as: ' $x + 2 = 3$ ' holds, if $x = 3 - 2 = 1$)) is of a much deeper and more fundamental understanding than the original statement (ii) ("For some number x holds that $x + 2 = 3$ ").

However, this is incorrect:

a. The concept of the indefinite variable - as it occurs when using "all" or "some", is the most important in "mathematics";

b. the notion of the 'unknown' in an equation, which must be solved as quickly as possible (*note*: Viète's exegesis), is only rarely used, although it is, of course, very important. One of the causes of the obvious triviality (= insignificance), inherent in a large part of elementary algebra, is the fact that the textbooks are too much concerned with solving equations.

The same remark also applies when solving inequality (iii) bis, in connection with original statement (iii)".

H.O. 291

Note.-- Whitehead's critique of algebra (mathematics) being too problem-solving oriented has much of Willmann's critique of the Scholastic method (H.O. 110): the "structures" (understand: main ideas) are hardly treated explicitly to get lost in a jungle of problem solutions...in the process.

Note.-- Whitehead, o.c., 43, gives an interesting example of generalization, in the mathematical analogue of induction, by the way: H.O. 116) : from, e.g., ' $x+y-1=0$ ' or ' $3x + 2y - 5$ ' (a correlation between the changeables x and y) he generalizes to ' $ax + by - c$ ' (by changing the numbers into letters (H.O. 281)).

Note.-- O. Willmann, o.c., 49, gives an explanation of the idea of 'formula', H.O. 287 teaches us that Viète wanted to work with the 'forma' (form of being) instead of with singular (Whitehead would say 'private' ('some'), at least in part); well, the term 'formula' is the diminutive of 'forma', 'Formula' - in the language of the jurists for instance meant 'treaty text'. Also 'formula' could mean either regulation or property (trait). Evidently conceptually realistic ('essentialist') scientists have laid down their deeper philosophy in 'formula' - in the sense of a reduced creature form in numerical and especially literary terms. What, presently, is forgotten.

(v).-- Applicative model 2

According to Willmann, o.c., 50, the lemmatical-analytical process is also based on the idea of the "changeable" symbolized in sign, letter sign. Here - according to the proposer - the analysis does not end with the solving of the unknown in the mathematical 'complex' (coherence, structure), in which it is contained (in the form of either an algebraic equation or a geometrical figure). No: the change of the unknown - recorded anticipatively in the letter sign - insofar as that change is contained in the change of the 'complex' (figure, equation). The increase or decrease of the unknown is used as a 'measure' of the increase or decrease of the 'complex'.

J. Itard, L'analyse, in: J. Bouveresse et al, Hist, d. math., 33 (La notion de fonction), says that the idea of 'function' is already ready and clear with James Gregory (1638/1675) and I. Newton (H.O. 289) - the latter with his 'fluentes' but that the term 'function' appears only with Leibniz (H.O. 289).

H.O. 292

According to him in 1694. Not until 1718 does Jean (not to be confused with his brother Jacques) Bernoulli (1667/1748) give a definition (stripped of geometry). The sign 'fx' dates from Leonhard Euler (1707/1783), in 1734. In 1810, S.- Fr. Lacroix (1765/1843) corrects Jan Bernoulli's definition..:

"Any quantity ('value'), the 'value' of which depends on one or more other quantities, is called a 'function of those other quantities', -- whether or not one knows what operations one must perform to get from the 'other values' to the one that is a 'function' of them." (O.c.,34).

H.O. 284 (Imre Lakatos, in Popper's wake) taught us that also mathematics, which appears so rational, 'becomes' (comes into being) in the midst of a 'story' (narratological structure of mathematical history; of ... issues, conjectures, half and, later, whole definitions etc.: we see, of these, in the genesis of the definition of the 'function' one applicative model.

This reinforces our belief in the thesis of Platonism, that the idea (rational aspect) becomes "phenomenon" amid "becoming and, sometimes, perishing" (H.O. 95: the phenomena invariably change).

As Willmann, o.c., 50, says: the idea 'function', in the Modern-mathematical sense, is Platon, historically speaking, unknown. Yet there is vague analogy: the theory of ideas seeks - essentially - the fixed relations amidst the 'flow' (change) of phenomena.

(vi).-- Applicative model 3.

One further application of the lemmatic-analytical method that grew out of the fusion of letter calculus (style Viète) and function theory (style Gregory and Newton) is - according to Willmann, o.c., 50f. - the analytic geometry.

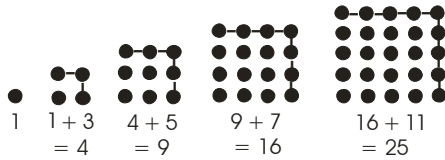
Itard, o.c., 73: "Inspired by the ideas of François Viète (1540/1603) founded, around 1630, René Descartes (1596/1650), Pierre de Fermat (1601/1665), to a lesser extent: Gilles Personier de Roberval (1602/1675), the analytic geometry,-- thanks to an application of the techniques of algebra (*note*: Viète's "analysis") to geometry.

This new subject, although based on Euclidean geometry (H.O. 261), broadens its possibilities in a remarkable way and prepares the unification of mathematics".

H.O. 293.

As already indicated, H.O. 280 (thorough isomorphism), saw - in Paleopythagorean-Platonic tradition - already Viète, very clearly, the unity, o.g.v. model identity, of number and space mathematics.

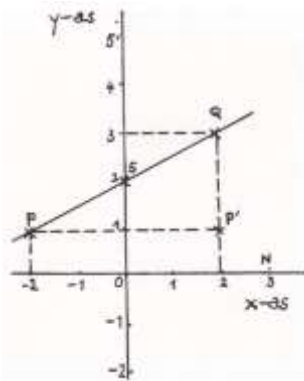
The square numbers:



Paleopythagoretic model of isomorphism.

D. Nauta, Logic and model, Bussum, 1970, 26, gives us an outline of what the Paleopythagoreans thought of the model identity between number values and space mathematical values. O.c. 30, asserts to us that the "analytic geometry ;

to which *Descartes*, in his *Geometry* (1637), not without connection with his world-famous *Discours de la method* (1637), gave rise, is the first systematic model method in the history of mathematics.



A Kartesian coordinate system gives us o.c., 31. Analytic geometry as a 'translation mechanism' of geometric terms (values) into algebraic and vice versa, is clarified in it, using one applicative model.

As *A.N. Whitehead, Mathematics, basis of exact thought*, 75, says: algebra has as its object variable numbers, the correlations between them, as well as the classification of those correlations. Geometry is defined as the study

of variable points (on a full line, not just on a segment, as in Eukleides of Alexandria), variable points, which have one or more traces (= geometrical places: i.e. collections of points, which all have the same traces), as well as the classification of geometrical places.

"The essence of analytic geometry is, now, the identification (*ed.*: determination) of the algebraic correlation with the geometric place.

Model-theoretically expressed: one talks about geometry, in terms of algebra and, conversely, about algebra in geometric language.

H.O. 294.

Applicative model.-- O. Willmann, o.c., 50, gives following application.

(1) The idea 'circle', which we have in our minds, is indeed universal (applicable to all possible circles, but, mathematically, not -operational).

(2) This circle here in it (to use an expression, which John Duns Scotus (H.O. 116) made famous: he is the first who tried to define the singular in its uniqueness (once-only)): is operational, if only by its con○plation, but not a regulative model (like the idea 'circle').

(3) Intermediate term, in Viète 's mind, is the formula (H.O. 291) " $r^2 = x^2 + y^2$ "

This is what mathematicians call the circular equation. In this, r (radius) is the radius. Cf. the formula " $(x-a)^2 + (y-b)^2 = r^2$ ", such that the midpoint 'a, b' is 0 (intersection of x-axis/y-axis).

Note.-- The formula " $r^2 = x^2 + y^2$ " is, immediately, an example of what is called "function" ($r = f(x,y)$ or "r depends on the values of x and y"). Compare this three-part diagram (idea, letter calculus, graphical circle) with the three-part diagram H.O. 287, where the sum is clarified as idea, letter calculus, numerical calculus--this is the Viethian diagram.

Willmann explains: asked is to define a line (= set of points, defined by one or more properties (here: all equally distant from the circle center)) by indicating the distances of its points to the Cartesian coordinate system (H.O. 293).-- These distances are, in themselves in their generality, not indicateable, since they go through a multitude of values (changeables). An invariant (unchangeable fact) is, however, the correlation (mutual relationship) of the distances.

The viethian analysis intervenes here: as a lemma, hypothesis, that they are already known, they are called x and y and, under that letter form as an editable (operational) sign introduced. But such that x and y are fixed in a 'complex' which here is the equation ' $r^2 = x^2 + y^2$ ', the formula). "The equation - says Willmann - then signifies the being (*note*: the idea) of that line".

H.O. 295.

The Cartesian coordinate system.

Whitehead, O.c.,69, says that Descartes "found this central piece of analytic geometry, one morning, by inspiration (H.O. 162: poésie involontaire). The novelty - always Whitehead says - is that, instead of taking segments (line segments) as the Antiques and Middle Ages did (Euclidean geometry), Descartes introduced infinite lines (rights, later curves) in the axes x and y as a general frame of thought. Compare, H.O. 293, the fragmentary (segmental) character of squares (resp. square numbers) with the infinite continuity of Descartes' x and y axes.

Whitehead refers to this distinction as the basis of "the principal conception"; peculiar to the typical Cartesian style of thinking concerning geometry (and algebra).

The line, in a Cartesian sense, as a collection.

Long before G. Cantor (1845/1918; known for his Theory of Collections), Descartes employed the idea of 'collection'. The line, defined in this way, is the fundamental concept, from which modern geometry starts (Whitehead,o.c.,74). Just as the line in all its points (it is, in principle, 'infinite') displays the common characteristic 'straight', so the curve in all its points (closed like an ellipse or a circle or open towards the dual 'infinite') has the common characteristic 'curved'. A set of data - here: points, which together form a line, that shows common property(s), is the definition - in non-axiomatic-deductive terms - of the idea 'set'.

Appl. mod. -- This is how one defines the idea of 'geometrical place' (H.O. 293), whether it be about lines, curves, ellipses, circles, etc. Thus the ellipse is an oval curve, which in all its points exhibits the characteristic that the sum of the distances from any point (= variable) of it to two fixed points, the so-called foci, is invariant (unchanging, constant).

Thus, the circle is only an applicative model of the regulative mode 'ellipse': 'mathematically' speaking, viz., in the case of the circle, the two 'ellipse foci' coincide in focal point, the middle point. This is another example of generalization in mathematics so frequent (H.O. 291). Again: that Platonic trait of knowing, viz. the idea, which encompasses as applicative models the phenomena, in which it becomes 'visible', as their collection (H.O. 40vv.).

(vii).-- Applicative model 4.-- O. Willmann, o.c., 51f., says that the infinitesimal calculus (H.O. 289) is also lemmatic-analytic.

H.O. 296.1.

(3) Modern natural science (247/279).--

Perface-- The previous natural science (247).

A.-- Internalist analysis (247/262).

1.-- The new science for Galileo (248).

2.-- G. Galilei (248/262).--

2.a.-- A new paradigm (249/253).-- The idea 'paradigm' (249). -

Perception itself changes (249/250.1); pendulum isochronism (250.1, 250.2); experiments on free fall (250.2); law of free fall (250.2v.); a raid (Feyerabend): dilute motion (251v.) modern mechanics (252v.); a new ontology 253 .

2.b.-- A new paradigm: instrumentally underpinned (254/256).-- Phenomenotechnology (Bachelard; 254).-- **(i)** From spectacles to telescope (255); **(ii)** the Dutch viewer (255v.): the copernican revolution (256)

2.c.-- A new paradigm : mathematically expressed (256/260).--

(i) the book v/d nature (Augustine), written in mathematical language (257v.); Galilei no positivist (258).-- The idea of 'exact science' (258v.).

(ii) the measurement (measurement model) (259).

2.d.-- The new paradigm: an update (260/262).-- Archimedes v. Syracuse, re-founded (260).-- **(i)** The Antique-Greek technology (260v.); **(ii)** Arch.v.Syr. (the greatest mathematician of antiquity,-- technically oriented; 261v.).

B.-- externalist analysis (263/279);

(i) -- The fate v. Copernicus and Kepler (263/265).-- A comparison, Lavoisier: "La republique n'a pas besoin de savants" (264v.).

(ii).-- The h. Inquisition (265/267).-- Monastic -- Papal, Roman, Spanish Inkw .(265v.); H. Office (266).-- Catholic Criticism (266v.).

(iii).-- The case of Galileo (267/275).-- (Natural) science and Bible interpretation (267v.); Secularization (268).-- The conflict (269). - Letter a. Grand Duchess Christina (269v.); 1616: Response v/d inquisition (270v.);-- Nominalism in a private conversation with the Pope (271v.); commonsensism (272v.).-- 1632: dialogo (273/275).-- History goes on (275).

(iv).-- Galileo Images (275/279).-- A.-- A. Koestler (275,v.).-- B. E. Vanden Berghe (276v.).-- Flair v/d Inqui. Church (277v.).-- Rome retraces its steps : 1822; 1979 (279).

(v). Galilei founds professional science 'essentialism' (279)

H.O. 296.2.

(4) *Modern mathematics* (280/295).

1591: *Francois Viète, Isagoge in artem analyticam.*

(i) Isomorphism algebra and geometry,

(ii) using as language 'logistica speciosa' (arithmetic with ideas) (letter calculus, comparison, application) (280/282).

***The ideative scope of Viète's literary account* (282/296).**

(i).-- Gauss: working with ideas rather than numbers (282).

(ii).-- Platonic nature of being (282/284).

A. Platon's forward dialectic (mathematics, other sciences): from hypotheses, - analytically - infer (282v.);

B. The backward dialectical method (pure philosophical dialectics): to examine the (subject-scientific) hypotheses (lemmata) on its conditions of possibility; -- comparison with M. Scheler's act of ideation (283v.).-- Foundationalism (Lakatos) is, to some extent, contrary to that lemmatic conception (284).

(iii).-- ***Platonic subject science: the lemmatic-analytic principle***

(the demanded is introduced as a given, in the form of a sign (letter / unknown), into the reasoning (semiotic Platonism; 284v.)

(iv).-- ***Application model 1.***

Finding unknowns in mathematical equations (which are "solved" : between the idea (sum) and the numerical account (sum) Viète situates the letter account (285/287).

A.N. Whitehead's position: mathematics as a science involves the ideas 'all' and 'some' ('some' between 'all' and 'just one');

Appl. models: geometry, algebra;-- the fundamental nature of 'all' ('some') only fully realized at the end of XIX -the century;-- Whitehead's criticism of solving equations (by unknown determination);-- the idea of 'formula' (288/291).

(v).-- ***Applicative model 2.***

The idea 'function' (the relationship between independent variable and dependent variable;-- narratological structure of elaborating the idea 'function' (291/ 292).

(vi).-- ***Applicative model 3;***

Analytic geometry, in 1630, thanks to Descartes and de Fermat; model-theoretic scope (Paleopythagorean; Cartesian (coordinate system));-- the circle (= applicatio); -- the line, Cartesian, as (infinite) set (292/295).

(vii).-- ***Appl. model 4.***-- the infinitesimal calculus (unfinished).

H.O. 297.

II.C.-- *Modern rationalism.*

Reread, now, briefly, H.O. 145v. (Modern and Current Rationalism. as a variant of general rationalism).

Introduction.

1. *What is "modern"?*

(1) Our present word 'modern' comes from the Latin 'hodiernus' (which, from +/- 500, also sounds 'modernus'). it means 'present', 'contemporary', 'current'.

(2) From +/- 900 on, in church circles, that term is used in two variants:

- a. meliorative: open, liberal,-- aware of the latest facts or ideas,-- enterprising;
- b. pejorative : fashionable, light-hearted, actualistic (= moving with the flow of current currents), 'neological' (= without understanding of or contact with any tradition, eager for the new for the sake of the new).

(3) Between 1520 and 1650 especially, the term "modern" is -- for the first time -- deliberately employed to denote "non-medieval" (with the variants: present, current, progressive etc.),-- typical of Renaissanceism, of course. Cfr. H.O. 107.

2. *The pen dispute between 'modernism' and 'postmodernism'.*

(a) 'Modernism' means, first of all, what we, H.O. 140v., have defined as the will to bring traditional, indeed archaic religions into unison with modern, enlightened-rational ideas.

(b) A. Bolckmans, *Overview of the philosophical currents in world literature*, Ghent, 1972, brings us a second meaning.

"The term 'modernism' is used as a major literary-historical period name, in the 20th century. It is, viz, striking how, again and again, in different movements, each bearing its own name, the emphasis is laid on 'the modern', 'the new'. One wants to draw attention to the fact that one brings something new and original".

Appl. mod.: Futurism (school of art in Italy, founded around 1909, with the poet Filippo Marinetti (1876/1944) as its inspiration) connects to current events, understood as the modern world, with contemporary issues;

surrealism (H.O. 162), a literary-artistic movement, whose ideas were set out in the three manifestos of Andre Breton (1896/ 1966), in 1924, 1930 and 1942, wants to be "modern" in the sense that, following in the footsteps of S. Freud, it exposes, above all, previously unexplored domains, such as the unconscious, with its dreams, seizures, automatism, free associations, and interprets them in literature or - more broadly - art.

H.O. 298.

Hermeticism, a direction in Italian lyricism, especially between 1920 and 1950 ('ermetismo'), which is reminiscent of the French lyricism of the late XIXth century (Symbolists like A. Rimbaud, St. Mallarmé; P. Valéry e.g.): instead of writing transparent verses, the Hermeticist(s) wants to write magical-enigmatic, mysterious-dark verses, but with refined formal care. To write transparent works of poetry, the Hermetic(in) wants magical-adsyllabic, mysterious-dark verses, but with a refined care of form,--this, to protest against Modern mass society and the "abandoned" use of language; by "renewed" use of language one wants at once to reveal "new" realities.-- To there three types of modernism.

Shortly before World War 1 (1914/1918) - according to Bolckmans, o.c., 91v. - comes - around 1910 (cf. religious Modernism, which, in Catholic circles, is situated between 1896 and 1910) - from all sides, something new emerges, in literature. After 1945 (after W.O. II) this becomes more international.

(i) Modernism, therefore, definitely joins 'modern' life : it wants to see it through and, also, engage in it. The latter leads to "committed" art, with the shade of "social-progressive". An 'intelligentsia' (H.O. 186) emerges, which is not far removed from socially widespread life.

(ii) This sociological 'involvement' contains - on a philosophical level (according to always Bolckmans) - an ambiguity. After all: anyone who wants to get involved in society should speak a common-sense language. Well, professional philosophy, professional science,---they are practically inaccessible to the nonspecialist. Unless in the vulgarized form.

Cfr. H.O. 116 (folk thought); 273 (Galileo's science). Neopositivism e.g. wants artful thinking (in the form of logistics (H.O. 289); a work like that of the Existentialist M. Heidegger is, even for professional philosophers, 'difficult'. But the Philosophers of Life (H. Bergson e.g.), some Existentialists (G. Marcel, J.-P. Sartre, who write plays), the Marxists, the Pragmatists are closer to ordinary people.

Psychology, especially Depth Psychology also reaches non-specialists. Anyone who is a little "educated" has, e.g., grasped the term "complex"!

H.O. 299.

The systechy 'modernism / traditionalism',

Bolckmans says that the Western European literary world, after 1910, seems to be driven to a higher degree than before by the conflict 'Modernism/ Traditionalism'. Both terms are - he says - collective names. The Modernists wish to innovate; the Traditionalists want to build on what used to be true, but in such a way that it is updated. Think, with the latter, of the names 'Neo-Realism', 'Neo-Naturalism', 'Neo-Symbolism', 'Neo-Classicism' and so on.

A. Many very important writers e.g. are tradition-bound: Thomas Mann, John Steinbeck, Mikhail Slolochov, François Mauriac, Graham Greene, Niko Kazantzakis. They are not "Modernists.

B. But the Modernists do bring the strictly new achievements. Think Futurism, Surrealism, Hermetism, Existentialism.

C. "In many cases it is difficult to tell the two apart." (A. Bolckmans, o.c.,95).

Note.-- How confusing the terms can be, proves to us "modernism" the Latin American and Spanish literary movement, between 1890 and 1920, which takes French Symbolism as its model (// Hermetism). Precursor was the Cuban J. Marti, the main character the Nicaraguan Ruben Dario (1867/1916).

(c) 'Modernism'

Hitherto thought in unison with its opposite "traditionalism" - acquires a new hue, because, in recent years, it has been conceived in opposition to "postmodernism. The term is said to emanate from J.-Fr. Lyotard (H.O. 241).

Bibl. sample:

- Wayne Hudson/ Willem van Rijen, *Moderns versus Postmoderns*, Utrecht, 1986;
- G. Lernout, *Postmodernism*, in: *Streven* 1986: Oct., 33/43;
- R. Laermans, *Modern criticism and postmodern rhetoric (Comments on the (post)- modernist debate I)*, in: *Streven* 1987: Feb., 409/417; same title II, in: *Streven* 1987: March, 505/514;
- of course also : J.-Fr. Lyotard, *La condition Postmodernne*, Paris 1977.

Main theme: we are caught up in the 'tradition' of enlightened rationalism: do we, now, belong to the continuation of that enlightenment (the modern) or has it served its purpose and is 'something new' (the postmodern) on the way? Opposite the enlightened mind, with its fundamentalism (foundationism, foundationalism: H.O. 284), the Postmodernist opposes the designing thinker, called the 'aesthete' by Laermans, who prefers to introduce new language, new ideas into this world.

H.O. 300.

As *an aside*, this contrast is reminiscent of the second kind of intelligentsia, the Music (H.O. 186), but does not necessarily coincide with it. One is primarily Postmodern(ist), to the extent that one may think and live Enlightenment rationally, but rejects the fundatio(nal)ism that characterizes - at least to a high degree - the Enlightener.

Conclusion: the Postmodernist is indeed Modernist, if the term is meant in opposition to Traditionalist, but Post-Modernist, if it is meant to take a stand against what is called "Modern," -- especially in the foundationalist sense.

The essence of "Modern" (Postmodernist).

Laermans characterizes as follows.

(a). -- As an epoch, in the XVI- the century (compare with H.O. 161: 1450/1640) the modern begins. We are still living in it. Reason: in that century economic-social modernization begins. It comes slowly.

(b).-- 1789/1848 is called -- according to *E. Hobbawn* -- "*the age of revolutions*" (H.O. 134): two basic revolutions take place, namely the French Revolution and, in England, the Industrial Revolution (H.O. 147). One is primarily political, the other primarily economic.

a. In the wake of both revolutions a series of phenomena occur which give substance to the term "modernization": secularization (H.O. 134; 145; 196; 199; 240; 268), emergence of "the masses" as a social phenomenon, urbanization (i. e. the rise of the Modern cities and metropolises, to the detriment of the countryside), increase of scale (think of the corporations), bureaucratization (think of the various 'services', with which man has to deal), internationalization (of trade, traffic, tourism, etc.).

b. Capitalism (H.O. 147v.; 238vv.), within that modernity, 'institutionalizes', builds as a fixed component in) modernization, in a strictly economic sense: competition ('remain competitive') forces enterprises to continually renew modes of production, consumer goods, lifestyles.

H.O. 301.

The duality of "modernity" (as existence).

Marshall Berman, All That Is Solid, Melts Into Air (The Experience of Modernity), London, 1985, typifies - in my opinion very rightly - what the person caught up in the process of Modernization, indeed dragged along, experiences, internally speaking (cf. H.O. 63: existential coherence). Berman calls this way of "personally living through" "modernity".

A.-- On the one hand, constant change comes across as a threat: one is never sure; the basic certainties, i.e., the ideas brought up by education, they too are constantly 'questioned' (this explains the title: "All that is solid, melts into air"). Man, who acts in traditional societies, can live by "solid ideas" - this is how tradition comes across - but not today's man.

B.-- On the other hand, Modern man lives through the fact that he, with his contemporaries, can "revolutionize," as a hubris ("Faustian" sense of life, to speak with Goethe): unprecedented possibilities, designs, innovations, are in his power.

C. -- *Harmony of opposites:*

'Modernity' - says Berman - is precisely the merging or alternation, in one and the same person, of fear of the threat and hubris in the face of what one can handle.

Robert Musil (1880/1942) - in *Der Mann ohne Eigenschaften* (The man without qualities), (1930/1942) - has spoken of "possibility laboratory". Laermans believes that "there is much to be said for" the proposition that the predominant tendency in Modern philosophy tends to tie in with the fear side (with the need for Foundationalism, need for accountability, need for proof), while the postmodernist tendency in philosophy tends to tie in with the hubris side (designing possibilities).

In doing so, he defines "modernism" and "postmodernism" as forms of reflection on the modern world of living. One of those ways of thinking ('reflection') is philosophical. - It concerns ontology, i.e..

But beware: Laermans, in Part II of his article, also talks about the "a-modernism" of J. Derrida, the deconstructionist (H.O. 96) and difference thinker (H.O. 177) and the "sur-modernism" of R. Rorty.

H.O. 302.

Comparison.

a. Fr. Engels (1820/1895), in his *Ludwig Feuerbach und der Ausgang der klassischen Philosophie*, (Ludwig Feuerbach and the Exit of Classical Philosophy,), Stuttgart, 1888, says: "Just as the Bourgeoisie (H.O. 147) - through large-scale industry, competition, and the world market - practically weakens all stable institutions made venerable by its age, so does dialectical philosophy fade away.

Note: Engels is speaking of Hegel's philosophy-, all representations concerning a final, absolute truth and the states of mankind, as absolute as that truth, which correspond to it: for the dialectic philosophy, nothing exists which is final, absolute, sacred; it proves concerning everything that it is transitory. For it, nothing exists except the uninterrupted process of arising and passing away. (...).

It still has one conservative side: it recognizes the good right of well-defined phases of knowledge and society, insofar as they correspond to one particular time and to certain circumstances (H.O. 124: histori(ci)sm); but then no more than that.-- The conservatism of this view is relative, its revolutionary character is 'absolute,' -- the only 'absolute' it still allows to assert itself."

One can see that Hegel and Marx, as "dialecticians," saw modernity, as Berman describes it, in their own way. But Hegel and Marx did not, as yet, have the doubts concerning man - and his existential experience - in the midst of such a process of becoming and perishing.

b. That Berman, with his modernity, makes sense is also shown in *P. Hazard, La crise de la conscience européenne* (The crisis of the European conscience), (1680/1715), Paris, 1935, 3/29 (*De la stabilité au mouvement*).

"To be durable. To avoid all change, insofar as it destroys a miraculous balance: such is the wish of the classical age (*note: the XVIIIth century*)."

Exactly that is emitted from 1680 onwards: everything is called into question.

Modernity would, thus, according to Hazard, conquer France and the rest of Europe in that critical period from 1680 to 1715. His book is a long proof of it.

So much for the introduction, which involves the present problem in our inquiry into the essence of modern enlightened rationalism, -- inquiry, which can now commence.

H.O. 303.

II.C. (I).-- *The two main types of rationalism.*

W. Bertley, *Flucht ins Engagement (Versuch einer Theorie des offenen Geistes)*, (Escape into Commitment (Attempt at a Theory of the Open Mind)), Munich, 1962, 118ff., says concerning this what follows.

(i) Main question: "In what does the essence of the rational authority or of the rational criterion (i.e. means of knowledge), on which the rationalist relies, consist to justify his opinions?"

(ii) The answer is twofold.

a. The pure rationalists - also called 'intellectualists' by Bartley, such as R. Descartes (1596/1650), B. de Spinoza (1632/1677), G.W. Leibniz (1646/1716), situate the 'rational' foundation ('authority') in the intellect, reason itself : is 'Rational' the one who justifies the individual opinion in virtue of the intellectual, intellectually-reasonable contemplation ('intuition'), i.e. an immediate spiritual (= intellectually-reasonable) form of contemplation of the essence of the data itself.-- Compare this with the Platonic 'noble yoke' (H.O. 8) our individual mind is in undisturbed and direct contact with the data themselves, in their rational core.

b. The empiricist rationalists or empiricists, for short, such as Francis Bacon of Verulam (1561/1626) (H.O. 114;169), the first Modern theorist of induction, J. Locke (1632/1704; the formal father of Anglo-Saxon Enlightenment thought), D. Hume (1711/1776), situate the "rational" foundation in reason, insofar as supported by sensory experience. An individual opinion is justified, insofar as it can put forward - empirically, indeed experimentally (H.O. 156) tested - arguments.

This dual view also establishes *Chr. Dawson, Crisis of Western Education*, Tielt / The Hague, 1963: "Francis Bacon's inductive method did not, by any stretch of the imagination, resemble Descartes's ideal of a single universal and pure theory of quantity, from which nature could be derived entirely. Nevertheless, both made essential contributions to the development of the Modern scientific mind.

The bringing together of these two traditions, by introducing English ideas into France and mixing English empiricism with French rationalism, ushered in the century of enlightenment." (O.c.,62).

H.O. 304.

The scientific model.

Now reread H.O. 280/295: modern mathematics; 247/279: modern natural science: thou wilt find in both chapters the name of René Descartes, in the first ranks. See H.O. 276: Newton counts Descartes among the "giants" on whose shoulders he was lifted. See at H.O. 294v. how Descartes, one morning, by inspiration, found the central piece of analytic geometry.

'*Vers une nouvelle rationalité*', was the enticing title in *Le Figaro-Magazine* (18.10.86). The Centre roumain, as well as Hyperion, an association, are organizing a debate with dialogue on whether we are moving towards a new form of 'rationality'. On Thursday 16.10. 1986, at 15.00, "A l' université Paris-Sorbonne", then still.-- This is clearly a parallel with Modernism/ Postmodernism. What was current in the days of Descartes is, apparently, still is.

E. Coreth, Einf. i. d. Phil. d. Neuzeit, I (Rationalismus/ Empirismus/ Aufklärung), 33, explains in more detail how modern professional science is for the first time, model.

"The novelty, which is getting off the ground here, is situated in the attempt to account for philosophy as a rigorous science.

(i) The natural sciences - especially physics and astronomy - had, at that time, through Copernicus (H.O. 248), Kepler (H.O. 248), and Galilei (H.O. 304v.), made a hitherto unheard of progress, precisely because they had discovered, developed, and applied the method appropriate to its being. Thus they had achieved the status of a rigorous, methodically certain science.

(ii) "In contrast, the philosophy of those days exhibited a divergent and confused outlook," to that Coreth. Coreth emphasizes that, in those days, two main attitudes were at play.

a. The skeptical (H.O. 156; 271vv: nominalism, even in a Pope);

b. The professional scientist.-The latter path Descartes chooses.-- "Four years after Galileo's condemnation (H.O. 274), *Descartes* published his *Discours de la method* (1637). One can only understand the success of this work, which underlies the whole science and philosophy of modern times, if one sees that it finally laid a reliable foundation for the new scientific rationality." (*E. Vanden Berghe, "Heavily Suspected of Heresy*; in: *Collationes* (V1.Tijschr. v. Theol. and Past.) 13 (1983): 3 (Oct.), 328).

H.O. 305.

'Rationality' means - H.O. 272 - the fitting together (harmony) of our scientific knowing (subjective rationality) and the knowability of reality (objective rationality).

The dual scientific model.

So Descartes wants method. Method, as in the new sciences. Method, as in the new natural sciences. In it we establish the harmony of two partial methods.

1.-- "On the one hand, there is observation, methodically carried through in determination and experiment (H.O. 249: a new paradigm); on the other hand, there is the application of exact mathematical thinking (H.O. 257: mathematical language), which grasps the physical processes and formulates the laws of them." (Coreth, o.c., 34).

2.-- If this paragon is transferred to philosophy, whereby a re-establishment based on a first starting point and first presuppositions was meant, then the philosopher must choose one of the two aspects or even the harmony of both.

A.-- If the thinker chooses first, rationally transparent starting points, from which, thanks to deductive reasoning, all further knowledge becomes derivable,--according to the mathematical model, one tends to pure rationalism. One thinks of Eukleides' geometry.

B.-- Does one, however, choose, as starting points, data of observation, from which one then induces general laws, -- according to the model of the physical of those days, one tends to empiricist rationalism.

It is striking that, in the philosophy of those days, one either tried to think purely rationally or empirically-rational. This led to a contradiction within Rationalism, which is only bridged by Kant (1724/ 1804) (at least he tries to make a synthesis).

II.C.(II).-- *The methodical system as an ideal.*

Coreth, o.c., 34f., explains where the foundation(al)ism, peculiar to both types of rationality, shows itself most clearly.-- Both the pure Rationalist and the empirical-Rationalist seek two phases.

A.-- Both want first, immediately evident, ideally apodictic, unquestionable or undoubted, knowledge (pure understanding, perception), which can serve as a starting point, foundation, 'foundation'.

H.O. 306.

For example, Descartes lays a double foundation.

(i) A purely philosophical one: the absolute certainty of the cogito (I am conscious; H.O. 13; 72/74: Augustinian cogito; see esp. 74: the difference with Descartes): in my inner self - this is how anyone (universal scope) can reason - I am aware that I am in touch with my representations (representationism, illationism, mediatism (H.O. 152/154: subjectivism)).

(ii) A theological basis as well: in his *Meditationes de prima philosophia* (1640) Descartes reckons with a reproach. An evil spirit (un mallin génie) could deceive this inner consciousness of the cogito! To which Descartes replies: God's goodness is beyond his omnipotence; therefore he cannot want me to be constantly deceived) this, because he is infinitely good. Thus Descartes lays a rationally secure foundation both for science and for philosophy.

Note: one speaks, in this context, of innatism (innéisme): according to Descartes, the representations, within our consciousness, which resist rational criticism and, therefore, provide certainty, are innate.

Decision.-- Such 'idées claires et distinctes' escape skepticism (nominalism). Similarly, Locke lays a foundation : sensory experiences. These were immediately given. But note that they are directly contactable within consciousness with its representations. Here too mediatism prevails: what our senses perceive does not give us the objective things themselves, but only the impressions, ideas, representations of those objective things (again: subjectivism).

Conclusion: although there is again certainty, although there is again a kind of noble yoke (the attunement of subject to object; H.O. 8), the object outside the mind (reason) is only indirectly accessible. This, as a result of the nominalistic thinking climate, in which the whole of Modern philosophy is situated (H.O. 158). The way out of Nominalism, end of Middle Ages, is incomplete.

H.O. 307.

B.-- Both, the pure-Rationalist and the empirical-Rationalist, want, on that foundation methodically to construct the system or system of the whole philosophy. -- "Such a thing involves a radically new will to build a system methodically."

1. In the entire previous philosophy there was never a system of that kind. Neither in Greek antiquity nor in the Scholastics of the Middle Ages. The great philosophical and theological summae (H.O. 105; 131), i.e. systematic expositions (think of the *Summa theologica* of *S. Thomas Aquinas*), were indeed systematic works, in the sense that they set forth its subject matter - meaningfully and in an orderly fashion - conveniently arranged. But they never had the pretense of building a strict-methodical system.

2. Such a thing is only now appearing: from a first point of departure, each step must, methodically, be rigorously proved,--holding nothing in advance that has not already been proved. (...) This ideal reaches, with Hegel, its highest claim: 'in the absolute method of the absolute system'. (Coreth, o.c.,34f.).

Criticism of foundationalism (307/312)

(1) The Empirical-Rationalists expressed all kinds of criticisms of the pure-Rationalist propositions,--especially Locke and Hume. Instead of counting on innate conceptions and a "good" God as proofs, the Empiricists counted on "nature," which cannot deceive. Thus, e.g., Hume got rid of the naive belief in God, angels, devils and so on. From sensory experience they were not inducible, of course. And pure-Rational reasoning, based on clear and obvious representations, did not, to be sure, convince the Empiricist Hume.

(2) But Hume also ran into difficulties with induction: science, with its strictly general laws, was nowhere directly deducible from the senses. Likewise the existence of fellow men (H.O. 154) and of memory (memory). Remains a solipsism: I exist in my conscious interior, alone (*solus ipse*) and what is outside (the 'outer-world') is at least uncertain.

Conclusion: both pure Rationalism and empirical Rationalism find, over time, no apodictic criterion, showing that absolute certainty, in a system, is possible.

H.O. 308.

This two-part aspect of the self-subversion that rationalism exhibits, during its short history, shows both the will to be a true foundationism and its immanent failure.

Coreth, o.c.,35, gives his explanation of this: both pure Rationalism (which imagined that it could capture the representations of data pure, pure in essence, and direct, undetermined, uninterpreted, (H.O. 273) could lay down in a closed, purely rationally justified system) and empirical Rationalism (which imagined that it could lay down the representations of sense-perceptible data, in an unduplicated, 'purely rational' way, in an equally closed system (but then empirically closed)) get stuck in the fact that - just like the pre-scientific knowledge also - the so-called professional scientific knowledge, is already, unnoticed or not, another form of interpretation.

In other words: a theory of interpretation (theory of interpretation,-- one calls it "hermeneutics" or not) and an already unconsciously applied theory of interpretation underlie that so-called "foundationalism".

In Coreth's terms: "Alle - auch noch so unmittelbar (*op.*: undeclared) erscheinende - Erkenntnis ist schon vermittelt" (All - even as 'immediately (i.e. without the intervening term of some kind of interpretation) appearing - knowledge is already be-mittel-d (*op.*: provided with an interpretation term)). With reference to e.g. Latin (French): all knowledge perceived as 'immediate' (e.g. the Cartesian-scientific or the Baconian-scientific) is already mediate. Coreth adds that the later either criticalist Rationalism of Kant or the dialectical Rationalism of Hegel seek to overtake (undo) or accept (Hegel) precisely that interpretive character - in their view: situated only in the thinking subject - either (Kant) (for Hegel all knowledge is and unmediated and interpreted).

Apart from Coreth's interpretation of the crisis of foundations (= foundationism crisis), which seems to us perfectly correct, reference should be made - briefly - to *G.E. Moore* (1873/1958), who, in the name of a kind of 'commonsensism' (H.O. 273), in his *A defence of commonsense* (1925), attacked foundationism and to *K. Popper* 1902/994), in his *Logik der forschung* (1934), who, Rationalist nine years after Moore, tried to show that 'justification' (proof, 'foundation') is finite and that not every knowledge needs to be 'grounded' (founded). If only because one cannot prove everything.

H.O. 309.

Who, of course, deserves to be mentioned here, is C.C.S. Peirce (1839/1914), better known - so it seems - as a semiotician, but less as an interpretation theorist. Also for Peirce, as for Hegel, all knowledge is and undeclared and interpreted. Or rather directly (i.e., in scientifically tested knowledge) and indirectly (i.e., in the thinking, speaking, and writing that accompanies every direct knowledge). Therefore a word about Peirce's criticism of Descartes.

Bibl. stitchpr.: *W.B. Gallie, Peirce and Pragmatism*, New York, 1966, 59/83.-- Peirce compares Descartes to the Scholasticism so beleaguered by Descartes.

1.-- Descartes (like the Scholastics (somewhat), in Augustine's wake (H.O. 72/74), but in a very limited way) founds (!) i.e. justifies, his system, first of all, on methodical doubt.

a. Whereas the Scholastics never questioned the 'founding' truths (because one simply cannot doubt them, without mowing the 'ground' (= justification) out from under one's feet), Descartes - as an enlightened mind - radically wants to allegedly 'doubt' them. After all, the Enlightener wants a radical break with the unreasoned, in his eyes 'unfounded' past, especially with religious-church thinking (der Scholastiek).

b. Peirce responds: a really-perfect doubt does not exist: We start out-even 'enlightened-answering ourselves, invariably, with all our prejudices."

Note:-- one such Cartesian prejudice was the combating of Scholasticism; another was nominalist mediatism (H.O. 152vv.; 306 (both pure and empirical Rat. harbor the 'subjectivist' prejudice)).

Our -- usually unconscious -- prejudices -- always Peirce says -- only really come into play when we have a firm (positive) reason to doubt; that is: insofar as our simultaneous beliefs are mutually contradictory.-- Well, Cartesian methodical doubt never achieves that thoroughness and genuineness.

H.O. 310.

2.-- Descartes -- to whom the Scholasticism referred, as a touchstone of certainty, the world church and, in particular, its theologians and philosophers -- situates certainty in the individual (H.O. 156: the autonomous subject).

In the rest of his epistemology, Peirce emphasizes "the logical (understand: epistemological) socialism; i.e., the fact that the professional scientists first await the judgment of the entire professional scientific world, before deciding on 'certainty'.

Which made J. Royce (1855/1916), in Peirce's wake speak of "interpreting community.

3.-- Descartes -- where Scholasticism presupposed a plurality of types of justification (from faith (Pope, Councils, Bible, theologians), from reason (philosophers)) -- recognizes only one type of justification, preferably the purely rational, if necessary the empirically rational.-- On that narrow subject-scientific -nominalist basis Descartes "constructed", literally, his "methodical system" (Coreth).

4.-- Descartes -- where Scholasticism did have its intellectually impenetrable mysteries, yet seeks to explain rationally all that has been created, in a type of rationalism (H.O. 144: general rat.), i.e. accountability method, labels many data not only as unexplained, but even as inexplicable.-- Which true scientific rationalism does not know (Peirce published this Descartes critique in *Journal of Speculative Philosophy* (1868)).

One confirmation.

R. Laermans, *Mod. krit. and Postmod. ret.*, I, 412, says what follows.

Richard Rorty (a Neo-Pragmatist; H.O. 301), in his *Philosophy and the Mirror of Nature* (cfr. R. Rorty, *Der Spiegel der Natur (Eine Kritik der Philosophie)*, Frankf.a.M., 1984), does - what is labeled as typically 'modern' (different from postmodern) philosophy - start with R. Descartes. This one would have asked, first, the question "How is true and objective knowledge possible?" (i.e., in Kantian language: the question of the conditions of possibility). In other words: Descartes, caught up in the emerged Modern subject sciences (H.O. 304), tries to "legitimize" (= rationally justify) them - as a claim to objective truth.

H.O. 311.

According to the proposer, Descartes, precisely because of this approach, controls all of "modern" philosophy: it would be, in his opinion at least, exclusively a theory of knowledge and, above all, of science.

With *Jurgen Habermas* (1929/...), belonging to (what is called) the 'second generation' of the Frankfurter Schule, who, in his *Der philosophische Diskurs der Moderne* (1985), also takes issue with foundationism (but then in Hegel, who is looking for ethical standards that can order 'modern chaos'; H.O. 301: Threat), Richard Rorty accuses 'modern philosophy' of having a 'metaphysical-theological' foundation system: it seeks - and this seems, today, to be the case with a number of thinkers - a kind of 'philosophical-theological' foundation system. 301: threat), Richard Rorty accuses 'modern philosophy' of having a 'metaphysical-theological' foundation system: it seeks - and this seems, today, to be a kind of 'philosophical outrage' among a number of thinkers - 'unquestionable reasons' on which the view that 'true' differs from 'false' and 'good' from 'evil' can support itself.

Laermans says, in doing so, that this speaking of both thinkers is a confirmation of

(i) Jacques Derrida (H.O. 96; 213; 301: a-modernism) and

(ii) Martin Heidegger (1889/1976; the "Fundamentalontologist," who accuses the whole of Western ontology of being "ontotheology," i.e., an account of Western behavior from a theory of being (onto-), which includes a theory of God (theo-)).

Conclusion: Heidegger (after Nietzsche, of course), Derrida, -- Rorty, Habermas,-- they reproach 'modernity' (one likes to use the neuter) for having remained 'un-modern', because it is linked to the previous tradition. 'Unmodernity', which lies in the new kind of foundationism!

Those who are still missed in this modernity-critical company are, of course, *Jean-François Lyotard* (H.O. 241; 299), who, in his *La condition postmoderne*, brands "modern" philosophy as an epistemological enterprise, which gives the "modern" professional sciences "méta-recits" (meta-stories-, i.e.- a set of stories, which is philosophical), in order to justify them rationally (foundationism),-- something, which Lyotard particularly reproaches Hegel,-- as well as Michel Foucault (H.O. 161; 169; 177; 184), in a lecture (1983) to the Collège de France (*Un cours inédit*, in: *Magazine littéraire* 1984, 207 s.), but... there it is -- instead of Descartes (Rorty) or Hegel (Habermas, Lyotard) -- *Kant* (in his famous text *Was ist Aufklärung?* (H.O. 146), in 1784 (1783), who is the 'perpetrator' of the crime of 'justification'.

H.O. 312.

1. With Kant begins - as he looks through 'actuality' (H.O. 123v.: new fil.; historicism) as a thinker - the self-criticism of the 'modern' thinker about himself. This is, of course, in a sense already 'postmodern' (for Kant distances himself from pure (Descartes) and empirical (Hume) rationalism, i.e. the philosophical actuality of his day).

2. But - e.g. in his *Kritik der reinen Vernunft* (Critique of Pure Reason), (1781-1) - Kant examines under which conditions true knowledge (especially the modern sciences, of course) is possible,-- but then in such a way that he seeks to justify it by unshakable 'fundamentent' (= foundational). Which insinuates that Kant would be both modern (unshakable justification) and postmodern (detachment from the whole of Rationalism).

Which, in my opinion, is also true of Descartes and Hume, as well as Hegel. But then in various degrees and in various ways.

II.C. (III). *The lemmatic-analytic critique of foundationism.*

(i) It is, without question, clear that the accusation 'foundationism' touches our whole course of 'ontology'.-- after all: this is a

a. reality theory (onto-logy),

b. relied on a theology (onto-theology), which tries to justify itself, as much as possible and within the limits of a deliberate fallibilism, which we inherited from the paleopythagoreans (the distinction between "wise" (= divine) and "philosophical" (= human, i.e. fallible)).

(ii) The answer, after all that we, have just written, can be brief. The lemmatic-analytic method (H.O. 282/284: Plat. meth. (esp. 284); 284v. plat. vakwet.) is both a foundationism (for it wants to justify, preferably on apodictic foundations) and a foundationism critique (for it considers the justification successful only if the lemma (hypothesis), on which the 'foundation' rests, is verifiable, after the fact).

Note.-- That - besides Platon - also his pupil Aristotle (H.O. 8/26) escapes 'fundamentalism' (another term for 'foundation(al)ism') - which, of course, is not true for all his followers, the so-called Peripateticists, tries to show W. Klever, *An epistemological error*, in: B. Delfgaauw et al, *Aristotle (His Significance for the World Today)*, Baarn, 1979, 36/47, to show.

H.O. 313.

(iii) The answer may, also, be phrased differently.

G. Deledalle, *Histoire de la philosophie américaine (De la Guerre de Sécession à la Seconde Guerre Mondiale)*, (History of American philosophy (from the Civil War to World War II)), Paris, 1954, talks about the "hypostatic abstraction" (compare with H.O. 9), adopted by C.S. Peirce (H.O. 309). He has adopted (and updated) it from John Duns Scotus (H.O. 129; 294;-- 116).

(a) *The Aristotelian-Thomistic abstraction*

see H.O. 10 - is the operation, carried out by the mind (reason/intellect) on singular-concrete data so that, through induction, the general concept ('essence') is exposed. This concept refers to the essence form of the phenomena in question. The frame is the noble yoke, i.e. the direct reciprocal knowing relationship between subject and object, such that our mind directly contacts reality.

(b) *The Skotist-Peircean "hypostatic" abstraction.*

This one is more indirect: our mind does reach, somewhat, the given self, but not in its entirety. Only a provisional form of being is grasped, as a lemma (abductively).

This provisional form of being (note that Peirce very explicitly calls himself "a scholastic realist") is such that he urges an active testing on account of the subject (mind), by, starting from that provisional form of being, working on, working with that from which that form of being originates (the object).

Peirce calls the creature form, several times, the thought sign, proper to the object. Peirce is, therefore, very definitely non-Nominalist. On comparison, especially with someone like O. Willmann (H.O. 47), the difference turns out to be smaller than it seems at first glance.

A radical Platonic idealist like Willmann, in his discussion of J. Locke's views, says very clearly that the idea of a given (a set of data) is only a "qualitas occulta," -- an "x": only further clarification (e.g., through experiment) can be conclusive about the clarified worm of being.

Sort of:

(i) abstraction to idea,

(ii) verify idea, before really being conclusive about that idea,--this is parallel to Scotus-Peirce's "hypostatic" abstraction.

Opm.-- J. Dewey, Le développement du pragmatisme américain, in: Revue de Métaphysique et de Morale 1922: 4 (oct./dec.), 411/430, says more than rightly that, in contrast to the classical tradition, which situates the justification in front, pragmatism, resp. peircian pragmatism situates the same justification both in front and afterwards (as much as possible).

H.O. 314.

"Pragmatism - says Dewey, a.c.,421 - occurs, thus, as an extension of historical empiricism, but with this fundamental difference that pragmatism no longer emphasizes prior phenomena ('les phenomenes antecedents'), but rather subsequent phenomena ('les phenomenes conséquents') (...).

An empiricism, which limits itself to summarizing the applicative models of the past, leaves no room for the possible and for freedom. Pragmatism thus acquires a metaphysical dimension. The doctrine of the value of consequences leads us to include the future in the investigation. This leads us to a conception of the universe, the evolution of which is not finished, -- a universe, which -- to speak with William James (1842/1910; the father of Pragmatism) -- is 'in the making'." What Dewey says of James's Pragmatism is true, at least as much, of Peirce's Pragmaticism, which is explicitly conceptualist (which James's Pragmatism is much, much less).

But - this we saw H.O. 32 - conceptual realism is only, Platonically speaking, immanent idealism, which has in transcendent idealism its counterpart, which it founds - through ideation.

(iv) The answer to the Foundationism critique has a further dimension: nowhere in this course have we cherished the Cartesian-Lockian pretension of constructing a methodically closed system, on the mere model of the modern professional sciences (especially the axiomatic-deductive ones). We leave that, for example, to a Spinoza or a Hegel.

(Every article, every book, on the evil of 'Foundationism', tries to justify the thesis against Foundationism as closed-logically as possible (if not attracting little attention). Yes, with the 'air' of absolute certainty that malady of 'Modern' thought is both proven and criticized. How 'foundational' it looks!

H.O. 315.

Decision.-- *I.M. Bochenski, Philosophical methods in modern science, Utr./ Antw., 1961, 93vv.; 126v., explains how Jan Lukasiewicz (1878/1956) classifies each justification ("argumentation") into two major classes.*

1 -- The deductive justification.

"If A, then B. Well, A. So B." -- One notices the lemmatic-analytic formulation. The lemma (hypothesis, 'abduction' (Peircian)) is "If A, then B".

2.-- The reductive accountability.

"If A, then B. Well, B. So A". Again: the same lemmatic-analytic (or hypothetical-deductive) wording.

a. The 'inductive account' is fundamentally a 'reductive account' "If all water, in normal conditions, boils at 100° Celsius, then this water, that water and all possibly singular water.-- Well, experimentally verified: this water and that water boils at 100° Celsius.-- So - amplificative induction - all water boils at 100° Celsius." This is the generalization (H.O. 114/117: Schol. natural law.; 250.2 (lemma / analysis); 252: law), peculiar to the inductive account. also H.O. 270 (nature = lawful).

b. The 'deductive justification' is clearly recognizable in H.O. 282/284 (the mathematics -- geometry, arithmetic -- is 'forward' method (lemmatic-analytic)), -- in 284vv. (the semiotic application of the lemma).

Decision.-- Without ever leaving the Platonic method, we can proceed both foundationally (strictly justifying, as far as possible) and yet not 'dogmatically-foundationally', but 'conditionally-foundationally'. -- This is the formal answer to the suggestion of a 'foundationalist' ontology.

II.C.(IV). Cartesian thinking as prematerialism.

C. Forest, O.P., Le Cartésianisme et l'orientation de la science moderne, (Cartesianism and the orientation of modern science), Liege / Paris, 1938, 3, writes: "Cartesianism, as a system (H.O. 305), was abandoned rather quickly. Yet Descartes, because of this, no less and continued to influence Modern philosophies and the Modern sciences."

One of the inferences, which a large part of the "moderns" derived from his way of thinking, is materialism.

(1) Tragedy of Descartes. - H.O. 150 (Occam); 212/214 (Luther); 238 (Calvin taught us examples of "tragedy": what they did not mean (unless implicit in the overtones of their texts), that very thing the best of their students deduced, very quickly, from their behavior (and their texts associated with that behavior).

H.O. 316

This is also evident, in passing, from Galileo's applicative model of that tragedy (H.O. 276v.).

Well, listen Forest: "The point is not to impute to Descartes the materialistic interpretation of science (...). He remained - until the end of his life - a believer. His 'spiritualism' (*note*: conviction that both ideas and merely incorporeal beings exist) is not questioned here.

But the ideas that people put into circulation often go beyond what they had anticipated. They pursue their path, through the thinking minds, with an inexorable logic". (O.c., 4). - Steller now explains how this, with Descartes, worked.

(2). Descartes' prematerialism.

(a) As seen H.O. 307, Descartes transferred the professional scientific ideal to all of philosophy (and theology), as a method.

(b) But - and this is where the scientific ideology begins (H.O. 309: Descartes' prejudices) - Descartes also introduced purely scientific lemmata ('postulates') into his system. This, in order to be able to refute - scientifically-proven - the Scholastic after all ('falsify' Popper would say).

How did he do this? "There are well-defined representations ('ideas') - says Descartes himself, in one of his letters -, which come about neither from the objects of the external world nor by virtue of an act of will, but only from the thinking faculty itself." That type of representations he labels as 'idées (= representations) claires et distinctes' (clear and distinct representations),-- as 'intuitions' (intuitions),-- as 'idées innées' (innate representations).

Their origin - and here is a vague residue of theological Platonism (H.O. 58 (Alb. v. Sm.); 257 (Galilei)) - is God's causality: "They are the expression of God's thought. He vouches for their reality value.-- Every 'clear and distinct representation' is, therefore, unquestionable (*note*: foundationism, on Plat.-theolog. basis true." (Forest, o.c., 4).

H.O. 317.

Cartesian dualism.

Among the "clear and distinct, God-given representations," there are two, which play a leading role, namely, the "representation," denoted by the term "étendue" (comprehensiveness), and the "representation," denoted by the term "pensee" (thinking).

On closer inspection, it appears that, at least in Descartes' view, the two representations have virtually nothing in common. "There are, at once, two worlds, one separated from the other : the world of matter and the world of 'mind' (thinking).

(1) Until then, philosophy had confined itself to distinguishing them.

(2) Descartes is going to separate them and even make them contradictory to each other." (Forest, o.c.,4).

As Forest, in the rest of his booklet, explains, this typical modern dualism - which is often attributed to Platonism, but very wrongly: there is a huge difference between Platonism and Cartesianism - is going to thoroughly re-design (biological) life and being human and, immediately, thanks to applied science (understand: ideology), reform it,-- in biology, in humanities and spiritual sciences.

From the traditional form of being to the Cartesian 'res extensa'-

In order to understand precisely what revolution Descartes is unleashing, one needs to know the tradition well. Read H.O. 12. There we learn, with Aristotle and Platon (the first purely abstract, the second also ideative), that the geometric form is only one aspect of the total essence of form. It is precisely here that the error of those Postcartesians sets -in, who transformed his still spiritualistically framed doctrine into their materialist one.

"Extensiveness (i.e., length, width, depth (= height); note: 293: Cartesian coordinate system) makes up the nature (*note*: being) of the bodily 'substance' (*note*: Descartes' term for 'being') and thinking ('cogitatio') makes up the nature of the thinking substance." (Descartes, Princ. phil. 1:53).

Note.-- This is an ideological circumscription of Galileo's distinction between secondary (qualitative) and primary (geometric) properties of matter (H.O 253).

'The extended thing' (res extensa) is purely quantitative: with that 'extendedness', aspects such as geometric weight, motion etc., insofar as they are expressible in mathematical language, are included.

H.O. 318.

"Instead of simply putting the qualities (*note* : colors, sounds, smells, tastes,--as lived experiences) in their place within the totality of our knowledge, Descartes deleted them, designated them as 'illusions' of our consciousness. From now on, the world will be soundless, colorless, taste-free, odorless for the professional scientist. It will seek in the phenomena, only that which is amenable to mathematical measurement.

Such mechani(c)stical interpretations of the universe - reminiscent of Antique Greek atomism (*note*: Leukippos v. Miletos and his student Demokritos of Abdera (-460/-370)) - will form the background of all modern cosmologies (*op.*: universe views)". (Forest, o.c.,5).

A scientist like Pierre Duhem (1861/1916), a philosopher like Henri Bergson (1859/1941),---they demonstrated the one-sidedness of such a mechanism. Someone like *Alexis Carrel* (1873/1944; Nobel laureate in physiology and medicine, 1912, in *L'homme, cet inconnu* (1935) as a culturologist, denounced mechanicism: "It involved our civilization, in a science, which was experiencing its triumph, but this, while man was perishing from it".

Applicative model.-- Biology was the first field, to which Descartes applied his dualism.-- All that is not "thinking" is moving, measurable, mechanical extensiveness. Consequence: the animal, for example, is, fundamentally, a kind of automaton,--a machine, in the nature of the devices, which we make. The only difference: the very large number of parts and the intricacy of their assembly.

Listen to the Cartesian Nicole Malebranche (1638/1715): "If an animal cries, it is according to the laws, which govern the escape of air from a body, in which that air is confined: between a dog that barks and a bell that resounds, there is no difference." (Forest, o.c.,6).

Of course, Modern science has not stuck to that degree of mechanicism. But still: for the scientist (scientist, who thinks mechanically on the model of Cartesian-inspired science) biology reduces itself - as much as possible - to physics, chemistry and mathematics.

Fashion, ideology, method.

Of course, as a purely ideology-free method, such a biology is justified. But - fashionable, at certain times, aside - as an ideology, i.e., as an a-priori constructed theory, without sufficient confirmation in experience, mechanistic scientism cannot pass muster.

H.O. 319,

Applicable model.

If biology was one of the applications, humanities (anthropology) is the second.

1. The Catholic thinker *J. Maritain* (1882/1973; Neothomist), in *Le songe de Descartes* (1932), already in *Religion et culture* (1930) brilliantly summarizes what Descartes conceived as the paradigm (idea) of man: already during this earthly life he has made of man's soul what S. Thomas Aquinas (H.O. 106) pronounces of the angel; namely, it is an enduring spiritual "substance" (being).

2. Maritain summarizes Descartes' human science dualism as follows: "un ange habitant une machine" (an angel, inhabiting an apparatus; 'apparatus'; H.O. 318). Or still: "un ange conduisant une machine" (an angel, who controls an apparatus).

The critique of occultists.

All the theosophies (H.O. 64; 66; 69), which provide philosophy, without excluding occult phenomena, ideologically, pretty much all agree that man is structured in three parts:

a. gross material body (which may have a machine-like aspect, but is first and foremost a living organism);

b. fine or rarefied ("subtle" says the Church language in this regard) soul body (eventual, plural), - and this as an intermediary between the coarse material and the pure spiritual (incorporeal) being;

c. mere immaterial soul or deeper self.

We will not discuss this further. Except for this: many Church Fathers seem, clearly or hesitantly, to put this or that (Biblically circumscribed) triad first.

Decision.-- Once again Descartes' tragedy.

(1) Descartes was both philosophically and as a believer (for that is what he appears to have remained radically) a spiritualist, i.e. he assumed, in addition to mere matter, also immaterial spirit. He was not a 'materialist' or even, in a strict sense, a 'prematerialist' (Forest, o.c.,9).

H.O. 320.

(2) And yet *Voltaire* (1694/1778), main figure of the aggressive enlightenment in France, in his *Oeuvres complètes* (1784), t. 31:1, "cites many people, whom he knew, who claimed that 'Cartesianism' (note: not Descartes himself and his texts) led them not even to believe in god anymore." (Fr. A. Lange, *Geschichte des Materialismus und Kritik seiner Bedeutung in der Gegenwart*, I (*Geschichte des Materialismus bis auf Kant*), Leipzig, 1866-1, 368).

II.C.(V). -- Two samples of true materialism.

We are not, here, going to give an account of materialism. Reference is made to:

(1) Lange 's so-so thorough, non-Materialist study;

(2) Further: *Science et materialisme (Recherches et Débats du Centre Catholique des Intellectuels de France)*, No 41 (1962: Dec.),-- esp. 37/70 (D. Dubarle, O.P., *Concept de la matière et discussions sur le matérialisme*);

-- O. Bloch, *Le matérialisme*, Paris, 1985 (e.g. 59/61: *Le mécanisme cartésien*)

-- J.K. Feibleman, *The New Materialism*, The Hague, 1970;

-- R. Desne, *près.*, *Les matérialistes français de 1750 à 1800*, Paris, 1965.

***Le marquis de Sade* (1740/1814) as a materialist Rationalist.**

De Sade is, still, "in"! Signs of it:

(1) his *Justine or the Adversity of Virtue*, , Amsterdam, 1967-1; 1978-11 (*Justine ou les malheurs de la vertu* (1791), is, at the 'civic' price of 150 Belg. Fr., on our Dutch-language book market;

(2) His *Les cent vingt journées de Sodome* (The Hundred and Twenty Days of Sodom), were turned into film by none other than the filmmaker Pasolini, titled 'Salo'! This led to legal investigations in Switzerland, among other countries, into the 'ethical' value of such a high art product (autumn 1986).

Do we listen, with great attention, to a materialist: " My friends - says Durand (*note* : one of the female characters) - the more one studies nature (*note.*: the fundamental concept of Materialism), the more one wrests its secrets from it, the better one knows its energy. - And the more one becomes convinced of the uselessness of a god. The erection of this idol is, of all chimeras, the most odious, the most ridiculous, the most despicable. This unworthy fable, born in all men of fear, is the last effect of human folly.

Once again: it is to misunderstand nature (*note* : again that basic concept) to suppose an author; it is to blind oneself to all the effects of this first power (*note.*: again nature) to admit one who directs it". (R. Desne, o. c., 88s.).

H.O. 321.

In short, nature, which, with the 'Empirical-Rationalists (H.O. 303) already occupies the place, which, with the pure Rationalists, occupies the Deity (sometimes very vaguely and unbiblically), occupies - with the Materialist-Rationalists - a 'Divine' place. De Sade's term 'première puissance' could just as well be said by a Catholic thinker of God. Which proves that although the 'person(s)' of God, but not his 'deity' ('holiness') are easily eradicated: the Materialist-Rationalist also sits with a deep sense of reverence!

Note -- One rereads, now, H.O. 153 (Leo Apostle's testimony : "Once God had fallen away, I had to have something in its place"). Was, with the God-believer, the ontology threefold structured (I/ world/God), this threefold structure remains, but with the third term in vagueness (I/ world/ nature (first power) e.g.).

Sadian Feminist Rationalism.

Angela Carter, *La femme sadienne*, Paris, 1979, esp. 65s., emphasizes the rationalist. In de Sade's library, for example, were to be found: *Miguel de Cervantes* (1547/1616), *Don Quichotte de la Manche* (novel of 1605; 1615),-- *Mad. de Lafayette* (1634/1693), *La Princesse de Clèves* (novel; 1678);-- *Voltaire* (H.O. 319), *Oeuvres complètes* (eighty-five volumes) and *J.-J. Rousseau* (1712/1778; Sentimentalist-Rationalist), *Oeuvres complètes*.

According to Carter, o.c.,66, de Sade subjects precisely that world of rationality (typical of and Voltaire and Rousseau) to his type of criticism. This, clothed in pornography.

An applicative model.

Juliette, the chilling heroine of de Sade, can claim, in the style of one of Voltaire's heroic characters, "I am guided by no other light than the light of my own reason."

What else does Carter say: originally de Sade, for on his time, no doubt!

(i) The right to 'freedom' (understand: the expression of desire ('le désir')) (H.O. 135; 137v.: permissive 'idea of freedom') of women,-- and that is : right to sexual freedom.

(ii) The pornographically powerful women, in his works, still work tone by tone in an atmosphere, which - at least according to Carter - is only an "imagined world.

H.O. 322.

Note: either Carter knows the world of 'sex' as it has, since 1955+, from the Scandinavian countries and Hamburg, flooded the entire 'civilized' (?) world, and then her language is incomprehensible, when she says that de Sade foreshadows 'imagined worlds' or she does not know this 'sex' (literature, halls, clubs, video etc. included), but then her elementary capacity for information must be doubted. Our thesis is the following: de Sade was long past his time and, by prior observation, lived in ours.

Note.-- B. Russell (1872/1970), the noted pacifist, great admirer of J. Locke (H.O. 303), who is at the origin of our Modern Democracy, cultivated "progressive, no taboo respecting conceptions" and sought to introduce these "conceptions" into education. He resides, in 1938 and beyond, in Chicago, Los Angeles, New York City. The Urban University of New York dared to appoint Russell, notwithstanding his "liberal" (in Anglo-Saxon countries this is the name) views. Russell teaches there - what he calls - 'free morality'.

Two years later, the parents organize an association "for the safeguarding of public morality. They file a lawsuit and win the trial. Russell was banned from teaching that 'free morality'. Closer to us: the so in certain circles - also 'Catholic' (weren't there certain magazines, which call themselves 'Catholic', that recommended it?) - valued little red book for schoolchildren by "a working group of 'critical' teachers, in constant consultation with their pupils" (sic), notably Claartje Hulsenbeck, Jan Louman, Anton Oskamp (Utrecht,1970).

We let naive people like Carter read, "In school, a distinction is often made between thinking and doing subjects. Modern education seeks not only to talk to students, but also to show them 'things.' - So why shouldn't that be the case with the subject of sex? In classes - if you get them - ask for materials, such as sex films, magazines, comics, contraceptives, etc." (O.c.,101).

Conclusion: de Sade lived in very real worlds but he was thereby, prophetic.

H.O. 323.

On page 68 of her work, Carter herself says, "De Sade remains a monument to civility. At once monstrous and impressive."-- Yet I would like to believe that he put pornography "in the service of women. Or, perhaps, that he was employing, in pornography, an ideology that is not the antithesis of 'the women's movement' as a defanging movement.

So - in that spirit - let us pay tribute to 'the old devil' and begin by quoting this pleasant piece of 'rhetoric': "Charming generation! Free shalt thou be. You will enjoy, like the men, all the sensual pleasures that 'nature' (H.O. 321) imposes on you as a duty. Halt thou not for any lust.

The 'divine part' of humanity,--should this then inevitably be shackled by the 'other part'? Ah, do your shackles break: 'nature' wants it".

With this citation of de Sade, Carter seals her agreement with women's emancipation, -- not as de Sade conceived it -- far from it -- but less consistently. For if de Sade possesses anything, as an intellectual, it is logic, i.e., a sense for consistent reasoning,--which means: to deduce conclusions from presuppositions (here : nature, peculiar to rationalism, --along with self-empowerment (H.O. 146: empowerment), equally peculiar to Rationalism (Russell got that, "Critical teachers" got that pretty well)).

Which, in Platonic terms, is called 'forward derivation' but without any backward derivation; H.O. 283). 'Reasoning through; in vernacular terms.

The "intellectual" after-effects of de Sade.

Despite "moral facts" (= aggression and sex,-- the two Freudian themata), despite twenty-seven years in prison,-- thanks to texts (H.O. 181: de Sade, like Luther, had the sense for text dissemination; cfr H.O. 231), though strictly barred by Churches and states, yes, persecuted, nevertheless read and passed on everywhere,--printed again and again in secret (?) (yes, the Modern printing press invention),-- de Sade has among his known (of those who "do not want to have known", we do not speak) readers Sainte-Beuve (1804/1869; lit. critic), Baudelaire (1821/1867; initiator of so-called "Modern" French poetry; H.O. 297); Swinburne (1837/1909; English writer), further: Lamartine (1790/1869; romantic poet), Barbey d'Aurevilly (1808/1889; novelist), Lautréamont (1846/ 1870; French forerunner of Surrealism (HO 297));-- Dostojewski (1821/1881; the great Russian novelist), Kafka (1883/1924; very famous novelist);-- J. Paulhan (1844/1968; writer), M. Blanchot (1907/2003; critic), *M. Nadeau* (known for his *Histoire du Surréalisme*, Paris, I, 1945; II (*Documents surréalistes*), 1948).

H.O. 324.

Last but not least *Simone de Beauvoir* (1908/1986; the 'Sartreuse', who among other things *Faut-il brûler Sade?* Wrote (in Privileges, Paris, 1944)). She ends her long study of de Sade with the following sentence:

"The real value of de Sade's example lies in the fact that it disturbs us. He forces us to ask anew the essential question, which, in a contemporary way, also forces our time to think about, namely, 'What is the true relationship of one man to another?'"

In other words, this combative Existentialist advocate of women's rights (H.O. 135), like Carter, also takes de Sade seriously.

Libertinism and Rationalism.

First, a convincing text.-- *Marquis de Sade, Justine or the Adversity of Virtue*, Amsterdam, 1978-11, 318vv, mentions, in the text itself, the term 'libertine'; Thus: "At the same time that libertine, shamelessly, pulled up my skirts". (O.c., 318).

"Rocking like someone who is dying, this incorrigible libertine thereby uttered even more terrible blasphemies of God." (O.c., 321). - "(...) The two libertines, bent over me (...)". (O.c., 321)". - "My buttocks serve, for some, as a lascivious spectacle, - for others, as the target of their cruelty: our two libertines (...) finally withdraw (...)". (O.c., 323).- "The two libertines grabbed me". (O.c., 326).

Conclusion: it is impossibly just coincidental that the excellent writer, who is de Sade, mentions the term "libertine" in his theory-laden novel.

Well, we have means of testing: A. Adam, *Les libertins au XVIIIe siècle*, Paris, 1964.-
- Steller, in his introduction, brings out several types of libertinism, lusty-wild but rational in every case, cool-calculating but equally rational.

H.O. 325.

Listen to Adam, o.c.,7: "Around 1620 - *note*: Descartes was born in 1596; Galileo experiences his conflict in 1610+ - free-spiritedness ('le libertinage') grows.

Note: 'libertinage' is

(i) lack of respect for what religion is and

(ii) immorality - out into a running fire that carried away a good part of the young nobility of Paris". The most thoughtful natures among them - o.c., 8 - have a "philosophy" : neither to the God of the Bible nor to that of the spiritualistic tradition (H.O. 319: Descartes) they believe; but they do value destiny ("le Destin"), i.e. the supreme law (cf. H.O. 321, "Première Puissance"), which has ordered nature (H.O. 321) and is ordering it ever more.

They do, however, also believe in "living principles," which move from one form (H.O. 317) to another, in an eternal movement, to make those "forms" alive,--this, while they do not believe in the immortality of a pure incorporeal soul.

Conclusion: All religions, the Biblical-Christian first, are, for them, forms of politically intended popular deception, whereby powerful people 'make wise' to powerless people that there is deity and moral law "what have they made us all think?". - To subjugate us and peddle their false morality, in which 'they themselves' do not 'believe' either; H.O. 218vv. (natural theology)).

Hence their libertarianism or anarchism, which, at the time, they could not work out, but which was prophetic, as de Sade also saw prophetically correct. As H.O. 138 taught us: they foresaw, foretold a European civilization (a typical XVIII - d' century term), which was permissive ('free morality; H.O. 322). That the Church authorities, at Paris, were concerned about that type of 'modern freedoms', at least the Catholic will have to understand anyway. It is not without reason that Simone de Beauvoir says of de Sade that he "worries us." The same, in an analogous sense, was true then.

A little further, Adam (o.c., 12s.) says of the 'critical' type of freethinking (freethinking) that it is 'illuminé' (= 'éclairé; 'Enlightened') and calls itself so. This means: obtained from the errors of the common people (H.O. 186: intelligentsia), they follow 'the light of their reason' (H.O. 145: 'enlightenment'), through which they see through the deceptions and delusions by which the common mind allows itself to be deceived.

H.O. 326.

Conclusion: A true enlightenment already exists around 1620, about which most people remain silent, either because they do not even suspect libertinism or because they deliberately conceal it in order to put the enlightenment in a more favorable light. All the essential elements of the XVIII- d'century Enlightenment, in embryonic form, are then already present. Not so much a Galilei or a Descartes, but an unknown as Theophile De Viau (o.c.,7) or as Gaston D' Orleans (o.c.,9); or still the author of "Les Quatraines du Déiste" (o.c., 10), around 1624 make up the Enlightenment of that time. A Gassendi (1592/1655; the rival of Descartes) (O.c.,15) or a La Mothe le Vayer (1588/1672; was 'précepteur' (educator) of Louis XIV) are, somewhat, better known. Although not a 'lusty-wild' type of Libertines, they are nevertheless among the enlightened of the time, in the full XVIIth century.

De Sade at the end of 'the classic'.

M. Foucault, *Les mots et les choses*, Paris, 1966 (cfr. H.O. 161vv.; 169; 177; 184; 311), situates de Sade at the end of the classical era. This, in "*Le désir et la représentation*" (o.c., 221/224). As *Don Quixote* (Cervantes; H.O. 321) stands at the beginning of the classical, so de Sade stands at the "end."

What is that "end"? "Sade reaches the end of the discourse and of the classical thought. He rules exactly at their limit. From him, violence, life and death (H.O. 94: harmony of opposites), desire, sexuality will extend, below the representation, an immense sheet of shadow that we now try to take up as we can." (O.c.,224).

J. Rajchman, *Michel Foucault (La liberté de savoir)* Paris, 1987, 37ss., also discusses this interpretation of de Sade by Foucault.-- In common-sense language: the classical era, the XVIIth century, especially, expressed everything in 'représentations' (representations; H.O. 306: both Descartes and Locke live by and within their 'representations; with which they order the data of experience or consciousness). This was done as orderly as possible. With de Sade comes another life-world from the unconscious (H.O. 162/163.2), which involves 'life-and-death', and this from violence, sex,-- both arising from 'le désir' (the desire, libido).

Like the feminists Carter or de Beauvoir, so does Foucault, the Poststructuralist: he takes de Sade, as very significant for our time, very seriously.

H.O. 327.

Sadian ethics.

We can, after all the above, be very brief, R. Desne, p.c., 237, quotes de Sade himself: "We repeat it without ceasing: never will it occur to any 'wise' nation to condemn murder as a crime."-- (counter-model) For murder to be a crime, one would have to assume the possibility of destruction. Now, just now we saw that this proposition is unacceptable.

(Model:) I repeat: murder is only a change of form, in which neither the laws of the (biological) 'realms' (plants, animals, people) nor the laws of 'nature' (H.O. 321; 323; 325) lose anything at all, but in which both 'laws', on the contrary, gain enormously.

(Counter-model:) Why, then, punish a human being, just because he returned what used to be to the elements of nature - specifically: by murdering someone, the criminal is hastening the process of decay of his body - a portion of matter?

Materialistically, even a human being -- like all bodies of nature -- is a portion of matter,-- nothing more. This 'portion of matter' nevertheless returns to the elements of nature. These elements of nature, once they have returned to them, use this 'portion of matter' to compose new forms out of it. Is a fly worth more than a pasha or a Capuchin monk".

So much for this heart-stopping piece of typically materialistic prose. Of which we, now, make the analysis.

(1) Notice the reductionism: 'murder is merely a change of form',-- 'murder is merely bringing forward, via human intervention, what the natural process, somewhat later, does anyway, without 'fellow human' intervention', 'every body merely physical or even biological, is merely a 'portion of matter', -- nothing more. The adverb 'only' is characteristic of 'All that, rationally-materialistically, reduces the higher to the lower' (reductive reasoning,-- different from the merely logical reduction, which is the enlistment, in a reasoning, of an induction).

(2) The idea of 'form' is decisive: form is, here, not the complete form of being (H.O. 317: Cartes.), as the idealist tradition conceived it. But a 'reduced' (reduced to essence) form.

H.O. 328.

The systechy 'matter (content) / form' is the main idea. Admittedly, like the Libertines, de Sade must put forward 'living principles' (H.O. 325) that move from one form to another.

(3) One sees it again: de Sade is one of the innumerable cases of demonism, in the religious-historical sense (H.O. 94); nature, the basic idea, is "harmony of opposites": it composes new forms in order to break them down again - more or less accelerated - in a process of decay. Sadianism is, therefore, gloomy destiny (H.O. 325), fatalism.

Rev. "But not all materialists are like this".

That is evident. But: they are different, to the extent that they introduce idealistic residues into that logical-consequential materialism, as 'Fremdkörper' / (as things, which, logically, do not fit into it). Only idealism - especially theological idealism (H.O. 60: Albinos; 68: Klemens; 163.2: Pentecost) - sees and accepts the higher in its true and full form.

But let us not be naive. Let us read the famous Red Book for schoolchildren again (H.O. 322), to see how contemporary critical teachers, in cooperation with their students, reason (critically or not): "If it says in the newspaper that someone has committed a moral offense (H.O. 323: moral facts), it sounds worse than it is. It is then about someone who can only get ready in a certain, unusual way."

(Applicative Models)

(i) If you read that someone has 'acted lewdly', then he has, usually, opened his pants and shown his penis. He is then called an 'exhibitionist'.

(ii) If you read that a man or a woman "committed fornication with minors," then they masturbated in front of children. Or made love to children.

(iii) If you read about a voyeur, it is about a man or woman who likes to watch others do it. This one spies on lovemaking couples, who think they are alone. Occasionally, these people are thrown into a panic. This is because of the way others react to their behavior. They then no longer know what they are doing and sometimes it then comes to violence". (O.c.,100v.).

(1) The same reduction of the higher to the lower. Here in the sexual area.

(2) This reductive thinking is, in effect, condoning, in materialist-theoretical terms.

(3) A nominalism concerning hermeneutics (interpretation, interpretation is, here, at work:

H.O. 329.

(1) reality (reduced to its materialistic form) is e.g. "opened his pants and showed his penis;-- nothing more;

(2) the nomenclature (H.O. 2v.) is e.g. 'exhibitionism' (understood: as a crime), but this is a mere interpretation. In itself there is nothing wrong with this; however, it is not 'usual'. All moral standards are reduced to 'what is customary'. After all: reason! - "Opening his pants and showing his penis" is just a change of form! Where before the pants were closed and the penis invisible, now they are open and the penis visible. Nothing more. A higher appreciation of the sense of sex (H.O. 92 (planned by the Creator) see also H.O. 91) does not even arise anymore. Everything, if it comes to discussion, is, as with Protagoras of Abdera, a matter of opinions, i.e. free interpretations or interpretations. Nothing more. Reality - ontological - has no structure of its own, certainly not a moral one. The moral, at least the idealistic one, is "hineininterpretiert" (put into it, without sufficient reason in reality itself).

Conclusion: Such a materialism stands or falls with its ontology or reality definition. It is, if one is honest, the ontology of permissive society' -- this, in more or less logically-consequential variants. Cfr. H.O. 138; modern liberties.

Note.-- It would be worthwhile to examine the extent to which the Sturm und Drang movement, in its basic ideas, differs (but differs) from the Libertarian position. According to *Gisela Henckmann, Sturm und Drang*, in: *G. und I. Schweikle, Metzler Literaturlexikon*, Stuttgart, 1984, 428f., the essential core is the living through of oneself and the self-liberation of the individual as a bodily and animated totality, each individual being strictly incomparable (differentialism; H.O. 3) with all others. Prometheus and Faust are models. Passion is an integral part of the individual in his self-liberation from moral 'limits'.

Social criticism is done in this spirit.-- One sees it: at least some themata are common, no matter how different the totality is.

H.O. 330.

A second example of materialism.

Ernst Jünger (1895/1998), *Strahlungen*, Tübingen, 1949, 172f., gives us a second type of materialism, which clearly shows the nihilistic tendency, peculiar to materialism.-- By "nihilism" we mean, here, the denial in praxis and theory, of all higher values. we listen first.

"Lecture, in the evening, by one of those little 'Mauretanier', who elaborated, with a certain cynical (shameless) eloquence about the technique of influencing the masses, through propaganda.

This type of human being is undoubtedly new of its kind or, at least, new with respect to the XIX -th century.-- Such people know of true power emanation about so much or as one, who knows the technique of the epidural, of (true) love.

1. But without doubt: they possess an advantage, which lies entirely in the negative, - namely, they got rid of the baggage of morality earlier than the others; also: they introduced the laws of machine technology (H.O. 318: Cartesian mechanicism) into politics.

2. This lead, however, is made up. This does not happen, however, for example, by the moral man: for he is, in the face of unscrupulous violence, inevitably powerless. The advantage, in question, is nullified by people of the same type, who were apprenticed to them. For, in time, even the stupidest among them remarks: 'If he sweeps his feet of everything (*op.*: concerning ethics), on what ground does he require reverence for himself?'

Consequence: to expect religion and religiosity to restore order (*note*: which has been cracked by such a 'Mauretanian', cynically) is a mistake.-- Zoological realities are situated on the zoological plane; the demonic on the demonic plane. This means: the shark is caught by the giant squid and the devil by Beelzebub.

By the way: in the face of perfect cynicism (*op-ed*: unscrupulous shamelessness) - I have yet to learn such a thing - being indignant is pointless. After all: as long as he still annoys me, such a baboon has had a hold on me anyway.-

In the face of such a thing, one must act matter-of-factly: e.g., one calculates, quietly, how much such an unfeeling rhetor (speaker) contains in terms of bacon and grease and how long this might serve, after frying out, to lighten a staircase or how many service shoes one can lubricate with it.-- In this way, one keeps himself on the same level as that which characterizes his degree of 'spirit'."

H.O. 331.

Note.-- Jünger has dealt, intensively, with nihilism. Thus e.g. in *Ueber die Linie*, in: *W.F. Otto u.a., Anteile (Martin Heidegger zum 60. Geburtstag)*, Frankf.a.M., 1950, 245/284. In it he notes that Nietzsche and Dostojewski already saw that problem.

This problem dominates the current axiology (theory of values): *P. Schotsmans, The theory of values as a way out of our crisis of civilization*, in: *Onze Alma Mater* 1986: 2, 107/120, e.g., explains how - in our secularized world, in which "God is dead" (F. Nietzsche), a doctrine of values tries to offer a way out: one honors (higher) values, even without them being thought and sanctioned by God

Secularization, materialism, atheism,

they are, however, connected somewhere, even if they are not totally identical. -- That this is so is clear from Jünger's text.

Note: The term "nihilism" first appears in a letter (March 1799) from Fr. H. Jacobi (1743/1819), the founder of the philosophy of feeling and faith; Fr. von Baader (1765/1841), a theosophical follower of Schelling, the Romantic philosopher, speaks of "nihilismus" in 1824, meaning the denial of God and his revelation.

Ivan Turgenjef (1818/1883), *Fathers and Sons*, Moscow, 1862, has the sons, as critical deniers, label themselves as "nihilists".

With Dostoevsky and Nietzsche the word gets its most common meaning: to question all higher ideas, ideals and values. In other words: the renunciation of idealism.

Bibl. stitchpr.: *D. Arendt, Einl./ Hrsg., Nihilismus (Die Anfänge von Jacobi bis Nietzsche)*, Köln, 1970.

The core problem is the following: secularization kidnaps life (behavior) from Church thinking,-- then from religious thinking, finally from idealistic thinking. What remains, logically, is: a world of mere (scientifically or unanalyzed) facts, in which the enlightenment implemented no longer finds any norm or value higher than the totally free, liberal individual. Which our Mauretan proves.

H.O. 332.

The essence of nihilism, ontological understanding.

Jünger, who certainly knows de Sade, forgets that, already in the XVIIIth century the cynical well-being, which ignoring the divine idea (ideal, value; H.O. 60/62) can provide, existed. So this cynicism is not so new.

(1) *Ludwig Feuerbach* (1604/1872), who belongs to the radical-left wing of Hegelianism - which turns into materialism - has, in *Das Wesen des Christentums* (1841), distinguished the ordinary atheist-materialist from the nihilist in a theological way: "The true atheist is not the one who denies God. It is the one for whom the attributes (= being properties) of the deity - love, wisdom, justice - are nothing; 'Nothing' (in Latin: 'nihil') Feuerbach rightly says.

Better still true: is nihilist the one who pays reverence to the sacred, understood as 'All that is, inviolable as it is; labels it as 'nothing', nihil. The 'sacred' is written off as unreal.

(2) *J.P. Sartre* (1905/1980), *L'existentialisme est un humanisme*, Paris, 1946, 36, articulates the problem as follows.

a. He starts from the fact of being called "délaissement" (unsafeguarded, God-abandoned. H.O. 153: "Once God had fallen away"): "Nous sommes sur un plan, où il y a seulement des hommes" (We are on a plane, where there are only men), (Our (current) - note: secularized - situation is such that we live as if there were only men).

b. "When one speaks, now, of (God)abandonment (délaissement) - an expression, dear to Heidegger -, we only mean to say by this that God does not exist and that one must deduce (H.O. 283: forward method, Platonic; 323), to the extreme." (O.c.,36).

In other words: for Sartre, secularization is such that "God is dead" (Nietzsche),-- killed by Western secular civilization.-- But, unlike de Sade (or our Critical Teachers or Jünger's "Mauretancier"), Sartre does not rejoice in that: he is too ethical, like all true existentialists, for that matter.

(i) *The lay morality.*

"The existentialist (note: as Sartre, as an atheist, denotes him; for there are also God-believing existentialists) is in strong opposition to a certain type of lay morality; which, as cheaply as possible, wants to eliminate God.

H.O. 333.

When, around 1880, French professors attempted to establish a lay ethic ('une morale laïque'), they said, roughly, what follows.

(a) God is a useless and costly hypothesis; we drop it.

(b) Nevertheless, it remains necessary - for the sake of a morality, a society, a civilized world - that well-defined values (H.O. 331)

1. Being taken seriously (H.O. 330: nihilism) and

2. be understood as a-priori existing (H.O. 34: archetypal)".

So much for Sartre. One sees that he too, existentialist, sees that lay morality, however God-free, nevertheless presupposes an idealistic world -- analogous to that of Platonism and, in this sense, becomes not theological idealism but ideocentrism (H.O. 54; 60; 63).

Sartre gives applicative models: "It is necessary that it be obligatory, a-priori, e.g. to be honest, not to trump his wife, to conceive children etc..

We are therefore going to provide a piece of work, which will allow to show that the said values exist after all, "written in a thinking and knowing (H.O. 38; 71; 128: intellectualia) heaven" ('un ciel intelligible'),-- this, notwithstanding God does not exist.

In other words, this is the tendency - I believe - of all that is called radicalism in France. Nothing will be different if God does not exist: we will find the same standards of honesty, progress, humanism. Immediately we will have made God an obsolete hypothesis, which will quietly die out and, this, for lack of its own life force."

So much for what Sartre brands as essentialist ethics. - Cfr. 10; 105; 144; 279 (Galilei); 287 (Viète). There are, therefore, many essentialisms. Or rather: the one essentialism exhibits many applicative models, of which the Platonic, notwithstanding everything, is and remains the core.

(ii) *Existential morality.*

'Existentialism' is, essentially, at least in its extreme form, the radical negation of all pre-given, pre-existing ideas, ideals, values. It is - essentially - nihilism, in the ontological sense (H.O. 330).

Yet it is fundamentally ethically concerned, in contrast, e.g., to mere positivism, which as nominalism (like existentialism) (H.O. 1; 150) also disavows the ideas, but remains purely "positive" (scientifically value-free and ethically neutral);--in contrast, too, to pure libertinism (H.O. 324; 327), which both disavows the ideas and draws immoral consequences from them.

H.O. 334.

Existentialism à la Sartre is a tragic nominalism: it realizes the void, which ideas, especially the divine (theologically duped), leave behind, once they are thought away (God is dead).

We listen: "The existentialist, on the other hand, is of the opinion that it is very bad that God does not exist. For, with him, every possibility of encountering values disappears, in a higher world ('ciel intelligible'). After God has been eliminated, there cannot possibly exist an aprioric 'good': there is, after all, no infinite and perfect consciousness to think that a-prioric good (H.O. 60 in that case "it is nowhere written that the good exists", -- in particular: that one -- by virtue of pre-existing 'good' -- e.g. should be honest, -- that one should not lie.

After all, in that hypothesis we are in a situation in which only human beings exist". -- The God-abandonment, proper to the extremely carried through secularization, involves a mere humanism (the situation so that only people create 'ideas' (representations) and, immediately, establish values. Cfr H.O. 6/7 (Protosofist nomin.)).

Sartre incorporates Dostojewski's fear of existence.

If there has been anyone, who, long before we, in general, understood the full scope of secularization, fully realized this tragic event - his reading of de Sade may have had something to do with that (H.O. 324) -, then it is the ideative-realist novelist Dostoevsky (*note*: Dostoevsky belongs to - what is called - the Eastern Christian realists, who, in Russia, at least, deploy with G. Skoworoda (1722/ 1794; a mystic ethicist).-

But we listen, again, to Sartre himself: "Dostojewski had written: 'If God did not exist, then (*note*: in principle) everything would be permitted'.

Behold the starting point of existentialism. Indeed: everything is (*op.*: principally) allowed, if God does not exist. In which case man is also god forsaken ('délaisse'), since that man - neither in himself nor outside of him - finds any hold ('une possibilité de s'accrocher').

H.O. 335.

-- To begin with: such a man finds no apology. Indeed: if, as existentialism postulates, "existence" (*note*: the godforsaken, singular man) precedes "essence" (*note*: the values seriously absorbed by men), ("I" existence précède l'existence"), then one cannot provide an explanation starting from, e.g., a prior, once-and-for-all existing human nature ("une nature humaine donnée et figée").

In other words, there is no determinism. Man is free, man is freedom". (L'existentialisme est un humanisme, 36).

1. Note -- It is so clear that Sartre does not use the terms 'existence' and 'essence' in the sense of the Middle Ages thinkers (H.O. 105). The 'actual existence' (= Middle Ages) of the God-forsaken man (= Sartrean) precedes the 'essence' (= Sartrean), i.e., what the singularly-concrete people imagine of the values, which should determine their lives (H.O. 306: representationism, which differs profoundly from Platonic idealism).

On the contrary, the Middle Kingdom 'essence' precedes phenomenal reality, in which it meets ('appears') to us, as its general form of being (H.O. 12).

The two uses of language have very little in common but Sartre deliberately speculates on a kind of confusion of concepts in order to impress superficial minds, who do not (clearly) realize the nominalist circumscription (and caricaturing) of the idealist terms.

2. Note.-- Also misleading is the fact that Sartre boasts of "déterminisme" versus his "liberté.

(a) the ideas, which determine the nature of things, determine this nature;

(b) the ideas, which determine the free behavior of reasonable beings, leave the latter as free as their actual freedom is.

Sartre, like more than one nominalist, who is value-, because idea-blind, confuses the physical order with the ethical.-- Which does not prevent there from being a truth to be articulated in other ways in his saying: nihilistic, totally secular freedom (the Sartrian, but also the Sadian) appears "free" in opposition to freedom normalized by higher ideas (values) (which, for a Libertine or Sartrian, must appear as "determinism," natural-necessary determinacy). Cfr H.O. 136; 137; 138 (permissively justifiable); -- 321; 325; 329).

H.O. 336.

Note.-- As P. Foulquié, *L'existentialisme*, 25s., points out, the - by Sartre considered too optimistic - French Lay Morale is one of many forms of essentialism, which relies on general human nature (= human essence). Already in the XVIIIth century -- according to Foulquié -- Enlightenment-rationalists replace Descartes' God with a "more or less deified human nature" (cf. H.O. 321, where we saw that de Sade, in addition to typical human nature, "deifies" ("Première Puissance") total nature (= universe); 327;-- 323: nature as the basis of Libertine "ethics").

1. Conclusion: both in the XVIIIth and XIXth centuries, secularized ethics, which excludes or neglects God, rests on "un type humain, qui se propose à tous comme modèle et vers lequel tous doivent tendre" (Foulquié, 26). Thus: an "ideal nature" (for actual man is too defective, indeed a counter-model) valid for each person individually and for all humanity collectively, founds (justifies) ethics.

2. Conclusion: Sartre replaces this foundation, as we saw, following the Neo-scholastic reaction to typically modern situations that are invariably secularizing, not to say nihilistic-secularizing, with the idea, which he puts forward a priori (situational idealism): he nowhere proves that idea, which is universally valid, for each person individually (most certainly, given his radical individualism), for all humanity collectively, -- the idea "situation" (H.O. 143).

Thus we have yet another applicative model of idealism.-- Didn't Whitehead say that all of Western philosophy is a series of footnotes on Platon? (H.O. 33). - Cf. H.O. 60/62 (also the Sartrian 'situation' is summative (distributive, collective), generative (it generates duties and rights again and again, as its source) paradigmatic (exemplary: it illuminates, as does e.g. the idea of 'universal human or cosmic nature'))).

Thus it happened, H.O. 95, to the rabid anti-Platonist Derrida: his universal (or as good as) idea of "deconstruction" (déconstruction) is summative (for humane matters), generative (it causes the deconstruction process) and exemplary.

H.O. 337.

II.D.-- *The idea of "enlightenment."*

Although we have been talking - basically - from the first page of this introductory course about enlightened rational thinking (it starts with Protosfism), we are going to try to summarize all the sub-ideas we have picked up along the way into one total idea of enlightenment.

E. Coreth, Einf. i. die Phil. d. Neuzeit, I (Rat. / Emp. / Aufklärung), 136/150, describes, in résumé, as follows

A/ *General features:*

a. Science belief (Scientistics: H.O. 247/279 (the modern natural sciences); 260/295 (the mod. mathematics)),-- this, from an essentially boundless optimism, concerning research and results.

b. Control of the social processes of modernizing mankind by means of applied and popularized professional science and enlightened-rational "philosophy" (the Enlighteners called themselves "philosophers");-- very particularly, the Enlightened spirits -- freethinkers -- are trying to take control of all education (to this day).-- Cfr H.O. 145: the light metaphor.

B/ *Special, rather substantive features :*

a. Liberalism,

what we have dealt with at greater length H.O. 135vv: liberalism-question;

b. Deism,-- previously, briefly, described H.O. 221/222 (although, as Coreth himself admits, not all -- far from it -- Enlighteners are "Deists" or vaguely God-believers).

Did we not see how e.g. materialism (which among other things cannot recognize Godhead) became a growing aspect of the Enlightenment (H.O. 320/336)? Did we not see how, in the XVIIIth and, even more, in the XIXth century (ours still surpasses the two previous ones), the ethics of the laity, on principle (i.e. by hypothesis, without any decisive proof, axiomatic), puts a God, even that of Deism, in brackets, not to say aggressively excludes him? Cfr H.O. 332 (nihilism).

Note.-- All, who speak of the Enlightenment (Coreth among others), underline that England (America included) is the "cradle of Enlightenment (H.O. 156: Anglo-Saxon nominalism), while France and Germany, each in its own way, re-found this Anglo-Saxon phenomenon.

H.O. 338.

Note.-- A curious aspect of the total Enlightenment reveals to us the Frankfurter Schule, through *Theodor Adorno* (1903/1970)/*Max Horkheimer* (1895/1973), *Dialektik der aufklärung* (1944) and *negative Dialektik* (1966).

Difficult language prevents even specialists in the history of the mind from reading this pair of books, of which the second is a clarification of the first, smoothly. Yet here is a summary.

1. Adorno / Horkheimer emphasize the idea of 'aufklärung' (Hegelian aspect), insofar as brought about in subject-scientific-economic reality (Marxist aspect).-- Compare this dual scheme with H.O. 46 (idea / phenomenon).

2. Adorno / Horkheimer summarize the idea of "enlightenment" as follows: man (humanism) through his reason ("rationalism"), which shows itself in science and applied science ("technique") (scientism), is able (optimism) to free himself (liberalism), first of all from the bonds which nature, around us, imposes on him (control of nature), --then from those which the society in which we live imposes on him (control of society). - Man, nature, society, -- such is the summative induction (= rational summary), which characterizes the ontology of the Enlightenment.

Very particularly, Adorno/ Horkheimer illuminate the idea of 'herrschaft', understood as mastery of nature and its processes, thanks to identifying thinking, in science and technology.

3. Adorno / Horkheimer place special emphasis on the fact that reason, core piece of the Enlightenment, is harmony of opposites (H.O. 94). That reason involves its own self-denial or self-negation. It is self-destructive (cf. Derrida's "déconstruction": H.O. 96). How so?

(a) In order to bring about self-liberation from the grip of pretechnical nature, the enlightened-rational grip on that same nature makes it the object of subjection.

(b) This, thanks to machines, firms, know-how - the arsenal of control. But this same arsenal, on close inspection, displays its own laws: it makes such high demands on the people involved (as workers - think of night work, noise pollution, air pollution -; as employers, think of the merciless competitive struggle), that they go from being subjects who 'rule' nature (Herrschaft) to being objects, 'suffering objects', of the control they introduce

H.O. 339.

To put it succinctly: progress turns into its opposite. With H.O. 212 and 213 we speak of the process of self-reversal (turning into its opposite), which Adorno/Horkheimer, as dialecticians, see at work in the Aufklärung itself. 'Enlightened' man and his civilization has immediately become the slave of his own tool.

Expressed more Marxistically: the idea of "Aufklärung," in its capitalist realization underpinned by technostucture, which permeates all domains of culture (H.O. 337), is "Herrschaft," to which the people involved in it are themselves subjected.

4. Adorno / Horkheimer conclude from this: the Enlightenment is, in our time, no longer tenable, in the sense that the naive belief in progress which it contains' has become implausible through the failure of reason as a force for progress. Expressed Platonically: the lemma (abduction, hypothesis), that reason produces progress, has been 'denied' by the accompanying induction (falsification) (negative dialectic).

For example, the "industrialized mass murder" peculiar to our Enlightenment century refutes that lemma. For Adorno/ Horkheimer, Auschwitz (allusion to the concentration camp) is not an accidental phenomenon, but the revelation of destructive power, present in the Enlightenment.

5. *Negative dialectics.*

Central, in the Enlightenment, is Reason. That idea "rationality," now, contains its own negation (negation) within it, as is evident from the testing of the effects of that Reason.

Is it the case that the history of civilization began with archaic-primitive humanity, it runs, with the Enlightenment and its cultural revolution, into something like the hydrogen bomb.

The 'negative' dialectic first of all opposes Hegel's dialectic: with him, e.g. (after the negation of progress) Reason can design an opposite idea that improves the failure of Reason, so far (culturoptimism) such that

- (i) thesis (primitive stage), followed by
- (ii) antithesis (Enlightened stage, which fails), grows into
- (iii) synthesis (Enlightened stage that does succeed, by corrective).

With Adorno/ Horkheimer, there is no "synthesis.

H.O. 340.1.

The same negative dialectic also opposes Marx's dialectic: with him, for example, the "Revolution of the Proletariat" can be derived (and predicted as a deduction) rationally from the misery inherent in the XIXth century, which was the realization of the idea of "rational economy"(capitalism),--this, as a corrective of that "Rational misery.

For Adorno/ Horkheimer, in the industrialized West, the Proletariat - controlled as it is by the 'Herrschaft '(the arsenal of control, peculiar to Capitalism) - is no longer a negation) 'moving' revolutionary power. The Proletarian class is all too encapsulated (as is the ruling class) in the closed system of Enlightened Rationalism.

Conclusion: Adorno/ Horkheimer harbor a dialectic, which is culturally pessimistic due to its negation without a way out ("synthesis").

Radical anti-Positivism.

1. By seeing - like Hegel and situated in the great tradition of idealism - the idea in and behind the phenomena, here : the elaborated, realized idea (the Capitalist system), the Dialecticians of the Frankfurt School thoroughly distance themselves from Positivism, which is a radical Nominalism and, therefore, cannot discover the idea in the facts (phenomena).

2. This does not mean that Adorno and Horkheimer question the science of science as such, even as regards human science: one can, rationally, by means of science (H.O. 337: Science), fathom not only nature but also man and his society. Only this: they reproach the Positivist, with his belief in science, that he, naive as he is, is blind to the self-reflection within Enlightened Reason itself, and sees the limits of professional science.

Note: We do not have the opportunity, to go into this issue; but reference should be made e.g. to *G. Van Steendam, Science in search of ethics*, in: *Our Alma Mater* 39 (1985): 2, 81/117. Van Steendam speaks, in the introduction, about the double face of science, viz. on the one hand extremely constructive, on the other hand very dangerous (to such an extent that even the common man (common sense) gradually realizes this, as opinion polls show).

H.O. 340.2.

Note -- *Enlightened rationalism as a cultural revolution.*

Since the Cultural Revolution, implemented in Communist China, that term has been "in. *H.Fr. Judson, On the Barricades*, in: *The Sciences* (New York) 1985: July/August, 54/59, talks about *I.B. Cohen, Revolution in Science*, Harvard Press (a book, analogous to Th. Kuhn (H.O. 249)).

1. The term 'revolution' comes from astronomy and, as a metaphor (transfer of meaning), has become the designation for 'anything - in the mind or in society - that is an upheaval, a turning into something else. At the end of XIVth century (Chaucer in 1391) 'revolution' was celestial upheaval, in 1600 the term is employed in a political sense. 1642, 1688 (English revolutions, 1789 (French rev.),-- 1917 (Russian rev.) are applicative models.

2. *Cohen* analyzes the term "scientific revolution," For example, in his book *The Newtonian Revolution* (H.O. 276) (1980). Since then, Cohen has analyzed more the scientific revolution in general.

He had predecessors. For example, Herbert Butterfield, *The Origins of Modern Science* (1949-1). A characteristic of the enlightenment appears in that very work.

a. The so-called "scientific revolution" - meaning the revolution from Kepler and Galilei (H.O. 248), through Newton, up to the present - overshadows all the culture founded since the rise of Christianity. It reduces the Humanism inherent in the Renaissance as well as the Reformations (H.O. 188v.;199v.) to pure episodes, indeed shifts situated within medieval Christendom.

b. The Modern scientific revolution changed the very mind operations of Modern mankind,-- this, both in the natural and human sciences. And immediately in philosophy, of course. The universe and society (H.O. 338: man, nature, society: ontology), together with humanity,-- they look thoroughly different. Behold what Butterfield calls "scientific revolution. Since then the term has been in circulation.

Is the Enlightenment such a revolution?

Cohen - according to Judson - distinguishes four moments.

1. a new idea becomes "revolutionary" when it begins intellectually: a single person, some group arrive at a way out of a problem, a new system or a new theoretical formulation e.g.-

H.O. 341.

2. Cohen calls the second phase "the revolution of commitment": what was discovered penetrates, in its newness, and is, carefully, noted.

3. Both previous moments are still private. What he calls "the revolution on paper" initiates the public phase: the new idea permeates friends, collaborators, colleagues and, then, the entire scientific world, "in a broad sense" (cf. H.O. 181; // 195; 231 (Luther); 323 (de Sade)).

4. The fourth moment consists in showing how other scientists, indeed the entire science community (H.O. 310: logical socialism; interpreting community) react to the publication,-- this, over time. This fourth moment -- only -- seals the "revolution.

Unlike Kuhn's scheme ('scientific revolution, Cohen's - Judson says - is able to explain revolutions, which "take time."

One applicative model: for a number of years the so-called Copernican revolution (H.O. 248; 256; 304) was an unsolved problem. - Imre Lakatos, in 1973 (H.O. 251; 284), claimed, even, that there was never a "Copernican revolution": there was no crisis among the intelligentsia (H.O. 186), which worked with the Ptolemaic geocentric idea, nor a sudden turn to heliocentrism.-

But Cohen says: the system, fully elaborated by Copernicus, in 1543 had no profound impact on astronomers,--until after 1609, when Kepler published his re-foundation of it. This updating of Kepler was radical. From that moment or can we begin to observe a revolution in cosmology, which reaches its climax in Newton 's cosmos view.

But this type of "revolution" was not just a delayed Copernican revolution (1543/1609): it was so new that Newton's idea - Cohen is a Newtonian - was absolutely no longer "Copernican" in a well-understood sense.

Such a delayed type of revolution Cohen recognizes in a dozen other scientific revolutions of size (not to mention smaller ones).

What Cohen does emphasize is that "scientific" revolutions are not like political ones.

Conclusion: the Enlightenment is essentially scientism (scientistics). She made a whole of scientific revolutions apply to life. She is a revolution.

H.O. 342.

It has become, through the application, to everyday life, of the natural and humanities, a true cultural revolution, -- over time and still.

Even the music is undergoing a "revolution."

H.F. Cohen (note: do not confuse with I.B. Cohen, above), *Quantifying Music (The Science of Music at the First Stage of the Scientific Revolution 1580/1650)*, Dordrecht, 1984, teaches us what follows.

It deals with musicology. It sets forth the theories of consonance and of the division of the octave, as Kepler (H.O. 248), Stevin (H.O. 242; 281), Benedetti, Vincenzo and Galileo Galilei, Mersenne (1588/1648; friend v. Descartes), Beeckman, Descartes and Huygens (1629/1695) refounded them. During these seventy years of revolution, musicology was transformed - it is one of the oldest sciences, since the Paleopythagoreans

(i) of a kind of applied arithmetic

(ii) to a physical (H.O. 248vv.: mathem. physics) and, even, a psychophysical theory.

More than that, from that musicology arises acoustics (part of Physics, representing sound theory).

The interaction between musicology and the art of music, of those days, is also covered.

Conclusion: The author analyzes one of the aspects of the scientific revolution, about which we hear bitterly little, usually.-- This aspect strengthens, of course, with one more argument, the thesis that the Enlightenment is, truly, a cultural revolution. In stages, as I.B. Cohen understands it.

Note.-- Enlightened rationalism as 'unmasking'.

Two authors have highlighted this aspect.

(A) P. Ricoeur (1913/2005; the hermeneuticist), *Le conflit des interprétations (Essais d'hermeneutique)*, Paris, 1969, 148/151 (Marx, Nietzsche, Freud), explains how the three critical materialists, for all their difference, are nevertheless one.

1. Marx is rightly accused of economism (i.e. he reduces the whole culture too much and too unilaterally to economics); Nietzsche is accused of his biologism (he sees human culture, one-sidedly, as a biology of violence on a higher plane); Freud is accused of pansexualism (one-sidedly he sees in all cultural expressions one or another form of libido). Especially their "epigones" (i.e., adherents of lower level of thought) disenchant the three,-- says Ricoeur.

H.O. 343.

2.a. All three are materialists (H.O. 320vv.).

2.b. All three are interpreters ("hermeneuticists"). See here how Ricoeur sees this:

(i) Descartes and the Cartesians unmasked the commonsense thing (body): things are not as they appear to us (317/319, above, sets out how Descartes and his epigones unmask the body as a machine (a quantitative-mathematical system is hidden behind everyday appearances)).

But - and this is typical Cartesian dualism - 'la pensee' (the (self)consciousness) is crystal clear, at least in its best form: are the material things around us, in the external world, deceptive (and must the mathematical physical unmask them), our inner self-consciousness is pure truth.

(ii) Marx (1818/1883), Nietzsche (1844/1900), Freud (1856/1939), the three "critical" materialists, unmask, in turn, (Cartesian-diagnosed) consciousness. They are critics of consciousness. For them, all consciousness, resp. self-consciousness is 'suspect', 'deceptive': the naive, non-materialist man imagines that that of which he is aware is at once also such as he is aware of.

Marx sees the ideology, which creates the economic-social conditions -- he means the bourgeois ideology at work in the social conditions: the bourgeois ideologue imagines that his awareness of things (society) is true, -- this, while the proletarian experiences the misery of it (which proves the lie of the bourgeois awareness of the situation).--.

Nietzsche sees the "Wille zur Macht" (the will to power) at work, in that same (bourgeois) consciousness and confronts it with the immoral praxis, which goes along with it.

Freud sees the libido, with its "Eros" (sex) and its "Aggression" (Thanatos), at work, in the very structure of Modern man's conscious thought and action.

Conclusion: all three unmask the consciousness, which enlightenment, since Descartes, has imparted to us, as a false sense of human things. They unmask through a hermeneutic (i.e., a decipherment of the acts that spring from consciousness). But in doing so, they criticize the enlightenment itself.

H.O. 344.

(B) *Peter Sloterdijk, Kritik der zynischen Vernunft*, Frankf. A. M., 1983, is the second work that attempts to expose the unmasking as an essence of the Enlightenment. But did Ricoeur do this as a hermeneuticist (interpretive theorist), Sloterdijk does this as

- (i)** blended with Eastern mysticism
- (ii)** paleocune philosophy adherent.

(i).-- The Paleocunism.

R.H. Popkin/ Avr. Stroll, Philosophy Made Simple, New York, 1956, 25/27 (Cynicism), analyzes in great detail the "mysticism" of Cunism.

The Elders or Paleoconics are one type of Klein- or Microsokratiekers, - Antisthenes of Athens (-455/-360), disciple and of the Sophist Gorgias of Leontinoi (-480/-375), the infamous rhetor, and of Socrates of Athens (-469/-399), who once exclaimed "What are we to do with all this abundance?", is the founder.

Nominalist as he is, he confines himself to this earth and its culture (H.O. 6: agnostic.); disappointed in the expectations of his time, he turns in on himself (complacency), rejecting all culture (cultural pessimism).

Diogenes of Sinope (-400/-325) is the most notorious adherent. Well known is the anecdote: Alexander the Great, the conqueror, comes to visit Diogenes and notes the very miserable situation, in which the latter lives. Asked by Alexander what he could do to free him from it, the little story answers "Yes, thou canst do is: move thyself so that I can see the light of the sun."

Cunism – (cynism), theorists say - is the response to a situation: both the collapse of the archaic city-state structure and, later, of the Macedonian empire frustrated many Greeks.

The Epikoureeans sought the way out ("virtue") in enjoyment; the Kuniekers in culturally alien, ascetic introspection and seclusion.

a. The universe, mankind, in its developed stage especially, is thoroughly evil. In particular, an "evil" are: government, private property, marriage, religion, slavery, opulence, as well as all the artificial pleasures of the senses.

b. The attitude to life, which is appropriate to this, is aloofness. True happiness is to be found within ourselves and in such a way that one returns to a primitive way of life (primitivism),--as Diogenes took to the extreme: he lived in a large barrel, as naked and unwashed 'as possible'. This is the 'virtue' (H.O. 62), i.e. then one is equal to the masked culture, to its sham virtue. In other words: the. Kuniekers were unmaskers.

H.O. 345.

The "devil's circle" also seizes on kunism.

'Devil's circle' means that one begins by being unmasked, but - it may be - one ends up having to be unmasked oneself. Cfr H.O. 150 (Tp.); 212/214 (Rg.).

Application: the shift in meaning from "kunisch" to "cynical" (H.O. 330).

Indeed: **(i)** when the Greeks saw the obscene-shame-free behavior of a Diogenes, they used the term, which -- in their parlance -- served to that end: 'kunikos', dog,--this, because the primitivism of Kuniekers reminded them of the animal stage (Popkin/ Stroll, o.c.,26);

(ii) the Paleoconics were, nevertheless, gifted with ethics and sincerity; yet later epigones "perverted" (degenerated) the ideal: they derived money and food from friends,--to apply, afterwards, the doctrine of indifference!

In particular: when they had to pay their "friends" the debt! -- Result: the people observed that the doctrine was unfairly and heartlessly transformed into its opposite. Since then, the Kuniekers have been 'cynics' of that kind, in the present sense.

The a-social, yes, anti-social aspect.

By merely preaching repentance without commitment to one's fellow man, one can - with the authors, *ibid.* - already label the Paleoconics as a- and antisocial: it is, therefore, not surprising that, precisely in their midst, the a- and is antisocial type, which is "cynical" rather than "kunisch," easily arose,

The asceticism.

The mortification of the natural desires is another aspect.-- One may be familiar with the novel by *Anatole France* (1844/ 1924; Nobel Prize in Literature 1921) *Thaïs* (1890; in 1894 Massenet (1842/1912) turned it into a 'comédie lyrique'): this is the history of a 'court maker' (prostitute), in Egypt, who was converted by a Christian honorary mite (loner in the desert) and withdrew into a convent of women. Consciously surrendering herself to misery, she slept on the hard ground, fasted for days, and, generally speaking, submitted to mental and physical torture (religious masochism).

H.O. 346.

After-effects.-- The influence of the Kuniekers was very great:

a. The stoa (H.O. 58; 59;-- 69 (Patristics); 192 (Humanism);-- 220 (naturall. theol.) and 266 (human rights) was a connection of Heraklitean natural philosophy (H.O. 35) with artistic ethics;

b. The unworldly Christians often mirrored themselves on the Paleo-Christians (H.O. 196v.: e.g. Tertull.) This was regularly seen, for example, in some - not all - monks. This led - not infrequently - to 'other-worldliness' (empathizing with the other world),-- something which Nietzsche, wrongly, blames on Christianity pure and simple.

Note.-- One cannot fail to think - here - of a type of alternatives; e.g., some Hippies.

(2) *The Sloterdijkian Neokunism.*

Bibl. stabpr.: G. Groot, Peter Sloterdijk, *Cynic*, in: *Streven* 1985: Jan, 322/336.-- Not without obvious agreement, Ger Groot expounds Sloterdijk's theory.

a.-- *The lighting.*

Experiencing its culmination in I. Kant (H.O. 146; 311), who, indeed, wanted to connect Cartesian pure Rationalism (H.O. 304v.) with Humian empirical-Rationalism (H.O. 305; 307), Sloterdijk criticizes the enlightenment. The title '*Kritik der zynischen Vernunft*' recalls, by the way, overtly Kant's *Kritik der reinen / praktischen vernunft* (1781(1787) / 1788). He betrays philosophical claim.

Main theorem: the autonomous and illusory reason, to which Kant, in his "was ist aufklärung"? (H.O. 311: 1783/1784), called for -- the "sapere aude" (transl.: Dare to think for oneself personally) a thinking, which undaunted wanted to search everything it met, including itself, to the ground and its own possibility, -- that autonomous and illusion-free reason has -- in those two hundred years, led to the opposite of what it intended.-Cfr. H.O. 212vv!

Enlightened Rationalism too, with its critique of the degeneration of e.g. the church and ecclesiastical thought (H.O. 107), undergoes, thus, according to the enlightened Sloterdijk - because he wants to stay within the Enlightenment - the law of courtship (cf. H.O. 338).

b.-- *The cynical "reason",*

Illusionlessness has degenerated into

(i) recognizing only the brute facts (a kind of Positivism; H.O. 340),

(ii) but such that all that is higher idea, ideal and value is denied (H.O. 339). This is the a- and anti-Platonic nature of the modern Enlightenment.

H.O. 347.

"Everything else (other than the bare facts) is 'Romantic' (*note*: in the sense of 'naive', 'unreal') obfuscation, which must be de-mythologized as quickly as possible, reduced (H.O. 327v.) to the vulgar reality, which lies behind it (H.O. 343: Marx, Nietzsche, Freud). Sobriety, unmasking and desecration (H.O. 146 (desacralization); 200vv. (die Entzauberung der Welt (Weber)); 332 (nihilism)) are the watchwords of a reason, which wants to penetrate to the ground of things and cannot but see them as material, illusory and (on the level of morality) as a drive for power and self-interest." G. Groot, a.c., 324).

c.-- *The cynical reason.*

That same cynical reason, which de-masks, at the same time masks itself. All that is ethical,-- e.g., lofty, disinterested, is misused to cloak the cynicism inherent in the low and the selfish in a sham virtue (H.O. 345).

Here we meet the Paleoconics' critique of their sham cultural, indeed hypocritical, contemporaries.

Decision.-- The "harmony of opposites," which consists, at the same time, in unmasking the whole culture as a deception, yes, self-deception, and unmasking that whole culture with ideals and high ideas and values,-- such is the main object of the criticism of "cynical" reason.

Sloterdijkian NeoKunism.

1. Sloterdijk - says G. Groot - has, once, stayed in the more than controversial community of Bhagwan Shree Rajneesh (an Oriental, specifically: Hindu-wise), the 'enlightened one' (this time in the religious-Indian sense), at Poona. He confesses that the 'experiences', there, influenced his thoughts. Thus Sloterdijk would combine two 'ideals of enlightenment': **a.** the Kantian-Western and **b.** that of the 'Bhagwan' type (we do say 'Bhagwan type', because by no means all 'enlightened', in India e.g., are of that Westernized type).

2. Instead of reaching for the counterpart, Christianized Platonism, as a way out ('virtue'), Sloterdijk reaches for nominalism, which forces him to remain within the Enlightenment. It is therefore not surprising that his 'way out' only looks awkward.

H.O. 348.

Closing Summary.

In 1972, at the Free University of Brussels, namely: Institute of Sociology, the Center for the Study of the Enlightenment and of Free Thought was founded. Purpose: the critical, historical and literary analysis of currents, parties and movements, which constitute the Enlightenment phenomenon.

When it was announced, in 1972, it gave as its theme dates:

1.-- idealism (in the Cartesian-Kantian sense), naturalism, and materialism;

2.-- Spinozism (Benedict (Baruch) de Spinoza (1632/1677), Hollander-Cartesian, with very great aftereffects (Herder, Goethe,-- Schleiermacher, Schelling, Hegel;-- psychophysical parallelism;-- Enlightened rational Bible Science),-- deism (H.O. 337),-
- atheism (ibid.);

3.-- Hegelianism, Marxism,-- socialism, -- with which the founders of the Center distance themselves from the one-sided liberalist interpretation of Enlightened Rationalism;

4.-- Freemasonry, Rosicrucians,--with which the founders, explicitly, include the secret societies--which are not without occultist overtones--in the theme of the Enlightenment phenomenon,--which is regularly concealed (H.O. 324 taught us that libertinism, among other things, is also concealed);

5.-- Freethinkers and Heretics (by the latter may be meant but "dissidence" from official Christianity; for who, by the Enlightened, is cast out as a heretic(s)?);

6.-- utopia, ideology, and "criticism" (by the latter is perhaps meant "criticism" within and outside of Enlightened Rationalism);

7.-- superstition,-- apparently the great counter model of the Enlightenment.

Note.-- The "lodge" of Freemasons is a typical Enlightened phenomenon:

(i) Man is perfectible;

(ii) any "fanaticism" is out of the question;

(iii) in and at the same time above all political parties.

Le Nouvel Observateur (30.01.1987, 64/73) judges the role of the Loges (plural) in French politics, especially, to be of such importance that he makes a detailed report on it.

Conclusion: there is a secret societal side to the Enlightenment.

H.O. 349.

III.-- *The task of Catholicism.*

Introductory note.

1. *S.Freud, Die Zukunft einer Illusion*, London, 1948 (French text reviewed by Freud himself: *L'avenir d'une illusion*, Paris, 1971,41) says:

"(1) In the past, religious ideas have exerted the most powerful influence on mankind,--notwithstanding their unquestionable lack of truth.

(2) Such a thing is, calculatedly, a new psychological problem. In particular: the question arises: "Wherein does the inner power of this kind of learning system consist? "To what circumstances do they owe this efficacy, a kind of 'efficacy-ness, which is independent of the scrutiny of reason?"

2. *J.A.T. Robinson, Christian Faith in a World without Religion* (his conference), *La foi chrétienne dans un monde sans religion*, in: *Revue Foi Vivante* 9 (1968): juillet / sept. (No. 36), 6/26, is one possible response to secularization. I quote the ending: "Accepts without hesitation to be 'agnostic' Christians, i.e., 'Christians, who do not know everything:

As Bonhöffer said, "In the end, it would be better if we were silent. (...)". As is well known, Robinson (1919/1983) is Anglican Bishop of Woolwich. His fame was established, definitively, since his infamous *Honest to God*.

Note -

(1) Christians have never known "everything.

(2) Whether, in the midst of secularization, as it has been described, above, preferably on the basis of non-Catholics, we are better off "keeping silent," i.e., engaging in repentance without commitment to our fellow man (the Paleoclean model; H.O. 345),--this, on the basis of our Catholic tradition, --is one possible proposition... among other possible propositions.

H.O. 207 (Cath. Santschi, a Calvinist) taught us that the whole Judeo-Christian and, in particular, the whole church history is "a long history of reforms." So, even now!

What's more: even a rabid atheist materialist like Freud "saw" "the most powerful influence of religious ideas: as he himself says. There is no proven (with sufficient probative value) reason to remain silent, as Catholics. The power of our ideas still exists, but those Catholics themselves, episcopate, presbyterate, laicate,---they ought to believe in that power of our ideas.

H.O. 350.

Freud gives us, in a negative way, a way out : the most powerful influence of our ideas was independent of the testing by the (Enlightened-Rational) Reason. So we should not, like a Sloterdijk, stay within Rationalism. Our 'power' lies outside it.

Conclusion: wanting to hold one's ground, in the midst of secular culture, implies a resourcing outside the secular pattern. This was the purpose of the previous pages: to show, thanks to historical ontology, where precisely our power of ideas is situated.

a. It is located, most certainly, outside nominalism, which, amidst many correct understandings (of a purely "stilted" or "positive" nature (H.O. 340: facts without ideas): 346 (brute facts without ideals)), has no regard for the transcendental side - this does not mean "worldly side" (as with the Christian Kunieters: H.O. 346) - of the facts.

b. It is, likewise, not located, though less obviously, in abstractionism (H.O. 8/26: the Aristotelian model, which has weighed too much in Scholasticism; cfr H.O. 129): with mere cerebral abstractions, however universal, one does not get to Catholicism,-- not even its Middle Ages Scholastic type, which, in certain midst (not outside of it), "at the time, swore by the philosopher" (meant Aristotle) as even a Thomas Aquinas says).

Conclusion: Outside of abstractionism also lies a Catholic world- and life-view,-- even if it appreciates, with a Liebig e.g. (H.O. 114/117), the run-up to the modern inductive method, which is in abstractionism.

James Feibleman's triad.

R. Van Zandt, *The Metaphysical Foundations of American History*, The Hague, 1959, 125, quotes Feibleman: "A survey of the history of philosophy reveals the fact that - from a well-defined point of view - there are only three radically different metaphysical (ontological) positions, which can be taken, by anyone, at any place or any time. There are, of course, more than three. But all are only variants of the fundamental three". Van Zandt names them: nominalism, abstractionism, theory of ideas.

H.O. 351.

Well, a religion, also a pre-Biblical ('Pagan') one, if it is truly religion, is more than mere facts, without ideas or brute facts) without ideals; it is also more than - inductively acquired - abstractions. It is also both those layers in reality, in and around us (ontology). but it thrusts forward to a 'transcendent' reality (H.O. 70: refutation v/d Akad. Sceptis and v/h Antique Materialism; 105 (Universaliëndiscussion) +120v. (Scholastic 'Realism') + 128 (Essentialism)). The history of Catholic thought is one proof of this.

Thereby the blind spots (gaps), in the religious field, as well of abstract as of nominal thinking, show themselves when one asks the question: 'What do you think of the individual soul of man'; 'What do you think of the deity'; H.O. 5v. (Nominalistic 'science of religion': neither soul nor deity, in the proper sense, -- only the 'names' 'soul' and 'deity', nothing more) + H.O. 25 (Abstractionistic science of religion: neither (individual) soul nor living Deity (though an abstract 'Reine Act'),-- at most the abstract concepts of 'soul' and 'deity').

But read Platon, however tentatively and extra-Biblically: H.O. 54 teaches us that the individual soul was a living reality, central to thought, for him;--that "deities" (male and female, similar to the "angels of God" in the Old and New Testaments) are realities (which S. Augustine, H.O. 98 (intermediate beings) confirms).

It is true that Platon did not know the pure pre-Biblical or Biblical idea of "supreme being" (almighty God) except in an "abstract" form (the highest good). He founded ideocentrism (H.O. 54; 58; 60). This gap (blind spot) is filled by a pagan like Albinos of Smurna, at least as a lemma (hypothesis): H.O. 56 (theology); 58 (theological idealism).

Thereby, as S. Klemens of Alexandria (H.O. 67v.) says, within Paganism, o.g. by inner illumination (H.O. 68: Christ, as a pre-existent Person, in the unconscious depths also of the pagans), the way had been paved to a full - Biblical doctrine of ideas.

Conclusion.-- We sketched, just now, the outlines of a truly Catholic ontology. In its essential phases.

H.O. 352.

III.A.-- *Cristopher Dawson, Crisis of Western Education*, Tiel/The Hague, 1963, 65/69, outlines how the highly aggressive "lumières" (the French version of Rationalism), led by Denis Diderot (1713/1784; outspoken materialist thinker) and J.-L. d'Alembert (1717/1783; outspoken positivist thinker) both published, between 1750 and 1765, the infamous Encyclopedia to enable both the professional sciences and industry to first recognize the power of

- (i) The church,
- (ii) the universities and
- (iii) sought to break the teaching orders (H.O. 244v;246.1).

"Huge task" says Dawson (o.c.,65), but partially succeeded thanks to the inner divisions of the Ancien Regime (H.O. 133).

"Thus it happened that the Society of Jesus (*note*: the Jesuit Order), the greatest among all orders of instruction and, for two centuries, the richest tool of Catholic culture, fell victim to

- (i) the intrigues of shady parties and
- (ii) the propaganda of the rationalist minority". (Ibid.).

A little further, Dawson says: "When, therefore, the revolution came, the old institutions of formation found no defenders. The twenty-four universities of France - including the most famous in Europe, that of Paris - fell, without a fight." (O.c., 66; cf. H.O. 264v.: not even a Lavoisier was spared).

Apart from the nihilism (H.O. 330, 332, 347) which, in it, is active in the background, let us point out the diabolical insight: the destruction of Catholic education.

The 'brutal' (H.O. 346) facts can hardly be misunderstood: 'Never before - not even in the time of the Reform or the Russian Revolution (*note*: February and October 1917) - has there been such massive slaughter of educational institutions'. (Dawson, o.c., 66).

Conclusion: the conclusion of the "Christians-of-the-repentance-without-intent-for-their-free-understanding" (HO 349) that "we had better remain silent", is - in the face of that situation - no longer valid after all!

And indeed: *Father Lenaers, Is there still 'Catholic school' after secularization?* in: *Streven* 1987 (April), 581/583, mentions, briefly, how the viable "organism" that is the Catholic Church responded to the new post-revolutionary situation with a fierce reaction. By the end of the XIXth century, the disaster had been completely repaired.

H.O. 353.

III. B. -- Cr. Dawson, o.c.. 212vv.. outlines how technological society, once the goal of the encyclopedists, while honoring modern liberties (H.O. 133vv.), "nevertheless lacks the higher moral aims, which, alone, can justify the vast development of technological power and organization. The system has, first of all, its reason for existence in the satisfaction of the material needs and demands of the consumers" In other words : materialism!

Henri Bergson (1859/1941), Jew, but who, in his Testament of 1937 notes that he feels he is drawing nearer and nearer to Catholicism, as the crowning achievement of Judaism, said, at the Congrès Descartes (summer 1937) in Paris: "The economic, social, political, international problems, which are pressing in, today, are but the expression -- in varied ways -- of an imbalance, which has become monstrous, between the body and the soul of humanity. Reason: the soul has not been able to develop itself,--this, while it commutes within a body, which is far too large with respect to it." (*C. Forest, Le Cartésianisme et l'orientation de science moderne*, Liege / Paris, 1938, 18).

One is familiar with the term "supplement d'ame" (soul supplement), which has become proverbial, from this eminent thinker, by which he means that secularized man has evolved a great deal physically, but not soul-wise, since modern culture. Who does not think here of Platon's 'gold of soul' (H.O. 54; 56; 72)? 'Soul' here is not only the immaterial principle of life, but also the whole ideal and transcendental order, in which earthly man, thanks to his soul, is actually at home. That has, incidentally, always been the full soul concept of religions.

Dawson emphasizes another aspect of secular society: its "pluralism.

'Pluralism' is but the expression of 'modern liberties' (H.O. 133): everyone freely chooses his philosophy of life and world, while the state has no world - and philosophy of life, except the professional-scientific-industrial one, which the Enlighteners advocated as the only one, to the exclusion of the Catholic e.g.. Unless as a 'private matter'.

Consequence: only the totalitarian states still have a collective objective, while the liberal democracies sink into individualistic pluralism.

H.O. 354.

This leads to the democracy crisis of today: 'Sparta may have been no more than one glorious barracks and Sybaris a haven of wealth and material culture, yet, throughout the Greek world, Sparta was idealized and Sybaris vilified. This, because the Spartan placed his life in the service of "the law" and was willing to sacrifice everything for "the common good;" while the Sybarite lived "for himself" (*note*: actually Dawson might say "every man for himself"), and made wealth and pleasure his "standards of life" (O.c., 212).

Dawson poses the question very acutely: "Therefore, there is little reason to suppose that, in the present world conflict, democracy will triumph over e.g. communism, if democracy represents no more than a higher material standard of prosperity and a highly advanced technology, subject to the satisfaction of material needs and the enrichment of the financial and industrial organisms, which best know how to stimulate and satisfy the demands of the consumer." (O.c., 212v.).

One would think that one of the members of the Frankfurter Schule (H.O. 338) is speaking, but it is actually Dawson, Catholic convert, who taught cultural history at Harvard University (1958/1962).

III.C.-- *The unsegregated Catholic education system.*

P. Lenaers, a.c., 582/ 593, introduces the problem of the Catholic school in the completely secularized society with what follows: was, since the French Revolution, Catholic education, like the whole Church, based on pillarization, i.e. block formation in the social sphere, with the emphasis on piety (as a distinction from the unbeliever) and obedience (as a sign of belonging to the Church), aligned, since the "radio, film, TV, cassettes, comics, publicity" the Church and its school is an inevitably unsegregated phenomenon. Isolation, within the warm nest of the rich Roman life of yesteryear is henceforth out of the question. Our believers and our youth participate directly-personally in secular civilization.

Yet -- thanks to a living force preconceived as a lemma -- the Church and its Catholic school will, according to Father, respond as Church and as Catholic school.-- We concur with this view: the Two Vatican Council (H.O. 245) gave, to this end, both power and ground lines.

H.O. 355.

II.C.-- Modern rationalism (297/354).

The introduction (297/302) discusses the term 'modern': tss. 1520 and 1650 is called 'Modern' which is not Middle Ages. (297);-- The pen dispute 'modernism/postmodernism' (297/ 302).

(a) 'Modernism'(in the religious law. sense as 'aggiornamerto' (adaptation) to modernity (H.O. 140v.; 297).

(b) 'Modernism' (in the literary - historical sense) as 'wanting to bring new things' preferably in line with modernity (297/299; the systechy 'Mod. / Traditionalism' (299)).

(c) 'Modernism' (in the epistemological - philosophical sense) as foundation(al)ism (299/302; the systechy 'Modernism/ Postmodernism' = foundationism/ non-foundationism).

Note -- Berman: 'modernity' harm. d. contr. (301) : hubris / fear.

Notes English and Hazard (302)

.....
(I) The two main types of rationalism (303/305).

Pure and empiricist Rationalism (Descartes and the "Idealists" (in the Modern sense) or still "Intellectualists"; Bacon, Locke, Hume and the "Empiricists". -- The fusion of both : the enlightenment (enlightenment, lumieres, aufklärung).

Modern science (mathematical physical and mathematical) as a model also for philosophy, rhetoric and theology, yes, for the whole culture (the 'Rational' life) (304); the scientific model is twofold : observation (observation, experiment) and measurement (calculation, mathematical formula); both together are 'exact' (305).

(II) The methodical system as ideal (305/312) or foundation(al)ism.

A. Both pure and empirical Rationalism want axiomata (lemmata, presuppositions), which are apodictically certain and, thus, have "authority" (as Church thought, formerly) (305v.).

B. Both wings v/h Rationalism want to construct, on that authoritative basis, a closed system, -- their 'philosophy' in scientifically 'proven' (provable) style (306v.).-- Those two (A and B) together are foundationism, typical of Rationalism in the Enlightened sense.-- Criticism of foundationism.

(i) The Empiricists eat away at Cartesian (pure-Rational) certainties; with Hume they undermine their own, Empiricist system (307v.).

(ii)a. Coreth: both pure and empirical Rationality is interpretation (and thus debatable; 308).--Peirce : all knowledge, including scientific knowledge, is interpretation (man is an interpreter); four-part critique of Descartes (309v.).

H.O. 356.

Habermas, Derrida, Heidegger,-- Nietzsche,-- Lyotard (la condition, postmoderne (1977), Foucault (or postmodernism (310/312)) as a critique of foundationist Modernism.

(III) *The lemmatic-analytic critique of foundationism* (312/315):

(i) Fallibilism of traditional ontology, since the Paleopythagoreans,

(ii) since Platon, that traditional fallibilism shows itself in the lemmatic-analytical, "unpretentious" and testing method,

(iii) the Scotistish-Peircean 'hypostatic abstraction' (only working with the pre-established idea, by acting on the phenomenon indicated by it, can, possibly-wise, give a definite (= apodictic certainty)). -- the world in the making (instead of the made world),

(iv) 'Neither thou nor I' (against the anti-foundationists, Postmodernists, who want to prove their thesis apodictically).

Conclusion: Lukasiewicz's inductive and deductive justification is hypothetically (lemmatically) worded).

(IV) *The Cartesian way of thinking as prematerialism* (315/320).

(i) Tragedy v. Descartes (spiritualist but prematerialist at the same time; 315v.).

(ii) His Pre-materialism: scientific as he is he 'harbors a dualism (which is absolutely not that of Platon): thought (consciousness) and extensiveness (body, matter) (317);-- the ontological total form of being narrowed down to the geometric-material 'form' Cartesian coordinate system; 317v.; mechanicism (atomism; 318): applicative models (the animal = a machine (310); man = an angel in a machine (319)).

Critique of Occultists (319).

Conclusion: Descartes, against his will, inducts into full materialism (319v.).

(V) *Two samples of real materialism* (320/336).

Sample 1: Le divin marquis de sade (320/329).-- La Durand (a materialist; 320v.); nature (321); Sadian feminism (321v.; // Russell: free morality. The little red book for schoolchildren; pornography "in the service of women").--

The intellectual aftereffects v. de Sade (323v.).-- libertinism and rationalism (324;- - around 1620 a libertine enlightenment exists (326).-- Foucault : de Sade as 'end of the Classics' (326v.).-- Sadian ethics (reductionism to material change of form; permissiveness; 327/329).

H.O. 357.

Sample 2: Ernst Jünger's "mauretan" (330/336).

a. The nihilist, as an "alternative" to (possibly Christianized) idealism, denies all higher (sacred) ideas = ideals, values) (330);-- the present revival of axiology (doctrine(s) of values) as a substitute for the religious idealism of tradition (331);-- *D. Arendt, Nihilismus (v. Jacobi bis Nietzsche)*.

b. The essence v/h nihilism, ontological understanding (332/336).

(1) L. Feuerbach ((Marx's teacher; 332)

(2) J.-P. Sartre, *L'existentialisme est un humanisme* (332/336) :

a. axiom: "god does not exist" (332);

b. analysis (= inferences):

b.1. ordinary lay morality (332v.: Sartre's reproach "essentialism");

b.2. existentialist morality, purely nominalist (333v.).

Tragic nihilism: Sartre incorporates, into his atheism (nihilistically thought through) Dostoevsky's disquiet for the reason of aggressive Russian nihilism (334v.).

Conclusion: instead of pre-existing, pre-given essences (ideas,-- norms, values) only situations in which utter, yes, permissive 'freedom' decides (336).

II.D. -- The "idea" enlightenment (337/348).

1. Coreth's summary: boundless belief in science, which ends up in control of the whole culture, via natural and spiritual scientific applications (e.g. concerning education: 'enlightenment').-- In particular: Deism, Materialism, Ethics of the laity,-- Liberalism (+ Collectivisms) (337).

2. a. Adorno/ Horkheimer: the negative dialectic, in the Rational system itself (338/340);

b. on the basis of *I.B. Cohen (Revolution in Science* (1985)): the Enlightenment exhibits all the features of the scientific revolution designed by Cohen, but in the plural (340/342);

c. P. Ricoeur and P. Sloterdijk expose de-masking and (at least Sloterdijk) masking by "critical" reason (342/343; 344/347).

Note: The cultural and worldly kunism, in Stoa, Kunisch Christendom (not to be confused with Platonic Christianity) and by Sloterdijk (344/346).-- Final review vlg. the VUB (348).

III.-- The task v/h Catholicism (346/354).

H.O. 358.

Part II.-- The ground plan of systematic ontology.

More than one ground scheme is, of course, possible, in such a complex and multifaceted matter. Yet, over time, one scheme has become rather predominant.

Bibl. sample : *I.M. Bochenski O.P., Europäische Philosophie der Gegenwart*, Bern, 1947, 702/252 (*Die Metaphysik des Seins*). Bochenski gives o.c., 206f., a 'charakteristik' (a characteristic) of a classical ontology. We take this as our basic scheme, however, in such a way that we, eventually, modify it.

Reference should also be made to *J. Van de Wiele, The hard core of Western metaphysics*, Leuven, 1983, which sets out the striking lines of force (a sport 'philosophia perennis') (Platon, Aristotle,-- Thomas Aquinas,-- Descartes, Leibniz, Kant, -- Hegel).

Of course - but extensively (in the broad sense) - *J.K. Feibleman* (H.O. 350), *A System of Philosophy*, The Hague, 1963+, can be given up: *Logic, Ontology, Metaphysics* (OPM.: there are people, who keep the ideas 'theory of being' (ontology) and 'metaphysics' (theory concerning transcendental realities) both distinct and separate; we do not), *Epistemology, Ethics, Aesthetics, Psychology, Politics Sociology, Anthropology, Philosophy of Life* (= fil. Biology), *Philosophy of Nature, Philosophy of Language, Philosophy of Science, Cosmology, Philosophy of Law* (= phil. of law), *Philosophy of Education, Philosophy of Religion*,---such are the parts of that comprehensive which.

In fact, the eighteen volumes amount to a

a. general and

b. particular ontology. As the historical section has shown: one can, almost not, do general ontology without also raising particular issues. But we leave the encyclopedic to figures like Feibleman et al.

The reason: only samples from reality are readily accessible to us fallible humans (fallibilism - H.O. 312). This means that we are adherents of an inductive (i.e., attuned to samples of total reality) ontology. Anything over and above that seems less appropriate to us, without rejecting encyclopedism out of hand, as some "critical" minds, including those in our country, do.

H.O. 359.

General ontology.

'Ontology' - so we said H.O. 1 - is theory concerning 'All that is', Or: the doctrine concerning being(s) as being(s), as Aristotle expresses it. In short: philosophy of reality. Because 'being(de)' is the auxiliary verb for 'All that (so, -- this or that) is.

So why is it that the auxiliary verb is used as a noun? Because, e.g. in ancient Greek and Latin, the verb 'einai'; 'esse', is used as a full verb more often than in our Dutch language. So e.g. to the question "Is God?" one can answer "God is". Although unusual, even the common man understands this.

People like the fundamental ontologist Heidegger (who can be called an "existential" thinker, to a certain extent) have made the term "sein", among others in the word "da.sein" (man as being aware of his own "being" and of all "being"), topical again. We have used it several times in our historical section. But feel free to use the term 'reality' or 'a reality' (instead of 'being' or 'being').

As mentioned above (in previous years as well): Parmenides of Elea (-540/...) is the founder of ontology. He uses, for the first time, the term 'being(the)' in a special and very general (we say, with the Scholastics: 'transcendental' or all-encompassing) sense.

A difficulty: Parmenides, who did not yet explicitly possess the analogy doctrine (H.O. 12vv.; 40vv.; 97; 123 (very important)), speaks of 'being(the)' as if it could only be volitional (totally identical) with itself; consequence: the ontology stood, immediately, before its main idea: the unity or 'identity' (general (= reflexive, looping) or partial (= analogical, partial-identical) identity).

It took centuries, indeed up to the present day, for people to see it ready. Yet the Catholic tradition - o.i. with great reason (the historical part tries to show this) - has always chosen analogy (against differentialism absolute pluralism, (H.O. 3; 96 (Derrida); 152 (Occam); 164 (individualism); 176vv. (understanding v. other cultures); etc.), but also against conformism (monism, assimilationism), which sees too much similarity and too little difference, resp. independence). The second, for any ontology worthy of the name, that Parmenides thematized, was "to kath'heauto" (what is, as far as it is in itself).

H.O. 360.

This implies that man, insofar as he is an ontological being, develops both a subjective view of reality and an objectivity - precisely in that subjective approach - at the same time. The subjectivist (and there are many variants of subjectivism) believes that we simply can never be completely 'objective' (i.e. true to reality); the objectivist believes, all too easily, that - provided there is sufficient rational and emotional effort - we can always make objective judgements.

The truth lies in the middle. But it is very bold to develop a general theory about this. By what? Because we discover reality only gradually (think of the transition from geo- to heliocentrism; H.O. 263vv.: The Galilei Trauma) discover reality and, even then, sample it (inductively), - never in its exhaustive totality. Such a thing - says in unison the great ontological tradition - is reserved for God.

Decision.-- From the beginning, Parmenides, three characteristics of reality have been clearly brought up:

(i) the term 'real(he)' refers to everything and everything of everything (only the absolute nothing is there -- it is only a figure of speech, denoting the non-existent, yes, impossible and absurd counter-model -- opposite ('being(de)' is transcendental));

(ii) one being -- compared (comparative method) to whatever other being and in whatever way -- is always analogous, part-identical,-- never total-identical (which is what monism in all its forms excludes) to another being;

(iii) all that is, insofar as it is, is always in itself, independent of our subjective approach (even if that subjective approach plays an essential epistemological role);-- though it remains true that that very thing, the objective (real-world) character of our knowledge, is always the big issue.

What cuts off any radical subjectivism: whoever claims that our knowledge is always and radically subjective speaks as if he were making an objective statement! he alone, in that absurd case, would be objective!

After this initial characteristic of reality, which is fundamental, for the rest of the ontology (without these three traits of knowledge, any ontology is meaningless), we can outline the scheme.

H.O. 361.

II. A.-- *Phenomenology as a method.*

1. Parmenides saw it: though the 'being(s)' is in itself (objective), yet, in his archaic way, he reckons with the (subjective) opinions (doxai).

But this necessitates what, since Husserl especially, has been called phenomenological description (phenomenology: bringing up what shows itself, insofar as it shows itself, from the outset).

This means that empiricism (in the very broad sense: all that is experience) is the only access to reality. 'Empiricism', yes, because all that we do not experience directly, does not tell us, intellectually and reasonably (= spiritually), much. But, once it is empirical, it is subject to subjective color : we experience reality as far as it appears to us (phenomenal method).

An Alfred Fouillée, an Alexander North Whitehead, an F.-J.. Thonnard (a Scholasticus),-- they come out explicitly: a purely ideal, cerebral ontology certainly does not satisfy the contemporary educated person interested in ontology. Actually, such a thing always interested only "cerebrals.

But phenomenology is multifaceted: there are phenomenon descriptors who -- one thinks of the systematic or consistent skeptic -- stick strictly methodically or ideologically to the pure mode of appearance and banish the rest (= the transphenomenal complement;-- so e.g. the general concepts or, Platonically expressed, ideas; so e.g. the sacred or religious realities;-- so e.g. the ethical motives). As "unreal" (imaginary kinds) or as "not real enough" (unimportant).

This seems to us unacceptable and a certain ontological streak - and the Church tradition, most certainly - has always rejected this phenomen(al)ism as a mutilated ontological sense. O. i. quite rightly : one reads e.g. H.O. 332vv. (nihilism).

With the latter we bump into what we call, with Feibleman (H.O. 350), the ontological triad:

(i) the nominalist, if radically consistent (which is rare), adheres to the boundless multiplicity (differentialism, absolute pluralism) of phenomena (Skepticism, Phenomen(al)ism);

(ii) the abstractionist (Aristotelian essentialism) transcends phenomena and their sheer multiplicity into the general, preferably purely inductive (acquired through empirically based generalization) concepts ('being forms'),

H.O. 362.

(iii) only exceeds the ideative - very clearly delineated from Platon onwards - and the names (terms) and concepts to penetrate to the ideas (archetypes, regulatory models). How so? By answering the question: "From where, in the whole universe (the 'being', the total reality), do both the phenomena and the words (names, terms) and concepts that go with them, calculated in the form of ideas (archetypes), emerge? Only the answer to that question - if this answer is possible - provides the full content and extent of 'being' (H.O. 34; 38; 42 (Scheler); 46 (threefold role of the idea); 47 (black box); 95 (falsifications of the idea in the phenomena); 338 (Negative Dialektik)). See especially H.O. 350.

II. B.-- *The ontology upholds a transcendental idea of reality.*

Check the materialist: he sees only matter. Examine the one-sided spiritualist: he everywhere discerns mere 'spirit' (immaterial realities). Analyze the behavior of the positivist: everywhere and always he piles up (idea-poor) "facts" (firm data). Study the Kunieker: he allows himself to be overwhelmed by the 'negative' (bad and unsavoury) impression which both culture and landscape give off, at least in his case. Go on: they are all one-sided.

The ontologist adheres strictly to the basic idea of "real. Even the absurd (that which is pure nonsense, incongruity), since it can act as a counter-model of what is real, is in some sense real. A nightdream, a mathematical axiomatic - deductive system,--all that is non-nothing and, therefore, real. Thou hast caught it: 'real' is a polyvalent, ambiguous, analogous (it is also said) and not a univocal idea.

Only in this many-sided analogue interpretation can the idea 'really' be comprehensive (= transcendental). As Parmenides already sensed.

The transcendental.

H.O. 127; 131 taught us the list.

(1) Being is invariably both actual existence ('existence' in the scholastic sense) and mode of being ('essence'). Why? Even the absurd - e.g. in a manual of geometry (the proof from the absurd) - is, in a certain sense, a fact, viz. in the representation created by the designer,-- representation, which is not - nothing, thus 'something' (being, reality).

H.O. 363.

(2) but 'being(the)' has being or reality properties.

a.-- *Being(the) is one, i.e. identical with itself.*

But the separate real things, data, they are, to some extent, one, i.e. volitional with themselves, yet never complete: they are, at the same time, part-identical (analogous) with all the rest (complementary).

This has the consequence that - in order to understand something, e.g. a dove - ontologically, one would have to see through the whole rest. This is impossible, except for a God. - Consequence: we have to satisfy ourselves with samples (inductive tests) of the transcendental idea 'really'. Which made Aristotle say, "The idea of being is, in a certain sense, nothing, 'kenon ti' (something that is empty, contentless)". Why? Because 'being' is essentially auxiliary: only when one has something concrete e.g. the Catholic school - in mind, does that transcendental idea get 'life' (content and scope).

Harmology.

S. Augustine, according to some, passes as the first to found a doctrine of order. A harmology (a word reminiscent of the term "harmonia", integration). Indeed, according to Augustine, all of creation (the universe, nature) is orderly. Thanks to analogy or partial identity (H.O. 12v.). Harmology is the theory of unity in such a way that both the identities (similarities, connections) and the non-identities (differences, independence) are correctly expressed.

Note.-- Modern and contemporary logicians (logicians) accuse ontology (at least the dominant one) of not introducing, in its logic, an idea 'relation'.

(i) The idea of 'relation' was well known (Aristotle explicitly mentions it in his ten categories (= basic ideas)).

(ii) The idea of "relation" appears in unity theory (harmology) under the name of analogy or partial identity: since "thinking" is partial to "factual existence" (and this is natural: someone who does not factually exist simply cannot think), Descartes, who is so fond of criticizing Scholastics and Aristotle, can say, "I think. So I exist". Thanks to the analogy theory he underestimated!

Conclusion: one does not therefore claim that the relation is not central, in classical ontology, which is essentially analogical.

H.O. 364.

Philosophy of Language.

We have, in our Rhetoric, dealt with language.

Just one applicative model,-- to give an 'idea' (a design).

Stated the sentence: "Descartes is the father of Modern philosophy". It is clear that a judgment is possible only if partial identities (or still : 'models') exist.

- Analyze: 'Descartes' is the unknown being (subject). To say something about it
(i) know (epistemologically) and
(ii) to communicate (communication theory), one should connect information to the idea 'Descartes'.

Well, there is information (knowledge and communicable 'message'), as soon as a partial identity (analogy) can be found, which can count as a model (= saying). Thus e.g. 'Father of Modern Philosophy' (= idea, which can be a model). What remains now is - in order to be able to pronounce the ideas 'Descartes' and 'Father of modern philosophy' in a sentence (proposition) (judgment) (it is about the relation (= analogy or partial identity between both ideas)) - find an auxiliary verb.

Do we, with confidence, use 'his' and say, "Descartes is (understand: is part-identical with) the father of Modern philosophy." Why only part-identical? Because Descartes, besides being 'father of Modern philosophy', was also e.g. 'friend of Father Mersenne'! The total identity 'Descartes' vastly exceeds the partial identity with 'father of Modern philosophy'. This is a sample of ontological philosophy of language. She is applied orderliness.

b.-- *His(de) is true.*

This refers to what Platon calls (he thus stands in an ancient tradition) "the noble yoke" (H.O. 8). Cfr. also H.O. 272; 305. This is situated where Husserl speaks of 'intentio(nality)':- 'True' in the Antique-Middle Ages sense, means 'contact between reason (reason) and reality, such that both correspond to each other!

Of course, as Platon and Aristotle emphasize: after verification. As we, with Platon, set forth H.O. 38.

c.-- *His(de) is "good" (value).*

This founds axiology (H.O. 73v.; 331).-- A word on Max Scheler (H.O. 42).

Leibniz (1646/1716), the Cartesian, but who knew the Scholastic, dwells on the phenomenon of maternal love. As a Cartesian (Enlightener of the pure Rational type) was convinced that the mother's feelings are borne of an objectively directed kenact, the obscure understanding that it is good (value -or meaningful) to love her child.

H.O. 365.

This is not an 'idée claire et distincte', (H.O. 316), but an 'obscure thinking'. Acts of feeling were, in that intellectualist 'way of seeing', actually 'representations' and their object (e.g. the child) ideal objects of representation.

But Enlightened Rationalism, itself, evolves around this: I. Kant (H.O. 146; 311; 346) and Johann Nik. Tetens (1736/1807; German Enlightener par excellence, who was very influential on Kant) established that - unlike a Leibniz - the acts of feeling, such as maternal love, are irreducible to mere 'intellectual' acts.

But Tetens - and Kant in his line - saw empirical psychology as the introduction to ontology (which, as a result, was watered down to a by-product of a professional science, of course): 'consciousness' was, for him, mind, will, feeling. With this, although the own essence of feeling was saved, as distinct from will and reason, one saw in it purely subjective states (H.O. 359v.: in itself, objective,--and not purely subjective).

Conclusion: as H.O. 151 (Occam's nominalism), 153/155 (Leo Apostel's subjectivism) taught us: the modern subject remains locked in its inner imaginary.

Max Scheler, in Augustine's direction (H.O. 70v.: the noble yoke involves that the truth is such that our thinking is really in touch with the ideal content in the phenomena themselves), sees that both types of Enlightened rational thought, concerning feeling (feeling of value), are each partly right.

(i) Analysis reveals that the sense of value (e.g., of the mother) is intentionally ("noble yoke") directed toward the objective value ("good"), which the valued (e.g., the child) represents (// Leibniz).

(ii) Yet it is also true that that feeling (sensing) is not purely intellectual (// Tetens, Kant). Only the synthesis of the two one-sidednesses is correct.

Note.-- Scheler was Husserlian (phenomenologist), but Augustinian reworded (ideational realist). As a result, he overcame Rationalism. Phenomenology, after all, founded its own essentialism (H.O. 8/12 (as P. Foulquié, *L'existentialisme*, Paris, 1951-2,27/32, explains).

H.O. 366,

II. B.-- *The ontology exhibits partial ontologies.*

General ontology is divisible into particular ontologies (= partial metaphysics) : Feibleman (with his eighteen-volume work) taught us (H.O. 358).

Yet one need not lose oneself in multiplicity: there is a traditional triad, which, from Herakleitos of Ephesos (H.O. 220), to the present day (but certainly not least in German Rationalism (with *Christian Wolff* (1679/1754; Leibnizian, known for his *Vernünfftige Gedanken von Gott, der Welt und der Seele des Menschen,-- auch allen dingen überhaupt* (Reasonable thoughts of God, the world and the soul of man,--also all things supreme), (1719 his main work), is frequent.

Herakleitos, who was ethico-legal, passes as the founder of rational natural law. but note: that fuis (natura, nature) is never 'autonomous'! It is merged with deity (with him in a pantheistic sense; H.O. 348: Spinoza, an Israelite, was, in fact, a pantheist) and with the transcendental aspect of the human soul, which he sensed as attuned to the whole cosmos (nature) (which many archaic Greeks did).

Note -- Time constraints do not allow us to develop this section, the partial ontologies. We have devoted all our energy to clarifying a basic Catholic philosophy. As is appropriate for people, who are not professional philosophers.-- However, we can briefly outline.

1.-- *The cosmology.*

'Philosophy of Nature' is a second title. This is the 'universality' (De Groot) aspect: the 'being(s)' makes up a universe (= universe). Real ontology has always felt at home in the universe (H.O. 33: Einstein (physical = metaphysical); 53 (Platon); 82 (Augustine); 269 (Galilei: two books). This, since the Milesians (Thales (-524/-545).

Note.-- Interesting would be the deepening of the triad 'matter/energy/information' as it has been prevalent since *N. Wiener* (1894/1964; *Cybernetics* (1948)).

Likewise: in which there is precisely the difference and coherence between inanimate and living (fundamental biology), between living and human.

One testimony: Vladimir *Solovyef* (1853/1900), main figure of the Russian Christian realists (H.O. 91v.; 93) and sophiologist (wisdom theoretician, in the line of the Wisdom Books of the Bible), in his *La justification du bien*, Paris, 1939, 185, 187;192, explains, in the idealistic sense, how the stratification in the universe can be articulated.

H.O. 367.

He uses terms, which are well, known in the older literature on the subject. There are five realms.

- (1) The inorganic ("mineral") realm (the inanimate);
- (2) The plant kingdom (biological or organic, **type 1**); the animal kingdom (biological, **type 2**); the human kingdom (biological type 3);
- (3) The Kingdom of God.

The latter, in Western, completely secularized thinking, is a curse, so to speak. But biblically speaking, perfectly justified. Reread H.O. 157 (Occam's critique of natural theology (and its ethics)); especially 218/230 (Luther rejects any natural religion (ethics included) that seeks to succeed outside of biblical revelation).

Solovievian expressed : the 'realms', which, collectively, make up the universe, only really succeed (exemplary; H.O. 45; 70; 73), i.e. according to the idea, which God put in them, insofar as the realm of God, in Christ, restores ('actualizes'; H.O. 345 (devil's circle)) them. This, for the reason of demonism, i.e. the harmony of opposites of succeeded, undone by failed (H.O. 338: negative dialectic), present in the intimate structure of nature itself. As the present Pope, in our Antwerp Cathedral, speaking of nature, clearly repeated,--in the line of the whole religious tradition, the pre - Biblical included. Cfr. H.O. 90/100 (August. conflict.).

More biblically, without the Kingdom of God, all of creation sinks, again and again, into the cycle of success and failure (H.O. 75: cyclic),--including the inorganic world (the Bible does not know an absolute separation of the "realms," as Modern Rationalism does).

Idealistic evolutionary theory.

"One cannot deny evolution. It is a fact". (Solovjef, o.c.,192).

Different, however, is the situation with interpretation: one, the materialistic (resp. positivistic), interpretation of it contradicts the other, the spiritualistic (idealistic). Solovjef sees it as follows:

(1) the order, phenomenally, is from lower to higher. Unquestionably.

(2) But, ontologically (not just subjectively, positively, - let alone materialistically) speaking, it is equally undoubted that the full being-form (H.O. 12) of the higher reality types (after inorganic: plant, then: animal; then: human) is irreducible to the lower being-forms.

H.O. 368.

Yet Solovjef establishes a kind of continuity: the plants "rise" (phenomenally) from inorganic nature ("rich"), etc. Yet this continuity is limited to the material conditions of existence:

(a) That which, essentially, not merely phenomenally, is lower, is poorer, according to ontological status; it cannot "create" or "evolve out of itself" what is higher. Such a thing is nonsense.

(b) But what is lower can (very understandably) represent for what is higher the conditions, which what is higher 'employs', to manifest itself. What exists beforehand is the material plane of existence; what is new is the higher form of being (= idea, which, according to Biblical idealism, emanates from God (H.O. 91: Thou seest a new form of life, which is higher. Therefore, in the divine creative power, there is a "new form of life" (= idea)).-

Note.-- This is typical Antichristian realism: H.O. 76 (diachronic structure of ideas of God).

2.-- *The noölogy ("rational soul science")*

The term "rational soul science" comes from Chr. Wolff (H.O. 366). Man, in classical, idealistic ontology, is conceived as an idea of God (H.O. 60vv.). Augustinian seen, he is indeed an individual (understood individualism; H.O. 137 and person personalism (cf. e.g. E. Mounier (1905/1950)), but he situates himself in community (H.O. 81/89: Aug. social.). In other words: he is understood solidarist (not collectivist and not liberalist).

Note -- These themata have been developed, sometimes extensively, above.

3.-- *The (natural, philosophical) theology*

Contested! See H.O. 157 (Occam). - especially human-pessimistic Lutheranism and Calvinism (H.O. 223vv.), fight the Catholic (much more optimistically minded) and, more so, the Humanist (H.O. 196vv.: Hum. and Christend.) natural theology (ethics included).

Yet neither Luther nor Calvin doubted that, by nature, mankind, including the Heathen, inherited a God idea and a God contact from the Creator. This is better reflected in Humanism and Catholicism.

Deo trino et uno Mariaeque gratias maximas (10.05.1987).