

**5.7.1. Introduction to Modern and Current Thought.
MHD Philosophy (third year) 1983/1984**

Bookmark: see p. 1 to 3

Part 1, pp. 1 to 150

Preface.

(1) This course is an introduction to reductive philosophy. It has as its outline:

(A) Observation (factual);

(B)1. Abduction (hypothesis building or regressive reduction);

(B)2. Deduction (derivation of logically sound predictions or progressive ed.);

(B)3. Full reduction (establishment of new facts, which are Peirastic i.e. testing either as verification or as falsification).

Philosophy,--also professional science and rhetoric, if reductive, proceed in this way.

(2) This course is two-fold in concept:

a/ he follows the gen(n)etic method (cfr. infra 1. (Anax. Model) 2. 215 (Ar. Mod)

b/ he follows the intertextual method, as much as possible (cfr. Infra 33v. (Wittg. linguistic game).

We refer to *J. Kristeva, sèmeiotikè (Recherches pour une sémanalyse)*, Paris, 1969; by citing as much as possible the authors and their interpreters (hermeneuts), we are carried by the fabric of the texts of our rich tradition. Which means something like an anthology.

(3) Core setting is and remains p. 11v. (Reduction and deduction.) Red., as well as ontological ‘horizon’). All forms of reasoning are elaborations of that core insight. We highlight a few types of reasoning.

(i) Starting point is and remains what the Anglo-Saxons call commonsensical method (the everyday forms of reasoning in a particular milieu) (cfr. Infra 2;34, 233) The professional scientist also starts from this point.

(ii)a. Phenomenology (232vv. (Schel. Mod.); 32.9 / 32.11 (depth philosophy. Appl. Mod.) -- occasionally this purely descriptive method is embedded in the language game (see 33v.) Either of some ‘hermeneutics’ (see 38/40 (Vico, Dilthey)), or of an existential description. (see 146v. (Heideggerian fund. ontol.); (255vv.) either a Peirc. Mod. (255v.) or even of a (Hegel or Marx) ‘dialectic’ (see 225/231).

(ii)b.1. General Usability:

a/ the analogical reduction (cf. 5:7 (alg. concept of analogy 34:101/109 104 (cyb.) (anal. Versus ind.) 111/114 (typol.

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Appl. mod.); 5/9 ((model-learning applicative model.); 1.37; 140 (literary Appl. mod.); 32.9/32.11 (Spranger, struct. mod.); 231/236 (Scheler, ideative mod.);

b/ the ‘stoicheiotic’ reduction. (see 2/3- (Platonic and Milesian mod); 5/5 (mathemat. appl. mod.); 34 (language sp. appl. mod. (= analogy with card game); 66v. (mech. microcosm. appl. mod.); 90 (str. binary-operat. appl. mod.); 91v. (system learning. appl. mod.); 102v. (analog.-red. Mod., 104 cyb.); 189vv. (atomist. appl. Mod.) 208 (Pl.- str. appl. M.); 218v. (strictly ontol. appl. M.); 220 (Rom. app. m.); (organic. Appl. M.) 226vv. (Heg. dial. appl. m.); 234/236 (ideat. Appl; mod.); 237v. (Ar. System. Appl. Mod); 12/13.1; 31; 68/70; 126/128; 202/205; 242/245 (theosph. appl. mod.); 251v. (Christ. theos. app. m.);

c/ the systemic doctrine (see 18; 54; 21/24 (metatheor.); 91; 104 cyb. 223; 172v.; 214),--of course, in connection with the ‘stoicheiotic’ m., which represents the moment ‘constituents’, ‘elements’, of it.

(ii)b2. Particularly important is the notion of lemma (cf. 8.v. (wisk.); 10/12 (wisk. and normative); -- see for 13.1 (Alkm. Hermeneutics) 254/259 (Percian appl. Mod.), -- of course, i.v. the lemmatic-analyt. Method.

(iii)a. The axiom. ded. or lemmatic-analytic method is decisive for all strict-logis(ti)c reasoning systems (cf. 217 + 237v. (Arist. Appl. Mod.)

(iii)b. Purely rhetorical-dialectical ax.-ded. or lemm.-anal. methods are:

a/ the Peircian triad (proper, right, and/or liberal m.; see .31v.; 33; 177v.; 233v.);

b/ foundationalism (see 261v.)

See also critique of ideology (viz. on such. lemm.-an. meth.) 18; 54; 173; 214; 223.

The projection (see 64.1 /64.5) is one special appl. model of mere rhetor.-dial. ax.-ded. thinking.

(iv)a. The antique-medieval mere rhetor. dialectic remains usable (see 198; -- 15/19 (erist.); 19/20 (‘thou too’); 53).-- though distinguished from the destiny dialectic (see 198v.; -- 40v.; 41/45; 51).-- the Sophistic dial. meth. is one appl. mod. of reasoning dial. (see 140; -- 188; -- 182 (antilogia); -- Socr.-Pl. mod. (see 198/205).

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(iv)b. Very special is the depth psychological method ‘see 32/32.12). Yet it has, since the Freudian critique of mere consciousness thinking, a very large scope, -- this all the more since it implies, in essence, perhaps the oldest form of Greek thinking. Hence the great ‘digression’ on this subject.

(v) Queen’s piece of all reasoning is and remains, of course, Science, i.e., the, essentially, mathematically and physically inspired professional science, which, always, either presupposes a truly “positive” (not in the Schellingian-existential sense, cf. 166v.) philosophy (ideological (see empiricism (182v.) or sens(ual)ism and phenomenism (191v.;-- see also 24 (Kant’s critique of both intell. and scept. ax.-ded. thinking); 101 (Bacon’s classification, with immanent critique)) or builds one out on a purely professional scientific basis (which is then called Scientism, positivism (232, A. Comte), empiricism (269 D. Hume) whether Neo- or not) See Anaxagorean appl. model, pp. 70/123. It is deliberately worked out so extensively, because since Galileo and the modern and present exact (i.e. logico-mathematical and experimental) sciences, also for the philosophies of all kinds, a crisis of foundations has come up, which still forces us to reflect on the abductions (i.e. the necessary and/or sufficient grounds) of all philosophies without question.

Note -- The largest classification items. - These are mainly the following.

1A. The pagan fil. (-660/+600) (p. 3/245).

1A(1) The Nature Fil. (-600/-350) (p. 3/187).

1. Rise (-660/-450) (p. 3/64).

2 Decline (-450/-350) (p. 65/187)

2A. (Mech.-at. (pp. 66/180)

2B. Protosof.- Hum. (pp. 180/187).

1A(2) The classical fil. (-450/-200) (pp. 187/241).

a. ascent (-450/-320) (pp. 187/238) Minor-Socr. (188/193). Grand. (193/238).

b. Decline. (-320/+200) (pp. 239/241).

c. Theosophies (-50/+600) (pp. 242/245).

1B. The Christian fil. (33/1450) (pp. 246/260).

Patrist. / Scholast. / other (pp. 252/260)

II. The modern-day phil. (1450+) (pp. 260/264)

IIA. Renaissance era. / Kant (1450/1781) (pp. 260/262)

IIB. Kant / present (1781+) (pp. 263/264)

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Note - “Stoicheiosis”. - Platon of Athens (-427/-347), from whom *An. Whitehead* (1861/1947), with *B. Russell* the author of *Principia Mathematica* (1910/1913), but also the process or movement philosopher, once said that the whole of Western thought was only a series of footnotes on Platon, attached fundamental importance, at a certain time, for his dialectics, to ‘stoicheiosis’, i.e. the disintegration and reassembling (harmonia) of components.

(a) perception.-- The “fusus” (natura, nature) as a diffusely perceived whole is the starting point of Western philosophy.

(b)1. Abduction. - thinkers like the Milesians -- Thales, Anaximandros, Anaximenes v. Miletos (hence the name ‘Milesians’) -- stand for the natural and human world surrounding them, the object of the common sense (Thom. Reid (1710/1796), -- i.e. reality insofar as immediately given (phenomenal reality) to the all (non-canonical) people common sense). That perceptual world they “view” “philosophically. They reason “If, behind, in, above that visible and tangible world of life there is something like an ‘arche’ (principium, primal principle), that:

(1) is ubiquitous, as a constituent, and

(2) at the same time, the origin of everything that our world offers, only then does that astonishing multiplicity, in which we no longer see the ‘forest’ (i.e. the analogue of the unifying primal substance, which is at the same time constituent and common origin) from the considerable number of trees: a non-miraculous, ‘comprehensible’ and transparent unity of many moments or living-movable constituents.

(B)2. ‘Stoicheiosis’. - The first step in interpreting what is observed is essentially the ordering of many moments (in set theory one reduces moments to ‘elements’, all of which are identically-identical, i.e. arbitrarily interchangeable;--which is abstract).

Current structuralists (cl. Lévi-Strauss (1908/2009 et al.), in that ordering, proceed analogically: in terms of linguistics (linguistics in the style of *F. De Saussure, Cours de linguistique* (1916)) they speak of human cultural phenomena. Such a thing is only one type of platonic stoicheiosis

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Cfr. -- Descamps, *La science de l'ordre (essai d'harmologie)*, in: *Rev. Néo-Sc.*, 1898, 30ss.;

-- C. Berge, *Principes de combinatoire*, Paris, 1968 (the latter "situates" moments ("elements") in logistic "configurations" (i.e., collections of "places")).

IA. *The pagan philosophies.* (2/245)

K. Löwith, *Weltgeschichte u. Heilsgesch.* In: *Anteile M. Heidegger*, Frankf., 1950, 115ff.: "European self-consciousness sees its historical cultural heritage determined by two different yet equally normative lore, the 'classical' (understand: pagan) and the Christian." We begin with a vetting of the first basic component of our Western philosophies.

IA(1) *The philosophy of nature and its first crisis of foundations* (-600/-350). (3/187)

As said: the Milesians engage in observation, the basis of what W. Jaeger calls 'the Milesian empiricism'. But they interpret by abduction (= regressive reduction), i.e. they put forward a hypothesis.

1. *The rise of philosophical nature research* (-600/-450) (2/64)

1A. *The hylic idea of the Milesians.*

Hulè (materia, (primeval substance), adjective: hylic (primeval, fine or rarefied). - The "Historia" (inquisitio, investigation) of the Milesians leads to analogical reduction.

Thales (-624/-545), abducts, from the observed natural riches (rain, plant growth), 'the water' ('to hudor'). In other words, in terms (language play) of 'water' he speaks of all of nature.

Anaximandros (-610/-547), according to Simplicios, (*Fr. 9*) claimed that the origin ('archè') and the (omnipresent) constituent ('stoicheion') of the 'being' is the 'apeiron' (indeterminate) (...). Anaximandros says (explicitly) ('legei') that that origin is neither water (cfr. Thales) nor any other (...) constituent, but another type ('heteran') of 'apeiron' (indeterminate) 'fusin' (force of being; cfr. infra p. 11), from which all the heavens and the worlds present in them arise. (Anaximandros said explicitly) that in the origins or constituents, from which the being comes into being, they, necessarily, also perish. For (...), those being pay punishment and penance ('dikèn kai tisin didonai') (cf. Infra p. 128f. Euripidean interpretation) one to the other ('allèlois') for the reason of 'adikia' (injustice) and this according to the order specific to time.

MHD 4.

It should be noted that in those days, the abduction of a cosmic-fluid legal order was common. In the primal substance, viz, all injustice depicts itself.

Anaximines (-588/-524) (according to Aetios; *Fr. 2*) “judged that ‘the origin of the being is the air (‘aer’). For, (...) from it all (being) originate and in it they are, again, dissolved (‘analuesthai’) (...) ‘as - model - our ‘psuche’ (soul), air as it is, holds us together with force (‘sunkratei’), so also - analogue - air and breath (‘pneuma’) embraces the cosmos!

Anaximines uses ‘air’ and ‘breath’ as synonyms (‘sunonumos’). -- This first ‘abduction’ of what, later, will be called ‘World Soul(estoph), is the first clear form of what, since the Renaissance, has been called ‘hylozoism’ (the primal substance -- not the ordinary or ‘gross’ substance, of course -- is abducted as life and life-giving).

Note.-- W. Jaeger, *A la naiss. d. l. Théol.*, Paris, 1966, states that the primal substance has ‘sacred’ (either daimonic or divine) features; consequence: the Milesians, with S. Augustine, call him theologians. The religious scholars (*G.v.d. Leeuw, Phän. d. Rel.*, Tübingen, 1956 e.g. speak of dynamism (belief in power, power; ‘kratophany’). That regularly speaks of ‘holiness’ in terms of ‘subtlety’.

Note.-- The notion of ‘hule’ as the subtle primal ground of all ‘being’ is an enduring achievement in further Greek philosophy.

1B. The first major, mostly speculative, abstractions

Number forms, merely thought ‘being’, universal logos,--see three types of merely reasoning abductions.

(i) The mathematical-theoretical abstraction of paleopthagoreans.

Pthagoras v. Samos (-580/-500); Philolaos, Hiketas, Archutas, et al.

The primal substance is “micromonadic” (discontinuous extremely small particles of dust). It is perceived in its coarse material manifestation. Numbers of geometrical ‘forms’, joined together (harmony), are both primordial elements and origins (‘principles’). (Arithmetic, geometry, musicology, astronomy).

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These harmonic number forms are especially in:

(1) the music - better: in the 'chorea' (dance, music, poetry - and

(2) the 'macrocosm' - the 'music of the spheres' - of the heavenly bodies; from there, in addition to mathematics of numbers and space, music and astronomy as learning subjects, which the Latins, later, would call the 'four arts' - quadrivium. These are a lasting achievement of Western culture.

The unity in the multitude.

The analogy - the partly identical and partly non-identical - is the key to the "beholding" ("theoria") of the numberform harmony in the primal substance realized.

Full- identical - partidentical - (totally) non-identical, such is the differential, which constituted the starting point of the Paleopthagoreans.

Consequence 1 .-- Creature definitions such as "wind stillness is the calmness (state) in the air mass" or "still sea is the stillness of wave movement" (Archytas of Taranton (-400/ -365) make 'sense': one says of the subject 'wind stillness' or 'still sea' from the proverb; the subject, taken in itself, full- identical only with itself (one, i.e. indivisible in itself and irreducible to anything else), is partidentical with the proverb, which, also in itself, is full- identical with itself.

In other words: two full identities can, if part-identical, be said to be separate from each other. -- Thereby it is so that 'air mass' or 'wave motion' are the substance, to which 'state of rest' or 'cessation' as a form are made proper,-- meant is a numerical form (harmony)

Consequence 2. -- number, expressed in (cardinal) numbers, which allow counting, is an application or applicative model of partial identity: a multiplicity (at least two) of micromonads (discrete or discontinuous points) is one under point of view of grouping (aggregation, collection);

In other words, not only as a geometric form (harmony), but already as a number, the arithmos (number, aggregation) is a unity (abstraction) in the multitude.

Digression.-- The concept of (mathematical) model.

Doede Nauta; Logica en model, Bussum, 1970, 16, 26vv, rightly claims, that the Paleopthagoreans introduced the notion of 'model' - in the form of 'geometric' model of a numerical data (a number), precursor of the model of analytic geometry. In view of the enormous application, today, of the model concept, we will deal with it.

Just now we saw that the Paleopthagoreans presupposed an inner kinship between arithmetic and geometry. This led them to translate arithmetic data into geometry. Model' is a conversion (representation) of entities and situations from nature and history into a set of symbols.

MHD 6.

In systems theory language: - given in known system - in this case, number forms (geometric figures); given, secondly, an unknown system

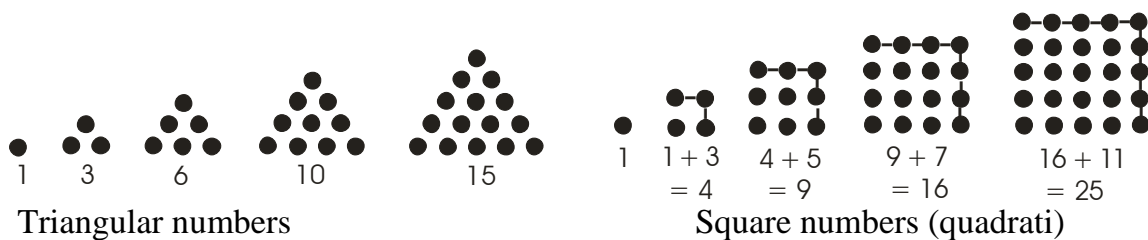
- the unit (micromonad, point) and its “numbers” (two or more), independent of the former;

- If one uses the known system (e.g. by representation (translation, transformation, function)), to gain insight (‘information’) about the unknown, then one constructs, in the known, a model of the unknown. -- cfr. *K. Bertels/D. Nauta, Introduction to the understanding of models*, Bussum, 1969, 28.

- ‘Image’ is, expressed in set theory language, a ‘law’ (ordering) such that, to each member (element) y of an unknown set A , in the known set B each element X is added, assigned. -- symbolically expressed: $y = f(x)$ (y is function of x or x is image of y).

Cfr. *H. Freudenthal, exact logic*, Haarlem, 1961, 10/11.

- Do we, now, watch as the Paleopthagoreans depict the unit and its numbers (at least two) in number forms (harmony).



In other words, via the series of triangles or squares we acquire insight (information) into the corresponding (depicted in them) unit and its numbers. Or: the figures are models for the numbers.

The later developed analytic geometry proves that such ‘translation’ (truthful representation) of geometric data (even theories) into numerical (in this case: algebraic and vice versa), can work out rightly. “Therefore, analytic geometry is also the first systematic modeling method in the history of mathematics: since then, geometric objects (concepts) and methods have been models for algebraic ones and vice versa.” (*D. Nauta, Logic and Model, Bussum, 1970, 31*). There is, after all, mutual realization.

Note.-- the Paleopthagoreans have left the most beautiful proof from the incongruity of antiquity, namely, that it is impossible to find a rational number for the root from 2.

Cfr. *D. Nauta, o.c., 27/28* in the unit square the diagonal is the root from 2 ($\sqrt{2}$); one did not yet have a root extraction model and one did not have a measurement model. Consequence: $\sqrt{2}$ is unmeasurable.

MHD 7.

“Analogy is the lynchpin of model understanding”.

Access to the world, in knowing and ability, man gains by discovering in the chaotic and unknown to him, similarities with the ordered and familiar to him.

(i) The concept of a model is not the only form of thought, in which the similarity between states of affairs is expressed.

(ii) there are a whole number of other notions, which, in one way or another, bear witness to analogy.” (K. Bertels/D. Nauta, *Inl. to the Model Begr.*, 31).

The authors list: image, icon, reflection;- metaphor (transfer);- exemplar (example), specimen, paradigm (textbook example), paragon;- die, mold, ‘pattern’;- facsimile, copy;- isomorphism, homomorphism, homology, etc. All these data are somewhere analogies.

Anyone who knows even a little religious science knows that archaic religions are teeming with analogies and thus, models. For example, the myths: they are, in one of their basic meanings, models for

(i) ritual acts and

(ii) all possible acts of life (fishing, e.g., is done according to the primal model of the ‘first’ or primal fish-catcher; the protoplast (first begotten ancestor), e.g., is a model for all members of the tribe, etc.). With this difference that, in that sacred-dynamic context, the model:

a. exemplary and a.k.a. obligatory (normative) and

b. implies participation; i.e., the one, who emulates it, participates in the “dunamis” (the primal substance) of the model, which is “sacred” (power-laden).-

This aspect is still present, in a philosophical way, in Puthagoreanism - the number, the number form (harmony) is model, i.e. governs (cybernetic aspect) and gives power (dynamical aspect) to what participates in it by following it. - Also in Platonism, which borrows very much from Puthagoreism, the idea (i.e. transcendent model or paradigm) is present, through participation, in the data of nature.

The fundamental crisis of Greek culture, at work in the natural philosophical and protosophical ‘enlightenment’ (breaking free from the archaic respect for the model (as norm, participation and power)) sees in the model only a manipulable given: the secularized model comes into being. More on this later.

The proof from the absurd now, is a typical case of model thinking and construction. The proof ab absurdo has following structure:

(i) premise: a counter-model exists, i.e., an example (instance), which (+) does satisfy the data of the problem, but (-) does not satisfy what is requested, i.e., what should be proved;

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(ii) systematic proof, that such a counter-model is impossible, in that it implies incongruity (contradiction, contradiction, 'paradox') “; -- by that roundabout means, therefore, it turns out that only the model can exist.

Applicative model (of the Paleoputhagoreans).

(i) *Given:* the square of $\sqrt{2}$ (root from 2) is 2 (i.e., the definition of the symbol ' $\sqrt{2}$ ');

Asked: (to be proved): a fraction, equal to $\sqrt{2}$, is impossible (absurd).

(ii) *Proof.*-- lemma (i.e. what we do not know, $\sqrt{2}$, is stated as if it existed and was unknown): we pretend that there exists a rational number, which is a model for $\sqrt{2}$.

Mathematically translated: there are two numbers - p, q - such that $p/q = \sqrt{2}$ (p/q is the counter model, which is both unknown and hypothetical at the same time).

Simplification: we reduce this counter model to its simplest expression (form), i.e., by dividing away all the common factors of p and q (in p/q); that reduced counter model is called p/q.

(i) p and q have no common factors;

(ii) $(p/q)^2 = 2$ (which 'follows' from the given.

a. From (ii) it follows: $p^2 = 2q^2$; this implies that p^2 is even. But, in that case, then p must also be even: $p = 2r$ (-means: p is the double of a number r)

b. It follows from (i) that q must be odd.

c. On the other hand, $q^2 = p^2/2$ (as a 'consequence' of (ii)).

Substitution conjugation (substitution): p for 2r; in that case, we find:

$q^2 = 4r^2/2 = 2r^2$. Which implies that q^2 is even. However, in that case q must also be even.

Conclusion : if there exists a model p/q, then q must be both even and odd. Which is absurd, incongruous.

Consequence: the lemmatically analyzed counter model is impossible.

Note-

1. The Puthagoreans - the Greeks - did not, out of such situations, decide to adopt (pony up) irrational numbers (unmeasurable numbers). They gave priority to geometry over arithmetic, which had gaps (no measure of length was available, i.e. a model of measurement).

2. The Easterners, on the other hand, worked, even then, with irrational numbers, and modern mathematics has gone that Eastern way.

Note.-- The lemmatic-analytic method is a definitive and extremely fruitful method:

(i) One does not know something; yet one introduces it, as if it were known (hypothetical);

(ii) performs operations on it (= analysis), which reveal its implications (inheritances, conditions).

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The whole algebra (since the Renaissance) is based on the lemmatic-analytic method.-- The unknown quantity is introduced, lemmatically, as 'x'. In older manuals the unknown was called 'res' (the matter under consideration); it was indicated by an 'r' decorated with curls, which, later, was replaced by 'x'.

The algebraic equation - $y = f(x)$ - is put down, as if the unknowns were known, and, immediately, operations are possible (operational phase: analysis) as with a known. The higher 'analysis' and 'analytic geometry' are so named precisely because they introduce, lemmatically, quantities whose relations they decompose.

That too is a model application: one translates the unknown into the art language of mathematics (where it has as image e.g. x, y, etc.). Or: the letters are the artificial 'model' of - what today's technologists call - the 'black box', which one wants to test analytically.

Cfr. -- O. Willmann, *Abriss der Philosophie (Philosophische Propädeutik)*, Wien, 1959, 137;

-- *id.*, *Gesch. D. Idealismus, III (Der Idealismus der Neuzeit)*, Braunschweig, 1907-2, 48ff., where Fr. Viète's (+1603) letter calculus is discussed as a model of the (lemmatic) analytic method, and indeed as a typically 'speculative' achievement: indeed, its introduction is an abductive act, whereby one supposes (hypothesizes) that, by introducing that unknown lemmatically, the problem becomes more intelligible).

Note.-- The apagogic reasoning.-- Aristotle (-384/-322) will, later the proof from the absurd (*reductio ad absurdum*) be called 'apagoge'.

Note.-- The principle of contradiction (contradiction, incongruity).

The Eleates, about whom more later, will contrast the "being" with the "non-being" (nothing). They founded ontology (philosophy of being).

The ontological basis of the incongruity axiom is the tautological axiom: "What is, is (What is so, is so)."

This means that full identity can only be articulated tautologically ("tautologia" is "to say the same thing"): after all, something is only volitional with itself.

The incongruity axiom reads, "either something is (so) or it is not (so)." This excludes a third possibility: "either something is or it is nothing; a third is excluded". One sees that one is carrying out a kind of complementation: ... the 'being' and the rest (which is nothing and is, therefore, actually, not there). 'Being' is only volitional with itself; therefore it is 'absolute' (utterly). It does not tolerate contradiction. The proof from the incongruous derives its logical force from the absolute of being. Therefore, one cannot put anything in opposition to it: anything else is impossible.

That's ontology.

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Notes.-- The logical-strand structure of apagogic proof.

(A) **Perception.** - Direct knowledge bestows factual knowledge (see infra pp. 232vv: Husserl's phenomenology .-

1. At a certain moment a Paleopythagorean makes a surprising discovery: a square whose sides measure e.g. 1 unit of length, has as the square of the diagonal 2 (Puth. theorem); well, at that time, contrary to our modern numerology, the Puthagoreans did possess natural numbers and 'fractions', but no root subtraction ($\sqrt{2}$) as a mathematical model. For $\sqrt{2}$ there was, in their system, no measurement model (measure of length).

2. *Platon (Politeia, 1)* makes the surprising discovery that Cephalos abducted as an exhaustive definition (cf. *Infra p. 200vv. (Socr. Definition)*) of justice abducted **1/** always speak the truth; **2/** always pay one's debts.

(B) **Clarification** (i.e. indirect knowledge (o.g. 'logismos', discursive form of reasoning)).

(B)1. Abduction.

1. Suddenly, a Puthagorean realizes, "If no model of measurement existed, without more, then the astonishing fact would be 'normal', 'understandable: 'not surprising'." Reason: there is then a necessary and sufficient reason or ground.

2. Platon, listening, suddenly sees the inadequacy of the definition (as a necessity and/or a reason).

(B)2. Deduction

(infer from the abduction (= hypothesis, regressive reduction) a progressive reduction or testable prediction; deduce a 'control' (= test model)).

1. The paleoputhagorist designs (abducts) a counter-model (against his own opinion): "Suppose: there was a measurement model (measurable number), what then (as a deduction)? This counter-model, being totally unknown to him, he takes as 'lemma', i.e. as unknown, with which he nevertheless wants to carry out operations, in order to analyze its implications (deductions) (lemmatic-analytical method). Cfr. supra p. 8, ad (i).

2. Platon designs a counter-model: "Supposedly: a friend, in good spirits, entrusts you with weapons and he asks you for them back, gone mad. (Counter model:) supposing: you give them back. What then?"

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(B)3. Peirastic, full, actual reduction

(confronting the deductive prediction (here: lemmatic-analytic) with the new factual evidence).

1. See above p. 8, ad (ii): the ‘experimental’ test, in mathematical reasoning, consists in axiomatic-deductive operations (here: the lemmatically abducted counter-model (= idea) is dissected (analysis) on its relations in the whole axiomatic-deductive system (cf. infra p. 18v. (*the system as part of total being*; cfr. infra pp. 218 (*pure logic*); 223 (*ideology critique*); 225 (*full and partial identity*); 227 (*dialectical standpoint*); 236 (*‘ideas’ versus positive sciences*)).

2. Platon reasoned as follows:

“no one - subjugated: with sufficient conscience - would say that thou hast duty, resp. acted justly, if thou didst return those weapons to an insane person.” (Platon argues analogically: in terms of authority argument, he expresses a business argument: “if one puts at the disposal of an insane person a life-threatening instrument, at full liberty, one is collaborating in (possible) violence that is ethically-politically irresponsible.”) (causal deduction).

(b)4. Evaluation (value judgment).

1. mathematical model:

Q must be simultaneously (see above page 9 (bottom)) odd and even. Which is absurd (incongruous). Thus, the lemmatic counter model turns out to be falsified (refuted).

2. Platon: the counter-model leads, outright, to the radical refutation in the language of fact of Kefalos’ sham definition.

As a result, both models are abundantly clear.

Digression.- The distinction between purely deductive and reductive reasoning.

(A). regulatory model.

a. Deduction: “If prepositional phrase, then postpositional phrase; conclusion); well, prepositional phrase, so postpositional phrase

b. Reduction: “If prepositional phrase, then postpositional phrase; well, postpositional phrase, so prepositional phrase”.

Both language plays (see infra p. 33vv. (Wittgenstein)) are twofold.

(i) the conditional (= implicative, part-identity or ‘inheritance’ pronoun) sentence;

(ii) the derivation rules (deductive rule; reductive rule).

MHD 12

(B). applicative model.

Deductive model: “If all sufficiently heated water begins to boil, then also these pans of water here and now (private) and this one water here and now (singular); well, all sufficiently heated water begins to boil; so these pans of water and this water will (future experiment) boil.”

Set theory: “if u (universal or regulative model), then p (part. model) or s (singular mod.); well, u; therefore p or s”.

Reductive model: “if all sufficiently heated water begins to boil, then also these pans of water here and now and this one water here and now; well, these pans of water here and now and this one water here and now (boiling, if sufficiently heated); so all water (if sufficiently heated, begins to boil).”

Collection theoretic: “If u, then p or s; well p or s; therefore u”.

Here we generalize or induce (one “extrapolates” from p or s to u). Induction is a type of reduction (and very frequent).

(C). Ontological ‘horizon’.

Cfr. *Infra* pp. 217v; 223vv; 228vv . -- Since all reasoning takes place within ‘being’, i.e. the collection and system of all that is as being (object of ontology), one can also formulate reasoning identitively (see above p. 5).

These pans of water here and now (concrete-individual),--this water here and now (sing. concrete-indiv.) are equally full identities (see *infra* p. 219).

One can only ‘reason’ about this, if they are, mutually, part-identical. This is, indeed, a fact: they are, however different, full- identically taken, nevertheless equal (identically) under point of view of ‘if sufficiently heated, then start cooking’ (partial identity).

Digression.- Orphic-Pythagorean Theosophy.

I. Gobry, Pythagore, Paris, 1973, quotes the ‘chrysa epè’ (the golden words) of the Paleopythagoreans: “In the first place, honor(b) the immortal deities, as they are arranged according to the (divine) law” (o.c.,113).

1. Characteristic of theosophy (philosophical, -- professional. rhetorical) is the rank interval between Zeus Pater (o.c., 144), the supreme deity, and the grossly material (earthly and cosmic) realities.

MHD 13

2. That hierarchy of beings is also a hierarchy hylically (fluidically, subtly, delicately) spoken.

(i) the gross, empirically observable substance was abducted as a “lower” form of the primal substance (“materialization”);

(ii) within the order of subtle primordial beings, is an order of precedence: e.g. the human soul is a dose of ‘aithèr (cfr. *Infra pp.* 122v.; 126v.;-- cf. 27vv.), which - primordially - is different, finer, than e.g. air (taken hylically) or earth.

3. The two previous rankings imply a third:

‘dead’ matter, plant, animal, man are empirically-observable distinctions in rank. Yet behind them the Puthagoreans abducted a hylic ranking of ‘souls’ (with its own soul substance level).

4. Man, as (hylic) soul (daimon),

is the meeting point of the three preceding orders: thanks to primordial identification (often, now, called mystical unification) he can communicate and interact with the whole of the universe-soul substance (primordial substance, omnipresent; cfr. *Supra pp.* 3/4).

(i) This may be mantic (as a seer(s) or diviner); in which case he develops a new perception (extrasecular, transempirical).

(ii) Also dynamist-magical (he manipulates primal matter as a force; e.g., in purification rites (cfr. *Wb. Kristensen, verz. Bijdr., A., 1947, 231vv. (cycle and totality)*)).-- The orphicists, then, in southern Italy and Sicily, predominant religion, had amulets, magic songs (to animate inanimate objects or summon the dead).

5. The ranking, between the beings and their subtle substance,

also had an agogic (ethical-political) side. The higher in subtlety, the more independent (emancipation) and blissful (deification) one became. The katharmoi (purifications) - thanks to sacrifices (i.e. soul substance exchanges and rites (i.e. soul substance acts) - as well as ethical-political prescriptions - note: the two together! - had the effect of liberating the soul to a higher level (hence philosophy, as well as medicine and art, were understood therapeutically).

6. Theosophy arises, when Milesian physical and Puthagorean number form theory merges with Orphism (cfr. *J. Zafiropulo, Empédocle d’Agrigente, Paris, 1953, 44.*)

MHD 13.1

K. De jong, de magie bij de Grieken en de Romeinen, Haarlem, 1948, 7/8, speaks of the magic herb ‘molu’ (black root, white flower); vlg. Homer, *Odyseus.*, 10: 301vvv, a deity can reveal the ‘fuisis’, power-bearing essence of it.

Well, that meaning of ‘fuisis’ is hylic. The orphic religion is reimagined by Milesian and Arithmological philosophy (tradition hermeneutics: next to the archaic ‘fuisis’ comes the natural philosophy fuisis: Theosophy uses both in its language play (creative eclectics) (cfr. *infra* 65)

Note-- *Alkmaion v. Kroton* (+/- -500).

This physician (the first to practice corpse opening) was Puthagorean.

(1) *Hermeneutics.*

Distinguishes

(a) perception (‘aisthanesthai’): from the being emanates an air-like substance; it strikes and penetrates the senses and reaches the brain (what is later called ‘the theory of “spiritus animales” (animal fluids); cf. *Infra* p. 170v. (eidola); 28v.); this is what man has in common with the animal;

(b) Clarity (understanding) (‘xuniënai’); the latter is typically human;

(c) human interpretation reaches the ‘hidden’ (cf. *infra* p. 83v.), the invisible connections, only indirectly and incompletely, i.e. by means of ‘Tekmeria’, information signs (which is typically hermeneutical); divine understanding directly and completely recognizes the invisible;-- one sees the interval order (animal/human/divinity); cfr. *Supra* p. 12v..

(2) *Biology.*

a/ The Greeks distinguished, politically, equal rights (“isonomia”) and monarchy (“monarchia”).

b/ well, Alkmaion speaks, in the political language game, of health and disease (analogical reduction: cfr. *Infra* p. 101vv.).

c/ yet the “citizens” here are “forces” (nature: *dunamis*).

d/ These forces are arranged (cfr. p. 2: *stoicheiosis*) according to *systechies* (pairs of opposites: cf. structuralism (cfr. *Infra* p. 90)): ‘hot/cold’ and ‘dry/moist’ (cfr. *Infra* p. 68v.).

e/ Health is *isonomia* (equal rights) of all forces; disease, *monarchia* (domination of one or more forces).

MHD 14

(ii) *The noetic-ontological abstraction of the Eleates.* (14/24)

Main characters: Parmenides of Elea (-540/...); Zenon of Elea (-500/...).

1.- ‘*Noein*’, since Homèros, means identification of something ‘as indeed this here and now (and not something else)’ (cfr. *W. Jaeger, A la Naiss.*, Paris, 1966, 112) - awareness so that the full identity of something with itself becomes clear (direct knowledge; see above p. 11 (intentionality; encounter)).

2a.- Henological abstraction.

full identity of a being with itself is “unity” (“them” = “one”; hence: henology). Reflexive or looping view of something (emphasis on continuity (synechism) and uniqueness (singleness)).

2b.- Ontological abstraction.

(i) The Milesians spoke of ‘*ta onta*’, the being (plural) and of arising and passing away (movement): the things and processes, which we have before us as immediately visible, in *historia*, research, are really many and changing.

(ii) Parmenides ‘identifies’ only singularity and immobility. He is ‘*stasiotès*’, conservationist, static.

In other words, ‘being’ is here confused with ‘stasis’, singleness and immutability. This confusion will weigh exceptionally heavily, -- even to our days -- there is, viz. immutable ‘being’ but also changeable ‘being’ juxtaposed with ‘singleness’ of ‘being’.

Note.-- With this, Parmenides establishes the word ‘intellect’ (‘*nous*’) cf. *noein* - in Latin: *intellectus* - as an ontological word. This is a ‘*ktèma es aei*’ (final attainment). And this is as direct knowledge the ‘like’ (‘*noein*’ (knowing, identifying) - so he says - is the same as the like (‘*einai*’, being, - which is imperishable, flawless (whole), single, unlimited, perfect).

Two roads

(1) Tautologies (“Being is,” “Non-being is not”) hold true to this day as the basis of logic.

(2) beings, as lemma, which are plural-moving, are ‘meaningless’ (incongruity).

MHD 15

N1. The way of the physicalists, who remain in ‘doxa’ (1.appearances,2 . mere opinion) and do not ‘identify’. “When Parmenides, in his famous teaching poem, made a contrast between (i) the way of truth, which is guarded by the deity, and (ii) the way of opinions, which are peculiar to ‘men’, he gave, with that, the starting signal for the rivalry between philosophers and rhetoricians.” (*Chaim Perelman, Rhetoric and Argumentation*, Baarn, 1979, 149).

Note.-- Although the physical is an (apparent) opinion, Parmenides nevertheless develops a ‘physical’ of its own: it is governed by the dyadic principle, namely ‘light’ and ‘darkness’ (‘night’) - which recalls Hesiod. The external world and man himself are a ‘mixture’ of these two ‘principles:-- Thereby ‘being’ is apparently ‘light’ and ‘non-being’ (object of opinion) ‘night’.

The conflict of two paths in mathematics (and physics).

(i) Parmenides, like every thinker before Anaxagoras (and even then) and Platon, does not yet distinguish ‘material’ and ‘immaterial’ being. In other words, his ontology is at the same time matter theory. At the same time that ontology is mathematics (especially geometry).

Zenon of Elea, now, will go out of his way to provoke the foundational crisis of mathematics.

Synechism.-- ‘Suneches’ means “to be contiguous (Lt.: continuum), continuous, - that which is not made up of separate constituents: Parmenides had said, “Thought will not cut the being out of the connection of the being.” This is called ‘synechism’ or thesis that being is continuous.

Zenon, starting from this, founds the mathematical-material conflict:

a. Atomic (“atomistic”) mathematics asserts that number and space (and matter) consist of extended and indivisible units (micromonads, last particles), finite in number,

b. The infinitesimal mathematics, defended by Zenon, that number, space (and substance) is extensive but divisible is infinitesimal (unbounded divisibility): in the small there is no smallest (as, incidentally, in the large there is no greatest but always something greater).

“It is to the undying credit of Eudoxos of Knidos (-407/-355)”, who was once a professor at the akademeia founded by Platon, to have solved this crisis of foundations: “From him (...) most probably comes the doctrine of reason, which *Eukleides of Alexandria* (+/- -300), in the fifth book of his *Stoicheia* (elements), develops”. (*EW. Beth, The Philosophy of Mathematics*, Antw./Nijmegen, 1944, 26).

Digression.-- Eristics (refutation apagogically carried through).

The proof from the preposterous has already been discussed. See above pp. 7/9.-- the first famous type of it founds Zenon. We dwell on one model.

MHD 16.

The “paradox” of the quick-footed Achilles (from *Homer’s Iliad*).

Premise: See supra p. 8: ‘irrational’ (here: unmeasurable) number forms have been deemed impossible, due to a then mathematical aprioritarian (i.e. relying on apriori adopted axiomata or postulates or definitions) conception.

a/1. The structure of reasoning attacked by Zenon

(the details are historically lost), as *EW. Beth, The Philosophy of Mathematics*, 16vv., thinks he can formulate them, we summarize schematically as follows:

If (= necessary and/or sufficient reason (ground, condition))

(i)a. The being expanded is (has size);

(i)b. Being is ‘many’ in a finite way (i.e. Atomic (atomistic) structured, i.e. consists of a finite number of indivisible units (which was postulated at least by the Paleoputhagoreans)),

then (= necessary inference)

(ii) being implies actual movement(s).

Behold the abduction.

Deductive phase: if such is the case, then the fast-footed Achilles, If he departs simultaneously with the turtle before him, ‘the so-called slowest animal in the world, within a ‘reasonable’ (‘eikos’; see later, when rhetoric justifies its argument) time interval, must actually overtake the turtle.

Inductive phase: daily everyone can verify (publicly verifiable fact) something that is either totally or partially identical with it: even a baby, who begins to ‘walk’, catches up, if need be, in fact, such a slow turtle, with some grandmotherly help. Who doubts something so ‘obvious’ anyway?

Value judgment: the abductive reasoning structure listed in front may be true; one assumes it as such, then, until someone, savvy enough to refute the hypothesis (abductive premise) anyway.

It should be noted: it is not because turtles are walked in daily that the reasoning structure listed above is already valid: the only thing that is certain is that it can be considered, at least as a testable abductive thesis (hypothesis), which possibly ‘explains’ (expresses the necessity and/or fulfilment of) the daily observations in question.

Where, now, is the weakness of Beth’s reconstructed abductive reasoning? In the fact that the experiment (the actual overtaking, within reasonable time intervals), does not connect to its precisely formulated terms and judgments: where, e.g., do we “see” the indivisible units effectively causing Achilles to overtake the turtle? When were the indivisible units counted?

MHD 17

Note.-- Note: the experiment - i.e. the inductive phase does not correspond to the hypothesis - i.e. the abductive phase - ;

Translated: the regulatory model (= hypothesis) is not found in the inductive phase, which obeys another regulatory model. Such is the basic error of enormously many inductive attempts. See above p. 5vv. (model concept: abductive model and inductive model should correspond).

a/2. The rebuttal structure worked out by Zenon

(again: the versions, handed down to us, differ, - which forces us to limit ourselves to the structural reconstruction); cfr. Again EW. Beth, o.c., *ibid.*.

Abductive phase.-- again, as above p. 7/10 (*proof from the incongruent; again lemmatic counter-model followed by analysis*), Zenon, who, thus, finds eristics, constructs a counter-model radically rejected by him, which we now summarize here :

If (necessary and / or sufficient conditions.)

(i)a. The being extended (having size) is (cfr. Beth, o.c., 20);

(i)b. Being ‘many’ is, i.e. if it consisted of seemingly indivisible constituents -- at least so Zenon thinks (purely conditionally),-- then that ‘multitude’ (understand: collection of constituents) is ‘infinite’ both in number and in divisibility (towards the small there is no limit);-- that is the infinitesimal mathematical-physical working hypothesis of the Eleates; (cfr. Beth, o.c., 21); then (N. G.)

(ii) the being so redubbed by Zenon - which is not fair: he introduces, into the system of his opponents, elements which are explicitly rejected (not included in the rational system of the opponents) - does not tolerate a real movement.

Deductive phase.-- If those assumed ‘principles’ are correct, then

(i) does constantly approach the with the turtle, simultaneously, departed ‘podas okus’ fast-footed) Achilleus,

(ii) yet he never walks into them.

MHD 18.

Note - we have, here, a first inkling of what, in modern mathematics, is called the concept of a limit (limit) as a point that is infinitely approachable, yet never attainable, etc.

Inductive phase.

(i) Evidently, the experience of what Latin calls ‘sensus communis’, English ‘commonsense’, contradicts this ‘nonsensical’ (pseudo-inductive) reasoning, which takes the place of an elementary experience, which even a child can make.

(ii) EW. Beth, o.c., 19, outlines the reasoning, which Zenon would have made: if following scheme :

Achilleus ----- a_1, a_2, \dots turtle ----- S_1, S_2, \dots

represents the sequence of respective intervals, then it is the case that a - passing through a_1, a_2, a (infinite) - will never really overtake S - which passes through the points S_1, S_2, S (infinite) - even though the turtle passes through lesser intervals. Which, of course, is nonsense. The interval ‘a--S’, although shrinking, never becomes zero.

Evaluative phase.-- for Zenon, as an eristician, i.e. if one will, specialized in refutation techniques, this is a ‘proof from the absurd’: what is asked for, i.e. that movement is ‘real’ (and, immediately, that a. S. ‘really’ enters), is purely reasoning ‘ad hominem’ (against the opponent), as impossible-on-rational-grounds ‘proven’. This ‘impossible-on-rational-grounds’ à la Zenon must then but replace the truly absurd.

Note.-- Any purely ‘theoretical’ reasoning -- ‘theoretical’ then in the present sense, not in the antique-philosophical sense, which is somewhat different -- is only possible (possibility condition), on the basis of a complementation, i.e. ‘dichotomy, of ‘being’: on the one hand, there is the axiomatically-definitely described ‘system’ (i.e., in archaic Dutch, ‘posited data) or system;

MHD 19.

On the other hand, there is the real, from our mental operations totally independent 'system' (in the sense of just 'coherent' whole and/or collection) of 'being' itself, of which the merely 'theoretical' system can be only a - incidentally, poor - part.

Well, all purely "theoretical" "thinkers" - again, in the purely theoretical sense of the "word" "thinking" - confine their thinking operations within the "clear and unambiguous" limits of the "system" they themselves have designed. Of this, Zenon's pseudo-proof from the absurd is a first famous model.

Note.-- Beth, o.c., 19, says that Aristotle's "paradoxes" (understand: refutations that have the form (therefore not yet the content) of an incongruity proof) of Zenon share the following proposition:

Like the eleatic unity theory, the multiplicity theory does not provide a necessary and sufficient ground (hypothesis) for the rational explanation of the phenomena of motion. -- this is the articulation of a sui generis irrationalism (i.e. of its own nature among other possible irrationalisms). The basic form of this irrationalism reads: thou too hast no satisfactory rational explanation.

In other words, this type of irrationalism bases its irrationality theorem on purely rational grounds and their rational analysis.

That Zenon founded a 'ktèma es aei' (a final rational achievement) here proves, brilliantly, by the way, the student of K. Popper, *WW. Bartley, Flucht ins Engagement (versuch einer Theorie des offenen Geistes)*, Munich, Szczesny verlag, 1962 (Eng. Orig.: *The retreat to commitment*), - work which, from a critical-rationalist standpoint (that of Karl Popper), takes on the - mildly put - murderous critique of xx-st' century Protestant theologians (Karl Barth, Emil Brunner, Reinhold Niebuhr, Paul Tillich, et al.) of modern and contemporary purely rational thought and life.

MHD 20

He brilliantly summarizes the basic reasoning of what Bartley calls “neo-Protestantism.

If, - on the basis of well-defined purely logical (necessity and/or sufficiency) reasons, of which Baertley himself writes - o.c., 99/100 - that “until now apparently no one could explain them”- modern contemporary reason appears to be so limited that no man, today, can avoid going the way of a “dogma-bound” non-rational “commitment”), then:

(1) the contemporary Christian, too, has the (logically rigorously justified) right, to choose a “stake” at his will - which does not mean “logically one whim or another” - and

(2) no one has the right to criticize him, for that very reason.(o.c., 100).

Even more: the low-minded rationalist or freethinker, given his lack of awareness of the radical limits of modern-contemporary reason, blindly enters into an irrational engagement (logical leap) without knowing what he is doing; the ‘irrationalist’, on the other hand, who is acutely aware of the limits of modern-contemporary reason, is ‘free’, i.e. he knows that an engagement is necessarily arbitrary (though not without rational grounds,- it cannot be emphasized enough) and therefore chooses deliberately. (o.c., 104).

This structure of reasoning can also be articulated as follows: “thou, too, rationalist, accomplishes the same logically unaccounted-for ‘leap’ (S. Kierkegaard ‘s expression, only in a different direction.”

One can see that the same model of thought was formulated by Aristotle, regarding Zenon’s reasoning theorem, “Even thou, plurality thinker, hast no logically stringent proof.”

Which clearly includes a boundary consciousness regarding reason.

MHD 21.

Excerpt. -- Metatheory (Xenophanes of Kolophon -580/-490).

Xenophanes was not an eleate, *stricto sensu*, but he is associated with the henology (unity theory) of eleates.

Two kentricks:

(1) his elegies are social critiques (the then Homeric-aristocratic 'aretè' (virtue, ideal), i.e. athleticism and/or military valor) in the name of the 'enlightenment', i.e. the then natural-philosophically oriented intellectual-reasonable development (intellectualism and/or rationalism) -- something, which, in the modern-temporary West, repeats itself very accurately, although contemporary;

(2) his 'Silloi' (satires) his criticism of religions - especially the Homeric-hesiodic myths, with their 'immoral' stories of deities, are to be criticized - in the name of a purely rational religion, centered around the unity of the universe deified by Xenophanes, which he substitutes for the, according to him, overly anthropomorphic deities of polytheism, which, apparently, as a 'rationally enlightened' person, he no longer understands as being true to being (which is shown by his criticism of the human appearances of the deities, of the oracles, which he radically rejects, without actually understanding the structure of what he 'criticizes' so lightly, because, already then, as a pure outsider (externalist criticism).

Metatheory.

The 'term' 'theory' (see above pp. 16/19) is meant, here, both in the ancient (reality-neutral) and in the modern-current (axiomatic-deductive) sense, i.e. as a closed yet intellectually-reasonable system of concepts (terms), judgments (statements) and combinations of the two previous ones.

'Meta.theory' - a more recent, epistemological term - means:

(1) reflection on the antique-reality niche theory, which, in it, becomes aware of its limits;

(2) logistic reformulation of the 'structures' (models of thought), whether or not explicitly presupposed in an axiomatic-deductive system, as e.g. the ordinary logistics or the ordinary arithmetical or geometrical operations, insofar as explicitly provided with **a.** definitions, **b.** axiomata and **c.** ordinary rules of the game, which 'regulate' the 'operations'.

MDH 22.

Contemporary Xenophanes attests to “the critique of the criticism, which he makes of ideals or religious data; that exactly is “metatheory” in its initial stage.

This appears if we briefly compare Parmenides, however the pupil of Xenophanes, regarding theory of knowledge (epistemology, informative philosophy).

(a) Parmenides, as indicated above (pp. 14/15; two ‘ways’), is well aware of the fallibility of ‘Empirical-physical’ knowledge, which he deliberately and, with a terminus technicus, calls ‘doxa’ - semblance, mere advanced opinion, sham science.

(a).bis. Parmenides, however, “firmly believes” in man’s capacity for identification (knowledge of being): “thinking is not called ‘having representations’ - ‘representation’ is the modern-current term for ‘consciousness content,’ insofar as non-direct presence of the known object is thought in it.

Immediately there is no separation between reality and mere ‘representation’.” (*Fr. Krafft, Gesch.d. Naturw., i, Die begr., 239*, where he writes of Parmenides). ‘Noësis’,: theoretical-ontological knowledge, is therefore reality as far as known. -

This is abundantly clear from another terminus technicus, which, to our days, has remained characteristic of naive realism (belief that our knowledge, without more, is the correct representation of known reality), especially peculiar to the metaphysics or ontology ‘Kath ‘heauto’, secundum seipsum, as something is, in itself’.

S. Senn, *An sich (Skizze zu einer Begriffsgeschichte)*, in: *Philosophica Gandensia*, New Series, 10 (1972), 80.95, says: “Parmenides already determines ‘being’ as ‘itself and, in itself, it is permanent in itself (...)” (a.c., 81). Senn adds:” ‘In itself’ means, as a fundamental concept of philosophy, the noëmatic (i.e. knowledge) corollary of the ‘noësis’ of theoretical knowing, i.e. of a knowing

MHD 23.

that, in principle, the thing to be known or the reality as independent

(1) of the one who knows and

(2) of knowing itself and considers it. As such, it determines the concept of being from it and, in the concept of 'being' so determined, the difficulties are rooted at the very basis of metaphysics (which sprang from the ideal of theoretical knowing)." (ibid.).

(b) Xenophanes thinks quite differently about knowledge without more (purely empirical-physical or "metaphysical"): "Man," he says literally, "who knew the certain.

(1) about the deities and

(2) about all things,

has never lived and will never exist. Even if someone, in his thinking, struck the true, he himself would not know it. Reason: only personal opinion prevails everywhere".

W. Röd, *Gesch. d. Phil., I, 1 (Von Thales bis Demokrit)*, Munich, 1976, 79, says: "the decisive thought (...) is the distinction between

(1) 'knowing' (secured knowledge)

(2) and "opinion".

(i) Apparently Xenophanes did not want to deny that certain knowledge of immediately perceptible things exists (although he, in Fr. 38, seems to virtually assume the subjectivity of sense-perceived properties);

(ii) All theories, however, which we formulate, with a view to the explanation (abduction) of known facts, cannot count as (direct) knowing." 'Knowing' - here - *eidenai* - in Greek, meant 'having observed' and, thus, 'knowing' from direct observation!

Röd concludes: "The expression 'opinion' would (...) be accurately rendered with 'supposition' resp. 'hypothesis'". In other words, in the language of C.S. Peirce (see above pp. 12/14): Abductive knowing, nothing more. Further de-, induction and evaluation remains guessed at.

Xenophanes formulates two grounds on which he supports his metatheoretical thesis:

(1) the conflicting or at least multiple theories on the same topic;

(2) The progress (// 41; 65) of those theories: "The deities (note: he uses this expression purely verbatim) have shown to man, not from the beginning, everything; they have, on the contrary, thanks to tireless investigative work, - 'zètountes' - made him, over time, gradually become better solutions." (Fr. 18).

MHD 24.

Summary:

(1) nor “dogmatic” rationalism (i.e., naively trusting in the “omnipotence” of “reason”)

(2) nor “skeptical” rationalism,

(3) do critical-and calculated: metatheoretical-rationalism.

One compares the same structure, though very different according to concrete situation, in Kant’s “*Three Steps of Modern Metaphysics*” (i.e. Leibniz (dogmatic) and Hume (skeptical), while Kant’s own thesis can be called “criticism”).

(iii) *The hermeneutic - dialectic idea of the Heraklitees.* (24/64)

Introduction.

“The natural philosophers have spoken of the first principle of all things. Xenophanes announced the one world deity. Parmenides has taught the unity and oneness of being”. Thus *W. Jaeger, A la naiss.*, 132.

Jaeger adds, “It seems rather difficult, at least at first sight, to say what own modification Herakleitos of Ephesus (-5351-465) was able to make to the unity theory, thanks to his original inspiration.”

In this all too brief account, it is only about this original inspiration; reason: it is ultra-actual. Reference should be made to one modern testimony of considerable size: “In Herakleitos’s view everything happens ‘by contrast’, (kat’ enantioteta’).

Very Hegelian it is said of him, “Everything has its contradiction in it”. No wonder, then, that the German philosopher could declare that he could make any statement of Herakleitos his own.” (*A. Vloemans, The Pre-Socratics*, The Hague, 1961, 54).

It should be noted here that Hegel (1770/1831) is the direct teacher of Karl Marx (1818/1883) and his “materialistically-derived dialectic”,--which adds force to the topicality of Herakleitos.

Reference should also be made to *WB. Kristensen, Verz. Bijdr. to Knowledge of Ancient Religions*, A’m, 1947, 289: “the ancients called Herakleitos ‘the dark one,’ and not without reason.

MHD 25.

For, in truly “antique” - the author means “archaic-antique” - spirit, he found the mystery of “totality” more important than the “rational” relations of existence:

“The hidden ‘harmony’ (‘hermoniè affanès’) is stronger than the observable (‘fanerès’)” (Fr. 54).

Greek philosophy did not speak the language of religious belief, but the source of its wisdom was religion, which was the spiritual foundation of all the ancient again: ‘archaic-antique’ peoples, Greeks not excepted.

And it was directed exclusively at the secret of life”. The author continues: “The dialectic motif is synonymous with the (...) cooperation of the typical opposites, from which a higher-order reality arises, a reality in which the opposites have been abolished. This ‘dissolution’ may be called ‘reasonable’ in philosophical language, but in essence it is mystical, the summary of the contradictions spoken of in all mystery religions.

The third and final member - after the “thesis” and the “antithesis” - the synthesis, does not stand on a par with the preceding members, but makes them into an organic whole and creates, thereby, a new reality.

The triad - the so-called ‘Threefold’ of Hegelian-Marxist dialectics: thesis, antithesis and synthesis - turns out, here again, to be the figure of totality. (...). That was the characteristic of all ‘holy numbers’, in contrast to what, in our language, is understood by it; for we think by it, only the summary of all similar units into a ‘whole’ (meant ‘sum’). (...).

The term ‘totality’ (...) is (...) what in the ancient - understand: archaic - religions, again and again, arouses our wonder: the deep conception of the ancients - again: Archaic - ancients - of the essence of life renewing itself.

MHD 26.

‘Inner struggle’ and diversity’ (...) is his characteristic. His predominant principle is the Aristotelian ‘entelecheia’ (which contains the consummation as ‘telos’ (goal)), which is realized in the consummation or perfection of the ‘absolute’ (the author understands by this ‘given by (especially) the deities (of the underworld (‘haldes’)) life.

If we want to indicate the characteristic of the renewing life, we cannot do better than to take the old (again: archaic-antique) term ‘totality’ for our own use.” -- To wit, Kristensen, whom we speak of at such length, because - to our knowledge - he is the only one who literally ‘understands’ Herakleitos!

Foreword. -- One should not think that Herakleitos was a “zealot”; witness the following biographical-legendary fact. Once the Persians besieged the city of Ephesus, but the Ephesians, accustomed to ‘la dolce vite’ (the lustful-indulgent life), continued with that lifestyle to such an extent that the foodstuffs in the besieged city began to become scarce.

Result: meetings about supplies. No one dared to make the possessing class suspend its ‘dolce-vita’ life. There, among those who were considering the matter, Herakleitos - that was his name - showed up and, in their presence, ate a portion of barley groats. “This silently given doctrine penetrated the Ephesians - into their ‘daimon’ or ‘depth soul’ (we add)-: they needed no other ‘reproof’.” (G. Burckhardt, Uebertr./hrsg., *Heraklit (Ürworter der Philosophie)*, Wiesbaden, 1957,36).

This incident is expressed in the saying “the Persians cleared the field for Herakleitos’ barley belt”.

Note.-- One reads, from a didactic point of view, first pages 63-64.

(1) **Hermeneutics.** (26/29)

The ‘technè hermèneutikè’, hermeneutics, - so says P. Ricoeur, *le conflit des interprétations (Essais d’herméneutique)*, Paris, 1969, 8, - was, in its first phase, an art of interpretation, clarifying oracular proverbs (‘God’s speeches’).

“Herakleitos himself understands himself as interpreter (‘interpretant’) of the ‘logos’ (world-or, rather, universe-understanding and order); consequence: he claims hearing not for himself as a private person, but for the ‘logos’, which he teaches.” (W. Röd, *Von Thales Bis Democrit*, 103).

MHD 27.

This is in line with the explicitly formulated epistemology of Herakleitos: “(objectively valid knowledge) cannot be acquired either by immediate (i.e., directly connected with the essence of the object) perception (‘intuition’) but only by interpretation of the facts of experience”. (id, 104).

Structure sui generis of Heraklitean interpretation.

(1) Basis. -- “The ‘fire’ (‘pur’), i.e. the (i) animated, (ii) gifted with reason and reason, yes, (iii) divine fire-herb (‘aithèr’ is the bright blue ‘air’ understood as primal substance, not in our present coarse-chemical-physical sense) emerges (...) as the ‘ground’ of all things.” (Röd, o.c., 98).

a/ “The limits of the soul (‘psuchèr’ peirata’) thou, even though thou walkest through every street, canst not find (‘exheuroio’): such a deep ‘logos’ (‘bathun logon’) it has.” (Fr. 45). Röd notes, rightly at that, that one cannot decide whether ‘soul’ now means the individual soul or the animated ‘cosmic’ (understand: sailing through the cosmos) fire.

b/ “The collection of the ‘fire’ in all its forms, i.e. immediately, included in it, the things, which by transformation arise out of that ‘fire’, remains unchanging, so that ‘fire’ - in this broad (understand fluidic or primordial) sense - is the steadfast in the midst of the change of the world.” (Röd, o.c., 9s).

In other words - we summarize what Röd says staggered and without actually - Heraklitean interpretation - the primal material doctrine of Milesians is presupposed by H. (see above p. 3/4 (hylic abstraction)). Further is - again - presupposed the doctrine of ‘knowing the like by means of the like’ (see above already at Parmenides, p. 14); here: the human ‘soul’ - being ‘fire’ (understand correctly: ‘a dose of primordial matter organised into ‘soul’) - ‘knows’, by means of ‘fire’ (understand: primordial matter, causing ‘knowledge’), what ‘fire’ is around it (i.e. what is present in the things and processes surrounding us on a fluidic-‘fire-like’ basis). -

Behold the Milesian primal core of Herakliteism, which, however, instead of ‘Water’ (Thales), ‘apeiron’ (Anaximandros) or ‘air’ and / or ‘pneuma’ (Anaximines), prefigures ‘fire’ as the primal substance.

MHD 28.

c/ Diachronically, the ‘cosmos’ (universe order) is “always - in past, present and future - eternal fire (‘pur aezoön’), to measure (‘metra’) blazing and to measure, extinguishing.” (Fr. 30).

Röd, o.c., 100, says that this statement is twofold.

First interpretation.-- ‘Periodic’; -- which Fr. 31 seems to confirm: “Formations of fire (‘puros tropai’): first ‘sea’ (again in the primal sense), half ‘earth’ (primal understanding), half ‘storm-with-thunder-and-lightning’ (‘prèstèr: - again in the purely primal sense).” Thereafter - according to the diachronic interpretation - shape-shifting of ‘sea’ and ‘earth’ into ‘fire’ takes place (Röd, o.c., 100).

Second interpretation: This is K. Reinhardt’s interpretation, which understands Fr. 30 quoted above as follows - the “cosmos” is eternally living fire, does not come into being out of it; the transformation of fire into “all kinds of being” (“sea”, “earth”, “storm-with-thunder-and-lightning”, etc.) and, conversely, the transformation of “all kinds of being” into “fire” occurs “metra”, i.e., according to a certain proportion (incidentally, the preferable translation - according to K. Reinhardt’s interpretation). etc.) and, conversely, the transformation of ‘things of all kinds’ into ‘fire’ takes place ‘metra’, i.e. according to a certain proportion (the preferable translation, by the way - according to Röd, o.c., 100).

Note.-- True to his analogy, Herakleitos describes the transformation of (primordial) ‘fire’ in individual souls in analogous terms (“Fire becomes ‘damp’ e.g. during that process) - to that for the entire cosmos.

Note.-- In addition to the two-way process

((i) alive/ ‘dry’ (primal to understand)/ intellectually gifted (primal ‘intellect’ is meant; see above p. 27 (top)) ‘soul fire’,

(ii) (somewhat) “dead” (again, primeval)/”moist”/(somewhat) “senseless” soul-fire), as touched upon under the remark just above, Herakleitos also describes a second “soul-origin” in relation to the individual souls in the form of “anathumiasis”: this Aristotelian word to express Herakleitos’ idea, which Aristotle himself employs for this purpose (An., 1, 2:9), denotes the fact that, from the ‘fluid’ (primordial), especially from the blood of living beings, ‘resurrections’ (anathumiaseis), i.e. primordial - fluidic ‘forces’ (‘dunameis’), similar to ‘mists’ or ‘fogs’ rise;

MHD 29.

It is an experience that can be found in almost all archaic peoples, so that Herakleitos here, simply, brings up the experiences of sacrifice, in which what the Old Testament calls ‘the sacrificial soul(substance)’, (i.e. the primal substance as far as it is released in the bloody sacrifice) is the stake of the mutual exchange between deity (in this case: Old Testament: Yahweh) and sacrificing humanity, philosophically (hylic-milesic; see above p. 3/4).

To which Röd, o.c. 101 adds, “It deserves attention that this view - he means the ‘anathumiasis’ of Herakleitos - lived on in the doctrine of the so-called ‘Spiritus animales’ (in English rather; ‘spirits of life’) until the XVIIIth century.”

Indeed modern-rationalists like Francis Bacon of Verulam (1561/1626), the father of the inductive method in the modern professional sciences, who, in the Latin of those days speaks of ‘Spiritus vitalis’, (singular : spirit of life), and as René Descartes (Cartesius 1595/1650), the father of the speculative-mathematical (geometrical) method in modern and present Rationalist philosophies, who speaks of ‘les esprits animaux’ (literally: animal spirits), because the spirits of life were conceived as peculiar to the merely animal bodies, even of man, - which, at least as far as the ‘daimon’ (i.e the Greek name for the life-soul) will prove to be correct; - point, to which we shall return later), - - both these key figures of the emerging rationalism, therefore, still take this ancient (‘archaic’) doctrine seriously.

In other words, here we are again, by the way, in front of a ‘ktèma es ai’, an achievement, which turns out to be durable, for centuries, yes, up to our days, at least on occultist-religious literature, as well as in the professional literature concerning ‘primitive’ (rather: ‘archaic’) religions.

We will return explicitly, by the way, to that teaching concerning the soul fire in the second part of the course.

MDH 30

(2)a. Superstructure type I.

(i) Herakleitos teaches that most people do not understand the universe fire. This “universe fire” is pretty much the “archè” (principium or primordial principle) as “logos” (steering power, which is at work ordering).

The reason is: their individualistic (‘idios’ = ‘private’, idiosyncratic or, even, lonely) ‘mind’ isolates them from the universe fire, which Herakleitos calls ‘to periechon’, the surrounding (fire).

These souls are, as it were, drowned in “non-fire”, i.e. grossly materialized (materialized) and / or, in all cases, extraterrestrial and / or super terrestrial (purely fire-like) being.

(ii) The so-called ‘mechanistic’ (better: ‘hylic’) epistemology of H. Röd, o.c., 104f., says that Herakleitos ‘s theory of knowledge (‘epistemology’ -- here, in the very broad sense of all knowledge discussing theory) applies twice the principle of ‘the like by the like’ (here, of course, ‘fire’ (object) by ‘fire’ (subject).

a. Our sensory knowledge is, at its level, contact of ‘fire’, (making sensory knowledge possible) with ‘fire’ (i.e. what the world data surrounding us, which have become material and/or particulate are ‘universe fire’);

The (fire) surrounding us (‘to periëchon’) - that is to say: ‘fire’ always in the primal material-fluidic sense; - this is the last time we will emphasize this, in order not to lapse into primal repetition -, as ‘logical’, i.e. characterized by ‘logos’ or world order, is ‘breathed in’, as it were, by our senses;

Indeed, primordial processes are, as it were, exchanges through pores - Herakleitos himself uses the word ‘aisthètikoi poroi’ and ‘poros means, normally, passage(s).

Röd, o.c., 105 notes that these perceptual pores (which are peculiar to the soul body or primordial body, not the gross material one, of course) close during sleep in order to open up in the waking state, making possible the day-conscious life (including conscious perception).

It should be noted that, with this, Herakleitos gives a place to both psychic and unconscious processes, in our knowing life, at least.-- Which is a “ktèma es aei,” an achievement forever, as Thoekudides says.

MDH 31.

b. Our intellectual-reasonable knowledge - says Röd, o.c., 105, - has an analogous structure, which he, however, does not further specify, except by the following: “I, Herakleitos, hold the view that those who ‘sleep’ - see above p. 30-, are ‘workers’ (‘ergatas’) and ‘collaborators’ (‘sunergous’) of those who become (are) in the cosmos (‘ginomenon’)” (Fr. 75).

In other words, at least in one way, the ‘dormant’ (understand: the unconscious), one can be involved in the cosmic becoming. Fr. 2 clarifies this: “Therefore it is necessary (‘dei’) to concern oneself (‘hepesthai’) with the common (‘xunoi’) i.e. - according to the primal text itself - with that which is common to all individually (‘koinei’). (The logos or universe order), which is common, is, at once, common to each one individually.

While, however, the logos is common, most live as if they possessed a totally private or, even single-minded (‘idian’) thinking faculty (fronèsis).” This suggests that to ‘sleep’, i.e. to be unconsciously in the midst of cosmic processes, consists in ‘single-minded thinking; -- which, somewhat, recalls what *CSS. Peirce, ‘The fixation of belief, in: Pop. Science monthly, 12(1877), v (in initio), called ‘the method of tenacity’.*

Peirce defines, “Taking up in our minds everything we can imagine, repeating it perpetually within us ... in answer to any question.” (ibid.). Something in this nature is certainly meant by Herakleitos. This is evident from the following extract (Fr. 1,) which we reproduce rearrangingly (in order to expose its Heraklitean structure).

(1) On the one hand, there is Herakleitos himself (with those who ‘understand’): with words and with works he tests (‘peiromenos’) and, at the same time, he points out (‘diègeumai’, expressing his opinion in a narrative way) by

(i) dissect (‘diaireon’) each individual (being) ‘katta fusin’ (according to nature - subj.: ‘him own’ - and

(ii) by making one understand (= explain) (‘frazon’) how things are.

Mhd 32.

(2) On the other hand, there are “the many” (“hoi polloi”) who while they test with words and works, reap as a result that they look just as if they had not tested (“a.peiroisin eoikasi”).

Herakleitos compares in yet another way, “Just as they forget what they performed while sleeping, so hides (from them) what they perform while awake.”

Again: the unconscious of their cosmic experience of becoming. With this word: ‘cosmic experience of becoming’, however, we enter the domain not of interpretation but of dialectics,--about which more later.

Listen to Herakleitos himself - in the same context - : “Although the logos - which, in Herakleitos’ language, means both ‘the understanding of the universe’ and his ‘message about it’ - is always (‘aei’) (‘eontos’) - one pays attention to the word: ‘eontos’, ‘being’ (participium praesens) -, nevertheless (‘gignontai’) non-understanding people arise (‘a.xunetoi anthropoi’), even though they have not yet heard (about the ‘logos’ and my message concerning it) or have heard anything”.

In other words, whether the logos reveals itself to them, individually, directly or I do, through my message, - better: ‘proclamation’ -, it just doesn’t go in.

Well, precisely in that zero result very definitely, equals the Heraklitean ‘misunderstanding’ o.g. ‘single-mindedness’ speaking of Peirce’s ‘method of tenacity’.

Given that two thinkers, living as far apart as Herakleitos and Peirce, left such strongly identical descriptions regarding ‘idiosyncratic thinking’ -- with a shade of ‘egotistical thinking’ -- we stand here, again, in ‘ktèma es aei’ (eternal attainment), as the famous expression of Thukudides, the ‘pragmatic-historian’ of philosophy, intended, somewhat. Everyone of us encounters such closed fellow men.

Röd, o.c., 105, translates the sentence, above line 3/5, as follows: “the others remain unconscious, what they do, after awakening, as they lose consciousness for what they do, in sleep”. Such a translation, otherwise correct, hovers in bit too much to Freud’s psychoanalytic language, to be entirely correct.

But she confirms the claim that Herakleitos is the founder of a kind of depth and parapsychology.

MHD. 31 (bis)

b. Our intellectual-reasonable knowledge is, at its level and mode, fiery contacting and depicting fiery processes.-

1/ Fr. 64: The keraunos (lightning, i.e. the ‘aionic’ (eternal) fire; cf. Fr. 32 (Zeus)) governs (gives purpose to; cfr. infra 113vv. (*teleology*)) all being.

This ‘fire’ (understand: subtlety) is called Herakleitos ‘fronimon’ (see further 54vv. (fronesis)), gifted with dialectical-tragic insight) and ‘aition’ (causer) of all being. As harmony of opposites (cfr. supra 24vv.) that is soul- and, at the same time, universe-fire (cf. supra 4 (universe-soul(substance)) deficient (and thus universe-propagating) and too much and thus universe-destroying (cfr. Supra 3/4) Cfr. Fr. 65/66.

2/ Fr. 67: The deity (‘ho theos’) is day/ benevolent (night), winter/summer, war/peace, abundance/famine. (...). The deity changes, alienates from itself (‘alloioutai’), just like the fire, whenever it is mixed with incense.

One sees that “the deity,” here, is physically signified and identified with the fine material universe and soul principle (primordial matter). - Something analogous we shall find with Euripides (cfr. Infra p. 124 (foreground/background); 128v. 1 and 2/ Now read higher pp. 12/13.1 (especially 13, ad 4 (man as hylic being, according to his soulaimon)); 242; 242/244 (Old Testament interpretation of the soulaimon); 251 (Christian interpretation). - Fr.112: The ‘fronein’ see above), i.e. the rational understanding of the universe- and at the same time, soul process, is the greatest virtue (‘aretè’).

Fr. 116 all human beings have share (‘metesti’; cfr. infra 195/197 (platonic concept of participation) in self-knowledge and ‘fronesis’ (i.e., the knowledge of the dialectical, destiny-determining universe and soul process).

Fr. 115: yes, the soul(‘psuchè’) - apparently, of man - is the universe allogos (universe-structuring mind or deity, (see just now Fr. 67) and, also, universe fire (see just now Fr. 64/66)); she is this as universe mind, which increases itself (i.e. evolves). Which indicates both evolution (+) and involution, i.e. for the umpteenth time, harmony of opposites.

Digression. (31-32)

Own - sensible method.

-- (1) Css. Peirce (1839/1914), *The fixation of belief*, in : *Pop. Science monthly*, 12 (1877),V (in initio), briefly sets forth the three unscientific methods of thought based on accidental abductions:

MHD 32. (bis?)

(1) (1) the method of tenacity (which we define as the obstinacy, subordination method; one's own individual conviction is the only correct one.

(2) The authority method (defined as the method in which one appeals to e.g. a church or civil authority. One does not think independently but is led by the opinion of a group. A number of philosophers also suffer from this (Descartes, Leibniz, Kant, Hegel,

(3) the a priori method (translated, not word for word, but actually following Peirce, by the freethinking method,-- where "freethinking" now designates not a column of freethinkers, but a way of thinking, which is apparently very often typically the freethinking method (see infra p. 261v. (foundationalism)).-- cfr 33 (right-wing method); 177v. (freethinker method). The person who 'thinks' in this way has a preconceived opinion from which he does not deviate, although he wants to enter into discussion, but always falls back on his own preconceived ideas .

Briefly, as Peirce puts it, the a priori method boils down to this: "To record everything, in our minds, that we can imagine; to repeat it perpetually ... in answer to any question." (ibid.). Peirce himself gives as appl. model. someone, who "adheres" to free trade and, therefore, reads nothing but free trade-friendly newspapers,--in order not to "contaminate" his "mind" with dissenting influences (a kind of puritanism or purity ideal, that is).

Peirce finally holds to a method of external permanence, a train of thought independent of any subjective judgment and ultimately leading to an objective judgment

-- (2) Herakleitos must, apparently, in an analogous (cfr. infra p. 11vv. (analogical reasoning) way, have stumbled upon wayward ones.

Listen.-- Fr. 2: "While (and even though) the wisdom of the universe ('worldlogos') is generally accessible, most live as if they possess a single mind ('idiotism')". This way of thinking - according to Herakleitos - apparently, swimming towards egotism (the disturbed degree of single-minded thinking) appears among other things because the single-minded thinkers do not test Herakleitos' message ('logos') about the world- or universe-order ('logos', too) again and again (cfr. *Higher p. 11*; '*peiromenoí*') both with words (conversation) and with works (factual material) but do not derive anything from them, just as if they did not test ('a-peiroisín'). (Fr. 1). This, in contrast to Herakleitos.

MHD 32.1

Digression. - Heraklitean “depth psychology”. (32.1 / 32.12)

Fr. 45: “The limits of the soul (‘psuchè’) - apparently, the human soul - one would not, while going, find, even if one were to walk down all possible roads: such a ‘deep’ ‘logos’ (insight-in-the-universe-government) does it possess.”

One sees it: Herakleitos himself uses the word ‘bathus’, deep, with regard to the soul, so that we do not need the detour of contemporary terminology (in which ‘depth psychology’, strictly speaking, is the umbrella term for *psychoanalysis* (S. Freud (1856/1939)), *Individualpsychology* (A. Adler (1870/1937)) and ‘analytic’ psychology (CG. Jung (1875/1961))).

Fr. 73: “One should not act and speak like the sleeping (others translate: ‘unconscious’). For, even in sleep, we think, act and speak”.

Fr. 75: “(...) Herakleitos says that the dormant (‘unconscious’) are at work (‘ergatas’) and are cooperating (‘sunergous’) regarding what, in the ‘cosmos’ (universe), is happening.”

Fr. 1 (cfr. Supra 32, bottom): “The other people - who do not live and think like e.g. Herakleitos himself - is hidden (‘la(n)thenei’) all that they, waking (‘conscious’), do. Incidentally: They forget (‘epi.la(n)thanontai’) all that they, sleeping (‘unconscious’), (did).”

Note -- Röd, o.c., 105, translates this as follows: “The others remain unconscious, what they, after awakening, do, as they lose consciousness for what they, in sleep, do.” Yet to translate the text in this way seems to us a bit too contemporary an interpretation.

Fr. 21: “‘death’ (‘thanatos’) is ‘all that we, waking, see (‘horeomen’). ‘All that we, sleeping, (see) (is) ‘sleep’ “. Text, which is difficult to interpret.

Fr. 34: “Those, who do not understand (‘a.xunetoi’) - apparently, those, who do not understand Herakleitos there his universe allogos message -, just while they are hearing (‘akousantes’, ‘hearing’), are like deaf people. The proverb ‘present, yet they are absent’ testifies precisely about them”.

To summarize: Herakleitos apparently uses the systechie ‘sleeping/waking’ both matter-of-factly and metaphorically (analogically) and in the sense of ‘unconscious (absent)/conscious (present). -- so that ‘depth psychology’, understood as ‘psychology of the unconscious’, should not be introduced by the roundabout route of the present use of words’ in relation to Herakleitos.

Note.-- *1 Cor 4:3/5*, by the way, speaks in analogical language play.--”For me (Paul) it is of the least importance that I be judged by you or by men.

MHD 32.2.

I do not even judge myself. Wan I am (in my conscience) aware of nothing ('sun.oida'); though, in virtue of (that of knowing nothing (only)) I am not yet 'justified' (in order with God and His order). The one, who judges me, is the 'Lord' (cfr. Infra p. 250).

Conclusion: do not judge until the "time" ("kairos"; cf. Supra 4 (at top: "the time")), is there, i.e. until when the "Lord" comes (i.e. the return), who

(1) will illuminate both the concealments ("ta krupta") of the darkness (i.e., the underworld)

(2) as revealing the wills of the hearts (i.e., the choices, which the people, in their souls, have made true)."

One sees that, long before Freud, the Bible, like the ancient Greek thinkers, thematized both the "cosmic-demonic" darknesses and the "depth-psychic-unconscious" choices of beings of all kinds (the people on earth, in particular).

Note.-- The precise semasiological concept of '(un)conscious'.

The words "conscious(being)" and "the unconscious or pre-conscious" are, in the wake mostly of Freud, so widely used that it is necessary to disentangle this confusion of words.

We take A. Willwoll, *Unbewusstes*, in: W. Brugger SJ., Hrsrg., *Phil. Wörterb.*, Freib.i.B., 1961-8, 342f., as a guide.

(A) The "metaphysical" (understand: cosmic-ontological) unconscious. (32.2 /32.6)

The author begins with GW. Leibniz (1646/1716), the scholastic Cartesian (with his distinction "perception (unconscious)/ a(p)perception (conscious)").

But already the Milesians (see above p. 3/4), with their notion of the 'hylic (= primal and particulate) principle of the universe' (water/ 'a.peiron' (indefinite), breath/ air), exceed, clearly, 1/ the visible and 2/ the conscious data (see infra 83/85 (theoria, speculative exceeding of the immediately given).

After them, thinkers - like Herakleitos, Anaxagoras, Euripides (see below) do likewise.

The author mentions, thereon, the Romanticists (especially the German ones), who, to the unconscious (whether or not in the cosmic-ontological or purely psychological-ethical sense), attributed a "great role" (sic). Cfr. Infra 166v. (Schelling,-- therein, somewhat, by CSS. Peirce, who calls himself a Schelling Avenue); 220 (*individual-concrete*).

MHD. 32.3.

This romantic-cosmic-ontological view (abduction) has two striking features.

(a) *Emphasizing the infrastructure of reality*

(i.e., the cosmos surrounding us and pervading us, also, yes, the whole all-encompassing ‘being’ (ontological; cfr. Supra 12 (*identitive: 218/226*) and well as desolate and disordered, up to the demonic (cfr. *Infra 34/38 (Herakl. mod.)*); (*47personal daimon*); *56/64 (sexual magic 123/168 (the whole euripidelsche hermeneutics)*); *248vv. (Christ. interpretation)*)).

Note.-- (German) Romanticism has inherited this accent, apparently, from the Sturm und drang, which, around *JW. Goethe* (1749/1832; cf. his *Faust*), *JG. Hamann* (1730/1788) and *JG. Herder* (1844/1803), around 1770, arose. The Stürmer und Dränger turned their backs on ‘enlightened’ rationalism and its clear-ordered vision of life and the world and interpreted both the universe and (human) life as bearers of ‘incomprehensible secrets’:

“Before such abysses of dark feelings, forces, stimuli, now our clear and plain philosophy shudders most. She beats her head against it, as if it were the hell of the lower soul forces.” This is how, at the time, Herder expressed it.

Reading Freud, one cannot get rid of the impression that, apart from the mythological-demonistic savage infrastructure (which he borrowed from a.o. the antique and archaic Myths), also that typical-Stürmerisch-Drängerische ‘Kraftgenialität’ (title, *which the Stürmer und Dränger gave themselves, insofar as they were anti-authoritarian-nihilistic (cfr. infra 263v.: foundations crisis)*) in his depiction of life and world, nicely expressed in the title of one of his works: ‘*Das unbehagen in der kultur*’, was his own.

And, immediately, his followers, including those who call themselves Christian, exhibit the same infrastructure chaos as a cradle and breeding ground for all life, including man. Cfr *LJ. Kent, the subconscious in Gogol and Dostoevsky, and its antecedents*, the Hague/ Paris, 1969, 15/52 (*towards the literary discovery of the subconscious*); there German Romanticism is very particularly mentioned, e.g. *L. Tieck* (1773/1853), “The father of German Romanticism in Russia and the poetic uncle of the German and English Demons and Witches”. (o.c., 38f.).cf. *Infra 137/140 (German ballad)*.

MHD 32.4

(b) *Emphasizing what Scheler (cfr. Infra p. 236) calls “sublimation.*

That kind of process by which forces of a lower sphere of being - in the course of the process of the universe's becoming (ontologically understood, incidentally) - are placed in the service of a higher evolved type of being and becoming (*M. Scheler, Die Stellung des Menschen im Kosmos, Darmstadt, 1930, 79;81*).

Says Scheler, o.c., 76: “The flow of forces and action, which, alone, can make actual existence and accidental being (one thinks of the ‘existentia’ and ‘essentia’ of the scholastics (cf. *Infra 253/259*)) exist (‘setzen’), runs, in the world, which we inhabit, not from top to bottom, but from bottom to top.

(i) in the most haughty independence, the inorganic world, with its own laws, stands there before us,--while, in doing so, it contains, in very few points, anything like “something living.

(ii) in haughty independence the plant and the animal stand in relation to man,--with the animal being much more dependent on the actual existence of the plant than vice versa.”

Scheler says, o.c., 77, quite clearly, “Powerful is, originally, the lowest, impotent the highest.”

(iii) “The becoming of man and, at once, the becoming of ‘spirit’ (i.e. the intellectual-rational moment in man; cf. *Infra 234/236*) would, in that ascending perspective, look like the - as yet - final sublimation process of nature.” (o.c.,79).

One sees it:

(i) The base (infrastructure) is powerful and decisive;

(ii) the top (the superstructure, the suprastructure; - terms, which K. Marx (*cfr. 142 infra*) also uses) is impotent and secondary.

This implies a radically new understanding of “thinking” (philosophy, professional science). *A. De Waelhens, Existence et signification, Louvain/ Paris, 1958, 75ss.* confirms that Hegel (*cfr. Infra 226v.*), Marx (see above), Kierkegaard (*cfr. Infra 162v.*), Nietzsche (*cfr. Infra 142*), H. Bergson (1859/1941), all adhere to the New Philosophy style, i.e. thinking is the infrastructural life coming to consciousness, indeed to full consciousness of oneself.

MHD 32. 5.

In other words, cosmically-ontologically unconscious ‘being’ (inorganic, vegetable, animal) comes, suddenly, at some point of the evolution (thought here more than merely biological) of total ‘being’; to consciousness.

One sees the central role and of the unconscious and of consciousness and/or making (conscientization). This leap from the unconscious to the conscious accomplishes thinking systematically (*cf.* 18; 54; 91; -- 217 + 237v.).

It is precisely this form of thought that we see, still archaic-fresh and drenched in poly-demonistic polytheism and dynamism (*cf. supra* 4) at work with someone like Herakleitos or Euripides, yes, Anaxagoras and, certainly, Demokritos (*cf. infra*).

Critical-philosophical comment.

(i) For those who thoroughly know and archaic religions and magic (*mantic; cf. infra* 84), see that the cosmic-ontological unconscious ‘being’ (the infrastructure, in particular) there and the basis (the primordial material principle; see above 3/4 (*Milesian mod.*); 12/13.1 (*Orf.-Puth. mod.*); further: 242/245 (*Lateant. Theos. Mod.*) and the consciously mantic-magically exploited infrastructure is the basis of religion and magic.

There is, in other words, conformity (*see* 64vv.) between the romantic and romantically influenced philosophies and the archaic and mantic-magical mentality. -

(ii) *Vl. Solovief, La justification du bien (Essai de philosophie morale, Paris, 1939; 192*, thoroughly criticizes the way in which the jumps from unconscious to conscious are explained. His explanation (abduction) reads as follows: “The fact that the higher (...) types of ‘being’ emerge after the lower (...), proves by no means that the higher are brought forth (‘produits’) or created (‘créés’) by the lower. (...).

The higher types of being and states of being, which are the richest and most creative, are, ontologically speaking, pre-existent with respect to the lower ones (...). This does not negate evolution. One cannot deny it. It is, after all, in fact. (...). The evolution of the lower types (...) cannot - on its own strength - create the higher ones. It creates, however, the material conditions or a favorable environment such that the higher type shows itself (...).

MHD 32.6

Conclusion: every appearance of a new type of being is, somewhat, a new creation (...):

(1) What already existed is the material basis for the new type to show itself;
(2) the (...) own content of the higher type (...) exists from all eternity; this does nothing but - at a given moment of development enter another order of existence, viz. the phenomenal world surrounding us.” So much for Solovief (*cfr. infra 260*), who, apparently, harbors platonizing transcendent idealism (see *infra 193vv.; 253v.*). Which goes excellently with a cosmic-ontological evolutionary scheme of thought (abd.).-

(iii) Of course, in addition to the romantic-idealist, there is also the grossly materialist abduction concerning cosmic-ontological unconsciousness.

D. Dubarle DP, Concept de la matière et les discussions sur le matérialisme, in: *Fr. Russo et al, Science et matérialisme (recherches et débats, 41)*, Paris, 1962, 37/70, sets out, thoroughly, philosophically and scientifically expert, the modern-temporary concept of matter (the mechani(ci)stical and the ‘dialectical’ (Marxist) concept of matter included).

Here is what Dubarle says: “In fact, the contemporary concept of ‘matter’ returns, somewhat, to the ancient insight proper to the pre-socratic ‘fusus’ (sic): back - as it did two and a half millennia ago (...) - philosophy seeks to collect all that man knows within the idea of a primordial substance (‘*étoffe primordiale*’), which contains elements of all reality and which, self-actualizing, produces its own types and private cases, insofar as substantial.” (a.c., 54).

In other words, matter becomes the cradle - as Scheler (*see above 32.4*) sees it unfolding from below upwards - of radically all ‘being’ (including the primordial or subtle and the ideal).

In an analogous sense, *JK. Feibleman, The new materialism*, The Hague, 1970,

(B) The human unconscious. (32.6/32.12)

The romantic physician CG. Carus (*Psyche*), as a pioneer, situated the cosmic-ontological unconscious in the individual and collective soul phenomena of man.

Paranormology, as parapsychology, did something analogous. Freud, Adler, as to the individual -- unconscious, -- Jung, Moreno, -- as to the collective -- unconscious, have founded, each in his way, depth psychology and related.

MHD 32.7

We do say “and related” because it is never without depth psychology. There is depth biology, - sociology, etc. involved. Rightly says *JL. Moreno* (1892/1974), who is more - and much more - than the founder of a lean sociometry, in *Gruppenpsychotherapie und psychodrama*, Stuttgart, 1973-2, 2f:

“The ‘entgötterung’ (= secularization) of the world,

(i) that B. De Spinoza (1632/1677; *cf. infra p. 262*) deployed, in that he simply identified ‘God’ and ‘world’,

(ii) have continued Fr. Nietzsche (see below 142;145), K. Marx (see *ibid.*) and Freud (see *ibid.*):

a/ by reversal of value assessment of ethical-political values (nihilism) - Nietzsche -,

b/ through economic analysis (social democracy) - Marx -,

c/ by psychoanalysis (religion as ‘delusion’; *cfr infra p. 64.5*)

Freud (...) Marx saw the situation of man purely as a member of society and, in doing so, saw the struggle within that society as the decisive destiny of man (*cfr infra 41/43;142v.*).

Freud saw the place of man as the place of one, who wanders between birth and death (*cfr infra 142;144v.*).-- the wider cosmos was, by them, not involved. (...).

Man is a cosmic being. That human being is more than a biological, psychological, sociological or culturological being. (...). Either he is co-responsible for the entire universe, for all forms of ‘being’ and for all values - or his responsibility means nothing, absolutely nothing. (...). I put forward, therefore, the hypothesis (= *abd.*) that the becoming cosmos is the first and last existence and the highest value. (...).

Professional science and experimental methods (*see infra 70/123* (Anax. Sc)), if they are to lay claim to veracity, must be applicable to the theory concerning the cosmos.

(1) The so-called ‘Therapeutic Group’ (*note* - Moreno founded the method of ‘groups’, which, with its psychodrama, replaced the passive-individual divan method of Freud, since 1913+) is, therefore, not only a branch of medicine (therapeutic moment) and a form of society (sociological-sociometric moment), but also the first step into the cosmos (religious moment).”

MHD 32.8.

(2) The “therapeutic group” is, according to Moreno himself, a harmony of opposites (see above 24/26).

(A). On the one hand, he is medical-therapeutic.

The so-called “economic proletariat” (Marx) is - according to Moreno, o.c.,7 - only a small minority. But the therapeutic proletariat is “the oldest and most numerous (...)”. It consists of persons suffering from one form of misery or another - victims of an insufferable (cf. *Infra p. 249 (christ. Analogon)*) non-therapeutic worldorder (cf. 40/43 (*Herakl. Lotsdialectics*); 143vv. (*Eurip. Lotsanalysis*); 250v. (*christel. lotsanal.*)).

That misery is;

1/ religious (cf. 63 (*pandora -mythe*); 129vv. (*Eurip. myth-criticism*); (252 *christ. religion-criticism*));

2/ racial;

3/ economic (cf. 143);

4/ political (cfr. 42;155/162 (*Hekleidai*);

5/ social;

6/ psychological.

Thus steeds Moreno himself. Our references prove him right. “The world is full of millions of cloistered, rejected, and rejecting, uncared-for individuals and groups.” (ibid.).

“The therapeutic proletariat cannot be ‘redeemed’ by economic revolutions: it existed in primitive and pre-capitalist societies and it exists in capitalist and socialist societies. (o.c., 7f.).

Moreno bites back: “There are, in the present world, not only the two old-fashioned world views (...), the communist and the (liberal) democratic, but also a third, (...) the therapeutic”. (o.c., 6).

According to Moreno

(i) the great religions, under point of influence on humanity, lost ground and lost much of its initiative;

(ii) Yet the great political movements (communism and liberal democracy) also failed (in terms of the therapeutic proletariat) (ibid.). He seeks a way out in a neo-religious therapeutic philosophy (ibid).

MHD 32.9

(B) *On the other hand, Moreno notifies.*

He warns o.c., 4, against the physical or psychological thaumata (injuries), peculiar - to both individual and group methods: "In psychodramatic sessions the danger of trauma is particularly great."

This poses the problem of the proper value AND of the depth philosophical view (epistemologically) AND of its therapeutic value.

(A) *Epistemological.*

a/ E. Chartier (= Alain) (1868/1951), radical Cartesian rationalist (see 262), called "the unconscious" a "mythological phantom" (i.e., "nothing")

b/ JP. Sartre (1905/1980), atheist and, in time, Marxist existentialist (cfr. *infra* 166v.: *the philosophy of 'that'*) and G. Politzer (1903/1944), Marxist rationalist (cf. 142v.), see the unconscious (especially Freudian in view) as an abduction ('methodological hypothesis'), which, only, arises through and with depth psychology. We concur with this view. However, with reservations of all kinds.

(A) 1. *Epistemological.*

We establish more than one mode of integration.

a/ FJJ. Buytendijk, *De vrouw (haar natuur, verschijning en bestaan)* (The woman (her nature, appearance and existence)), Utr./ Br., 1951, situates the depth psychological method in the sphere of the objective, natural descriptions of being (in addition to the biological, the psychological) (see o.c., 145/177; showing that Buytendijk is very dismissive).

b/ On the other hand *Wilfried Daim, tiefenpsychologie und Erlösung*, Wien/Munich, 1954, so to speak, reverses Buytendijk's scheme. instead of depth psychology for phenomenology (see further 231/ 236, where Scheler, likewise, conceives of the professional sciences as a prelude to phenomenology), as pure (and then still natural scientific) subject science, "dealing with" (in more than one sense)

a/ Daim begins with Husserlian phenomenology (o.c.,18), which he, at once, also understands and broadens existentially (Heidegger, Sartre; see 146/148.1; 162/168). -- But now a reversal, as it were, of phenomenology as a descriptive method is taking place: Daim sees in it, merely, the impetus; nothing more.

b/ she does not, after all, reach the structure, as E. Spranger (1882/1963), A. Pfänder conceive it (especially diachronically situating it in the soul life) and which Daim calls the typical object of 'an understanding' ('verstehende') study.

MHD 32.10

Indeed, *Spranger, Understanding and Explaining in psychology*, in: *VIIIth intern. Congress of psychol., proceedings and papers*, Groningen, 1927, says - entirely in the line of Vico (*see further 38v.*) and Dilthey: 'to understand' is to situate data (observations and/or abductions), as 'meaningful', i.e. 'intelligible' (*see above p. 10*), within a whole ('ein ganzes'; -- *cf. supra 2 (stoicheiosis)*; 220vv. (*Rom. gansheid*)), which can be both purely logical (*cf. supra 5 (analogy; cf. 101vv.(type of logical reduction))*) and axiological (appreciative situating).

An appl. mod. on the subject be taken from *P. Moyaert, philosophical reflections on De Waelhens' 'la psychosis'*, in *Tijdschr. v. fil.* 46 (1984): 1, 24/31 (*some remarks on hallucination*).

'Hallucinations' - usually defined as perceptions without anything, which is perceived - are e.g. stings; shocks, outbursts or revelations, wind rushes, waves of cold or heat, sparks, flickering or sparkling points, phantoms etc. (*cf. M. Merleau-ponty (1908/1961; existential phil.), Phénoménologie de la perception, Paris, 1945, 392s.*).

The subject is convinced that it perceives these "phenomena" (in the strict sense of "whatever shows itself, anyway, to the perceiving consciousness" (*cf. supra 12 (ontological horizon)*); 217v. (*Jacoby's note*) perceives.

So much for the perception of objective data, which the so-called hallucinating subject, usually, clearly distinguishes from day-to-day, "ordinary" (secular or medially valid) perceptions.

So much so, that a more correct definition imposes itself, viz. hallucinations are perceptions with a non-daily, an unusual object (*see a.c., 30v. (reversal of 'percipiens without perceptum')*).

Abduction: "If what my-memory-here-and-now (co-memory understanding method (*cf. 39, ad 4b*)) hallucinates, somewhere in an 'unconscious' sphere, nevertheless represents its own reality type, then his hallucination becomes 'understandable' (*cf. 39, ad 4a*)."

How, now, does the structural psychologist reason Sprangerian? -- As follows: "If I too perceive such 'hallucinations' (e.g., in my dream consciousness), then by situating him/her within the set of those, - who, like me, also (*cf. 19/20 (erist. mod.)*) 'perceive hallucinations,' I can 'understand' my fellow human being (*cf. 39, ad 4b*)."

MHD 32.11

In other words: apperception of a given within a logical event: axiol.) whole and fellow human-understanding method are, here, one.

c/ Daim only now situates Depth Psychology: “It has attempted (...) to understand the soulfully disturbed (‘inadequate’) and is, in so far, understanding psychology. It was concerned with understanding (‘verständnis’) the so-called neuroses, as Freud also says.” (o.c., 19).

Conclusion:

- (1) To practice phenomenology means to describe phenomena.
- (2) Comprehending psychology implies that phenomena must be “understood.
- (3) Depth psychology implies making the unconscious data understandable. (o.c., 20).

Or still: “The (1) accurately recorded phenomena (phenomenology), (2) on their unconscious (explanatory) grounds (see above p. 2 (abd.); 10 (lemma)) (depth psychology) understanding (understanding method)” (o.c., 20f.).

Or again, “More than phenomenology, because it does not stop at phenomena, but they are ‘made understandable.’ More than mere understanding psychology, because:

- (1) it is about phenomenologically ready data and
- (2) understanding is extended to unconscious data. Finally, more than purely depth psychology, for the unconscious is made intelligible within phenomenologically grasped data.” (o.c., 21).

Here, very explicit reference should be made to M. Scheler’s ideative phenomenology, which makes philosophical depth psychology possible (*see infra* 234vv.).

For example, the question arises, “What ‘is’, now, such as ‘unconscious’ (explanatory or abductive) grounds?”

Or still: “How should both the (possibly ‘hylically’ experienced or conceived) cosmos and the (merely intellectually-rationalized) ‘being’ be designed (abducted) if there is such a thing as ‘the (metaphysical or human) unconscious’?”

(B) Axiological.

(1) *I. Kant* (see *infra* 263), *Träume eines Geistersehers (Erläutert durch ‘träume der Metaphysik’)* (Dreams of a Ghost Seer (Explained by ‘dreams of metaphysics’)), (1766), II:1, says: “Delusion and reason have such interlocking boundaries that it is difficult for one to continue in one area, at length, without, at times, making a slight deviation in the other.

And the MHD 32.12.

In other words, if already the ‘enlightened’ thinking is so indistinguishable from the delusion(sense), what then a-fortiori with depth-experiences, like e.g. ‘The groups’ (sensitivity training and so many others or the divan method?) See further p. 127v., where Euripides makes an analogous observation! See also 36/38 (*Herakl. madness*).

(2) *Florensky*, a Russian Christian realist (see *infra* 260), says: “Between eternal life in the womb of the Holy Trinity (see *infra* 246vv.) and the second eternal death (see higher 32.2vv.;36v. (Gogol) is also but not a hair’s breadth interval. (...).

Indeed: reason, taken in they fundamental logical norms, is either thoroughly absurd, delusional to its finest structure, i.e. an amalgam of unproven (*see infra* 261v. (*foundationalism*)) and thus utterly accidental (*see supra* 31v. (*Peirce’s three coincidence-based methods*)) constituents (*see* 2 (*stoicheiosis*)), or that same mind has the more than secular-logical as its basis.” (*J. Tyciak, Die Liturgie als Quelle östlicher Frömmigkeit*, (Liturgy as a source of Eastern piety), Freib.i.b., 1937, 112f.).

In other words, what can be raised about Moreno and most depth psychologists or therapists is that they are operating outside the Triune life force. Indeed,

(i) the old testament points out that the vital-biological level of life is doubly transcendable, i.e., culture-found-human (= intell.-rat.) and Messianic (= pneumatic) (*cfr. infra* 243);

(ii) what the New Testament merely asserts. (*cfr. infra* 247vv). Which *VI. Solovjef* (*see infra* 260; *supra* 32.5v.), *La Justification du bien*, 187, expresses as follows:

“The stone exists. The plant exists and lives. The animal lives and is ‘aware’ of that life, in all its states (*see above p. 32.4vv. (awareness; sublimation)*) Man understands, on the basis of ideas (*see infra* 193vv. (*Tr. id.*); 210v. (*Imm. Id.*) 253v. (*Tr. And omm. Id.*)) meaning (*see infra* 234vv. *ideative meaning*); 258v. (*Peirce, meaning*)) of life.-- yet the children of God realize that meaning of life”.

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Note -- Observational Criticism.

(1) on the one hand, Herakleitos prefers direct perception: “The (being), of which ‘opsis’ (seeing), ‘akoè’ (hearing) ‘mathèsis (information) exists, I prefer.” (*Fr. 55*). Cf. *Fr. 101*.

(2) on the other hand, Herakleitos called vision “deceitful” (“horasin pseudesthai”) (*Fr. 46*; cf. *Fr. 56*).

Note.-- Critique of authority(s) argument.

(1) On the one hand, Herakleitos invites “common thinking.

(2) on the other hand, he criticizes, explicitly, “right-wing” (“right-believing,” “orthodox”) or “authority” ways of thinking. “It’s not supposed to be like children of parents. Which, simply put - boils down to this: ‘As we ourselves have received it from others handed down.’” (*Fr. 74*).

This is strikingly similar to CSS’s “method of authority. Peirce, *The fixation of belief*, in: *Pop. Sc. M.*, 12 (1877), V (in initia). Cfr. *Supra p. 11 (Platon)*.

(2)B. Upper Elementary Type II.-- The language game theory.

(1) Appl. model:

“In the eyes of the deity, (‘ho theos’) all (being) are clean, good and righteous. In the eyes of man(s), however, the interpretation (‘hupeilèfasin’) is

a/ of the one kind (being), that they may be righteous

b/ of the other, that his, on the contrary, are unrighteous”. (*Fr. 102*).

In other words, Herakleitos here contrasts god language play with humanity language play. In the eyes of the apparently polydemonistic-polytheistic abductees (axiomaya), everything is ethico-politically (normatively) good. Starting from human abductions, however, - apparently those of morally-socially more developed people, then - there is a distinction between “good” and “not good” (evil).

(2) Regulatory model.

(1) L. Wittgenstein (1889/1951), in an initial period of analytic or language (analytic) philosophy, was what is called a “logical or language aspirant or positivist. To each individual word belonged, as far as possible, one object, in reality or thought, to be attributable (addition: univocal relation).

(2) Later-what is called “analytic philosophy of ordinary language” (as opposed to exact-scientific language)-Wittgenstein saw

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in that the same word, at least in the ordinary, prescientific language (one thinks of the language of common sense; *cf. supra pp. 2; 18*), spoken by anyone, the man of the street or the professional scientist, can have more than one meaning (one-verb relationship).

L. Vax, l'empirisme logique, Paris, 1970, 61, expresses this (analogically) as follows: "As (= model) there exists a whole collection of games, using the same playing cards, so (= analogon) there exists a whole collection of language games, using the same language material." (*cfr. Supra p. 2 (stoicheiosis)*).

G. Nuchelmans, Overview of the analytic philosophy, Utr./Antw., 1969, 178, explains this further.

(i) each individual word only "exerts its full effect, within a broader language activity."

Here, in the heraklitean appl. mod.: there is a polydemonistic polytheistic language activity, which makes the people, who believe in it, speak in this way (the very structure of the religion expressed in language-play obliges so to say. (unconsciously; -- which the structuralists have seen very sharply; *cfr. Supra p. 2/3; infra 90*)); there is a higher ethical and -political consciousness, which makes the people, who live in it, speak in this way.

(ii) every 'wider' language activity' (called 'language play' since Wittgenstein) is, itself, in turn, "embedded in a whole of action, which is not merely verbal." Yes, any language game "can only be fully understood if account is taken of the total form of life or culture, of which it is a part." (*G. Nuchelmans, o.c., ibid*).

(3) *Appl. models.*

CL. Ramnoux, Héraclite (l'Homme entre les choses et les mots), ((Man between things and words), Paris, 1968, 3s., further specifies some language plays.

Thus: e.g. Hesiod v. Askra (VIII-st/VII-th e.) exhibits a genealogical-theological language activity: he literally 'thinks' in pedigrees of 'deities'. Thus:

- a. in the beginning, there are emptiness ('chaos'), earth ('gaia'), minne ('eros')
- b. From emptiness, (*cfr. infra p. 58vv.; 125vv.; 210vv. (Arist. mod.)*) without intercourse, darkness (('forest of honor) and 'nux' (night) are begotten;
- c. From nux, through the couple aither (higher air layer) and light, which exhaust the good offspring of nux, a whole collection of "powers" (numina, (It.)) are "conceived.

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The 'time' (in the mythical sense) is there for balladic powers (*cf. infra p. 137vv.*) such as death-sleep, 'grin' (mock laughter), -- as well as the destiny goddesses (Morai), vengeance goddess ('nemesis'), strife goddess ('eris'), death goddesses ('keres). Ramnoux adds that the language play of the 'nocturnal' rite (dynamist-magical cratophany; *cf. Supra p. 3/4; 12/13.1*) and of the impressive experiences, which man, on average, goes through at night (balladsque nightdreams e.g., which the depth psychologists also include in their interpretations) runs together with this.

Ramnoux specifies that Heracleitos uses 'a number of names - e.g. 'Night' (the benevolent) - in which, again, more than one language play comes through: 'the benevolent: at Heracleitos, apparently, is, as Ramnoux claims,

a. a purely linguistic name, yet with a traditional mood, embedded in the vernacular of the Hellenes of the time, who had forgotten both deity genealogy and the nocturnal rite;

b. a purely linguistic name, yet, now, as commonsense or omnibus designation of what illiterate and learned experience, when it becomes fall night;

c. a linguistic name, but which, under the influence of the milezic physical, threatens to develop into a professional term ('the phenomenon which, after sunset, arises, until sunrise').

Ramnoux relies on Fr. 57: "The teacher of most, so far, is Hesiod. They are convinced that he knows the most. However - says H. Himself - he is the one, who knew neither the day nor 'the benevolent' (= night): (both) are, after all, one". Hesiod does not use the word 'eufronè' (the benevolent). Herakleitos chooses it, apparently, deliberately. Herakleitos criticizes both the 'polumathiè' (idle talk) and the lack of (dialectical) insight into the unity of day and night. He also does not ascribe to the benevolent any ballad-like qualities, at least at first sight.

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Note.-- H Herakleitos likes to play with words. That is known. In that very limited sense, there is "language-play" at Herakleitos.

In continuity with this, in Herakleitos' fragments, sometimes, a laugh, grin (see above p. 35) comes through, -- so e.g. in Fr. 70: "The opinions 'doxasmata') of men Herakleitos called children's games ('paidon athurmata'). " Other anecdotes confirm this (e.g., when he plays with the children, out of contempt for the Ephesians and their (political) hassles. Herakleitos exhibits, in his universe view, a ranking, in that regard.

Fr. 79: "Like 'a little child' ('nèpios'),--that is how a (what men are called) man appears in the eyes of the 'daimon' (deity). Compared to the deity ('pros theon'), the phenomenon the wisest man ('faineitai ho sofotatos') is an ape ('pithèkos')."

Fr. 82: "The cleanest ape, if compared to the human race, is an ugly one ('aischros')."

Considering the overall polydemonistic-polytheistic background (think of Hesiod's grin as a "higher power"), we are, here, facing a balladic phenomenon, which is e.g. in Nik. Gogol (1809/1852) clearly and sacredly appears.

*Dr. L. Kobilinski-Ellis, Die macht des Weines und Lachens (zur Seelengeschichte Nikolaus Gogols), (The power of weeping and laughter (on the history of the soul of Nikolaus Gogol),), in: R. Van Walter, Uebertr., Nikolaus Gogol, Betrachtungen über die göttliche Liturgie, Freib.i.Br., 193b, 80/100, says that already the first, fresh-folk humorous work of Gogol: *The Evenings on the Manor Farm at Dikanjka* (with pieces such as the frightening revenge (with the wizard figure) and 'we' (= earth spirit; with the figure of the beautiful witch)), articulates what the Byzantine liturgy calls 'The altogether ridiculous hades' under an extremely sober and 'realistic', yes, naturalistic appearance a partly fantastic, partly demoni(sti)sche figure shines through.*

The 'sorcerer' (understand: black-magician), who gives Gogol the traits of the evil antichrist, feels himself the object of frightening laughter from all things of this world (cosmic-demoni(sti)c grin). In his utter despair he asks a 'holy' man - hermit - for his prayer to God. But he curses him. Then the magician-antichrist: "Father, you are laughing at me. (...)

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I see how your mouth opens (...). The white rows of thy old teeth are grinning". Thereupon the sorcerer-antichrist throws himself upon the mite of honor and kills him.

But still, when the hades, whose inner glow is the ever-increasing and never-silent thirst for revenge, devours him, the last fear of his existence, that "laughter" clings to his body: truly, his own horse laughs at him. Yes, it seems to him that the unmoving rider on Mount Kriwan also opens his eyes, sees him and roars with laughter. -

To which L. Kobilinski-Ellis adds that, with Gogol, unlike many a romanticist (Byron) or new writer (EA Poe, the "poètes maudits" ("cursed poets"), in France, the Russian "decadents," Carducci in Italy, etc.), the demonic was never idealized. On the contrary, "Strong was Gogol's desire to embody the sacred (in the Biblical sense). But the mirror of his soul was and remained directed downwards, towards the lower realm of caricature.

G. Burckhardt, Uebertr., Heraklit (Urworte der Philosophie), (Heraclitus (Primal Words of Philosophy),), Wiesbaden, 1957, tells of Herakleitos's "wet death": "Grown to be a man's abstainer, Herakleitos moves up the mountains, into solitude. He spends his life in the mountains, living off berries and herbs.

Only once did our hermit return to the city. He suffered, after all, from dropsy. To the physicians he spoke in riddles, saying, "Canst thou turn a flood into a drought?" Yet they did not understand him. When the doctors could not help him, he, in his desire for "hot life and heat glow" (*cf. supra p. 28*) - sick as he was, near madness, went into a cattle stable, dug himself into the steaming stable manure and died' thus, sixty years old. (o.c., 38).

The account of Gogol's death is analogous: madly he wept on the divan; he refused to eat and, dying of hunger, he said "How pleasant it is to die.

Such was his grasp of the question of the nature of the greatest Sin, viz. the black magic of the evil Antichrist;--question, which, later *VI. Solovjef* (1853/ 1900), *Narrative on the Antichrist*, will take up again. M. Scheler (see *infra p. 231v.*) distinguishes sensual, vital, psychic and 'spiritual-personal' sense of value

MHD 38.

It is part of the nature of these value sensations that they are either not lived through at all, or that they take possession of the whole of our being". (*Der Formalismus in der Ethik*), (The Formalism in Ethics),

In the 'grin of Hesiod, in the laugh of Herakleitos - in the tragic laugh of Gogol we stumble upon something like this. Euripides too (see further page 128) will hint at something like this. Also in the film *The Land of Our Ancestors*, by the Finn *Rauni Mollberg*, one encounters that smile, which is tragic, in the midst of demonic-ballad data. And not for nothing do the great yogis, in India, from time immemorial, warn against the fire energy and its duality (which is explained, for Herakleitos, further p. 49vv., esp. 56/64) = outw. on philosophical philology.

Gb. Vico (1660/1744), the great philosopher of history, publishes, in 1725 *Scienza Nuova* (*New Science*).

1. Romantics like *Friedr. Von Schlegel*, (1772/1829: *Philosophie des Lebens*), brother of Aug. Wilhelm (1767/1845) - cfr. V. Santoli, *Philologie und Kritik*, Bern/Munich, 1971, 82/101 (*Philologie, Geschichte und Philosophie im denken Friedrich Schlegels*)" - or as Novalis (Freiherr Fr. Von Hardenberg (1772/1801), who wrote, "Is not every reader a philologist? ", have accustomed us to interpret readings of texts as philological and philosophical workaday.

Fr. V. Schlegel: "Reading is satisfying the philological urge" (o.c., 92).-- It belongs essentially to philosophical formation

- (i) historical -language and literary (= philological and
- (ii) learn to read philosophically.-- Hence this grab for Vico.

2. The object.-- Vico, as a philologist-thinker, sees human history (life) twofold:

a. Life is carried out by human freedom.

b. It is the work of divine providence.

"It's the

1/ implemented by human freedom

2/ work of Providence". (*R. Levolée, la morale dans l'histoire*, Paris, 1892, 1 40).

3. Philology studies both

(i) the facts (historical moment) as

(ii) the texts (language, literature moment).

MHD 39.

I.e.: Grammarians, text critics, hermeneutics, - historians,-- they collect empirical phenomena (cfr. *infra* p. 232v phenomenology) such as customs and laws particularly valued by Vico, travel and trade, wars and peace treaties, etc., with family life, funerals (and religion as the basis) coming first. -

4A. General "hermeneutics."

(= Philosophy, philology). Vico admired two ancient writers, par excellence:

1. C. Tacitus (+55/+119), the Roman historian, because he examines man, as he is in fact (factually), (cfr. *infra* p. 166v. Schelling's 'positive' philosophy).

2. Platon v. Athens (-427/-347), because the latter designs man, as he ought to be ideally and ideally (normative: eth. - pol.), as a philosopher (cfr. *infra* p. 193vv.), who puts forward as a lemma (abduction with unknown moments; cfr. *supra* p. 10) the 'ratio' ('from which the science of the (ideally, ideally) 'true' arises), the idea in God's mind (cfr. *infra* p. 193). -- cfr. J. Chaix-ruy, *Vie de J.-B. Vico*, Paris, 1943, 58s

4B. Special "hermeneutics."

(the "verstehen" of W. Dilthey (1833/1911), in the wake of hermeneuticists such as F.v. Schlegel (see above) and especially Fr. Schleiermacher (1768/1834).

Vico ardently admired Fr. Bacon (see *infra* p. 92vv.), the founder of causal (causal, "effective") induction. However, Vico shifted the study of causal relationships from the (mathematical) physical to human life as founding action (objectification).

Vico 's epistemology claims, "The (man's) accomplished (factum) is the true (verum)." Vico, like Bacon, sees causation as central, but, instead of extra-human nature, Vico studies human nature as a causal process.

Vico: "What man, thus, himself 'performs' (founds), he knows best! One's own causality is the basis of knowledge".

K. Vorländer, *History of Philosophy*, 3, Utr./Antw., 1971, 187v. says that, in this way, Vico founded the science of mind, against the mathematical-physical natural science (of man among others) of the rationalists, as e.g. R. Descartes (1596/ 1650), the father of modern philosophy, who lacked the sympathetic-analogical contact with the fellow man.

MHD 40.

In other words: The 'objectifications' (products) of man - geometry, human facts - man knows 'congenially' (with the same genius, 'sympathetically' as being similar). - Rather, the rest is 'alien' to him. In this Vico anticipated the romantic hermeneuticists, Dilthey in particular. (cfr. *infra p. 56vv. (Herakl. appl. mod.); (142Eur. appl. mod.)*).

(2) Heraklitean "dialectic".

On the regulatory model see v. P.Foulquié, *La dialectique*, Paris, 1949, 41/122 (*la dialectique nouvelle*):

(i) The Neoplatonic Theosophy (cfr. *infra p. 242vv.*),

(ii) the speculative theosophy of the XIVth century (J. Eckhart (1260/1327), N. Van Kues (1401/1450)) anticipate the XIX- d' century dialectics of G. Hegel (1770/1831; cfr. *infra p. 226vv.*), K. Marx (1817/1883) and Fr. Engels (1820/1895), both founders of dialectical-historical materialism (cfr. *infra pp. 94v.; 142; 169/180 (Demokrit. rat.)*).

(2)A. Basic concept.

Two main traits typify destiny dialectics.

a. Totality(sidee).

cfr. *infra p. 226vv. (Hegelian 'deduction');* 231 vv. (*Scheler's ideation; especially p. 235*).

As Kristensen (*see above p. 24vv.*) has already said, the view of the horizon (= 'totality') is characteristic of the harmony of opposites in the archaic-demonic religions.

Thus, e.g., Fr. 80: "The law (is) strife. Immortals (are) mortals, mortals immortals".

Or Fr. 62: "(Immortals, mortals) live mutually, the one in the place of the other, death and, conversely, they die mutually, the one in the place of the other, life." Meant is the exchange of destinies.

Well, a true philosopher

(i) establishes the dialectical facts (= perception (cfr. *supra p. 10*),

(ii) but in contrast to e.g. the merely empirical-historical scientist (physicalist), - he asks himself the question: how should (abduction; cfr. *supra p. 10*) the totality of reality be (*identitive; cfr. supra p. 12*) so that something like at first sight 'astonishing' changes of fate are possible (Kant: possibility condition)?-- thus - with Herakleitos (as with Puthagoras or Parmenides) - the totality is typified twice:

(1) as speculatively knowable) universe understanding and

(2) as a whole-cell substance.

MHD 41

b. Harmony of opposites.

See above p. 3 (Anaximandros, (*arising-and-decaying*) 7/8 (*Paleo-puthagorean 'apagogy' (incongruity proof: What is put forward as 'existing' turns out to be 'non-existing' (arising-and-decaying))*); 9/10 (*logical structure of apagogy*); 15/20 (*eristics*; especially Aristotle's interpretation of Zenon's eristics as 'not-as-me' reasoning (= 'also-me' reasoning), which clearly state the 'downfall' of the then specialist science (mathematics especially) and unity and multiplicity philosophies).

These applicative models of 'harmony of opposites' are of the first type, i.e. the dead-end type: what comes into being - whether hylic (real) or ideal (as a proof) - decays to nothing if one wants it to: first it 'is', then it 'is' not (any more). Which implies that, in that which is first, the possibility of non-being is already locked in.

This aspect will, later, be particularly emphasized by Hegel. He calls it 'objective', i.e. present in the being itself, 'dialectic'.

See above pp. 21/24 Xenophanes' metatheoretical theorem:

(i) 'dogmatic' rationalism, emerged,
(ii) perishes in "skeptical" rationalism; but this harmony of opposites" carries, within it, the root of a re-establishment, a new "arising," namely, the progress of theories.

This aspect of "progress of the movement", by means of re-establishment, will again particularly bring out Hegel: it fits into the ideal of evolution and progress of the XVIIIth and XIXth centuries. This aspect, admittedly, is absent from Herakleitos. Unless one may consider his introduction of personalistic thinking instead of both 'self-willed' thinking (p. 31 *supra*; 33 (*self-esteem*)) and of 'orthodox' thinking (p. 33 *supra*) or, even, polymathy (ibid.), as 'progress' of thinking, in his eyes that is.

It seems, however, that he considers the alternation of 'sensible' thinking instead of either self or right thinking as the alternation of arising and passing away. In any case, it is uncertain.

MHD 42.

(2)B. - Analysis.

We now dwell on aspects - in Hegelian language-playful form 'moments' i.e. elements of a 'Harmony of opposites'.

(1) Fr. 53: "The struggle ('polemos') is, on the one hand, the originator ('patèr') of all being, on the other hand, the 'prince' ('basileus') of all being, - which entails that - on the one hand - he made some emerge as deities ('theous'), the others as 'men' (from themselves) ('edeixe') and that - on the other hand - he made some slaves, the others free men."

(2) Fr. 80 (see first p. 39 *supra*, at bottom): "One ought to know ('eidenai') viz. by one's own or another's beholding See above p. 33 (*note 3*) - that the struggle is the common, - that 'dike', 'right' is strife and, immediately, that all being comes into being ('ginomena') as a result of 'strife' ('kat' erin') and necessarily so."

This is apparently an allusion to Homer and Hesiod, where they show, above the deities, below the humans, and, within the human world, above the freemen, below the slaves, at work either in the epic (Homer) or in the theo- and anthropogonies (Hesiod, the Orphics).

Here we are close to the infamous dialectic of the lord and the servant, with Hegel and Marx. Here is a first approach: from the struggle of the deities (see *P. Ricoeur, Finitude et culpabilité, II (la symbolique du mal)*, (Finitude and guilt, II (the symbolism of evil)), Paris, 1960, 167/198 (*Le drame de création et la vision 'rituelle' du monde*), (The drama of creation and the 'ritual' vision of the world), where the author situates the origin (the necessary and sufficient conditions) of evil, whether physical or ethical-political, is situated in the struggle of the deities, which coincides with the 'creation' (meaning: the creation of order in the disorder, which is 'in the beginning'), -- from that struggle, therefore, Herakleitos deduces both the distinctions 'deity/human being' and 'freedmen/slaves' or 'children, resp. monkeys/non-children, resp. non-monkeys' (see *above p. 36*) or, even, of 'Herakleitos himself/ fellow citizens of Ephesus' (*ibid.*).

(3) Fr. 104: "Of what nature, after all, is their identifying ability (noös') - see *above p. 14* (Parmenidean variant) - or their heart ('frèn')?"

MHD 43.

To street singers they attach faith ('peithontai'). As a teacher they honor the crowd ('homiloi'). This is because they do not know by sight ('eidotes') that 'the multitude are evil, the rare ones are not evil'".

In other words: a clear elitism governs the result of the natural selection (shifting, judgment), which causes the struggle, possibly in the form of strife. Just as the distinction ('discrimination') between humans and deities or between slaves and freemen - see above, where the results of the struggle (strife) were briefly noted - is likewise a 'natural', i.e. on the basis of relations of power emerged ('genesis') or 'decayed' ('fthora') selection, i.e. judgment shifting.

(4) Fr. 114: "If those with 'identifying powers' ('xun noöi') wish to express themselves, it is necessary that they strengthen themselves with this 'all being common' ('toi xunoi') See above *pp.* 31 (*Fr.* 2), 36 (same *Fr.*, though linguistically viewed and, thus, translated somewhat differently, though retaining the actual meaning completely).

If they behave in this way, they make themselves into strongmen ('mighty ones'), like a polis (city-state) by means of 'nomos' (city-state legislation). And in an even more powerful way, they ought to make themselves into strongmen: all human city-state legislations, after all, are, as with nourishment for its spirit, formed ('trefontai') by the one divine (legislation).

For this (one divine legislation) asserts its strong power ('kratai') over a domain as large as ('tosouton hokoson') it decides ('ethelei'). Immediately she is sovereign ('exarkei') with respect to all being and she is master of them ('periginetai')."

Note of legal history.

F. Flückiger, gesch. d. Naturrechts, I (Die Gesch. der europäischen Rechtsidee im Altertum und im Frühmittelalter), (History of Natural Law, I (The history of the European idea of law in antiquity and the early Middle Ages),), Zolikon/Zürich, 1954, 96f., literally writes: "(Herakleitos') basic idea governs his idea of law. (...).

MHD 44.

Since divine legislation is, precisely, the legislation of battle, (Herakleitos') statement regarding the "nourishing formative value" of "divine" legislation) means that all legislation draws its "strength nourishment" from battle. (Fr. 114).

That struggle is, as the 'originator', of all being -- see above *p. 42 (Fr. 53)* --, is, at once, the bearing ground of all laws. Law is a balance of power. Just as all being, in Herakleitos's world view, results from the struggle of opposites, so too do city-state laws: namely, as a situation-specific result that results from the struggle of political powers.

With this view also votes:

(i) agree with the statement already mentioned, that namely 'Dike' (execution of justice), i.e. that divine power, which, usually, in cases of restoration of justice, enforces Zeus' judgments, -- that namely that dike itself, in itself, is strife or, at least, strife form of strife - which amounts to the same thing - see *above p. 33 (note 3), -42*;

(ii) as well as corresponds to this that other word of Herakleitos concerning 'law' (*Fr. 44*): "Fighting ('machesthai') - so it is necessary -, the people ('ton dèmon') do so with the hand of arms above the legislation, as above a city-state wall."

Overwhelmingly, Herakleitos defends the same ethic of success, -politics, which we have already established with Euripides of Salamis (-480/-406) - apparently in time, a few decades later - (o.c., 43/51),

(a) the laws are simply the reflection (*see higher pp. 5/6, 7 (model concept)*) of the political power relations; who makes it through power,

(b) has, in any case, the "right" on its side, since it is precisely in the struggle, which is essential to the cosmic human event, that the "divine" "dike" works itself out victoriously. Behind the earthly power is the 'divine' world leadership.

Consequently: between power and law, in essence, no distinction can be discerned anymore. One could already label this view as a natural law view, - this all the more since Herakleitos already explicitly connected the universe law of combat with the 'fusus' (nature), even though he does not yet use the word 'natural law' himself."

MHD 45.

So much for Flückiger, who refers, among other things, to *Fr. 10*: "Connections ('sunapsies', -- apparently another word for 'harmonies') are things that are whole, and otherwise, that are not whole, what works together and what works against, consonance and dissonance; at once: out of all being the en(ig)e and out of the en(ig)e all being."

Flückiger also refers to *Fr. 123*: "All that is 'fusic' (nature) prefers to proceed mysteriously." We do not see the connection with natural law as a phenomenon of power, unless one, like Flückiger, as a Protestant by the way, likes to interpret (human) nature (mainly) pessimistically-pejoratively, identifies nature and power relations in the form of harmony of opposites. But this is one possible interpretation of the, in itself, much more encompassing concept 'fusic' (nature), if only because this word means 'being' or 'mode of being', meant neutrally.

It is therefore not surprising that more than one thinker, later, understands "natural law" as that kind of law which suits the higher, conscientious nature of man. This does not prevent Flückiger from being more than right with his interpretation of *Fr. 123*; o.i., in fact, but only contextually or linguistically, And not in virtue of the merely Protestant-pejoratively-derived word 'nature'.

(3) *The connection between hermeneutics and "dialectics*

(Harmony of opposites with Herakleitos.

(a) *Br. 123* (translated and explained above) provides an excellent introduction. 'Technè hermèneutikè' (hermeneutics), Ricoeur said (see above p. 26), was, at first, art of interpretation concerning divine speech (oracular hermeneutics), before, transferred to profane objects, it became simply text interpretation.

(b)1. *Sacred hermeneutics.*

First an example from Herodotos of Halikarnassos (-484/-425), a contemporary of Euripides (see *Higher p. 44*), taken from the oracle, not for the reason of the anecdote, but for the reason of the interpretation structure dissected. *G. Daniels, Religious-historical study on Herodotos*, Antw./Nijmegen, 1964, 71, gives us a beautiful scheme of this.

MHD 46.

It is about *Herodotus, Histories, 1:66*. The Spartans, after Lukourgos' legislation became powerful as a people (Lukourgos is situated in the IXth e. B.C.),

(i) Falling into hubris (overestimating themselves, crossing borders), they consulted the oracle at Delphi in relation to the whole territory of the Arcadians, thinking they were 'stronger than the Arcadians', and, immediately, disparaging them. They were not satisfied, with the Puthia, the divinatory woman at Delphi, with a part of the Arcadian territory: they want the whole.

(ii) The Puthia's answer, while not giving them all of Arcadia, still says: "I will give you (enk.)

(1) the fact that at Tegea 'orchèsthai' (which can mean both 'dancing' and 'working in the garden ('orchos' = garden, row of vines)') will take place;

(2) the fact that a beautiful agricultural plain will happen with the measurement string "diamètrèsthai" (which can mean both "dividing the land" and "working on the land as prisoners of war").

(iii) Analysis of structure.

(i) The Spartans suffer from land hunger ("imperialism") a form of hubris.

(ii) a. The deities decide an immanent sanction: They instruct the Spartans to consult the oracle. This sets in motion what the Greeks call 'dikè', execution of the 'divine' (understand: polytheistic-polydemonic) decision.

(ii)b. The puthia, as instrument, in 'mania' exited state, communicates the above mentioned oracle. - Here now formally the oracle hermeneutic sets in.

Structurally, i.e. taking into account a plurality of coded, i.e. kept secret meanings ('messages'), the relationship 'text'/reading of the text' is fundamentally, one-versus-many The one, only text is susceptible, combinatorially, to more than one interpretation.

'Combinatorial' means 'that which connects more than one element of a given set in more than one way to (more than one) (here) meaning-whole.

MHD 47.

Here the elements ('moments') include and are especially the following. -

- (1) The deity at Delphi, Apollo, of whom Herakleitos himself says textually: (*Fr.*-93) "The prince ('anax'), whose property is the oracular sanctuary at Delphi,
a. Does not speak (clearly),
b. does not (also) conceal (without more),
c. Though gives a sign ('sêmeinei')". -

(2) Further element: the Sibyllè or temple soothsayer. Textually, again, Here's Herakleitos says of her: "The sibyllè (sibylle) utters (oracular spells) with the mouth of one who is in rapture (out of body), which are not objects of laughter ('agelasta') - cfr. *supra p.* 36vv. -, who are neither embellished nor provided with perfume (...) by virtue of (the power of the) deity." (*Fr.* 92).

(3) The oracle counsellors, who, in their 'state of mind', insofar as it is conscious and ascertainable by fellow men, ('èthos'), reveal their deeper 'daimon' to the public (cfr. *Fr.* 119): "One's own nature (insofar as it is visible) is, in man, his 'daimon', (which does not show itself, except through signs)."

Consequence: not without reason all oracle interpreters warn against the unconscious in man, who consult the oracle of the "polydemonistic-polytheistic" deities.

Reason: One receives, because of the deity (in the sense just referred to), precisely that counsel which constitutes the model of the personal and/or groupdaimon (see above p. 5/7 (model concept)).

The oracle proceeds as if it reflects your own 'destiny'. It is a true, though polydemonistic-polytheistic, model of your own ground situation-in-the-universe, especially thought of as a primordial material center of life.

Indeed, 'daimon' -- if this word, at least, does not designate either a particular deity or a rank within the polydemonistic-polytheistic deity hierarchy,-- which does happen more often (the language-game context decides) -- 'Daimon', therefore, means impersonal force or power(s) substance). See above: *pp.* 3/4 (*hyleic-dynamic abstraction*), 27/30 (Herakleitos's own grounded hyleic-fiery abstraction, which is a capstone of his philosophy). Immediate reference should be made to *pp.* 31/32 (*depth and parapsychology*).

MHD 48

To summarize: the text of the oracle spell is the intersection of a multitude of 'factors' ('moments'), which, in turn, can end in a multitude of combinatorial connections. - For example, just 'doso', 'I will give': -- what exactly does that mean? Who is the 'I' of that futurum (future tense) of 'give'? What does, here-and-now, 'give' mean? -- We do say, 'here-and-now'. There is, in actual life, not only 'abstraction', i.e. generally valid meanings of e.g. a verb; there is always the concrete-individual (cf. course first year: *idiographic structure*).

Thus, there is the addressed person: 'toi', who exactly is meant? The concrete-individual man or woman, whom the Spartans sent to Delphi? Or: the monarch, the commander? Who else, perhaps? -

'Tegeèn', 'Tegea': - What is meant, right? The city? The city dwellers? The city government? The territory surrounding it? Or what else, that under the name 'Tegeèn' can be meant?

'Possikroton' - the deliberately, on p. 46, skipped adjective at 'Tegeèn' can mean both in the Greek of those days, 'beaten' ('trampled') with the feet and 'slapping' ('trampling') with the feet! So both the passive and active meaning of the verb (cfr. *Ma. Bailly/ Me. Eger, Dictionnaire Grec - Français*, Paris, 1903, 1611).

I.e., will Tegea have been slapped with the feet or beaten with the feet? Of "chrèsmos" (divine speech, oracle) 'kibdèlos' (false, treacherous)" spoken! Herodotos uses this expression in this context, as in many places elsewhere in his book, and rightly so!

For the other two verbs 'orchèasthai' and 'diametrèsasthai' and their thorough semasiological ambiguity, we refer to *page 46 supra*.

Conclusion of this brief (incomplete) semasiological analysis of combinatorial moments: statistically already a whole number of possible combinations.

Multiply these semasiological moments and their connections with the situational moments (briefly reviewed on pages 45/47 supra; summarized in

- (1) deity,
- (2) temple seer,
- (3) consulting)), and ye calculate, intuitively already, the number of combinations!

MHD 49

Especially, if one briefly, analyzes, - e.g.:

(1) the deity is supposedly 'Apollon': who exactly is this 'Apollon'? In Delphi, there were originally other deities and 'daimones' (personified or, even, personal primordial beings): is the temple visionary, in 'mania' (mediumistic out-of-body experience) really so definitely inspired by Apollon - and not by some other 'numen' (as the Romans said)? This numinous analysis alone poses insurmountable critical problems.

(2) The puthia: is she, today, that the Spartan delegation is standing there before her, in her proper mantic condition? Further: there are cases of non-real mania, in which the seer or seer committed deceit! Does she, too, now-and-here, not deceive or allow herself to be deceived in good faith? In itself, the mediumistic analysis is already a heavy problem, critically speaking.

(3) The consulting ones: see above *p. 47 (ad (3))*. This analysis is the most decisive, apparently, at least in the eyes of the oracle hermeneuticists.

Reason: only those who - primordially and totally (in the universe context) - were 'strong', i.e. power-bearers, could, in principle, be sure of the correct oracle spell and, if it was not the correct one, then of the correct interpretation.

For the theoretical basis of this, we refer to *p. 26/40*: Herakleitos clearly knew what it was about when one spoke of interpretation (hermeneutics). It is precisely for this reason that we have allowed this chapter to precede the chapter on the dialectic so extensively. Without a thorough insight both into the doctrine of knowledge on a primal ('subtle', subtle, 'fluid') basis and into the theory of interpretation connected to it, one cannot understand the basic dialectic structure of Herakleitos' philosophy, and you can already calculate, intuitively, the number of combinations! Herakleitos' philosophy cannot be understood, unless 'mutilated'.

(b)2. Philosophical dialectical hermeneutics.

(a)1. Introduction.-- "This cosmos, which is the same for all being, has neither ordered ('epoièsen') one or another deity nor one or another human being. He was, on the contrary, always and will always be an ever-living fire ('pur aeizoön'), which, 'according to measure' flares up and 'according to measure' extinguishes." (*Fr. 30; see above p. 28*).

MHD 50

What interests us, here and now, is not the primordial boundary-respecting structure, but the word 'cosmos', which means both natural and human cultural order, not without aesthetic overtones (see what the paleopthagoreans integrated about it, within their system of number-space mathematical thinking: *p. 4/5 supra*).

Herakleitos means, among other things and, even, especially a legal order. *Cfr. supra pp. 43/45.--* We remember that neither deity nor man acted 'to establish order'. Yet there is 'measure', limit in: the fire, i.e. the root of all that is visible and tangible, the primal substance thus, moves continuously 'metra,' with measure or to measure. What precisely causes, begets, this 'measure'?

Anaximandros of Miletos (*see above p. 3*) replied to that, in the fragment, which his language play (*see above p. 33v.*) does not have, within which it can be understood, explicitly at least, that the 'order of law' ('taxin') - so W. Jaeger, at least, translates the word - not without real reason, by the way - namely, the order of law of the 'time' ('chronos') originates and perishes (which already, somewhat, implies dialectic).

Herakleitos, in *Fr. 52*, has a variant on this: "The 'aion', i.e. time, but with a shading of superhuman, yes divine 'time' ('eternal time') is a child ('pais'), who behaves like a child (paizon') - which implies a.o. but not only implies 'playing'; to translate this word only by 'playing' is to misrepresent Herakleitos' thought-, that plays triktrak ('petteuon'): child property is the prince - being ('paidos hèn basilèièn')".

'Triktrak' is a game of chance - note: one type of game, game of chance - played on a double board with pointed figures, discs and dice, which jump from one part to another. *Cfr.* the Greek word 'halùa' meaning both 'board' and 'jump'.

If we, therefore, interpret correctly, then the (higher) time, which governs life (the lower time), can be compared to a child, who acts childishly.

MHD 51

(a)2. The dialectical notion of "turning" (into the opposite)

Fr. 88 - which is similar to the expressions, which can also represent 'cover', noted higher on p. 39v. - :

"The same is in (the being): living-and-dying, waking-and-sleeping, young-and-old. One kind (of being) is, after all, after being turned over, the other and this last, after being, again, turned over, the first kind."

Fr. 90: "The whole collection of beings is fire exchange and fire is exchange of all beings, similar to (exchange of) gold for merchandise and merchandise for gold."

Again and again one sees the linguistic playful moment, here in the choice of words: 'change', 'exchange', while maintaining the harmony of opposites. In all this one cannot escape the final impression that Herakleitos 'plays' both with ideas and with words: is it then so surprising that what, in those ideas and words, comes up for discussion, also comes across as playful, playful, tricky? The harmony of ideas, resp. words reflects the harmony of the being

(b)1. The (otherwise general-Greek) **concept of "measure"**.

Already in the hylc-firal order is, essentially, 'Measure' ('metra') present (see above p. 28; 50 (top)). That this depth fact is really there, Herakleitos sees, among others, in the 'cosmic' natural phenomena: "The sun (...) shall not exceed the Measure ('metra'). If it does not (maintain this as a law), then the Erinues (the goddesses of vengeance), the helpers ('epikouroi') of Dikè (the executive justice), will blot it out."

The goddesses of revenge are a typical chthonic (telluric) phenomenon, connected with the underworld: they guard, with Dikè or e.g. also Moira, who takes care of the righteous distribution of destiny, the crossing of borders (hubreis; *see above p. 46*) concerning blood relationship, guest right, worship of the dead and related matters. They belong to the oldest layer of law in Hellas. - The question arises to what extent Herakleitos who, indisputably, believes in "dikè" and the like still believes in actual "deities" so characteristic of popular religion. The 'enlightenment' (*see above p. 21 (Xenophanes)*) tended either to deny or to interpret in a purely imaginary (metaphorical) way.

MHD 52

In other words: everything points to Herakleitos somewhat reducing the numina (deities, daimones understood as personal beings, this time) to cosmic-physical 'powers', 'agencies'. What one would call, today, a form of demythologization. Or of secularization. But while retaining the 'religious' 'semblance' or 'twilight' that surrounds it. This betrays the reason why *Cl. Ramnoux, Héraclite (ou l' homme entre les choses et les mots)*, (Heraclitus (or the man between things and words)), - see above p. 34vv. (*language plays, reaching from archaic-sacred to scientific (cosmic-physical)*) - in its very title this hanging between the words and the being is already mentioned.

Which, in passing, said, many "faithful" contemporaries, but then with regard to our own Catholic "numina" (Holy Trinity, Mary, certainly the "saints" (folk saints), original sin, baptism, Catholic sex morality, etc.) do even today.

In other words, the enlightenment - Xenophanes, Herakleitos and so many philosophers, scholars, rhetors - of that time was, in essence, not so different from that of today.

(b)2. Dice, which skip from one part of the playground to another.

Concluding remark.

On. p. 36 supra we were confronted with the question of seriousness or sorrow (mockery, grin) in Herakleitos. The word for 'night' 'benevolent' returns, in Herakleitos, several times - and in someone, who so carefully considers his language play, as Herakleitos, certainly not by accident. Wouldn't the true explanation be that he senses and proclaims night as so 'benevolent' because he is the prisoner of the polydemonic-polytheistic pantheon (deity and daimoness system)?

This 'system' is a real system of power, albeit a system of power, which exercises its power first and foremost on a fiery-oceanic basis. - For the last time: see p. 27vv. - the hylc-fiery abstraction is and remains, for Herakleitos, although mythical-archaic, valid (unsecularized language play), but essentially confrontation with 'benevolent night', i.e., for man, who thinks - see above p. 31/33 (intellectual (reasonable knowledge) - 'time' (aion), but playing triadically.

MHD 53

Note.-- "Harmony (injunction of opposites), if hidden, is stronger ('kraitton') than the unhidden."

By acting like the deity at Delphi and at other oracle sites (Herodotus mentions only sixteen of them), i.e. not speaking clearly but also not concealing without reason, but in between - giving an unequivocal sign - the hidden harmony of opposites maintains its dominant position (see above p. 43 (role of power relations)): the one who is caught in its opaque network, like a fly in a spider's web (cf. *Fr. 67a*), does not see clearly, he works with the help of a spider. 43 (role of the balance of power)): the one, caught in its opaque network, like a fly in a spider's web (cf. *Fr. 67a*), does not see clearly, he works with nothing but lemmata, unknowns, as if they were known, but in such a way that the "analysis" which is his life, does not imply any clarification. The 'inductive' scrutiny leads nowhere except to eternal restarting. Behold the truly tragic world- and life-view of Herakleitos.

Note -- That this lemmatically-analytically dead-end view is indeed that of Herakleitos is abundantly clear from *Fr. 123* (see above p. 45, but right-historically):

"All that is nature prefers to proceed mysteriously." Now, that 'nature' is essentially 'harmony' (of opposites), as noted in the comment above still. The physical, once founded with so much hubris - hubris - by the Milesians, here goes down in real irrationalism: what else is that 'hidden', that 'working in secret'?

Herakleitos, after all, is and remains a thinker, i.e. a being who wants to 'abduct' (explain), deduce, induce, clearly and distinctly. However, this induction verifies again and again, correctly counted, an abductive-deductive lemma, called 'harmony of opposites', which, hidden, is always stronger than the thinker.

This then is the second not purely hylic physical, next to the Eleatisch-Zenonische (see above p. 19), which ends in a confession: 'you too, nor I' see clearly and unambiguously in it how the fisis works, irrationalism but by purely rational means. Only Xenophanes offers a dialectically valid way out. *Cfr. p. 24.*

MHD 54

Indeed: thinking, which grants no power over the thought and thought worked, is therefore powerless. Is this still thinking? Yes and no, powerless thinking.

(i) *Xenophanes*, at the beginning of the philosophical-scientific-rhetorical enlightenment, could still count on 'progress' concerning the foundations. Not the parts, not even the superstructure, i.e., what is built on the foundations (axiomata, necessary and/or sufficient reasons), are decisive for enlightenment: the enlightened metatheory, today, comes to one conclusion, viz. every thought chooses, without sufficient, only with necessary reason or ground, its abductive points of departure (axiomata, definitions, -- lemmata).

As long as "theory" is allowed to remain a closed system, one can reason with the necessity and sufficiency of reasons. But such a thought product is kept straight by a special, namely theory-founding complement: one deliberately abstracts from the rest (the complement) of being.

Consequence: 'bene currunt, sed extra viam' - S. Augustine once said, in another language-playful context - "they walk well, but outside the career". Applied here: they think well, but outside of 'being', i.e. the unsinkable reality. Only within the limits of theoretical abstraction (i.e., complementation) can "reason" in its enlightened form know and/or feel "strong," outside of that, in the mysteriously enveloping fuis, in the realm of hidden harmony, especially if it touches the enlightened mind personally,-- there the enlightened boundary crossing stops.

So honest were Zenon of Elea and Herakleitos of Ephesos that they sensed that boundary and, each in his own way, formulated it (eristics, dialectics,-- both being related).

(ii) *Fr. 116*: "All men are given ('netesti' (i.e. they have a share in it), to know themselves ('ginoskein') and to reflect ('fronein')." (54/55). The verb 'fronein' - according to *W. Jaeger, A la naiss.*, 123 - used with certainty by Herakleitos in fragments 2, 17, 64, 113, 116, means "the right intuition (direct contemplation), the 'straight' (i.e. correct) way of 'thinking' (the explication, resp. interpretation (see above p. 31v.)".

MHD 55

('fronimos', 'fronèsis' are adjective and noun at 'fronein'). This knowing activity is in explicit connection with man's practical behavior. In contrast to 'noèsis' ('noèma') of Parmenides, which is speculative (*see above p. 4 (overview),14*).

Jaeger gives two examples.

a. Aischulos of Eleusis (-525/-456), the great tragedian, in his tragedy *Agamemnon* (176) uses the word "fronein" in the prayer to Zeus: there it means the understanding (insight), peculiar to the believer, of (in) the tragic situation, begotten by the deity, as well as of (in) the behavior of man, which results from it, in conscience.

b. The apollonian-Delfish wisdom, which was at the heart of the doctrine of the sanctuary at Delphi, applies that 'fronein' to the 'measure' (boundary), which human beings, like all beings, for that matter, should respect in their projects, for fear of falling into hubris. Those who behave in this way, 'fronei', act pensive. Prudence-in-tragic-thinking, -- such is the meaning at the heart of 'fronein'.

According to Jaeger, o.c., 124, Herakleitos is the first thinker, who wants to see the abstract thinking (of the harmony of opposites, of course) applied in practical life, private and public (*cf. supra p. 36*, where (as in the oracle of the Delfish seer to the Spartans-in-Hubrist state (*see supra pp. 46/49*), where, according to Herodotos, the outcome (teleute) for the Spartans was catastrophic (only the inductive falsification followed, not the verification of their idiosyncratic interpretation (see above pp. 32.,33)), so too the Ephesians, as constitution and city-state life became increasingly unholy, underwent an analogous falsification of their idiosyncratic interpretation of Herakleitos' message). This is - for Spartans and Ephesians - twice a tragic situation. 'Fronein', 'fronèma', etc. are tragic terms.

MHD 56

B. Fr. 117 (56/57): "A man, whenever he is intoxicated, is driven (cf. our word 'drive'), by an immature lad to stagger. He knows not whither he stumbles, for his soul is 'hugrèn', moist'."

Fr. 119 (see above page 47) said that the 'èthos', the (visible and tangible) behavior, in man is his 'daimon', his depth soul.

This recalls what Herakleitos, as a Greek of those days, must have seen for himself, the Dionus cult:

Fr. 15 (which gives its sacred explanation of that cult) clarifies - which in Herakleitos' case as an "enlightened spirit" testifies to much religious understanding, i.e., understanding - the idea, which Fr. 119 covers.

More to the point, **Fr. 15** exposes the true root of Herakleitos' tragic-dialectical view. The text reads: "If the bakchanten (dionusos celebrants) (...) did not hold Dionusos in honor of the procession and in a religious song ('humneon') sang the pubic parts (phallos), then they committed the most shameful acts the same (reality) is viz. the hades (underworld) and Dionusos, in honor of whom they are enraptured ('mainontai') and celebrate the wine press festivals ('lènaizousin') and/or compete for the poetry prize during those festivals (second meaning of 'lènaizo')."

In other words, Herakleitos as an enlightened mind is, in principle, against such blatant celebrations; but his broad-mindedness, precisely as a tolerant-enlightened mind, makes him appreciate the internalist interpretation that the celebrants themselves, not he, of course, harbor,

In other words, we are faced here with a very peculiar applicative model of 'verstehen' (i.e. 'understanding method') as e.g. Gb. Vico (1668/1744), - later, W. Dilthey (1833/ 1911) but then in the sense of interpreters and interpretive theorists concerning human acts, products etc. and this on the basis of a relation of essence between the interpreter and the human object interpreted. So e.g. here, the vexatious-sexual-magical rites of Lènaia (Bakchos celebrations).

Note -- E.v. Tunk, *Kurze gesch. der altgriechischen Literatur*, (Short history of ancient Greek literature), Einsiedeln/ Köln, 1942, 14, says: "(...) The dramatic poetry of the Greeks owes its origin to the Dionusoscultus.

MHD 57

(...). The cult of Dionus showed a serious and a joyful side.

a. As a vegetation deity, Dionusos was related to all animate beings, as well as to those who had died. (*cfr. supra p. 51: chthonic religion*).

b. on the other hand, his best-known gift, wine, provided opportunity for all manner of exuberant behavior. (...)

c. From the mixed nature of Dionusos worship emerged, as results:

1. The Tragedy, **2.** Satyr's Play, **3.** The Comedy". But more about that later, when Euripides is discussed (and his depth psychology).

Only this in relation to Herakleitos: the Dionusian service - both in the intentionality (structure of consciousness) of the celebrants (participants) themselves, and in its cultural effects, just mentioned, - proved that it was more than vulgar sex magic, although, at its base, it could not be denied. Herakleitos saw this clearly.

More than that: his own depth psychology (*see above p. 32 a.o.*) had taught him that man has two sides:

1. The conscious and for fellow humans, somewhat, empathic (on which his version of 'verstehen' (understanding method) - *see above p. 38* - was based);

2. The unconscious, but very important, in depth, called 'daimon'; he saw this coming to the surface, among other things, in the Dionusos worship, as founding culture. On this certainty, as apparently more than an observer, his first version of the harmony of opposites must have rested. We turn, now, to his basic axiom, the ever-burning fire. Back (*see above p. 27vv.*).

(b)3. "Vesta is the same as 'the earth,' the ever-burning fire made up the *raison d'être* of both." (*Wb. Kristensen, collected contributions, 306*). 'Vesta' is the name of a typical Roman 'numen', i.e. the goddess of the domestic fire.

MHD 58

WB Kristensen, collected contributions, 306vv, explains in more detail the role of the fireside nomina or forces, resp. powers (both personal and impersonal), as always.

We summarize (for the reason that the actual scope would require extensive study, - which would lead us too far).

a. The hearth fire - says the author - is, in fact, the earth fire. It was an archaic-antique religion, among others with the Hellenes and the Romans, that - one listens to the role of the causer - through the hearth fire (causative link: the maintenance, but then reverently believing, of the hearth fire creates, generates, causes the earth (as earth goddess and earth fluid at the same time) in everything she generates (produces), lives.

b. *Applicative models* (58/60)

1. The by the Romans called 'lar' (huisnumen), a nature spirit(s), that 'dwelt' (fetish concept), as Kristensen literally writes (o.c., 307), "in the fire ('pur' says Herakleitos in Greek, which means both all kinds of really literal 'fire' and also, among other things, 'evil' (as in the expression 'pouring fire on fire' (repaying evil with evil,--exchanging; cfr. *Supra* p. 51(*cover*)))) on the house hearth)", the 'lar familiaris' (family house spirit), thus, "made the life of the family go up" (o.c.,307).

Kristensen explains: the ancients ascribed a life-giving energy to the hearth. The deity of the fire of the earth - one pays attention to the connection 'fire/earth' - was the creator of the life of the earth (i.e. in the family, the fruits of the earth etc., which are connected to that one family that worshipped lar in and through the always living - see above p. 49v. ('pur aeizoön') -, related).

The main motif in the myths and rites that belonged to that circle of ideas was, therefore, the mystery (in the religious scientific sense of 'rite' together with myth, which, through displayed 'signs' (usually sexual organs, - so the general presumption; because the duty of silence of the archaic mystery celebrators leaves a veil over this), transmitted the life force of the earth to the celebrating participants) of the rise and fall of life (of the earth).

MHD 59

Kristensen called this phenomenon "birth" - or also still "mystical procreation. Its articulation was -- so says Herakleitos -- always the same: "The virgin mother causes life to rise." This 'virgin mother', now, was the consort of the deity of the underworld, - in this case -- viz. of the ever-living earth and hearth fire -- of the deity of the earth fire.

Thus e.g. - as an applicative mythic model of this regulative-mythic proposition - Kristensen gives the following:

(a) According to Dionusios of Halikarnassos (4:2), the goddess Athènè Polias (i.e. city-state protector) was worshipped together with the god Hèfaistos (i.e. the deity of fire) in the Erechtheion (i.e. the temple in honor of Erechtheus, literally translated: 'earth shaker', the progenitor of one of the great families of Attica), on the Acropolis (i.e. literally translated: 'fortified fortress') worshipped by the people of Attica and especially the city-state of Athens.

Even more so: there, in the Erechtheion, at least in archaic times, the founding fire of the Athenian polis was maintained day and night. Reason: the ever-living fire ('pur aeizoön') was the 'image' (see later, when we talk about the concept of 'image' (picture, model, with Platon) i.e. the visible representation, of the - what Kristensen calls - 'enduring' or 'earth life'.

One rereads, now that the hiero-analytical background has been clarified p. 27/28 (the ever-living fire, with the two possible and valid interpretations), and one understands how a serious and sharp-thinking "physicalist" like Herakleitos could arrive at something like a cosmos that is "ever-living fire.

In other words, the absolutely necessary (and perhaps sufficient, at least for the core intuition) reason or ground (abductive hypothesis) of his philosophy is precisely such a hieroanalytical phenomenon.

(b) According to Kristensen, whom we reproduce throughout, but with explanatory data, as an abductive hypothesis of that hearth maintenance and worship on the Acropolis, the myth was recounted, which reads as follows.

The goddess Athènè, virginal as she was, through the fire of the fire god Hephaestus rising from the earth became the 'mother' of Erichthonos, The 'born of the earth' (understand: from the physical globe, ascended fluid - with - fire view) understood as subtle or subtle (primordial) reality via the fire god Hephaestos, the 'mother' of the Athenian people. - With this, one moment of Herakleitos' fire physicality is clearer.

MHD 60.

2. An even more obvious hiero-analytical model offers us, according to always Kristensen, o.c., 307, the Roman counterpart of the Attic goddess, the virgin Athene, namely, the vestalin Ocrisia, the maid in the palace of King Servlus Tullius, the sixth king of Rome (-578/-535).

(i) 'Vestalin' or 'Vestal virgin' was actually a peculiar and private and public applicative model of archaic-sacred servitude (as we cannot go into it now, we refer to WB. Kristensen, o.c., 201/229; where among other things one biblical model is referred to, namely the Ebed Yahweh, the suffering and dying but also glorified lord servant of the Lord (i.e. of Yahweh);

Kristensen could have added, rest assured, Mary, who, according to Luke the evangelist-physician, calls herself "handmaid" of the Lord, as, incidentally, Jesus himself, explicitly, claimed the title "servant of the Lord" for himself.

Immediately one text is quoted: "The sacred position of slave women completely matched that of slaves. They too were devoted to the deities of the underworld. But they have, in particular, represented and realized the mystery of the feminine energy at the rise of life - see above page 59, where the concept of 'image' in a platonic-sacred sense is discussed -.

Therefore they (...) were the servants of Juno (the sister-wife of the supreme god Jupiter) and the Junones (co-deities of the supreme goddess Juno). Immediately the slave women stood in special relation to Vesta, the hearth goddess of the Romans, immediately to the 'earth mother' ('terra mater'), and to the 'vestalesses', i.e. the vestal virgins, the guardians of the hearth." (o.c., 217). On this primacy of feminine energy, virtually all primordial religions have based their being)

MHD 61

(ii) That Vesta, although another deity ('numen') than the earth mother was 'exchanged' with it by a minimal number of Romans (*see above p. 51, for the Heraklitean analogy*), is attested by the Latin poet *Ovid of Sulmona* (-43/+17), in his *Fasti* (6: 267; // 299, 460): "Vesta is the same as the 'earth goddess' ('terra'). The ever-living fire - see again, with the courage of despair - we would say - higher *pp. 27/28* - makes up the ground of existence of both". One has heard correctly: the ground of existence. Not only Herakleitos sees in the 'always living (hearth) fire' a necessity and/or sufficient ground or reason.

B.bis. *Applicative models type 2.*

(1) The "mystical marriage" - an expression, which also our Catholic mystics and especially mystical women have adopted, metaphorically, by the way - of

a. a hearth goddess, better maid, and

b. an underworld fireside god, is also recognized in Rome as founding royalty and state (private and public, therefore): The myth as abductively put forward, in Rome, reads as follows. In the private house of king Tarquinius Superbus, the seventh and last king (in the strict, archaic sense of the word) of Rome (534-509), - so was the 'story' or 'fabula' of the seers - appeared - it is not a physical phenomenon, again emphasized - a 'fascinus', fallos (male member), who, with the maid Ocrisia, the vestalin, begot a so-called royal child.

Pliny the Elder (+23/+79), *historia naturalis*, 28;39, relates in this regard, "Fascinus, the male member, who as a deity ('deus') is worshipped, among other things for the Romans, 'sacra' (sacred things) by the vestalines."

The interpretation of the phallos or 'sacred' penis differs - according to Kristensen - : one identifies him as the *lar familiaris* (*see high: p. 58*), the other as *volcanus*, the equivalent of the Hellenic hearth deity *Hèphaistos*. "Both views amount to the same thing: the fire deity of the earth was the consort of the virgin mother, in this case, of the vestal virgin." (Kristensen, o.c; 307).

MHD 62.

(2) like the historically doubtful Ocrisia mentioned above, so too were all the vestal virgins 'amatae', 'well-beloved: by the pontifex maximus (originally 'one, at home in the important magic of 'bridging' (cfr. *The oxford classical dictionary*, Oxford 1950, 716); later: cf. Cicero, *Har*, 18, a priest, at home in the increasingly intricate rites of state service);--appointed by the "chief priest of state.

They wore, therefore, the characteristic hairdress of brides (*see above pp. 59; 61*) ('mystical or mystery cult, better, marriage'). Upon proven infidelity, they were buried alive, i.e., left to her 'real' (primal, of course) consort, the fire deity or fire numen dwelling in the earth. "They were the 'brides' of the god of the underworld, i.e., the consuming deity in the 'ever-living' hearth fire." (Kristensen, o.c., 308).

c. *Applicative models type 3.*

This time we take, haphazardly, a work on religious science of more recent date, viz. *M. Eliade, The myth of the eternal return*, Hilvrest, 1964, 30vv.. -

(a) The chapter is called 'Divine primal images (= models) of rituals'. The concept of 'primal-image' will, later, in this course, when Platon is discussed, be treated in more detail.

Applicative model: "In Hellas, the marriage rites mimicked the model of Zeus and Hera (cf. Pausanias of Lydia (?; +/- +150), *Periègésis*, 2: 36: 2, the supreme deity Zeus united with Hera 'in secret' (alluding to the mystery rites to be kept secret))" (Eliade, o.c., 29). -

(b). *ibid.*, 30, Eliade, who is world-famous in this respect, mentions that already the Sumerians (who had as their self-given name 'Kengir' and settled, in the fourth millennium BCE, in the two-stream country (Iraq/Iran)), on New Year, the 'union' of the - listen carefully: - of the "elements" (i.e., the cosmic numina, which were at the same time gross material realities, e.g., heaven and earth).

MHD 62.1

Throughout the ancient Archaic East, New Year, which is the circular visibility-and-presence (= 'image' in the Platonic-archaic sense) of the 'creation' (i.e., establishment of order) of the cosmos as the good-and-good order of the universe, is celebrated in the glorious ritual-mythical union of the physical, secular worldly king - e.g., the prince of Babulon - with the goddess (of the ever-living hearth fire, both privately and publicly) deemed primordial.v. the prince of Babulon - with the primordially present goddess (of the ever-living hearth fire, both private and public).

"On New Year's Day 'beats' (i.e. unites) Ishtar (i.e. in Phoenician (Phoenician), Ashtar, in Greek Astarte, the originally Sumerian Inanna, who, Akkadian-babulonic, was at the same time (harmony of opposites) love-goddess or better, lover-goddess and war or battle-goddess), -- the lover-goddess and battle-goddess Ishtar; thus, 'unites' with Tammouz (Tammoez) (the equivalent of the Hellenic or Roman hearth-goddesses).

On that same New Year's day the physical real prince imitates the divine-fluidic hierogamy (sacred marriage), by the consummation, through the physical real temple priestess, who makes her goddess visible on earth and represents her, in a secret room - again mysterious secrecy - of the goddess temple, where the 'mystical-ritual' bridal bed of the goddess in question stands, with the goddess considered fluidly present (Eliade, o.c., 30).

But one reads carefully what Eliade immediately adds: "the divine union is a guarantee - i.e. in philosophical-scientific terms: the necessity and/or sufficient reason or ground (abductive hypothesis) - for the fertility of the earth - (now understood as the collective name for 'all that lives physically in and around the sovereign, sovereignty and their subordinate subjects, whom they mystically (mysteriously-religiously), visibly present')". (ibid.).

Note -- This long, indeed tediously complicated digression may seem pointless. All right, but one rereads *p. 42* (battle, and especially, in that battle context, "prince" ("basileus," i.e., the typical Eastern word for ruler)), while remembering that Ephesos is in the Persian-Eastern sphere of life).

MHD 63.

(c) Pandora.

WB. Kristensen, Coll. Contr., 299vv., explains the proper meaning of Pandora's Muthos, i.e., the earth goddess as "harmony of opposites."

He begins by situating. The idea of the riches of the earth goddess, who uses subordinate numina or daimones (both impersonal and personal to understand), in a.o. and especially - still exemplary, i.e. as a regulative model in the matter - expressed in the myth of 'the all-giver' ('pan' = everything, + 'dora' = giver).

a. The deities, - so says the sacred-fluidic story, which both tells a story and, while telling the story, has an edifying effect (i.e. edifying the riches of the earth) (generates, causes, i.e. - is necessary and/or sufficient) -- endow Pandora (= earth goddess or all-giving lady) with all conceivable beauty, which is at the same time duplicity and/or unreliability.

Note.-- This duplicity, better: 'harmony of opposites' because it is more and different from conscious psychological 'unreliability', which is but the spiteful part of it, is typical, natural.

b. Hermes, the divine herald, leads Pandora out of the subterranean realm (Hades). Immediately she 'rises' (ascends) in this secular world with her gifts in a vase ('pithos'). The 'pithos' is, for those who know Greek mythology, the well-known 'image' (i.e. in an apparently physical object, here a kind of vase, visible present-ness) of the underworld (earth mother).

c. Like the Eleusinian Kore is also Pandora, in her 'anodos' (ascent from the subterranean fluidic sphere): she is received with joy by the (naive) people (who do not take her essence, i.e. 'Harmony of opposites', into account). But soon this joy turns into sorrow (reversal): the content of the sacred-mythical 'pithos' was dual, containing not only salvation, health, life, but also calamity, sickness, death. The people came to the conclusion, expressed by Herakleitos, *Fr. 110*: "For the people, the fact that what they desire is realized is not an improvement."

MHD 64

Pandora stands for 'what men desire' (model concept). And yet another *Fr. (125a)* is, in this context, very telling: "May you never lack wealth ('ploutos') the word, which precisely represents what the earth goddess 'bestows' as Pandora in her 'pithos'), Ephesians, so that the convincing proof of the fact that you are becoming degraded ('ponèreuomenoi') may be provided."

In other words, wealth, once sufficiently present, is the possible necessary and/or sufficient reason for 'awakening', moral-social lowering of the level. Wealth is, as all that is given by Pandora, 'genesis te kai fthora' (rise and fall), i.e. harmony of opposites. Herakleitos' first and last philosophical word.

Note -- M. Scheler (1874/1928), husserlian oriented phenomenologist put his conformity system regarding the relation between religion and philosophy ('metaphysics') first: he reacted, with this, both against (both total and partial) identifications (fil. = (at least partial) religion) and against separations ('dualisms' called).

Religion - Scheler argues - cannot be founded on "metaphysical insights" into the "last and highest ground of the universe" (which, then, must be identical with God somewhere).

The furthest one can get - says Scheler - is that the results of metaphysics are 'conformable' (form similar) to the grounds of religion.

One could, instead of 'conformity' also mention the fact that, according to the model (*see above p. 5v.*), religion and philosophy are somewhere identical (partial identity, then).

It is clear that the philosophy of a Herakleitos is "conformed," to a high degree, to the religion of the earth mother or "night" (the benevolent one (*see above p. 34v.*))

But, was Herakleitos, in spite of what we, higher p. 49v. thought to be able to establish, namely, that the foundation of the order did not emanate from deities, somewhere very religious, but did he hide it?

"The lion's share of the deity concerning things slips away, through 'unbelief' ('a.pistièi'), with the result that it does not let itself be known." (*Fr. 86*). Perhaps Herakleitos hid his faith, just as the 'fusus' loves to hide!

MHD 64.1

Note -- Projection.

Scheler's "conformity" can, unconsciously, be confused with "projection" concerning religion. -- Because the term 'projection', 'projecting' is so often used, here is a semasiological scheme.

1. Expressive meaning: 'externalization'.

A subject, in his 'n for fellow men (and, at once, himself) observable behavior, manifests internal phenomena (contents of thought, mind and will), in his 'n manner of perception, play of language (33vv.) and gestures, overall behavior;-- Diltheyan seen, the subject 'objectifies' his 'inwardness' ('spirit'); cfr. 38/40 supra).

2. Creative meaning: 'design'

To create a subject, or group of subjects, of course ('creative moment': to create something non-existent or re-create, renew something already existing) e.g. a design text or design drawing (of a building, a business, etc.). -

3. Interpretive meaning. 'Attribution', 'transfer'.

3a. *EB. de Condillac* (1715/1780), the French sens(ual)ist (191v. *infra*), understands 'projection' to mean:

a/ an intellectual adaptation,

b/ such that the internal phenomena of a subject

(i) distributively, in the external realities, around him, model identically depicted and

(ii) collectively, in that same reality, be thought outside of him, seemingly independently.

3b. Attributing with or without transferring (reverting) takes many forms. But it is and always remains a form of abducting (*1; 10 supra*), i.e. formulating hypotheses without obligation about the external world involved.

3b.1. Logi(sti)sch: to construct a model of something in something that exists, outside that something, is to "project that something into something different and independent" (5vv. *Supra*);

For example, 'projective geometry' is centered around the model-identical transmission ('transfer') of geometric shapes e.g.;

Thus, cartography is the model-like depiction of geographic realities;

thus, projection-wise, to play a film or to show slides is to "project" onto a screen (which is different and independent).

MHD 64.2

Immediately it is clear that the sens(ual)istic meaning is certainly not identical with the logi(sti)sche meaning (the independence of the projection is the stake of the distinction). With respect to the model-theoretic 'projection' we refer to 101/109 (analogical reduction).

3b.2. Hermeneutic (38/40)

Usually interpretive projecting is confused with the so-called psychology of projecting).

(i) Very often, 'projecting' means nothing more than self-righteous and/or liberal interpretation (*abduce*; 31; 33; 177vv.; 233v. *infra*);

For example, *J. Delay (La jeunesse d' A. Gide (1869/1951))* says that "André Gide's childish ('enfantines') reactions toward ethics, resp. politics, which he had been taught, were 'merely' the projection of his reactions of mind toward his mother, who forced them upon him."

Indeed, Gide, idiosyncratically, denotes both his mother, who raises him, and her ethical-political ideas, which Gide associates with his mother (*5 supra: analogy*), as identical or, at least, highly identical, both distributively (proportional analogy) and collectively (attributive analogy). So that this type of 'projection' is only a false analogy reasoning (see further 101/109). Or, at least, a very questionable one.

Note -- The famous projection tests (not called 'tests', for the reason of their controversial scientific character; Rorschach; t.a.t.) are situated, mostly, here: they expose individually-straightforward (idiosyncratic), socially-straightforward (orthodox), and/or individually-straightforward (liberal) abductions concerning e.g. stains. (*cfr. infra p. 233*).

Further, social "attitudes" such as aprioritized anti-Semitism, anti-leftism, anti-rightism, are typically "abductive" acts; nothing more. Each time expressive or not.

(ii) The depth psychologists (Freudians first and foremost) like to use 'projection', 'projecting'. Usually the meaning is either expressive (see above) or interpretive. However, there are - often vaguely defined - other semasiological variants, e.g. centered around the systechy 'introjective' (associated with 'pleasurable' mind reactions (see above)) / pro - or (even) or even extrojective (associated with 'pleasurable' mind reactions).

MHD 64.3.

Examples of this -- more pathological than normal -- are considered delusions (one imagines oneself being "persecuted" by someone (persecution delusion, -- in which one ascribes to him/her the will ("projects" it into him/her) to be persecuted); one is "superstitious" (force or deity delusion,-- in which one ascribes to something, which contains neither force nor deity, yet these properties, -- "projects" them into it)).

More normal are the (strongly) emotionally charged reactions, i.e. abductions (interpretations), toward fellow human beings, -- first of all both parents, -- then neighbors, workmates, leaders, doctors, all kinds of caregivers.

Freudians speak, then, of 'transference' (transfert). E.g., on the one hand, desire (e.g., in the form of the image impression ('imago') of the 'beloved', 'cherished', 'tender' father or mother figure (we say deliberately 'figure' of the real, 'perceived (*cf. infra p. 232v.*) father or mother 'are' - objectively - often different));

on the other hand, the 'threatening', 'strict', 'oppressive' father or mother figure. As many 'projections' of own, i.e. subjective, reactions (abductions).

Very special is the "projection" when it "attributes" (ascribes, -- "attributes" (unfavorable or negative projection)) lust-unpleasant inner abductions (reactions) outside the subject, who, often, is not aware of them at all, to fellow human beings.

Johnny knocked over the flower pot, in the classroom. He points, finger pointing, "I didn't do it! Rik did it". (regulatory model: "The pot blames the kettle for seeing black"). Johnny 'projects' the discomfort of being guilty of breaking the flowerpot (with shame, happening, colored) into Rik, who was close by (collective structure, cleverly 'interpreted', i.e. analogically misused; *cf. infra 101/109*), i.e. he passes this discomfort on to his fellow man (pass-on projection).

The same happens, yet diachronically-praxeologically (praxis = action), when Jantje says, "Master, Rik started 'first.'"

(iii) the religious theorists, especially those, who externalistically (because too little, themselves, or not religious at all) minimize religious "perception" ("experience") and maximize "explanation" (i.e., abduction).

MHD 64.4

(1) The simplest form is the anthropomorphic language game.

Already Xenophanes of Kolofon (*see above 21vv.*), as well as already many contemporaries and predecessors (Homer e.g.), chided the fact that people "imagine the deities as if they were men" (which then implies that black-skinned people imagine their deities as black-skinned).

It is abundantly clear that this is a universal phenomenon. The religiously more accurate perceivers and thinkers, however, respond by pointing to the analogy (5; 101 vv.): in even highly anthropomorphic images of God, a minimally-essential truth core always sticks out.

(2) In addition to the aforementioned "human-shaped" deity representation, "religious projection" can also and even especially mean a very consciously formulated theory (= abd.) of the origin and essence of deity and religion.

The explanatory subject, in this case, ascribes to the religious man as a religious man the fact that he ascribes ("projects into") to the (transcendent, world- and earth-bound, authoritarian-repressive) deity peculiarities, which that deity, taken in isolation, does not possess, but which, in fact, are owned by that (immanent, world- and earth-bound, disembodied) man.

'Humanism' (*see infra 180vv (protosophist mode of thought)*) is, usually the secretly held essence of that type of religion and deity designation. This takes many forms. Thus e.g.

(a) identification (the deity possesses the mind of man, who worships them, but in higher, yes, exalted (transcendent) degree;

(b) transference (see above: depth psychological projections); for example, the religious man attributes to the deity the characteristics (image impression) of his parents or, even, family and relatives (thus in totemism, which speaks of "brothers and sisters in the deity");

(c) supplementation (e.g., deity possesses what man, as a religious, lacks, such that it can ameliorate his needs and destiny (agogic moment)

(d) Lust-pleasing attribution (thus the religious man 'casts' into the deity what he himself experiences as lust-pleasing in himself: deities and, even, the supreme being are 'conceived' as the 'true' cause of failures of all kinds (one 'projects' into those deities and/or the supreme being one's own evil (cfr *Ekklesiastikus (Ben Sira) 15: 11/20*, where this 'negative' projection is articulated in Old Testament fashion).

MHD 64.5.

This form of 'projection' is, of course, ultra-frequent in the polydemonistic-polytheistic religion type of the ancient Greeks e.g. and thinkers like Herakleitos and Euripides demonstrate this abundantly. (*cfr infra 250 (Jesus' restoration of justice in this context)*).

So much for typology.

Note.-- This theory of religious projection can, among other things, be understood in two ways:

1. The ones see in the religious projection(s) a model identity with the non-religious (intersubjective and social e.g.);

2. The others, apart from that, see a delusion at work in it (thus Freud brands every religion as such as 'eine illusion').

Closing note. --

(a) If one speaks, about religious data, in the language game of religion-friendly philosophy (analogy type 1) or, about philosophical data, in religious language (analogy type 2), then one can, with Scheler, speak of "conformity" (logi(sti)sche projection; 64.1v.).

(b) If, apriori (proprietary, straight and/or liberal), a religion statement abducts religion as opium' (Kant, Marx), 'illusion' (Freud), then it testifies, ipso facto, to lack of the most basic cognitive (= reductive) religious perception.

(1) She confuses, to begin with, the proprietary, straight, and/or liberal forms of religion with its reductive forms (sacred experience of the 'perception'/abductive, deductive, and full-reductive type) (*cfr. Supra 10vv.*)

(2) It is itself a form of interpretive projection of the hermeneutic, non-logi(sti)sche type, also and especially when it disguises this subtle projection in (pseudo)scientific discourses (*rhetoric; cfr. 184vv.*), for, then, it is outright ideology (*cfr. 173; 18; 54; 223*).

Thus, e.g., when she writes off any religion as "infantile," "primitive" (unevolved), "pathological" (neurotic, psychopathological) i.e., "unenlightened" (261vv.).

MHD 65

2. The decline of philosophical nature research. (-450/-350)

Introduction.

(1) Summary of the foregoing.

a/ Two major types of interpretation (abstraction types) have stuck with us: the 'hylic-speculative' and the predominantly speculative modes of thought. The latter (Puth., El., Herakleitos) are only partially compatible with each other.

b/ the foundations crisis we have seen emerge at several points.

(2) Overview of solutions (ways out).

There are mainly two major ones.--

(A) Skeptical, yes, skeptical abductions.

(A)1. The commonsense philosophy adheres to the concrete-individual living world with its common abductions (of "common sense").

Yet the skeptic, who does the same, is negatively minded: the phenomena (i.e. what is immediately given; *cf. infra p. 232vv. (phenomenology)*) - phenomenism, peculiar to direct perception - empiricism - provided to us by the internal and external senses - sens(ual)ism-, -- such is what he assumes; The rest (scept. complement), beyond direct experience, he doubts. Ab-, de-, reduce is always debatable (eristics; *cfr. Supra p. 15vv.*).

(A)2. Special skepticism applies

a. Scientific induction (with its general truths and laws) and

b. The transempirical, transcendental (religious, mantic-magic) abductions. The former go beyond the concrete-individual, the latter the earthly-secular evidences.

(B) eclecticizing yes, eclecticistically abducting.

(B)1. 'Eclexis' is picking out.-- A First type picks out from the existing systems, the mutually reconcilable and, in all cases, practically useful abductions, without building a new system.

Summative eclecticism, which sometimes blends very different propositions together.

(B)2. Creative eclecticism reconciles, on a higher plane (synthesis), (seemingly antithetical, irreconcilable abductions. That higher, comprehensive standpoint, basis of a new systemic adherence, is typical (in Hegelian-Marxian language this is called 'dialectic' (*cfr. infra p. 226vv.*)).

MHD 66.

2A. The mechanistic-atomistic abstraction. (66/180)

Fr. Krafft, gesch. d. Naturw., I, 241, says: The most important attempts at solution in the field of natural philosophy, in the course of the B.C. e, are those of Empedokles of Akragas (-483/-423), of Anaxagoras of Klazomenai (-499/-428), the first professional physicist in the contemporary sense of that word (except for mathematical analysis), and the atomists Leukippos of Miletus (between -500 and -400) and especially Demokritos of Abdera (-460/-370), the first atomic theorist (within antique facial terminology).

(1) Mechanism.

Two axiomata characterize any mechanistic view of the world and life:

a. All movement (change) occurs by virtue of external 'principles' (necessity and/or sufficient ground), since the 'elements' (primordial particles) are, of themselves, inert (slow);

b. All elements are distinguishable (own full identity is intended) in virtue of quantitative, especially spatial or extensional properties, in that the sensory or intellectually-reasonable 'qualities' are only secondary, i.e. dependent on the 'primary' (spatial-quantitative) properties.

(2) Stoicheiosis.

This is a better name than 'atomism'. Reason: in the strict sense, 'atomism' is only the doctrine of Leukippos and Demokritos, who postulate strict 'atoma' absolutely indivisible primordial constituents. This, while Empedokles and Anaxagoras also presuppose primordial constituents, but not strict 'atomism'.

Even more: both the latter physicalists also, axiomatically always, put forward primordial particles, which, apart from 'quantitative-spatial', also possess qualitative-perceived properties. They are, therefore, no extreme-mechanistic thinkers, but 'moderate-mechanists'. That is why we propose the truly Greek and, in addition, truly 'elementatio', i.e. the distinction between primordial elements, which came to the fore in the later development of thought - with Platon, for example - as a common characteristic of the four great, more recent thinkers of nature.

MHD 67.

A. For the purely professional points

(both mathematical and physical) the abductions of Eleatic henology (cfr. *Supra p. 14v.*) applied: 'being' (i.e. continuum) is one (and indivisible and infinitesimal continuous),--not discontinuous ('atomic', micromonadic).

Empedokles, Anaxagoras, Leukippos, Demokritos (the latter two the atomizers) depart, instead of the Eleatic sphere of thought (sphere of reasoning), from

(A) The observation.

The macroscopic being exhibits, manifest,

a. Synchronic: a multitude of separate and autonomous beings, matter types, relations of all kinds (discontinuity) and

b. Diachronic: a capacity for movement, implying changes of all kinds.-- starting from Eleatic abductions which made an enormous impression, for reason of reasoning (cfr. *Supra p. 15vv. (eristics)*), detached from empiricism, the directly observed phenomena, the senses, they stood before the astonishing, indeed distraught fact (cfr. *Supra p. 10vv.*): on the one hand, manifestly observable and everyday (*common-sense*; cfr. *Supra pp. 2;18*) observed multiplicity, both syn- and diachronically, on the other hand, penetrating 'proofs' (and counterproofs) of radical negation of the observable multiplicity in the name of a continuity ontology (cf. *supra pp. 14v. (Parmenides)*).

(B) Abduction.

"If, in the invisible essence core of manifest multiplicity, a real multiplicity of microscopic, indeed infinitesimal (cfr. *supra p. 15*) 'constituents' (stoicheosis) - similar (homogeneous) and simultaneous (simultaneous), at least to some extent (cfr. Fr. Krafft, o.c., 241), was abducted as a hypothesis, then the conflict between observational life experience and reasoning continuity ontology would be 'resolved' (*creative eclecticism*; cfr. *Supra p. 65*)."

(B).1. Deduction.

The whole philosophy of the aforementioned thinkers is one long deduction (with veri- and falsification)

B. Philosophically, there are four striking systems, which we study separately. (67/70)

B1. Empedoclean theosophy.

We will limit ourselves to the truly now significant moments.

MHD 68.

1.-- Creative eclecticism characterizes Empedokles,
W. Röd, *Die Phil.d.Antike*, 1, 146ff., says:

a. Empedokles, is Milesian hylic thinker.

What J. Zafiropulo, *Empédocle d' Agrigente*, Paris, 1953, 36, 215 specifies as follows: "The views of the Greeks of the V-th e. - with the exception of the (proto)sophists - remained completely imbued with ancestral ideas. This is why the notion of the 'world soul' (see *above p. 4, 12v.*) (...) is characteristic of the Platonic physical (cf. *Infra p. 193v.*) and a fortiori of the physical for Platon. After absconding with Aristotle (cfr. *infra p. 210v.*), it reappears with the Stoa (cfr. *infra p. 241.*)"

b. Empedokles, is speculative thinker,

who selectively connects the Puthagorean (his basic understanding), Eleatic and Heraklitean theses (abduction, into a theosophical synthesis. *Cfr. supra p. 65.*)

2.-- First serious run-up to real theosophy.

as stated above p. 13 (at bottom), 'theosophy' is real philosophy,--not an archaic relic. That Empedokles, offers us a real appl. mod. of theosophy, is evident from point 1 (his creative eclecticism), yet also from following facts:

Empedokles, is apparently highly gifted mantically-magically (hence his ancient fame as 'thaumaturg' (miracle worker); -- without more or less developed Mystic-magical 'gifts' (see above p. 13) philosophy, which rightly wants to bear the name 'theosophy', does not make much sense. *Cfr. also infra p. 242vv.*

Furthermore, Empedokles' theosophical status is also evident in the two, seemingly unrelated, works:

a. 'Peri fuseos' (about nature, which, according to general testimony, appears physical and

b. 'Katharmoi' (purifications) (*cfr. supra p. 13 (ad 4 and ad 5).*)

3.-- "Empedokles postulated (= abducted) a unique world.

(cfr. Eleatic Postulate), which he subjected to the action of two 'souls': called 'minne' (love) and 'struggle' ('filia' (Afrodite); 'neikos'). These two ('deities'), in turn, transformed reality either into unity or into disunity." (Zafiropulo, o.c., 107).

The author adds that "An eternal restart" or "cyclic development" was contained therein.

MHD 69

4. -- Concerning the doctrine of rhizomata (roots): fire (Zeus),

The warm element, opposed to earth (aidoneüs), the cool element; air (heire or hera), the dry element, opposed to water (nestis), the moist element.

This quadrilateralism (one thinks of the 'tetraktus' of Puthagoras) comes from the puthagorean physician Alkmaion of Kroton (+/- -500), who worked with the systechies (not harmonies of opposites in the Heraklitean sense) - 'hot/cold' and 'moist/dry' (cfr. *J. Zafiropulo, Empédocle d' Agrigente*, Paris, 1953, 99). Also, Empedokles does not call them 'stoicheia', but 'rizomataz', 'roots' (the Puthagorean term).

Yet, where Alkmaion applied the quadrilateral only to man as body-and-soul, Empedokles broadens the scope to the entire animated cosmos. (analogy,-- cfr. *supra p. 7*). In this -- according to Zafiropulo -- Empedokles was consistently Puthagorean (o.c., 99/100; man is 'microcosm' (the world in miniature) vs. The 'macrocosm', the universe).

Aristotle adopted this quadrilateral. From there it continued to go along until the XVIIth century (and even, in occultist circles, until today; the reason is that these 'rhizomata' are genetic-generative principles of a hyllic - i.e. fluidic nature, as Zafiropulo also clearly notes. Cfr. o.c., 35vv. ('animism' Zafiropulo calls this belief in primordial or subtle-fluidic matter.

These uncreated, eternal, animated 'rhizomata' are deities, in-and-out above the sun, the earth, the aither and the sea. Within the world soul, the rhizomata are passive primal matter. The active moment, which animates this primordial matter, is a harmony of opposites, viz. 'filia' (Aphrodite),--attraction (friendship etc.) and 'neikos',--repulsion (enmity etc.), which govern the universe process.

It is claimed that Freud (1856/1939), the founder of psychoanalysis, took this primal couple as a 'mythical' model for his systechy 'eros (libido)/ thanatos (aggression)!

Note on orphism.

This point is fundamental in theosophy both of the puthagoreans and of Empedokles. *Er. Dodds, The Greeks and the irrational*, Berkeley/Los Angeles, 1966, 149, says that the primal core of orphism was threefold:

- a/** The body is the dungeon of the soul (daimon);
- b/** the nasty consequences of sin, both in this world and in the next, can be ritually purged away' ('catharsis', cleansing);

MHD 70.

c/ vegetarianism - out of respect for (animal) life - is an essential rule of life. The fourth point, soul-transfer ('metempsychosis', 'palingenesia', rebirth or, better, reemodiment, reincarnation), is - according to Dodds - not directly proven in the oldest documents, but it can be considered indirectly proven from the term 'body as dungeon', in which the daimon 'pays' for his sins of the past.

Note -- Concerning Empedokles' teaching on 'purification' see Dodds, o.c., 153vv; see also Zafiropulo, o.c., 95/125 (*la théorie de l' âme chez Empedocle*), (the theory of the soul at Empedocles), where it appears that Empedokles introduced a typically physical concept of soul, beside the traditional-fluidic one: where, until then, only souls, eternal and pure primordial, were recognized, he spoke of souls, consisting of the four 'roots of being'.

B2. Anaxagorean scientism or natural science. (70/123)

(1) "In the direction of the natural scientific world explanation we already saw the prophet Empedokles at work. His theory of elements showed the way to (i) Anaxagoras and (ii) Leukippos and Demokritos, in their natural scientific reflections. These natural philosophers have a completely different mental structure: They are less prophet and more man of science. (A. Vloemans, *The Pre-Socratics*, 125).

(2) Anaxagoras was:

(a) "the first Western representative of a 'contemplative' man turned away from the everyday world with full consciousness, oriented toward intensive scientific a/ searching and b/ thinking" (cfr. Fr. Krafft, o.c., 266);

(b) a man who was encyclopedically learned: "He included all the knowledge of his time" (Vloemans, o.c., 136), i.e. physics, chemistry, astronomy, yes, mathematics.-
- All this did not prevent - according to Platon - him from showing, in his dealings, a cool but intimate attachment to his fellow man. He had convinced followers of great stature: Perikles of Athens (-492/-429), the famous head of state of Athens, after whom his epoch ('the Perikleian') was named; as well as Euripides of Salamis (-480/-406), the third and already protosophistically oriented tragedian (see above p. 57 (Dionysian service)). About whom more later.

MHD 71

(c) *Method.*

1. *General.*

-- DE. Gershenson (classical philologist)/ DA. Greenberg (theoretical physicist), *Anaxagoras and the Birth of Physics*, New York / Toronto / London, 1963,

-- id., *Anaxagoras and the birth of scientific method*, *ibid.*, 1964 (an excerpt from the above work, introduced, incidentally, by the well-known epistemologist Ernest Nagel,--which offers an absolute guarantee)-- both works believe, on the basis of philological-scientific-historical research, that, with Anaxagoras, contemporary natural science, at least in its pre-galilean phase (i.e. without the mathematical side of today), came into being.

"Although the origins - (says *The birth of sc. M.*, 1/2) - of science go back to prehistoric times (...), yet - it may be argued - the emergence of 'natural philosophy' – *note*: natural philosophy', in English, is often synonymous with 'natural science', with or without philosophical claims, understood as an experimental and theoretical activity - and in such a form that it is thoroughly the same as that of today - occurred in the Greek world (...).

The first natural philosopher (in the current sense of that term),

(i) whose name is known to us,

(ii) whose system held up, and

(iii) whose fame - as the founder of the new 'natural philosophy' (see above for the correct meaning) - was praised, throughout antiquity - was Anaxagoras".

Here is a formal testimony of indisputable value: it refutes the "opinion" expressed several times today (see above p. 15, though in a non-Parmenidean sense) that ancient Hellas would not have awakened to real natural science in the modern-day sense.

MHD 72.

2. Special

Both theorists summarize the method, which we, henceforth, call the "Anaxagorean," as follows.

a. First of all, we refer

1/ to p. 14/1, supra (*foundations crisis*), 66/67 (*foundations crisis*),

2/ to pp. 19/2 supra (*eristics, form of skepticism*), 65 (*skepticist complement*)

3/ to p. 65 supra (*creative-eclectic method; appl. mod. sui generis: 68 (Empedoclean model)*).

This triad

(a) basic crisis, followed by

(b) eristic skepticism and/or

(c) eclecticism (in either form)

is an invariant (unchangeable), i.e. - with Thøekudides - 'n "ktèma es aei", ', fixed achievement, also of natural and human scientific thought in its developmental course.

b. Gershenson/ Greenberg,

o.c., 6/7, summarize the Anaxagorean method, in its own identity, as follows, thus.

(i) The object.

a/ the nature of substance;

b/ the nature of the physical universe. What still counts as a 'paradigmatic model' of 'object' today.

(ii) The approach.

a/ perception is the starting point (compare, yet with sense of the profound difference of object, not of approach, p. 10 supra). We will dissect applicative models of this later.

b/1. Abduction.

see, again, p. 10 supra, yet again emphasizing the difference of object natural. Here arises the 'subject-scientific', better: 'natural-scientific hypothesis' (see further for appl. mod.), which creates a 'lemma', - a model sketch of perception.

b/2 Deduction.

Again, mutatis mutandis supra p. 10; though this time the lemma is not necessarily 'eristic-dialectical refutation ('incongruity proof'), of course. See further for the appl. mod.

b/3. Reduction.--see, again above p. 10 (where already, in anticipation, about the experimental forms of reduction was ventured briefly).

MHD 73.

(3) Overview on the Anaxagorean physical. (73/109)

(3) A. Method description.

We divide this chapter into two parts:

- (i) Anaxagoras' attitude toward the state of affairs (problem state);
- (ii) Anaxagoras' method (method stages). (73/78)

A1. Problem mode.

We take two samples:

- 1/ His attitude toward the foundations crisis;
- 2/ His attitude toward Empedokles, his immediate predecessor.

(3) A1a. Anaxagoras' attitude toward natural philosophy.

W. Jaeger, *A la naiss.*, 168, sketches this beautifully: the Milesians (*see above p. 3/4*) were - what Jaeger calls - "empiricist"; that is, they started from observation. From this Ionic center this empiricism spread to the sub-physics - see course second year - , such as first of all medicine (*see above p. 13.1 (Alkmaion); 68/69* (Empedokles, who himself was also 'physician' and 'healer' at the same time)) and the other human sciences, on the one hand, and on the other hand, geography, resp. history ('earth and ethnology').

Jaeger could, with good reason, have added the cultural-critical 'enlightenment', starting from Xenophanes (*see above pp. 21/24*), with its characteristic (meta)-theoretical attitude, which, like that of the Puthagoreans and Eleates and Herakliterateans, was typically 'speculative', i.e. transcending empiricism (see therefore our title, of a summarizing nature, on p. 4 supra: the speculative abstractions).

This should, emphatically, be confirmed and repeated against Jaeger's emphasis on empiricism. If not, one does not understand Anaxagora's attitude, as, by the way, Gershenson and Green emphatically summarize it (see above p. 71: and empirical and theoretical), at all.

Second applicative model of what one would now call "tradition hermeneutics" (i.e. doctrine concerning the interpretation, not of contemporary and simultaneous, but of surviving and past human facts), here, in this case, the struggle between Eleates, who emphasize immutability and unity, on the one hand, and, on the other, the Herakliterateans, who emphasize change and multiplicity.

MHD 74.

W. Röd, *Von Thales bis Demokrit*, 165, says, brilliantly incidentally, "The Philosophy of Anaxagoras can be understood as the attempt to reconcile the axiom 'That true being is disordered' -- which is Eleatic -- with the fact that -- as observation shows -- 'becoming exists'.

This 'bringing into conformity' is typically eclectic-creative (*see above p. 65*): from an antithesis (Elea / Herakl.) one derives, at a higher level of thought, a synthesis.

On this, F. Hegel (1770/1831), the teacher of the Marxist "dialectic" - which "pours out" syntheses from antitheses everywhere - will rightly place the greatest emphasis: the ancient Greeks have demonstrated it (without, however, the elaborated theoretical dialectic, which Hegel in particular created).

Parmenidean-Zenonic model of thought.

Anaxagoras, in *Fr. 3* (one of the extremely rare of his nevertheless widely read works at Athens), says it as *EW. Beth, The Philosophy of Mathematics.*, 11 (*the prae-socratici*) and vv., has seen it very correctly, clearly:

(1) in the case of the small there is no all-small, but an ever-smaller (how-large); reason: that 'being' - as Parmenides conceived it (*see above p. 15 supra (infinitesimal conception of being)*) - is not (no longer) there, is impossible.

(2) However, with the great, likewise, there is always a still greater (size). The great is, namely under the aspect of 'number' ('plèthos'), equally great ('ison'). Every being ('hekaston'), taken by itself ('pros heauto'; *see above p. 22/23 (kath' heauto)*), is at the same time big and small".

Modern infinitesimal arithmetic expressed: every (subjunctive: extended, i.e. possessing how great (quantitative 'being')) 'being' is limitlessly divisible towards the diminutive and towards the magnifying. (cfr. notion of limit).

Excursus.

Gershenson / Greenberg, a.c., 8, commit an ontologically grave error, where they say, in their commentary on the Eleatizing 'moment' of Anaxagoras' physical: "The law of incongruity (*see above p. 9, below*), once applied to the basic property of 'existence' ('existence'), runs into a kind of 'law of preservation of existing ('existing') things."

MHD 75

Such a statement is, of course, in flagrant contradiction to the elementary ontological insight, which consists in the fact that the verb 'to be' is explicable both of changeable and unchangeable ('the preservation of the existing') reality. If something is, in any case, 'real', then it falls within the scope of 'being'.

What is, of course, true is that the still naive concept of 'being' ('eon') of Parmenides and his disciples is here put forward as an axiom - and even then purely physical.

The very phrase, which declares this, was skipped in *Fr. 3*, on p. 74 supra - for clarity's sake.

Indeed, after (1) and before (2), Anaxagoras says "It is, after all, impossible that 'being' (at any given time) 'is not (any more)'".

Here the 'language game' (see above p. 35f.) of the still very sacred-hybrid thinking Milesians comes through: the primal substance - with Parmenides 'Being' - has either daimonic or 'divine' properties. *Fr. 8* of Parmenides, after all, reads as follows: "One message ('muthos') remains of the way (of truth; see above p. 15): (Being) is.

To this are very many marks ('sèmata', i.e., its properties): since it is 'unformed' (a.gnèton), it is also imperishable, 'whole', 'only-begotten', 'unmoving', without finish ('ateleston'); it 'never was' and 'never will be', since it is now suddenly whole and entire, 'one' ('them') - see, higher p. 14 (*henology*) -, continuous ('suneches') - see higher p. 14; 15.

It is not surprising, then, that *W. Jaeger, A la naiss.*, 107, says: "Like Hesiod, (Parmenides) proclaims, in his own name, a special revelation. His preface - which 'proclaims' that his poem 'reveals' the 'alètheia' (truth revelation) coming from the mouth of a goddess - testifies to the religious depth of his message." Cfr. id., 115 (where W.J. says that the "marks" above, "concern an absolute being, wholly other" than this "physical" world.

It is true that Anaxagoras begins to interpret this sacred-mythical characteristic, namely imperishableness, physically, namely in the direction of 'the law of conservation of matter.

MHD 76.

As already stated above, for Herakleitos, with *Cl. Ramnoux, Héraclite*, established, here too a plurality of language plays are at work, including the sacred and the physical (which sounds very secular).

Immediately it appears, for the umpteenth time, that what today's "hermeneuticists" - see *above p.13. (Alkmaion); 26vv, 45v. (Herakleitos)* - is correct: even the physicalist - whether ancient or contemporary - situates himself in one or more language plays, especially if he does not clearly realize that linguistic-hermeneutic 'moment'.

If the skeptical-unhermeneutical reader does not believe the above hermeneutical assertion - at least for Anaxagoras - he should read - but with an open mind - L. Wittgenstein's language-playing epic - *Fr. 14*:

"The (universe) mind - 'nous' -, which is always there ('hos aei esti', cf. higher p. 27 ('fire' of Herakleitos, analogue of the 'nous' (universe mind) of A.); 28 ('pur aeizoön', i.e. always living fire)) (...)". Even the choice of words is so 'similar', except for the verb - which is typical in both cases.

Well, with Herakleitos, it is crushingly clear: the sacred use of words (language play) was, with Herakleitos, decisive (see *above pp. 57/64*, for the hiero-analytical evidence).

If the same skeptical-unhermeneutical reader wants a further indication, he should read what *W. Jaeger, A la naiss.*, 173, says: "It has been pointed out (...) that Anaxagoras' explanations concerning the 'nous' (understanding of the universe) bear a peculiar resemblance, in terms of language form, to the style of the 'humnos' (hymn, i.e. serious, yes religious song), which they clearly and deliberately take as a model to imitate. (...).

In fact, Anaxagoras engages, here, in a lore which was already established and whose traces one can find in almost all pre-Socratic thinkers, even if there are individual differences." (*See also W. Jaeger, o.c.*, 38, 56, 105, 125, 149, 178). The physicalist, however modern, is also situated in a language. To put it with CSS. Peirce: also the physicalist is an "interpretant" (interpreter)

MHD 77.

Heraklitean model of thought.

We refer, of course, to p. 27 (especially ad b, where it is said, by Röd viz., that collection of the primal substance, the fire, remains unchanging amidst the incessant changes! Thus Anaxagoras' attitude in the midst of the crisis of foundations, as far as it concerns Eleates and Heraklitees.

(3) A1b Anaxagoras' attitude toward Empedocles.

Fr. 8 says: "Something else I wish to proclaim to you (enk.: 'toi'). 'Fusis' - here, still, in the original sense of 'begetting' ('baring') - is the case with none of all mortals ('being'). Nor is there (for that same collection of all being) an end ('teleutè'), which exists in ruin bringing death. Yet only mixing ('misis') and exchange ('diallaxis') of the mixed (things) exists.

'Baring' ('birth') e.g. is, ascribed to such things, a name (given by) men."

Anaxagoras, in *Fr. 17*, says: "With regard to being born and perishing ('ginesthai', 'apollusthai') the Hellenes have an incorrect use of language ('nomizosin'). For no 'thing', ('chrèma') is born or perishes, but, proceeding ('apo') from things already there ('eonton'), ('chrèmaton'), a (thing) is 'blended' and 'pulled apart' ('diakrinetai').

Immediately, seen in this way, the Hellenes, expressing themselves correctly, would speak of 'mixing' instead of 'arising' and of 'breaking up' instead of 'perishing'. One can, from the pure translation already, thus notice the strong resemblance.

Yet Anaxagoras' attitude toward Empedokles, taken as a whole, is thoroughly different. Not without reason have we, *higher up on p. 67*, referred to Empedokles' type of thinking as "theosophy. As *W. Jaeger, A la Naiss.*, 169, says, Empedokles endeavors to make medicine, for example, a true professional science, but he mixes this professional science with "general theories"-namely, "theosophical" insights. Selected

MHD 78.

That "theosophical" - understand: religious - paranormal - bans Anaxagoras as much as possible, out. This is the secularization of professional science. This secular characteristic has stayed with her to this day. A *Ktèma es aei*". An Acquisition! Of course Anaxagoras remains stuck in presecular residues, about which more later (vitalism (hierozoism), the idea of subtlety concerning the nous e.g.).

Again: more than one language game, of course.

Summary.

(1) With Herakleitos he has in common: 'the law of conservation of totality', yet with an equal emphasis on movement, and in that sense, multiplicity. But the harmony of opposites, as conceived by the daimonic-theological Herakleitos,-that is something else!

(2) With both Empedokles and the Atomicists, Anaxagoras has in common what he calls "chremata" (things). These are

(a) macroscopic, e.g. a piece of meat, but

(b) they are also microscopic ('ultra-small, -- yes, infinitesimal (*see above p. 74*)).

In conclusion, there are two types of "things": the ordinary (macroscopic) of our experience and the (microscopic-infinitesimal)"things" (better: "constituents") escaping our experience.

By - as Röd, o.c., 165, says -"association" and "dissociation" of the infinitesimal constituents, the non-infinitesimal things arise - seemingly - and decay - equally seemingly -.

(2).1. Doch

a. with respect to Empedokles, Anaxagoras differs: where Empedokles speaks of 'luminous Zeus' (fire)/ 'Aidoneus' on the one hand, and, on the other hand, 'life-giving Hera' (air)/ 'Nèstis, who, by means of her tears makes a source of life flow to the mortals' (water) - the famous four systechic 'elements' (better: his roots) -, Anaxagoras speaks of infinitesimal particles.

And **b.** with respect to the Atomists, Anaxagoras differs: where they speak of indivisible constituents ('a.toma'), Anaxagoras speaks of unbounded divisible (limit concept) constituents, which are 'homoiomere'.

(3) A2. Method-Phaseology. (78/109)

We refer, now, once and for all, to *pages 10 (observation / speculation) 16/18 (observation / speculation)*.

MHD 79.

Front: applicative model. (79/85)

Vloemans, The presocratic, 133v.:

a. -- When, on a certain day, a great meteor rock came down at Aigospotamoi,

(1) Anaxagoras rightly judged that it had to come from the world of "stars" (understand: celestial bodies).

(2) following this premise, Anaxagoras concluded that the universe must be physically/physically similar.

In other words.

Phase 1 (sighting) - the meteorite -, is processed (denoted) twofold:

phase 2.1- (abduction 1). The meteorite comes from the universe -;

Stage 2.2 (abduction 2) - the universe is 'similar' (homogeneous, similar) -.

This abduction does not simply connect to the observed fact - in contrast to abduction 2.1. Here the observed fact merely gives rise to the formulation of a thesis, which, in principle, is testable, but which certainly goes beyond the observed fact ('extrapolation, i.e., a generalization or induction, which, apparently, does not connect without more with the fact, to which the induction attaches).

In other words, strictly speaking, Anaxagoras is formulating a theory (abduction) in response to a fact that may be the illustration (applicative model) of it. But the latter is a conjecture, nothing more.

Excursus.

The Peripateticists - i.e. Aristotelians - called a (quarrel) conversation 'pragmatic' ('pragmatikos'), when it proceeded from 'principles' (i. abductions), which are strictly peculiar to the object under discussion ('to pragma'),--which -- to speak with E. Husserl (1859/1938), the founder of intentional phenomenology -- (belong) 'zu den Sachen selbst' ('(to) the things themselves).

Or still - aristotelically expressed - Abductions, which are rooted in the essential nature ('nature') of the 'pragma''self.

In other words, a conversation, which is pragmatic (true to the object), can only be held about that one object. It thematizes a true-to-nature (true to reality) 'model' - *see above p. 5/7-*; nothing more.

Applied here: abduction 1 (from the alien universe) is pragmatic; abduction 2 (all celestial bodies are of the same nature, is perhaps pragmatic, perhaps non-pragmatic).

MHD 80.

b.-- Vloemans, o.c., *ibid.*, further summarizes -- what might be called -- Anaxagoras' unity theory concerning the universe.

Two (necessity and sufficiency)"factors" (abductive reasons) work:

(i) the centrifugal force of the rapidly rotating earth, which both hurls stone masses away and holds them in a circular orbit, preventing them from falling back to earth;

(ii) the glowing or refractory 'aihter' (i.e., the higher layer of air around the earth, which, more or less, corresponds to what we, now, would call the troposphere and stratosphere, with the blue or azure color), which, itself, has a rotational motion; this aihtèr makes the rock masses hurled away by the earth itself to glow and be whirled along. These then are the 'celestial bodies'.

Behold the equivalence theory (unity theory) of Anaxagoras. This sense of unity theory. Which is an application of the principle of thought economy or simplification, which demands that, with a minimum of means of thought (abductions), one "explains" a maximum of facts, is a "ktèma es aei" (Thukudides), an achievement of modern natural science (pragmatic thought economy).

c. -- Vloemans further summarizes, *ibid.*

The difference between the heavenly bodies - sun, moon, planets, stars - 'abducted' and 'deduced' (from his stone mass abduction) as follows.

a. The stars, resp. planets, radiate, in the evening and at night, in the darkness, its light; they also warm the dark and cold earth.

b. The sun, however, which he abducted as a great, glowing mass of stone, somewhere far away in the heavens and doing its orbiting, is much stronger in terms of light and heat.

c. The moon, likewise, was more violent and distant in its orbit than the ordinary stars and planets. She was much smaller than the sun. Yet he equated its surface with that of the Peloponnese.

Remark.-- The actual reduction, i.e. the derivation of testable deductions (progressive reductions) and the actual testing by means of new 'pragmata' (facts), result of experimentation), is not there.

MHD. 81

Only with Copernicus (1473/1543), known for his heliocentrism, Tycho Brahe (1546/1601), J. Kepler (1571/1630) known for his laws on the solar system, and especially G. Galilei (1564/1642), who founded the exact, i.e. mathematical-experimental physical, will the era of testing begin. Christiaan Huyghens (1629/1695), known for his research on gravity, will formulate the centrifugal force in a typically modern-temporary way.

Yet Anaxagoras has definitively shown the way, following in the footsteps of Empedokles, yet 'fysikaler', i.e. physical, yet secularizing. One sees this very clearly in his abductive reaction to the meteorite that fell in -468, at Aigospotamoi (on the Hellespontos).

(i) People there revered the stone as a wisdom stone of "divine origin"!

(ii) yet Anaxagoras sees in it simply a piece of earth, once thrown away and now falling back. Nothing more. It had once been glowing thanks to the higher, glowing aither, but had fallen back.

Excursus. - 'Dangerous language game'.

See always p. 33vv. (Wittgenstein's second period). Anaxagoras belonged to the 'enlightened circles' (around Peèriklès). Well, the archaic, 'fundamentalist' (religiously conservative) nobility, supported by Sparta, organized an opposition to Perikleès. It lodged complaints against Feidias of Athens (-490/-431), the protagonist of the new Attic art, -437; against Perikleès' highly developed 'hetaira' (lover friend) and later wife, the beautiful Aspasia of Miletos (-432/-431), and against Anaxagoras, -432.

The trials read 'crime against polisreligion'. Anaxagoras was blamed for 'heretical' (disregarding official or political religion) ideas about the 'deities' sun and moon. Here one sees that 'words' and 'language' (language play) of an innovative nature can be 'dangerous'. One has clearly and readily sensed the secular tendency of Anaxagoras. (cfr. *Fr. Krafft, Gesch. D. Naturw.*, i, 267f.).

MHD 82.

And, indeed, Vloemans, o.c., 137, says, “In the circle of the Anaxagoreans, the traditional gods lived on only in ‘symbolic’ speech, as easily handled allegories.”

This has been called “symbolicideism”: the “faith” that is attached to the traditional sacred data (“fideism”) - no longer a “knowing” - is seen only as “images” of secular things, nothing more. A different way of ‘saying’ (‘all.ègoria’), no more. -- which is still current.

Excursus.

Harmony of (i) ‘observation’ resp. ‘experiment’ (see below) and (ii) analysis’ (understand: abduction either deductive or reductive).

Gershenson/ Greenberg, o.c., 6/7: “These two methods were the basic tools, used by Anaxagoras, in the study of

- a. the nature of the substance and
- b. the nature of the physical universe as a whole.

Indeed, the most important feature of Anaxagoras’s theory is the simple fact that he used both methods: he insisted that (1) all observations (2) be fitted into a logical framework.

He was the first, who demanded that (1) perception and (2) logic go hand in hand in “natural” philosophy, -that neither has precedence over the other, -that if, seemingly, they come into conflict with each other, they must be united, harmonized, yes, mutually compromised, without either ever being let go.

We shall see applicative models of Anaxagoras’ attempts to make this harmony true. Yet the real significance of these attempts lies plainly in the fact that they were employed, that, immediately, Anaxagoras never allowed his physical

(1) wholly absorbed into the realm of abstraction and fantasy or
(2) was completely bound up with the phenomena, which the senses perceive”. So much for *Birth of scientific method*.

We can agree, after the first appl. model (meteorite). Are there also statements of Anaxagoras, among the very rare fragments, that confirm this? Yes.

MHD 83.

(1) *Fr. 1* says that “infinitely small” was not “andèlon hupo (s)mikrotètòs” (not clearly discernible for the reason of smallness).

(2) *Fr. 7* says:”(So that) we can ‘know’ (‘eidenai’) the collection (‘plèthos’) of separating (‘apokrinomenon’) (things) neither thanks to reason (‘logoi’) nor thanks to fact (‘argoi’). Which shows that Anaxagoras understands knowledge plural: fact and reason(nering).

(3) *Fr. 21b*. Says:”(In strength and speed we are the inferiors of the animals). Yet we make use of what is proper to us (as human beings), namely, experience (‘empeiriai’), memory (‘mnèmèi’), wisdom (‘sophiai’), skill (‘technèi’).”

(4) *Fr. 21*: ”Because of the weakness of (our senses), we are unable to separate the true (from the untrue; ‘krinein t’alèthes’).”

(5) ‘opsis ton adelon ta fainomena’: the showing (things), ‘phenomena’ (‘phenomena’) are the ‘sight of’ (‘opsis’) the invisible things. Add to this what Diogenes Laërtios (Laërte, city in Kilicia; tss. +200 and +300) tells as an anecdote:

When Anaxagoras was asked “what kind of ‘life’ (‘bios’) he wanted to lead, he replied: ‘a bios’, life spent on the ‘theoria’ (contemplation, ‘theory’; see *above p. 21 - (Xenophanes’ metatheory)*) of the sun, the moon and the heavens.

Anecdote often told of Puthagoras. After putting the fragments together and this last (if necessary) anecdotal (but nevertheless historically founded) statement, it becomes clear that, by ‘theoria’, Anaxagoras indeed meant both observation (experimentation if necessary) and interpretation (‘analysis’, ab-, de- and reduction). -- Cf. Herakleitos (*p. 27; 30/32; 33*); but also Alkmaion *p. 13.1*). But each in a different way.

Digression.-- The systechy ‘visible/ invisible’.

The (necessary and/or sufficient) reason (ground, factor), which exposes the abduction (with its consequence, de- and re- duction), is often invisible.

(1) *JP. Vernant, Mythe et pensée chez les Grecs (essai de psychologie historique)*, Paris, 1971, I I, 105, n. 26, says:”The opposition, so decisive in religious thought, between ‘fanera’ (the visible, evident things) and ‘adèla’ (the invisible, non-apparent things) recurs, analogously, in (1) philosophy, (2) professional science, and (3) the legal distinction between ‘visible’ and ‘invisible’ possessions.”

MHD 84.

Vernant refers to:

1/ P. Schuhl, *adèle*, in: *homo (Etudes philosophiques)*, I (*Annales publiées par la faculté des lettres de Toulouse*), ((Annals published by the Faculty of Letters of Toulouse), 1953, 86/ 94;

2/ L. Gernet, *Choses visibles et invisibles*, (Things visible and invisible.), in: *revue philosophique*, 1956, 79/87.

Vernant, II, 55: "One strikes (...) at the traditional opposition 'fanera/ adèla' (visible/ invisible (things)).

(1)- The visible is the object of the 'empeiria', the experience - see *p. 83 supra* (for Anaxagoras' words on this).

(2) The invisible requires a different mind operation:

(2)a. Either the (deity-inspired mantic (divination))

(2)b. Either pure reasoning ('logismos: ratiocinatio'). See again Anaxagoras on this, above.

In other words : the struggle between religionists, resp. theosophists (think Empedokles; see *above p. 67/70*; think Herakleitos; see *above p. 64* (Scheler's conformity system)), i.e. religion and "philosophy" is not about the fact that religion, resp. theosophy emphasizes invisible things.

That struggle, in which Anaxagoras, thanks to his secularism, was engaged, is about a well-defined type of invisible: religion and theosophy talk about a mantic invisible; 'philosophy' and professional science talk about a 'rational-intellectual' intelligible. Both forms of thought transcend the immediate, empirical-skeptical phenomena - see *above p. 65* (skepticism); see also *above p. 45/49* (Archaic-religious skepticism in the form of oracle hermeneutics); (53 'neither thou, nor I'); 56/64 ('understanding method'); see also *above p. 21/24* (Xenophanes' metatheory as transgression consciousness in relation to the empirical-skeptical data).

(2) O. Willmann, *Die Wichtigsten philosophischen Facheusdrücke in historischer Anordnung*, (The most important philosophical terms in historical order), Kempten/ Munich, 1909, 20/21: "The expression 'theoria', from which comes our 'theory', i.e. contemplation, is attributed to Puthagoras.

MHD 85

Reportedly, he would have called himself a contemplator of truth, "theatès."(...).

Platon of Athens (-427/-347) called "science", "contemplation of being" ("theorètikè tou ontes").

Aristotle of Stageira (-384/-322) contrasts theoretical life with practical life.(...).

The Romans translated 'theates' by 'speculator' (meaning, actually, peeper, watcher, akin to 'specula' (lookout)) and 'theorein' by 'speculari', consider.

We call "speculation" the actual philosophical consideration: the interest, which is (typically)"speculative.

(1) Examines,

(2)a. Starting from the "empirical" interest

(2)b. The correlations, which lie behind empiricism or experience".

So much for Willmann, who, with that, echoes Anaxagoras' disposition.

In other words, the abduction is the core: the empirical fact provokes a (regressive) reduction (= abduction or explanation; a necessary or even perfect reason), which offers an explanation, which makes the empirical fact 'understandable'. See *above p. 10vv*.

-- (3) That this was already the case in ancient times -- and in a very businesslike field, namely technology -- proves the following.

Vernant, o.c., *ibid.*, quotes: "Heron of Alexandria (+/- 0/100), in his *Baroukos* (*mèchanè*), underlines that the 'reason' of all the difficulties in mechanical questions and of the opacity, which weighs on the field of the search for the 'causes' (i.e. the separate necessities and jointly sufficient reasons), in this subject, lies in the fact that one can neither see the forces, which, in the bodies subject to gravity, are at work, nor the way in which they are spread.

Since the 'force' is at home in the invisible, inevitably the 'logismos' (the reasoning language form) governs the mechanics."

Vernant points out, right away, that the *Systechy* 'faneron/ adèlon' (visible/ invisible), in addition to the aforementioned technological field, also dominates that of Hellenic medicine and historiography.

MHD 86.

Deepening: second applicative model. (86/89)

W. Jaeger, *A la naiss.*, 254, Points out that, in addition to extra-human nature, Anaxagoras, also and especially, took biological-human private facts of experience, Milesian-empirical, as his starting point. Two types of processes stand out.

(1) *Fr. 10*: "How would from non-hair arise hair and from non-meat flesh?" In other words, the process of nutrition interested Anaxagoras (and as a model of his physical). In plants: leaves, wood, bark,-- in shellfish: shells,-- in animals (human beings): muscles, bones, marrow, blood; -- all this arises from the ingested food, which contains all the constituents, enumerated above, which then, in the process of feeding, from their undifferentiated state, differentiate themselves into the said parts of organisms. These constituents Anaxagoras calls 'Homoio.merès' (enk.), i.e. formed from similar (= analogous; partly identical, partly not identical) constituents.

(2) W. Jaeger, *A la naiss.*, 251: "The methodological principle (i.e., in the language of this course, the abductive-reductive principle) of Anaxagoras is articulated, in *Fr. 21a* (opsis ton adelon ta fainomena; the phenomena show us the invisible grounds; cf. our first translation on p. 83). Thus e.g. Anaxagoras' 'theory' of the 'homoiomereiai' (term of Aristotle, but which perfectly captures Anaxagoras' thought).

It is not based on pure 'speculation' (*see above p. 73 (synthesis of empiricism and 'speculative' abstractions)*); 82 ('harmony' of observation and 'analysis'), but on the observation - says Jaeger even, always quoted - of certain phenomena (cfr. above *Fr 10*, to which Jaeger himself refers in this text)."

So much for part 1 of this quote.

Now part 2 of the same quote: "Of course, there are also other observations, derived from (1) the color explanation of this quote: the painter paints, with the same colors, a variety of works (he paints with them people, animals, plants, objects);

MHD 87.

(2) the movement or mechanical processes that are starting point the issue of (1) nutrition - see above *p. 86, ad (1) - and*

(2) was the growth process of the living bodies, is explained by Simplicios (+/- +400/+500), *ad. Arist. Phys., 3, 4, 203a19 (Anax. A 45).*

Simplikios states that Anaxagoras was impressed by the study of food phenomena ('trofè'). Cfr. also Anaxagoras. A 46."

We skipped, deliberately again, a phrase, for the sake of clarity: "In *Fr. 10* - see above - it is said that Anaxagoras wondered how the most diverse parts of the organism - so e.g. the hair, the nails, the veins, the arteries, the sinews, the bones - could sprout from the same seed, unless, from the beginning, they were present in it."

In other words, the reproductive process was the second main biological phenomenon that fascinated Anaxagoras as a model for his physical.

Digression.-- The above - *p. 77v.* (associative/dissociative process) - touched on basic process of Anaxagoras' physical - i.e. a type of 'Stoicheiosis' (*see above p. 2*) - was, of course, prepared for him.

(a) Already Anaximenes of Miletos (*see above p. 3/4*) speaks of 'air' ('pneuma'), - air-dust, breath-dust, - which compacts ('pyknosis') into liquid and/or solid aggregate states or which dilutes ('manosis') into fire-dust.

Röd, Von Thales bis Demokrit, 46, says, hereby, that in this way, qualitative distinctions were reduced to quantitative ones.

It should be noted that Röd is indicating modernity here: the fluidic primordial substance, although qualitative, is at the same time also quantitative (granular,- either atomic or infinitesimal).

(b) Alkmaion of Kroton (*see above p. 13/13.1*), according to W. Jaeger, o.c., 255, uses the word 'krisis' (as later, Parmenides of Elea), i.e. admixture, -- again a quantitative moment of qualitative health or disease phenomena.

(c) Parmenides of Elea (*see above p. 15* (the way of opinions, where he expounds his 'physical')) speaks of 'mixing' the frequently mistaken organs.-- in itself this 'physical' word is rather quantitative making qualitative data.

MHD 88.

(d) Empedokles of Akragas (*cfr. Supra p. 68v.: rhizomata*) moves between the quantitative and the qualitative point of view: as a Pythagorean he should put micromonads (*cfr. Supra 4/9*) first; but his 'rhizomata' or roots of reality (a Pythagorean term) are, rather, designed from the school of medicine at Kroton (*cfr. Supra p. 13.1*).

Overview. - Do we consider where we, with Anaxagoras, stand today.

(A) Observation.

Anaxagoras clearly starts from the world of the commons (*cf. Supra page 2*). But, just as clearly, he chooses specific sectors from that commonsensical world (private facts of experience) and this with a possibly twofold purpose:

(i) on the one hand, to model a private phenomenon - e.g., nutrient processing;

(ii) on the other hand - and here he shows himself to be either a unity theorist (*see above p. 80*) or indeed a real philosopher (*cf. supra p. 40*) - analogically (*cf. infra p. 101vv*) - to interpret (i.e. to abduct) the totality, the 'Horizon', within which man - whether he simply lives and thinks commonsensically or is more physical (professional scientist) - always situates himself, while living and thinking.

The latter will become abundantly clear, when Anaxagoras, very much against the will of many a present-day physicist e.g., abducts the 'nous' as the 'world-ground' (*cfr. infra p.11vv. (teleology)*).

(B) Abduction.

As we shall discuss, later, following Aristotle's ontology (*cf. infra p. 217v (Aristotelian theory of science)*), at greater length, true philosophy is always:

(a) singular and/or private in its occasion (= perception); take e.g. the purposiveness in some evidently purposive and/or purposeful processes.

(b) but, after empirical observation which is as accurate as possible, the question arises, for the philosopher as philosopher: "How, logically speaking, should 'being' (i.e. the totality, which is imposed on us as the 'horizon' of living thought) be abducted (conceived) so that, part-identically (*cfr. supra 5; 9; 114 ff.; 40*), e.g. the established phenomenon is possible?"

Behold what rigorously distinguishes unitary science from true philosophy.

MHD 89.

The Anaxagorean Solution.

Summing up, Anaxagoras' solution to the problem of the one in the many (understand: of his own stoicheiosis or constituent order) comes down to this.

Fr. 11 says it in summary: "In each (being, 'chrèma') is, of each (being, (chrèma', a part ('moira')." Röd, a.c., 166, calls this 'the principle "All in all", applying both to (macroscopically large) things and to the (microscopically infinitesimal) parts (constituents, if one will, but as a limit concept (*see above p. 74: 'no very smallest')*) of those (in principle, likewise, ever greater (limit concept, again, but towards the greater)) (macroscopically large) things.

It sounds very much "abstruse" to the reader of this text, but it is the correct representation of Anaxagoras' basic idea, which, indeed, is as complicated as our modern physical theories (except for the logical-mathematical apparatus, of course).

Röd, *ibid.*, attempts to make this abstruse worldview more "comprehensible" by stating the following: "upon arbitrarily carried out division, e.g. of a piece of meat, only meat particles emerge, time and again. This, while, on the other hand, it is asserted by Anaxagoras that 'meat' is never merely 'meat', but always - 'all in all', i.e., here, in 'meat' - blood, bones, hair, etc."

This apparent contradiction of 'pure' (volidentically one) and 'mixed' (partially identical one) 'substances' (or, rather, infinitesimal (larger from smaller) constituents) is dialectically (*see above p. 51 (cover, but Heraklitean); rather p. 40/41 (totality (everything) and harmony of opposites (in everything))* or still: creatively eclectic (= dialectic in the present, rather Hegelian-Marxist sense), (*see above p. 65*) on higher (thinking) level solved by the in Anaxagorean correct hypothesis that e.g. 'flesh' is all 'homoimeries' (Aristotle's word) present in the cosmos. 65) on a higher (thinking) plane solved by the in Anaxagorean sense correct hypothesis that e.g. 'flesh' contains all 'homoimeries' (Aristotle's word for 'constituents') present in the cosmos, yet, in a mixing ratio exclusive to flesh.

So much for Anaxagoras' basic physical understanding. It is, for the fledgling modern-looking natural science, typical that it gets entangled in (apparent or real) contradictions, which it thinks it can solve with purely 'dialectical-eclectic' means of thinking.

MHD 90

Deepening: third applicative model. (90/101)

To sum up, we can say that the order of method (*see above p. 72*) - the object, perceived, then fourfold interpreted (ab-, de-, reductive and evaluative) in the applicative models, remained above (*p. 79/88*) in the stage the regressive (abd.) and progressive (ded.) reduction.

Fortunately, *Gershenson/Greenberg, Birth of scientif. Meth.*, 38/46, provide us with applicative models of the then illustrative (not: fundamental) experimental method, which includes the Peirastic-experimental phase of the method.

-- 1. *We say "illustrative" method.*

Why? Because, at least then, experimentation was not an absolute condition of 'positive' (Aristotelian: 'pragmatic' (*see above p. 79*)) science. It served 'for illustration', nothing more. One sees this in the two previous applicative models, which, precisely because of this, remain stuck in the purely hermeneutic-verbal stage (ab- and deductive; nothing more). -- But to the point.

-- 2.a.1. *First lemma.*

In order to be able to understand the correct scope of the examples dissected by Gershenson/Greenberg, one should, first of all, understand the concept of 'structuring'.

'Structure' is stoicheiosis (*see above p. 2*) or its result (the resulting configuration). 'Structural' is what corresponds (matches;-- similarity in virtue of distributive view) and/or intertwines (-- coherence in virtue of collective view) with 'structure'.

Though 'structurally' is 'structurally', but with the emphasis on constraints, performed on data equivalent to linguistic elements (or, simply, linguistic elements, of course). Later we shall see - it does to the 'edits in the style of Cl. Lévi-Strauss (1908/2009), the famous French structuralist anthropologist, with his pairs of opposites, comes to mind - how Anaxagoras, while experimenting, applies the pair 'full/ empty'; 'up/ down', etc. unconsciously (regarding the structural, of course).

MHD 91.

-- **2.a.2. Second lemma.**

‘closed system’, now a conscious concept both of ‘general systems theory’ (cfr. *Ludwig von Bertalanffy*, Boulding, Gerard, report: foundation, in 1954, of the society for general Systems research) and of cybernetics (steering science; cfr. Norbert Wiener (1894/1964), the founder-theorist of steering science in the mathematical-technological sense: *Cybernetics (control and communication in the animal and the machine)*, New York, 1948-1, 1961-2), is implicit, but, to those who pay attention, very clearly at work in the experiments of Anaxagoras.

‘Black box’.

W. Fuchs, Thinking with Computers, The Hague, s.d., 237v., brings up the ‘black box’: “The word ‘black box’ originated in electrical engineering. (...) Designing a ‘black box’ theory is, however, a matter for mathematicians. (...).”

Experiments at the switchboard, with systematic registration and control of inputs and outputs, give us information about the circuit diagram inside the box, without having to look inside the box, for the very simple reason that we often cannot look inside. How the circuit, in all its details, looks, we do not know yet. But we do know what the structure is.

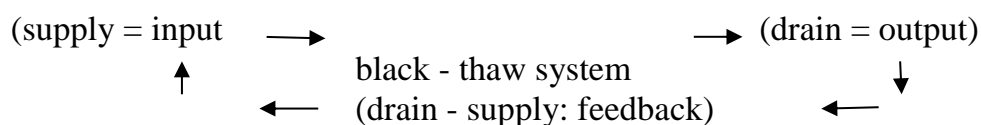
Well, this can be realized by means of ‘isomorphic’ (= model-identical; cfr. *Supra p. 11/12*) devices.”

One will see this ‘black box’ method at work with Anaxagoras. Clearly, for those who compare, the ‘black box’ from electrical engineering functions as a lemma (*see above pages 8/9*). Although at least partially unknown, nevertheless it is used. Here the analysis (examination of relations) is not done by means of semiotic-artistic symbols (as *on p. 7/9*, in the proof of incongruity), but by means of physical operations. These are preferably ‘structural’, i.e. according to the model of physically executed pairs of opposites (‘full/empty’, ‘up/down’).

The basic model of steering science is the quasi-closed system (cfr. *Henry Greniewski, cybernétique sans mathématiques*,

MHD 92.

Paris/ Warszawa, 1965, 1/2 (as well as in the introduction of L. Couffignal, XI).
The scheme looks roughly as follows:



It can be seen that both supply and drain can be dual: part of the supply comes from the environment (the "super system," of which the black box system is subsystem); another part, from the drain, comes back into the supply stream, while another part of the drain empties into the environment.

One can, as Greniewski, o.c., 2, says, broaden the terms " 'stimulus' (stimulus)/ 'response' (answer, reaction)" and equate them with supply (stimulus) and/or drain (answer). In that case one introduces, in the steering language game (see above p. 33vv.), informational terms. Indeed, it is as if the black box system 'understands' (stimulus) and 'responds' (response) with a kind of immanent understanding of things.

The ancient Greeks would have spoken of a 'sofon' in the fusus (nature) itself present insight (information processing),. Or, Platonic, an objective 'idea' (rational order type) is, immanently, present in the being of the fuisis itself and, in experimental manipulation of that fuisis, in one of its subsystems, at work as a response of 'sensible' nature to human intervention.

-- 2.b.1. *The baconian induction.*

Ch. Lahr, Cours de philosophie, I (Logique), Paris, 1933-27, 591, called Socratic induction (see below) the generalization (from S (singular) and/or P (private) to U (universal) inference), cfr. supra p. 12: inductive type of reduction).

Baconian induction joins *Francis Bacon of Verulam* (1561/1626), *Novum organum scientiarum* (1620).

- (1) the phenomenon is referred to as a result of a cause (Causal or causal induction);
- (2) o.g. Socratic induction, but experimentally instead of 'dialectically' (= conversationally), one concludes to a causal law.

MHD 93

“One calls this type of inductive reduction ‘baconian’, not because Bacon invented it - one does not ‘invent’ the natural methods of the human mind -, but because he, as the first, illuminated its scientific scope, articulated its rules, and vulgarized its application in the professional sciences.” (Lahr o.c., 591).

One can also formulate the Baconian inductive reduction differently.

-- 1. Observation.

Appl. mod.: after administering a dose of fluid (drug), a patient responds favorably: he begins to heal. Cybernetic: the ‘input’ is fluid; the ‘output’ is healing onset. It is as if the black box (the disease state) ‘understands’ what it is supposed to do (information process). Or: one took as a lemma a certain interpretation of the black box, which is the disease state; one applies Bacon’s rule of ‘sortes experimenti’ (the ‘randomized’ or haphazard experiment): the result illuminates the lemma, which, through both the administration and the reaction to that administration, emerges analyzed (the relations between fluid and organism are activated and immediately, illuminated).

-- 2a. Abduction.

From this singular experiment one generalizes, again lemmatically (one is not sure). If this medicine, indeed the correct, i.e. the black box of disease sanitizing, medicine, then, causal law, socratically induced, must, normally, i.e. if the controlled and uncontrolled factors of the black box of disease are the same, also in other cases the same black box of disease healing emerge (‘phenomenally determinable).

One sees here the mechanism of inductive (regressive) reduction - see again *p. 10ff.* - literally at work in the first interpretation phase, the abductive one: one assumes general legality on the causal level.

-- 2b. Deduction.

This has already been formulated, above: (progressive) reduction (prediction of phenomena).-- see above p. 10vv.

MHD 94.

-- **2c. Effective (Peirastic or full) reduction.**

Now, first, read again *page 13 (types of testing)*. We stand, here, with Anaxagoras - it goes on and on about the philosophical-epistemological screening of what Gersheson/ Greenberg claim about Anaxagoras - for a fourth type of veri- or falsification (besides the mathematical, the primal and the ethical-political), viz. the 'coarse material' or physical, in time and space, if necessary mathematically measurable, in any case public, i.e. executable (and this in an infinitely repeatable manner) by everyone who can and wants to realize the experimental conditions. So much for type in general.

But Bacon already, who was only at the beginning of the modern-day sophistication of the experimental method, distinguished more than one subtype. We shall bring them up, concretely, when, at last, we deal with the experiments themselves of Anaxagoras.

Nevertheless, one type according to its structural type (model type), namely the relationship between gradual quantitative changes and the qualitative changes (possibly 'qualitative jumps' or abrupt changes) that are 'causally' connected to them, is also important for modern and current dialecticians.

It is, of course, not Hegel or Marx, who first stated this relationship clearly as a frequent phenomenon.

(1). Ainesidemos of Knossos (+ -50),

a heraklitean skeptic (*see above p. 65*) cfr. *V. Brochard, les sceptiques Grecs*, Paris, 1969 (1887-1), 253/298; *RG. Bury, Sextus Empiricus*, 4 vols. Cambridge (Massachusetts, USA), 1961, I (outlines of Pyrrhonism), XXXVI X1), in his ten 'tropes' (methods of opinion formation), distinguishes, among the objective (founded in the object rather than in the subject) tropes, the connection - apparently, several times, truly causal - between modifications of the object and the qualitative jumps associated with them.

(i) Distributive changes: if something (object) occurs more frequently or more infrequently (structurally coupled (*see above p. 90/91*)), within the same time or space interval, it changes qualitatively:

MHD 95

(1) a comet, for the reason of its rare occurrence, arouses sensation; the sun, for the reason of its solid appearance, does not (what the Romans called: 'assueta vilescunt' (things, once they are 'ordinary', descend into sensational effect));

(2) in regions where the earth regularly trembles, one is, in the long run, much less startled by it; -- this proves that it is not the phenomenon in itself, but its frequent occurrence or not, that qualitatively happens or, at least, helps to happen.

(ii) Collective changes: the 'mass' of a phenomenon its parts-or aspects-change qualitatively; e.g.

(1) individually, grains of sand are prickly; in a heap together they appear soft;

(2) A small dose ('mass') or quantitative measure of wine "strengthens the soul"; if one gradually increases it, qualitatively, in time, at a given moment, it will turn into its opposite (cfr. *Supra pp. 39; 51: Heraklitean interpretation*): the wine, not in itself, as a kind of being, but quantitatively, dosed, will act detrimentally on senses, body and soul; -- what today's Hegelian-Marxist dialecticians call: "The gradual quantitative change produces a qualitative leap".

Anticipating Anaxagoras' experiment with the air-filled leather sack, we can say: if Anaxagoras squeezes more and more air into it, - which amounts to the same thing as twisting the sack with identical air mass more and more, it will burst at some point - 'qualitative leap'....

(2) Francis Bacon saw this phenomenon excellently, though not dialectically as Hegel or Marx, but experimentally. He calls this experimental process 'productio experimenti (literally: change of intensity of the experiment).

For example, to stay in the medical language: one administers a fluid in constantly changing doses (dosage) and waits for the result, effect. One changes the cause and sees if the effect evolves along with it to the same degree. One sees that Bacon links human causality and natural necessity: the characteristic of experimental science.

MHD 96.

Note.-- Current hermeneuticists and, even, dialecticists dare to complain that scientificists (i.e., the rather natural and mathematical style of thought) -- one thinks of the well-known book by *PC. Snow, Two Cultures* - always quantifies (one thinks of statistics and many other types of calculation, even in the human sciences).

But one looks: since Aïnèsidèmos of Knossos, the skeptic, who, with that, wanted to criticize the all too simplistic view of beings of a number of dogmatists, it is nevertheless abundantly clear that quantity (mathematically expressed or not) produces qualitatively. In other words, to want to play off qualitative thinking against quantitative thinking is, to a large extent, unfounded and a typical fallacy of the qualitative in itself, which intrinsically, by essence, contains a quantitative moment.

-- 3.1. First appl. Mod. of Anaxagorean proof.

(a) All peoples know, since prehistoric times, that air anywhere, anyhow, implies physical force. Any 'awesome' (qualitative leap) air displacement proves it (storm wind; blowing in someone's face).

(b) Anaxagoras, by structural intuition (see supra p. 90 (at bottom)), applies the pair of opposites 'movement/motionlessness': before his audience of students filled (cfr. structural pair of opposites: first empty, then full) a leather sack (cfr. supra p. 91/92: closed system, except at one point, i.e. the 'mouth' of the leather sack (which makes it a quasi-closed or partially closed system) with air (in stasis). He twisted the neck of the leather bag - human causality - until the compressed air made it bulge and hard - nature causality.

In other words, from this applicative model of experimental reduction we 'abstract' the regulative model: the interpenetration (harmony) of human causality and natural causality is one of the necessary grounds of empirical reduction.

-- 3.2.a. Second appl. Mod. of Anaxagorean proof.

(i) So - for a moment we saw that Anaxagoras applies force against (counter)force-work and counterwork, action and reaction-again, a pair of opposites, but of fundamental size. The air in the wine bag acts as a counterforce against Anaxagoras' own muscular force.

MHD 97

(ii) in the double water proof, Anaxagoras, again, plays with such a pair of opposing forces, yet the water now plays a leading role.

Preceding the description of the new quasi-closed system. - *See above p. 91v.* (*system theory-cybernetic language game*), namely the klepsudra (water clock). The klepsudra is first of all a vessel, with at least one hole at the top, into which a plug can be inserted, and with at least one hole at the bottom, from which the water can flow downwards. Then there is a second vessel, the collecting vessel, which is placed under the water clock; it is provided with a scale, which indicates the hours. This time measuring instrument, of Egyptian manufacture, was used as a clock.

(iii) The now following two proofs assume, unconsciously, the structural duality 'empty/filled' - see *above p. 90* - (below) -. Baconianly interpreted, this systechy amounts to what Bacon calls 'inversio experimenti' - (trial reversal).

This can, of course, take many forms, - including that of the cover (see *above p. 94v.* (dosage, such that the result becomes negative (qualitative jump)), 95 (bursting of the bag under sudden overpressure (qualit. spr. type 2)).

Also, instead of the consequence (result), one can reverse the cause.-- What is happening here structurally: 'empty/full' (quasi - closed system). namely the klepsudra.

(iv) *Description*

cf. Gershenson/ Greenberg, o.c., 40ff.

(1) Anaxagoras took the empty water bell, plugged the top opening and plunged it, empty, i.e. filled with air - one sees how relative the pair 'empty/full' can be - into the collecting vessel. His humane intervention (first causality) showed ('opsi ton adèlon ta fainomena' (seeing the invisible things lies in the manifesting (here caused consequences); *cfr. supra p. 83*) that the inner air pressure constituted the necessary and sufficient counterforce against the upward - see above p. 90 (bottom: structural variation moment) pushing water.

MHD 98.

The second causality lies in the ‘black box’ (see *above p. 91v. (systems theory; steering science)*), which, as a lemma (see *above p. 8/9 (semiotic-artistic variant)*), was introduced - abductively and which lies in the invisible and yet in the physical operations implied ‘force’, which is the air potential.

One sees, now, presumably, why we, with so much care (and appearing long-winded), elaborated the introduction (see *above pp. 90/95*) with thought models of a current (or, in any case, modern) nature: without these thought models one does not ‘see’ what precisely Anaxagoras introduced in terms of innovation and why he was celebrated throughout antiquity as the founder of a subject then called ‘new natural philosophy’.

Kant (1724/1804), the German-speaking main figure of modern European enlightenment (“aufklärung”) said, “without concepts, contemplation is blind; without contemplation, concepts are empty”.

The experimental method of Anaxagoras, as far as we know it from the extremely scarce fragments, of course, lacked the current concepts. As a result, it could not, simply, break through as, later, the modern physical will break through. Yet this is the cultural-historical certainty of all thought. Kant’s reflection, meanwhile, illuminates why we made the introduction so elaborate and modern-contemporary.

Summary:

Anaxagoras’ interpretation of his experiment, even if he did not possess the modern-present understanding (thinking models), was correct: his regressive-reductive (= abductive) preconceived necessary and sufficient reason of the non-upward flow of the water, at the bottom of the upper vessel, consisted in the fact that

a/ the air, within the water clock,

b/ insofar as confined (and immediately involved as a co-controlled factor - see *above p. 13* (at the very bottom) - in Anaxagoras’ ‘historia’ (research)) in ‘quasi-confined system (the vessel),

c/ exerted sufficient counter pressure at its lower entrance

d/ to keep out the intrusive water. Hèron of Aleksandreia’s “difficulty” on mechanical questions discussed *above p. 85*, had, in a sense, been circumvented long before him by Anaxagoras’ trial-and-error behavior.

MHD 99.

The ‘black box’ of invisible ‘power’ was, as it were, phenomenal, made manifest, by what Bacon, so much later, in his metaphorically charged style, will be called, “Subjecting nature to an interrogation, accompanied by torture.”

The instruments of torture - reminiscent of the judicial methods of the time - are the “closed or quasi-closed systems,” in which, e.g., the “black boxes” (in Anaxagoras’ case: the air as a force) evading interrogation are somewhat confined for submission.

-- 3.2.b. *Second appl. mod. of Anaxagorean proof (reversed).*

The experiment is now subjected to ‘*inversio experimenti*’. The same water clock, which was used above as ‘empty’ (air-filled) (*cf. supra p. 97*), is now filled with water, -- yet, immediately a new structural model starts to work, with the scientist Anaxagoras, namely the opposition pair ‘stop in/stop out’ (*see supra p. 90*).

This is reminiscent of binary logic, which works with only two ‘values’ namely ‘yes’ (+) and ‘no’ (-). Something that is frequent in computer science, among other things. Which, in turn, shows that the thesis of people like M. Foucault and other structuralist system technologists is correct, namely that if a system (here the scientific system of experimental natural science) begins to exist, it is suddenly all there. Do we now pursue, briefly, the two-part test, as Gershenson/Greenberg, o.c. 41, offer them to us.

(1) Anaxagoras takes the klepsudra (upper vessel), fills it with water with the stopper at the top. After filling, he turns it over. Result: the water does not run out. Necessity and sufficient reason: the air as an invisible or ‘black-box’ force shows itself, indirectly, because it pushes upwards against the water as a weight force. *Cfr. supra p. 90 (structural torque)*.

(2) Anaxagoras pulls out the plug at the top. Result: ordinary air force no longer suffices, acting upward; water runs out.

Conclusion: only one difference between the two phases, i.e., the stop in or the stop out. Binary logic operations.

MHD 100.

Note.-- Gershenson/Greenberg, 41f., note that Anaxagoras did not take atmospheric pressure into account. He simply did not see the layer of air, which surrounds the earth as a force (in the form of 'weight'). -

This proves the culture-historically bound language game. -- The only thing Anaxagoras experimented with was trapped air in a quasi-closed system, which is, in fact, just a part of the atmosphere.

Anaxagoras attributed the same "force" to unconfined air (if it holds the water, by back pressure, in the water clock), although he had not experimented with it.

Note.-- The same theorists, o.c., 42, conclude, "The fact that Anaxagoras illustrated his scientific teachings with experiments is in itself far-reaching.

-- (1) It shows that, in his day, it was not uncommon

a/ direct observation (empiricism)

b/ supplement with active (radical) experimentation (experiment).

-- (2) It also shows that the experimental branch of natural philosophy -- which, gradually, would equal and surpass the purely observational ('empirical') branch, was an already recognized 'partner' of the theoretical branch, as soon as the time of strict scientific method had arrived."

In other words, the two main moments typify rigorous or "hard" science:

(a) observation (empiricism), if necessary experimentation (experiment)

(b) theory.

Note -- Th. Kuhn, *The structure of Scientific revolutions*, 198 (Ned: Meppel, 1974) points out the historical growth of science. There are short-lived revolutions and there are times of 'rest and diligence' It is evident that Anaxagoras of Klazomenai represented such a short-lived revolution.

The stakes are some paradigm (textbook) of scientific method. This is: tone-shaped problems (preferred problems), discovered by trailblazers like Anaxagoras, with tone-shaped solutions, also created by trailblazers.

Yet both so that a whole raft of imitators can work in that direction (flexibility).

The main condition is an abductive set. It includes:

MHD 101.

a. 'Principle' abductions:

e.g., here, "work and resist" (see above examples); structural pairing (id.); quasi-closed system (id.); etc..

b. Axiological abductions:

e.g. Anaxagoras' preference of affective nature for "symmetry" (in his Greek); for "unity theory" (explaining everything with preferably (preferred) one type of model); for physicalism (understood as secularism); etc.

Th. Kuhn says of those abductive preferences (cognitive, affective) that they are assumed without sufficient evidence. In other words (always more or less unknown, they are nevertheless manipulated and thus) they are lemmata (*see above pp. 8/9*), whose correct value only appears afterwards (the 'analysis', here, is the work of scientists, especially that of imitators in the period of 'rest and diligence').

Deepening: fourth applicative model.

We recall, briefly, the reductive sequence (after observation: ab-, de-, vol reductive).

The analogical reduction.

(1) Let us begin with the literary or aesthetic analogy (metaphor, metonymy).

Fr. Bacon, followed above as a leader, is known for his pithy style. See here how he, eclectic-creative (see above p. 65), 'characterizes' the three main methods of beginning modern science by means of analogy:

The empiricists resemble the ants insofar as they accumulate materials without consistency. With that, they are content.

The partisans of the "(intellectualists, speculators) resemble the spider who, out of her own corporeal matter, creates beautiful webs, full of refinement and symmetry, yet without solidity nor usefulness.

The partisans of the experimental method resemble the bee, who, from the flowers, draws the substance for her honey, in order, thanks to a faculty peculiar to her, to work it out so that her nectar emerges from it.--and the *Novum Organum* literally comments,"Thus everything may be expected from the close union of experience and reason, whose disappointing 'divorce', so far, has disturbed everything in the sciences."

MHD 102.

In other words, two schools of thought connect here:

- (i) the notion of “model” (see above p. 5v.) and
- (ii) the notion of language play (cfr. *Supra p. 33vv.*).

We explain this: if Anaxagoras, as Gershenson/ Greenberg, o.c., 23f., says,

a. speaks of one private singular phenomenon “in terms of another” private or singular phenomenon (e.g., in terms of ordinary fire about lightning, in terms of red-hot ore about the sun; in terms of animal behavior about the behavior of plants);

b. about universal being in terms of private or singular being (e.g. in terms of fluid vortex movement about the foundation of order in the mass of the universe (‘creation’ viz. understood as creation which establishes order), in terms of the life functions about the continued establishment of order in the universe, then He clearly starts from a (more or less) known system - ordinary fire, red-hot ore, animal behavior; -- fluid vortex movement, life functions - in order to acquire information (thanks to resemblance or if need be model resemblance) about a (more or less) unknown system - lightning, sun, plant behavior; -- creation which establishes or continues order.

The model, articulated in one language game, is employed in the articulation of the other language game.

Gershenson/ Greenberg, o.c., 24 explicitly states that the analogical method

- (i) is fundamental in human thought and
- (ii) frequently applied in professional science thinking.

-- (2) ***Inductive and analogical reduction.***

now see first p. 92vv. (*inductive reduction*).

Ch. Lahr, Logique, 609, say that the structure is the following.

-- **I. *Observation.***

One observes at least two phenomena. One establishes a similarity between the two (or more than two) phenomena.-- for example, one establishes that the planet mars, like the earth (similarity), has an axis rotation, an orbit around the sun, and an atmosphere.

-- **IIA. *Abduction.***

Based on observed similarity(s), one hypothesizes that there are also unobserved similarities.

MHD 103.

For example, "Would mars, too, like earth, be inhabited?"

Here it is assumed that the features of Earth and those of Mars form one coherent whole (collective structure). What has not been observed.

One can see: **1/** the inductive reduction takes samples (singular or private) and assumes (abductively) that all (universal) copies of the same type are identical (generalization); they go from completely the same to completely the same (Lahr, o.c., 609); in virtue of distributive structure:

2/ the analogical reduction establishes a part of the similarities and, in virtue of (hypothetical) collective structure (that the others belong to it), supposes that the other, non-established similarities are there; i.e. one abdicates from one part of the characteristics to another part in virtue of the hypothesis that the whole of the characteristics is there. It goes from partly the same to (entirely) the same.

-- IIB. Deduction and Peirastic reduction.

These follow, of course, the rules of what was said higher.

In other words, the (regressive) reduction that mars, in addition to the established features, also has the non-established ones, leads to the (progressive) reduction (deduction) that, if the hypothesis is correct, one should be able to establish, e.g., in addition to natural landscape on mars, also just as on earth, a cultural landscape.-

What with cosmo and astronauts e.g. can be verified or falsified (Peirastic reduction).

Conclusion: the inductive reduction establishes the whole of the characteristics in each sample; the analogical reduction establishes only a part in the samples.

Note -- Appl. model.

E. Geoffroy Saint-Hilaire (1772/1844) applied analogical reduction genius. He was the first to establish the analogy between the arm of man, the leg of the quadruped, the wing of the bird, and the fin of the fish. This analogy put G. Cuvier (1769/1832) on the path of comparative anatomy, which he founded. The relationship (collective structure) between organ and function worked as a whole, part of which had been established.

MHD 104.

Note.-- Heuristic value of analogy.

One can, starting from the (abductively stated) relationship between cause and effect, make a discovery.

Thus B. Franklin (1706/1790):

a. Observation: He observes the effects (consequences) of lightning and of the electric spark on a certain day;

b. Abduction: suddenly it becomes clear to him ('heureka'), viz. if, like the electric spark, lightning too, as a 'spark', as a cause, had a kind of 'electricity' (the atmospheric viz.), then the similarity of the effects would betray the same causes. Immediately the way to deduction (prediction) and Peirastian-experimental reduction was open.

Note .-- Cybernetics and analogy.

Cfr. *supra* p. 91v.. Steering science is concerned, fundamentally, with quasi-closed systems, i.e., those systems, which, at well-defined points and in well-defined ways, interact (and communicate) with the supersystem, of which they are subsystems - the so-called environment.

However - according to *L. Couffignal, Préface à l' édition Française*, in: *H. Greniewski, Cyb. sans math.* , IX/XV - The most original of cybernetics is the use of models (see *above pp. 5/6*, and this in a systematic way. There are e.g., says Couffignal, logical and coded, praxeological, further biological and economic models. They concern domains such as translation machines, teaching machines, automata, conditioned reflexes, economic planning.

The simplest model is that of the conditioned reflex (one thinks of the dog of Ivan Pavlov (1849/1936), Nobel laureate of physiology and medicine in 1904).

The cybernetic description of the model in terms of

(1) lists the elements, which make up the model, as well as their connections (i.e., the "organs," the structure of the model) and

(2) contains the description, phase by phase, of the information exchanges between the 'organs' of the model and the model and its environment (the description, in other words, of the functioning of the model).

MHD 105.

-- The 'mechanism' (system in motion or 'function') so described, structural and functional, is the model of a conditioned reflex. From what?

(1) The structure differs: indeed, simulation (imitation on a technological level: schematically more or less mimicking, for the purpose of experimentation) never "is" completely what Pavlov's living dog was.

(2) The functioning, however, is the same. "These two mechanisms have common properties viz. those involving functioning, but also different properties viz. those involving structure. They are analogous in that they have common properties. These common properties make up the analogies of the two mechanisms.

The mechanism described by Prof. Greniewski is a 'model' in that it was invented to exhibit analogies with the original, which is Pavlov's dog." (o.c., XII).

Note.-- Here one sees that Couffignal limits the notion of analogy to the identical. Yet the thought is ideally the same as ours above.

Further: Couffignal points out that (a) establishing analogy or (b) simulating so that analogy exists between the simulated and the model (image), is not a deduction, but something proper, namely analogical reasoning (o.c. XIII). "The analogical reasoning suggests possible truths and the 'experience' (the Peirastic reduction, i.e.) verifies or falsifies them".

--"Cybernetic thinking can construct models of all data. Can assemble the most diverse models among themselves. (...) These models can borrow 'elements' from the most diverse domains of human knowing. (...) They can differ profoundly from the usual models and, thanks to their novelty, advance knowing. (...) Cybernetics is a method of thinking (...). The analogical reasoning and the construction of models is the essential of it". (o.c., XV).

Opm.-- Mathematics and analogy.

L. Couffignal, *ibid.*, gives 'a crystal clear appl. mod. of the function of mathematics with respect to non-mathematical reality. We reproduce it, with comments.

MHD 106.

(a) Observation.

(1) We all know the experience of a nightingale singing its song in a summer night - musicologically one speaks of notes. However, with this we are already in the realm of interpretation.

(2) -- Anaxagoras, in his theory of observation, starts from the axiom that interactions, which lead to an observable physical difference, only take place between bodies, which differ in any case.

Applied to perception: a perceived object (e.g., a sound) is a material thing; a perceiving subject (e.g., the auditory organ) is, likewise, a material thing. Perception consists in the difference of state between the two, object and subject, and in the change (difference) caused in the subject itself. Thus e.g. - according to Anaxagoras - the sound, transmitted (through) the air, is heard, if it penetrates into the auditory cavities of the head. Vlg. Gershenson / Greenberg, o.c., 28ff., the rest of Anaxagoras' doctrine concerning hearing is lost.-- One sees: a physical interpretation of perception. *cfr. supra p. 81.*

(B)Ia. Abduction.

1. The sounds of the nightingale can, modern-physically translated into a model: one then speaks of vibrations of the air particles and of the hearing organs. Something to which Anaxagoras paved the way

2. However, the sounds can also be translated modern-mathematically into a model. Then there are factors: the independent changeables (factors) - *see above page 6* ($y = f(x)$) - are, here,

a (amplitude, maximum pendulum amplitude or amplitude),

w (omega = stroke, proportional to frequency);

t (time); the dependent variable is x (pendulum swing or deviation, 'note' (as a difference between the resting state of a particle, which is vibrating, and the vibrating state)). The first moment of 'stoicism'. These factors are merged into a structure: $x = a \sin(w)t$. ('sin' = sine (triangular geometric language game; w = omega))

The second moment of 'stoicheosis' (*see above page 2*). If the perception hears e.g. two simultaneous notes, then these are mathematically represented in the model: $x_1 = a \sin w_1 t$ and $x_2 = a \sin w_2 t$.

MHD 107

The pendulum swing (= deviation), in this double case, is the sum of the two distinct: $y = a \sin w_1 t + a \sin w_2 t$.

Behold - abductively - the models: if these models are assumed, then the double sound is 'intelligible' (mathematically).

(B) II.a. Deduction.

One can transform mathematical models mathematically (model change): other models are thus, axiomatically-deductively - *see above page 8* (lemmat transformations) - generated. The axiomata here belong to the trigonometric language game, of course.

$$y = 2 a \cos (w_1-w_2)/2 * t . \sin (w_1+w_2)/2 *t.$$

Here 'cos' is cosine. -- This transformation is logically valid since it translates one model into another by axiomatic-deductive method.

(B)II.b. Deduction.

One can give an interpretation (translation) of this formula in the language play of music and sounds:

$\sin (w_1+w_2)/2 * t$ is denoted as a magnitude; $a \cos (w_1-w_2)/2 * t$ is denoted, physically again, as amplitude (maximum pendulum amplitude) changing with time.

Digression: Couffignal, o.c., XIII, says: one recognizes in this reasoning three phases :

ad (A) observation:

starting from physical observer, one constructs a mathematical model
($x = a \sin w t$); which is ad (b) abduction;

ad (b)II.a.

One transforms the model, mathematically; which is deduction;

ad (B) II.b.

One interprets this transformed model in physical terms. -- Such a thing is analogical reasoning.

(1) between the formulas ' $x = a \sin wt$ ' and ' $y = 2 a \cos (w_1-w_2)/2 *t.\sin (w_1+w_2)/2*t$ ' there is analogy: the terms ' $\sin w t$ ' and ' $\sin (w_1+w_2)/2*t$ ' have the same function. Similarly, the terms ' a ' and ' $a \cos (w_1-w_2)/2 *t$ ' have the same function.

(2) The function assigned to these terms in the transformed model, are also assigned to "elements" of the physical system. Well, if the mathematical transformation, above, is logically valid (verification), then, by that alone, the feature assigned to the physical system is not yet valid.

MDH 108.

She may be.-- In other words, one has, hypothetically-deductively, made a prediction concerning physical phenomena by means of mathematical transformations. Nothing more. But it is precisely these analogical reasonings from mathesis to nature that have advanced modern-day natural science immensely.

(B)III. *Experimental reduction (verification! falsification).*

(1) Verification, mathematically, coincides with logically correct deduction. Cfr. *supra pp. 8; 10.*

(2) The full reduction, physical, differs from the prediction.

(i) If the nightingale sounds two notes simultaneously (e.g. do and sol) then the ear perceives these distinctly. See above: $y = a \sin w_1 t + a \sin w_2 t$. But it does not perceive the note, which has as its model half of the strike notes, e.g. the note mi.

(ii)a. However, if the notes are sufficiently close to each other so that the ear does not distinguish them, then, also, the ear does not distinguish the sound, which has as its model half of the percussion notes.

(ii)b. However, the ear does distinguish the slowly modifiable amplitude (maximum pendulum swing, depicted in the term $'a \cos (w_1 - w_2)/2 * t$. This mathematical model becomes physically the knock, which the piano tuner, for example, uses to test and adjust the correct 'tuning' of a string (cybernetic language game).

(B)IV. *Evaluation.*

The analogical reduction is partly verified, partly falsified. In other words, mathematics is not always physical. L. Couffignal summarizes: "Conclusion: in the reasonings, which 'strike at' (model) natural phenomena, mathematics must

(1) to construct from the observed phenomena, models and

(2) to transform them into other models, which are logically valid (because axiomatically deductively acquired). Yet the 'models' so transformed acquire only a reality value (extra mathematical)

(a) thanks to additional analogical reasoning and they acquire truth value as models of "something," only

(b) if they have been verified by observation or testing

MHD 109.

The analogical reasoning ‘suggests’ possible truths, the experience (observation, trial) confirms or refutes them.” (o.c., XIV).

Note.-- Immediately is obvious

(1) that Anaxagoras, where he reasoned analogically in the physical (physics and astronomy) field, paved the way-a”ktèma es aei” (Thoekudides)-;

(2) that, compared to modern-day natural science, he was only in the early stages. Hence these digressions, which are comparative epistemology.

(3)B Anaxagoras’s physical to some of the ground draws.

(3)B1. General physical.

The question is:”Does Gershenson/ Greenberg claim, o.c., xi, ‘a unified theory of natural phenomena, for which he (=Anaxagoras) believed he had good observational Reasons’?”

The answer should be strongly affirmative. -- *cfr. supra p. 80* (thought-economic principle; see also *p. 101 (axiological abduction)*).-- But there is more

(i) *Fr. 1* speaks of ‘homou panta chrèmata’ (all things together), ‘panton eonton’ (of all being), ‘en tois sumpasi’ (in the common mass); -- all terms from a language play, which does not deceive as to a totality (cf. 40 (Heraklitean dialectic));

(ii) *Fr. 8* is even more formal: “The (substances) contained in our one cosmos (ta en toi heni kosmoi’) are, mutually, neither separated nor ‘cut off with the axe’: neither the hot from the cold nor the cold from the hot.”

Here even the collective structure (coherence) is clearly highlighted in the precisions, where in *Fr. 1* rather the distributive structure is clarified.

(iii) This will be shown later, when the nous (intellectus, mind) - see *above already p. 76 (universal mind)* - will be discussed. This universe spirit is unifying.

(3)B2a. Special Physic: Anaxagoras’ vitalism.

It is abundantly clear that Anaxagoras thought that life was the substrate of the physical universe.

MHD 110.

(i) cfr. *supra p. 86 (feeding process)*; (ii) cfr. *supra p. 87 (reproductive process)*.

Both processes are of a biological nature. -- Although mechanical models and cultural models (think of the painter mixing colors) are also introduced, in the process of the universe -- and very particularly in the coming into being of the chremata, the macroscopic things -- cfr. *p. 86 (bottom)*, -- yet one should not be misled: It is the biological processes that are fundamental.-- We explain this briefly.

(A) Basic vitalism.

After reading pages 86v. higher, his basic vitalism is easy to understand:

- a. in everything is everything - cfr *page 89 supra* - ;
- b. curiously, Anaxagoras repeatedly gives biological examples (meat, for example);
- c. this is not accidental: all primordial particles (homoiomeres) are essentially alive.

The problem, for Anaxagoras, is therefore not that the macroscopic ‘things’ are living (organic), but that they are non-living (inorganic). It is a matter of (mechanistically conceived) stoicheiosis (see *above page 2*) or combinatorics, which finds (or breaks down again) configurations.

Gershenson/Greenberg, o.c., 16, provide an appl. Mod.

1/ A grain of wheat, crushed between two millstones and turned into flour, is - according to Anaxagoras - lifeless. Reason: its structure (arrangement, organization), which was its life, has broken down.

2/ A grain, which is flawless, is alive. Reason: it possesses the structure of microscopic life. That structure is just a matter of dosing so that the deeper life (microscopic) can show itself. Thanks to the arrangement.

In other words, all matter is living matter, infinitesimal-microscopically speaking. Only that life does not show itself, if the arrangement is not there.

This ties in, of course, for those who know religious science sufficiently, with archaic “hierozoism” (all fluid is at once alive and “sacred”). Anaxagoras points this out physically.

MHD. 111.

(B) Biological insights.

So far, Anaxagoras proved to be a Physicist and Astronomer rather than a Biologist. Nevertheless, the scarce remains, which have been preserved, are more than worthwhile.

Although this insight may seem outdated, what *Ch. Lahr, logique*, 604ss., claims about ‘biology’ as a science is still philosophically valid: it studies not only ‘facts’ (processes), but also and especially ‘beings’. Instead of merely concluding from singular and/or private facts (as applicative models) to universal ‘laws’ (which have regulatory value), biology concludes from individuals to types. The collective structure here plays a special role in biological reduction.

(1) Lahr, 606, provides an applicative model: the ruminant ‘type’ always implies cloven hooves, compound stomach, molars with flat crown and always excludes claws, single stomach, canines and molars with knobbed crown, which are ‘typical’ of the predatory type.

(2) Lahr, *ibid.*, defines the Regulative model: A relation (i.e. steadfast relation of a plural of life forms (so e.g. the list of the appl. mod.) such that:

- (a) these are mutually inclusive in invariant and necessary ways and
- (b) these are exclusive to well-defined other life forms.

Since all living “beings” differ from one another in subordinate ways, even if they belong to the same biological group defined by the above regulatory model, we are, methodologically here, facing a special type of induction, the biological or typical, typological generalization.

Cfr. (i) *the Socratic induction* (above p. 92);

(ii) *the Baconian induction* (above p. 92vv; causal type

(iii) the biological-typical induction is, first of all, Socratic-generalizing (from s and/or p to u); yet it is mainly analogical (see above p. 101vv; especially appl. mod. on p. 103 (*comparative anatomy*)).

After all, it proceeds in two stages.

a. Phase The 1. sampling phase.

The biologist examines (observes) a random (stochastic) or haphazardly selected number of individuals (‘creatures’ is taken here in the volitional sense; cf. supra p. 5).

MHD 112.

Abductive phase sets in, immediately: he observes that a plurality of life forms belong together again and again (see *appl. mod. on p. 111*), to the exclusion of a well-defined number of others.

b. Phase 2.-- The generalization or inductive phase.

Suddenly it becomes clear to him: if all individuals of a well-defined group exhibit this 'typological' complementation ('inclusive' for a collection of life forms and 'exclusive' for the rest ('complement')) then also and a.o. the group (better: 'subgroup') haphazardly chosen and examined by him;

Well, this "subgroup" (even better: sample group), after verification of the inclusive set of life forms, and after falsification of the exclusive set (complementary set), indeed, exhibits said characteristics;

Thus all individuals ("beings" with the vernacular name) exhibit the typological complement.-- See above p. 11/13.

So much for one sample of biological reasoning.

Why do we dwell on it in this thoroughly logical way? Because, today, the microscopic processes (note: processes and not: 'beings') threaten to mislead most leading researchers in biology. It is true that 'life' has a micro-physical (micro-chemical) substrate, which exhibits its own laws. However, this one moment should not make our researchers forget that, apart from this moment, 'life' - notice the biological abstraction (see above p. 3 (*hylic type*); (*4speculative types of 'abstraction'*)) - also and, in the direct experience and dealings with 'life' - which, existentially, always remains an abstraction, though now in the sense of an alien 'abduction' -, first and foremost exhibits the moment of 'beings'. Life', particularly 'the microscopic substrate of life', comes after direct perception, and this as an abductive interpretation.

MHD 113.

Metatheoretical comment.

See *supra pp. 21/24 (Xenophanes)*.-- Lahr, *Logique*, 607, notes that the typological complement has a necessity and, perhaps, sufficiency (a-priori condition).

The physical laws (physical, chemical, biochemical, etc.). - Also the biological laws 'explain' (see *above p. 10 (regressive reduction)*) only partially the fact of observation, correctly interpreted, called 'type'.

The teleological view, so disdained, today, in the 'mind' - (understand: abductive and for the time being radically unproven interpretation, nothing more) of so many 'positivist-scientist subject-matter idiots' - apology for this expression from McLuhan (1911/1981), the Canadian communication theorist, and axed by many a critical (but science-critical) thinker -, the finalist interpretation - we say - 'partly explains (note: 'partly', and not: 'without more') the actual and volitional existence ('existence' in the mid-century ontological sense) of 'types' (which are also an abstraction, understand: abductive stage of thought),.

The reason: individuals of the same type are subject to the same rule of life. -- cybernetically expressed in system theory: they form together -- and with their whole structure -- a subsystem within a well-defined -- though in the course of the history of the earth's crust varying -- 'living center' ('environment'), which constitutes their supersystem. Cfr. *supra p. 91/92*.

More than that: in order to live, respectively to survive - the minimum objective or goal orientation -, yes, to live 'comfortably' ('ideally') - maximum goal orientation - the individuals, together and with their entire structure, must adapt in a 'harmonious' way (according to Lahr himself, o.c., 609). This 'harmony' - see *above p. 4/5 (bottom)* - is more than the currently generally accepted adaptation, understood cybernetically in terms of systems theory.

It even contains an aesthetic moment, which the Pythagoreans already clearly presupposed as at least the necessary moment of all "being".

This harmony is also 'dialectical' - *cfr. above p. 41 ff. (esp. 42/43; 63 (Pandora))*. About which more later.

MHD 114

Lahr, o.c., 607, as a theologian - which is philosophically fully justified in terms of research into the foundations of biological science (philosophy is, after all, essentially 'ontology', i.e. coextensive with all reality, including divine reality) - says, in this purely biological context: "The destiny (of types, namely to survive, to live, yes, to live harmoniously) presupposes, in its turn, the fact that there is a plan of nature. This implies, namely, that the individuals do not come into existence haphazardly, but that each one of them - according to his 'species' (type) - allows himself to be governed by an ideal type. The latter can be nothing other than the idea of the creator, who governs both the first creation and the further course of development in his lawfulness".

(B)1. Anaxagoras' biological base layer'.

By "base layer" we mean, with him, the fact that all life is one and teleological.

a. Problem mode.

Cfr. supra p. 73 (the concept).

According to *W. Jaeger, A la naiss.*, 174ss., Anaxagoras is the first physicist - for that was he, notwithstanding everything, in the first place - who consciously stated the purposiveness of the 'whole' universe - in non-utility redundancy - as an ascertainable truth. The word for this was 'diakosmèsis' i.e. by setting apart - *see above page 2 (stoicheiosis)* - orderly arrangement. Curiously, it was not the typical physicists, but the theologians - Xenophanes of Kolophon in the first place (cf. *supra pp. 21/24*); also, to some extent Herakleitos of Ephesos (cf. *supra p. 26 ('logos' = universe understanding)*; (*30'fire' = steering power*) - who 'saw' the purposiveness.

We do say "sawing" because the idea of "purposefulness" is an abductive operation and does not belong to perception, at least not universally.

Furthermore, Jaeger, o.c 175, also notes the fierce rise of techne, in all spheres of life in the V th B.C. 'Technè' is zowe1 skill as well as professional science.

Well, apparently, creatively eclectic - *see above p. 65 (regulat. model); (68appl. mod.); (74appl. mod.)* - Anaxagoras reconciled all these approaches, as it were, on a higher plane of thought.

MHD 115

Apparently, equally creative-eclectic Diogenes of Appolonia, (+/- -500/-400), pupil of Anaximenes of Miletos (*cfr. supra pp. 3/4*), proceeded; yet, instead of abducting the goal-directing 'force' -- not much more, whatever Jaeger thinks of it theologically -- separately, like Anaxagoras, t.o.v. the things and processes of fisis, Diogenes abdicates them immanently, yes, volidentically with the air and breath as hylc, - fluidic 'ground' (principle) of things and processes.

With these two, Anaxagoras and Diogenes, whom Jaeger rightly characterizes as teleological thinkers, a 'kèma es aei', an achievement for all time, sets in, however controversial it may be, in retrospect.

But what Jaeger (and he is far from alone) fails to see is that Diogenes is still thinking archaically-hylcally, amidst his physical-secular conceptions, while Anaxagoras is radically physicalizing.

In this very limited sense, Diogenes is similar to Empedokles of Akragas (*see above pp. 67/70: Empedoclean Theosophy*).

Socrates of Athens (-469/-399) - *cfr.* Jaeger, o.c. 179ss., Platon of Athens (-427/-347), who found Anaxagoras' teleology remarkable (Jaeger, o.c., 179) especially Aristotle of Stageira (-384/-322) will elaborate as fully as possible the teleological abduction of both teleological thinkers.

Jaeger notes, o.c., 175, that Aristotle claimed of Anaxagoras "that, in the midst of the first thinkers, he, with his 'nous' (world understanding), order-maker in the universe, came across as a sober one in the midst of drunks."

To summarize.-- We are standing to a complementary movement (think of the two arms of a scale):

1. As the hylc-dynamic conception of the universe - see now *higher p. 3/4 (Milesian form of hylc-dynamic thought)* - disappeared and

2. the primal ground of hylc-dynamic nature became 'speculative' and mere product of thought - *see above p. 4 (the three great speculative abstractions, especially the eleatic-zenonic)* - viz. a simple abstract matter, in the same degree "grew the mystery" - says Jaeger, o.c., 183 -, viz. (...) how such conceived 'matter', blindly accumulated, could yet show itself, in the many 'worker' ('erga') of the fisis, as in the service of an imaginative order and as purposeful by nature."

MHD 116

And Jaeger adds, rightly, “To the same extent it became a necessity to add a second ‘force’. This was then conceived as, analogous to the human mind, a force that consciously founded the world order.” (o.c., 183).

Exactly that, (1) that humane and (2) conscious, will become the problem concerning teleology insofar as it is evidently at work outside of man and his consciousness - in inorganic matter, in vegetable and animal nature, that is.

Not the teleology (of hylic-dynamic thinkers) in itself, but its humanistic abduction becomes problematic.

One finds this, *mutatis mutandis* (analogously), in the theory of goal-directed systems: there, too, resistance arises - and rightly so - against a humanly conceived goal-directedness.

b. Anaxagoras’ diacosmic solution.

Now that we have the needz. and arguably sufficient axiomata ready, we can critically follow Gershenson/ Greenberg, o.c.,55/57.

(1) *Unity Theory.*

“The unity - understand: similarity (homogeneity) - of the living world, in Anaxagoras’ theory, is so perfect that there is, it seems, no criterion (‘kritèrion’, means of sifting, means of sifting), useful for differentiating man, on the one hand, and, on the other, the rest of the plant and animal kingdom.

In fact, Anaxagoras ‘saw’ little profound difference. In his view, what distinguished man from the other living ‘things’ was only one of the most obvious physiological characteristics, man’s hand. According to Anaxagoras, only his hands enable man to leave behind the most advanced animals in the manipulative skills and technical prowess that give them the appearance of ‘wisdom’.”

MHD 117.

One sees here the origin of the narrative that the hand characterizes man or that, among the Greeks, the hand typified the stage of technology. It is a unity-theoretic 'gleichschaltung' – (equalisation'), excuse that fascist word - of man with what is non-human.

(2) *Snapshots.*

(2) A. *The breathing of plants.*

One rereads first *p.101vv. (analogy; analogical reduction)*. We see, after all, here again at work analogical reasoning and, immediately, analogical language play.

a/ Anaxagoras' observation colored by his unity theory, makes him 'establish' the following, viz., plants share with animals characteristics ('life forms'; cfr. *supra p 111v.*), -- which leads to typological uniformity; e.g., like animals, they build up their tissues from food (see *supra pp. 86; 110 (basic vitalism)*),-- thus proving that, like animals, they represent high energetically-ordered levels with respect to the supersystem (environment) in which they are situated;

Like the animals, the plants are information-processing systems (see *above p. 92 (immanent understanding of things)*):

- 1/ they move toward a light source;
- 2/ often they open or close leaves and/or calyxes in response to some stimulus;.
- 3/ They "point" (direct) their roots toward water.-

Anaxagoras - according to Gershenson/ Greenberg, o.c., 56 -"sees" in it - which is not a perception, but abductive interpretation -"expressions of desire and will," just as in animals.

Anaxagoras - so again explicitly stated by the proposers, *ibid.*, sees, in these determined (understand: projected) forms of life (*see above p. 111*), the fact - understand: projection from his vision of unity - that, just like the animals, the plants have 'nous' (intellectus, intellect).

b/ Analogical part viz, after this 'established' (theory-based interpretation) common life forms - see *above p. 102* (animal as model of plant; animal language game, with respect to plants; 102/103 (from a part of the similarities one decides to the 'alleged' whole) Anaxagoras supposes a phenomenon, apparently, not 'established' in his eyes, viz. the fact that all plants, like animals, also breathe (Gershenson/ Greenberg, o.c 55).

MHD 118

Which, in fact, seen in our present language game, is correct. Yet what, in his language game, is part of his analogical reasoning.

(2) B. *The breathing of fish.*

On a higher level of 'life' Anaxagoras also 'sees', by analogical reduction, the breathing of fish, i.e. creatures living under water; namely, he starts from the observation of the gills; like the movements of the chest, those of the gills are rhythmical: "their movement immediately suggests that, in the function of breathing, they play a role (functional resemblance or role identity), except for the fact that it is very unlikely that water contains air for the breathing of fish".

One sees there is only partial identity (see *above page 5 (analogy)*).

Anaxagoras can, however, on the basis of his basic theory (see *above pp. 77/78; 86/88; especially 89*), easily situate air in water: 'everything in everything'; applied here: hidden in water is, among other things, air. Consequence: fish, like all underwater creatures, can isolate air particles from water.

Anaxagoras, however, specifies the mechanism (see *above p. 91/92 (inflow / outflow; quasi-closed system)*): the gills take in air from the water and thus fill the vacuum created by the fish e.g. regularly expelling water, through the mouth. Immediately, the fish breathes the extracted air into its lungs. Just like land animals, which cannot breathe under water because they lack gills and cannot expel the excess of water sucked in through their mouths.

Again, partial identity. And thus analogy! I.e. from a part of the 'established' life forms decide on the whole. Except where 'common sense' no longer tolerates this. Or, also, the theoretical axiomata.

MHD 119.

Conclusion. -- G. Bachelard, *Le nouvel esprit scientifique*, Paris, 1934-1, 27, where he talks about the concept generalization (in the context it is about the non-Euclidean geometries), says that one only has to reduce the content to increase the scope. Cfr. Logic course (first year).

Anaxagoras is a master at this. Consider sense concept 'Nous' (mind): on *page 117 supra* we saw how, like the animals, the plants, too, have 'mind'. The less conceptual content, the greater conceptual scope: the less - translated - 'intellect' is human, the more 'intellect' is applicative with respect to animals and plants.

That Anaxagoras means it - so Gershenson/ Greenberg put it, at least - is shown by the fact that Anaxagoras sees only one difference with respect to the animals (the most advanced ones, at that), namely the hands.

1/ 'Analogy' is a certainly fruitful method. Current science works with it all the time. Therefore, we dwelt on it as long and thoroughly as possible.

2/ But Anaxagoras' nous doctrine, which we are now embarking on, still teaches us to be cautious of conceptual impoverishment in terms of content and conceptual enrichment in terms of scope.

(B)2. Cosmic Mind.

Gershenson/ Greenberg, o.c. 25, says: "The hypothesis of a cosmic mind was the perfect complement of Anaxagoras's theory of the composition of matter.

(i) After all, (...) at the heart of his theory of nature, he situated life. This 'life' was, thoroughly connected with all material things. Precisely here, at the basis of his theory of movement and change - see *above pp. 73/74* - we find the dynamic, rational and ordered aspect of life, namely reason.

(ii) Consequence: the whole universe took on the appearance of an infinitely large, perfectly structured organism. That universe organism was composed of the same basic substance as the living organisms and governed by the guiding power of the (cosmic) mind." So one sees how we rightly began with the 'basic vitalism' of Anaxagoras (*see above page 110*). And how we rightly continued with 'biological insights'.

MHD 120

(iii) Law-like heroism is another characteristic: "Nous" implies the idea of natural law. -- 'Nous' possesses neither whim nor will nor the power of decision.

On the other hand (...) 'nous' is the source of all changes in the universe, just as it is the source of all unchanging order.

Anaxagoras' theory of the cosmic nous was the expression of the conviction that everything in nature behaves in a strictly lawful manner. In other words, there is no such thing as "disordered behavior"; nature knows neither chaos nor haphazard process.

In short, law and order characterize all substance in the universe, wherever it is found.

Since every thing is governed by reason, according to Anaxagoras, 'nous' (reason) is in all things and 'nous' governs all things." (o.c., 25).

How far we are from Fr. Bacon's mockery of the investigation of purposiveness: "The search for purposiveness is unfruitful: like a virgin, which is God-consecrated, she gives birth to nothing." One recognizes Bacon's pithy style, thanks to analogy (*see above p. 101*).

How far we are from the ridicule of the XVIII - d' century enlightened "philosophers" in detecting purposiveness in "science". Purpose seemed to them only a matter of pleasure or usefulness of the man: "the noses are not made to wear glasses; the fingers are not made to be adorned with rings; the legs are not made to wear silk stockings."

Thus, at the time, one ridiculed finalism or teleology. And, immediately, the people whom one, in France, slaughtered with the mocking word "causefinaliers".

But the teleologist may replicate, "The eyes: are they not 'made to' ... see?"

The same teleologist can answer Bacon with his own theory: Baconian induction is detection of laws (*see above p. 92vv.*). And specifically causal law. Supposing for one moment that 'nature', which Bacon wants to 'torture' on this lawful expediency, was non-directive industrious and causative, what then with this induction and its result, belief in laws? Scientific 'method' is itself 'purposeful action'.

MHD 121;

(iv) In essence, then, two thoroughly different kinds of 'things' existed in reality (...):

- a. Infinitely varied substance, with its characteristics, the properties and
- b. 'mind'. The only dynamic agent, responsible for all that happens". (o.c., 25f.).

Which *Fr. Krafft, gesch. d. Naturw.*, 1, 278, confirms: "Empedokles and Anaxagoras (...) were forced to assume a multiplicity of unified 'being', against which they set the moving cause, as a (...) separate, principle accessible only to thought.

With Empedokles this was *neikos* (struggle) and *filia* (love); with Anaxagoras *Nous* (reason). Both thinkers are dualists (...): for them there are two essentially distinct types of principles.

- (1) A passive type, by which something happens, and
- (2) An active type, who works the event;
 - (1) a physical-material type and
 - (2) especially with Anaxagoras, almost already disembodied and disembodied thought type. These principles, analogous to the - since Hesiod (+/- -700) gradually forced into the general consciousness - dichotomy of man, were explained, as body and soul, the one conceived physically, the other conceived soulfully, yes, spiritually understood."

Which Jaeger - *see above p. 115v.* - affirms.

(v) We now listen to Anaxagoras himself: All the others (things) have share in everything. The 'nous', however, is something infinite, self-sovereign ('autocrates') and is mixed with nothing, but only, independently, existing in itself. If he did not exist in itself, but 'mixed' with something else, then he would have a share in all things; that is to say: if he were 'mixed' with them, - for in everything there is a part of everything, as I have said in the previous (volume) - then the (substances) mixed with him would hinder him, with the result that he would not 'rule' ('kratein') over every thing in the same way as he does as existing in itself and alone.

He is, after all, the finest ('leptotaton'), (finest) among all things and the purest ('katharotaton'). He possesses every thought about every (being) and the greatest power.

MHD 122

(...) All that was mixed and separated and separated, that was understood by the Nous. All that would be in the future, all that was, all that is no longer, all that is, that ordered the nous by setting apart ('di.ekosmèse').” (Fr. 12, in part).

(3)b2b. Special physical:

A physical incongruity proof.

We refer to *pages 6; 7/8; 9; 10/11 supra*. There we discuss an incongruity proof in the domain of the semiotic-artistic sphere (i.e., the sign language of mathematics). Here we face an appl. mod. in the physical order.

1. The aither as downward force.

According to Anaxagoras, sunlight (reflected) warms the earth's crust. Since this decreases with altitude, the atmosphere cools, as one goes up in altitude.

Yet, at some point, upon further ascent, one approaches the burning-hot atmosphere of the aither. Sometimes this aither may descend downward: thunder and lightning are caused by downward aithèr. When this happens, this 'celestial fire' enters clouds and ignites, in them, as 'lightning'. The clouds contain humidity: the aithèr is instantly cooled with a crackling sound called 'thunder'.

By the way: Anaxagoras denoted **a.** ordinary fire (as glow), **b.** the sun, - *cf. p. 79vv.* -, **c.** lightning, **d.** all other forms of (fire) glow, as 'fire glow'.

Such was his adherence to the economy principle: to indicate a maximum of observations with a minimum of abductive means. *Cfr. p. 30 (unitary theory; thought-economic principle); 100v. (paradigm).*

2. The aither as an upwardly directed force.

'Aithèr', according to Anaxagoras, is the lightest 'thing' ('chrèma') and the 'hottest' among all things. Corollary: 'normally' it is upwardly directed. Anaxagoras gives, nowhere, in the surviving texts, in the necessary and sufficient conditions for the fact of downward aithèr forms, which are non-normal.

The earthquakes Anaxagoras interpreted as caused by masses' of aither,"trapped" in the subsurface.

MHD 123.

These 'try' to force an exit, upward, until the earth's crust gives way,--at which point it 'trembles'.

The basis of observation is apparently the fact that earthquakes are often accompanied by volcanic eruptions, in which flaming gases and glowing lava of all types are driven upward from the ground. The observation 'suggests' (leads to abduction) tremendous pressures, perhaps caused by the glowing lava masses, rising to the surface, during and after the earthquakes.

We already know that Anaxagoras attributed 'force' to gases - *see above p. 96vv.* (*air as a 'gas' implying 'force'*) -. Also, Anaxagoras was convinced that hot gases are upward.

Anaxagoras gives no the necessary and sufficient conditions by which and how aither descends, falls and enters the subterranean regions. Here the gap is more yawning than just now: the two mechanisms, implied in an earthquake, are contradictory (*see above p. 9* (bottom)).

After all, earthquakes are caused by the upward aither,--which works downward precisely -- temporarily -- whenever the alther falls." (Gershenson/ Greenberg, o.c., 53).

"We see that:

- a. No "special" subterranean stoves,
- b. demons,
- c. underworld fires were postulated (= abducted) by Anaxagoras, for the purpose of explaining (regressive reduction; *cfr. Supra p. 11vv.*) such frightening disasters.

He saw in it the efficacy of the same incandescent aither, which serves to explain so many phenomena in his theory." (id., 54).-- In other words, the economy principle (*see above p.122*).

B3 Euripidean hermeneutics. (123/168)

(1) Introduction.

"The disease, from which, over time, the Greek culture suffered, has many names.

- a. According to some, she appears to be a deadly form of skepticism (*see p. 65*).
- b. According to others, a deadly form of mysticism (*see above pp. 12v. (beginning theosophy) 1; 67/70 (theosophy; appl. mod.)*).
- c. Professor Murray has called them "Failure of Nerve".
- d. My own title for it is systematic irrationalism. (*ER. Dodds, der Fortschrittsgedanke in der Antike, Zürich/München, 1977 (transl. v. The ancient concept of progress, Oxford, 1973), 111*).

MHD. 124

One could not have a better introduction to Euripides of Salamis (-485/-406), who belonged to the Perikleian circle of friends (*see above p. 71*; Euripides as an Anaxagorean, at least to a very limited extent).

(2) Main idea.

“(a) The whole of life - the foreground (perception) - is ‘sorrow’ - *see above pp. 24/26* (WB. Kristensen’s text) -. There is, immediately, no stopping the grief.

(b) But ‘the other’ (‘ta d’ hetera’: literally, ‘The other (realities)’ (Bakchai, 1005) - whatever that may be (*see above p. 55 (skepticism)*) - is more precious than ‘life’: it hides the enveloping darkness in clouds. A nameless something, which, across the world, gives ‘light’. Clearly, we yearn ill for it”. Behold, according to Dodds, o.c., a.o. 108f., the core idea of Euripides. Yet, with that, we, with Euripides, transcended the phenomenal foreground, to abduce from it the transphenomenal background.

(3) Applicative models.

(3)A.-- Euripides’ initiation recollections.

Neither the mythical theology (including the Homeric and the folk-religious) nor the political theology (what we would call the ‘official’, in its justification), but also not the brutal disbelief, which, around him, a.o. the ‘natural law thinking’ protosophists (*see above pp. 42/45*) displayed, typify Euripides’ religion as Dodds, o.c., 106 (“Euripides (...), in the broader sense of the word - *see above p. 118v. (confusion of concepts)* -, a deeply religious poet”) rightly says.

Certainly not the overly teleological-optimistic religion of Socrates of Athens (-469/-399), who appears to have been one of his “friends,” in the broader sense. (cfr. Dodds, o.c., 107)).

But whether Dodds, o.c., 107, is right, where he asserts that Orphic religion does not also typify Euripides, in that it, along with, among others, political religion (city-state religion) and Socratic, believed in some sense in an ‘apodeixis’ (proof) of things under the earth” we, along with other interpreters, draw into great doubt.

MHD 125.

To "prove" this view, of course, is impossible. However, one can make it more plausible. A. Di Nola, *La prière (anthologie des prières de tous les temps et de tous les peuples)*, (Prayer (anthology of prayers from all times and all peoples)), Paris, 1958, 348s. offers an extract from 'the Cretans', by Euripides, in which the orphic initiation is discussed in a way, which can only be based on one's own initiation.

The text, punctuated with capital letters if necessary for interpretation, reads:

"O thou, Born of a Turian, son of Eur.opè - Eur.opè became, in Crete, the mother of King Minos, the son of Zeus, the chief deity, and Europè.

This Minos became, after his death, one of the three judges in the underworld, -- fact which sheds light on the true nature of that kind of 'orphism' -- which Di Nola sees in it (wrongly, incidentally) -- but Dodds, o.c., 109f., indicates, o.i., more correctly:

In the "*Cretans*," viz., Euripides expresses "the deep religious feeling" (according to Dodds literally) that he has for the mysteries of the "Kouretes," i.e., the "priest of Zeus-the Cretan, -- mysteries, again according to Dodds, *ibid.*, which are closely related to the Dionysian mysteries (*about which higher pp. 56/64*).

O king of Crete with its hundred cities. I come, after I have left this divine temple, which the cypress trees of the island, cut with the steel axe, cover with beams, artfully joined and meticulously adapted one to the other."

Up to there 'une introduction de circonstance' (an introduction for the sake of an introduction, which hides more than it reveals (*see above pp. 45/49 (sacred-archaic hermeneutics)*; (*53*irrationalism, though purely philosophical-heroic)).

But now listen to the initiate, who, apparently, breaks his obligation of silence: Purity - not just 'orphic', but simply chthonic (telluric), i.e. in connection with the subterranean deities ('numina'), to be understood - has been the law of my life, since the day I was initiated into the mysteries of the Zeus of the Ida Mountains (the present Psiloriti on Crete).

MHD 126

After having participated in the omophagies (rites of eating raw meat) in order to become one with the deity, according to the rule of Zagreüs (the first name of Dionusos, whom Euripides 'identifies' with the 'Zeus Idaios', the Zeus of the Ida Mountains), who is the friend of the nocturnal excursions and after having, in honor of the Great Mother (the earth as the subtle source of both life and death), having waved the torch of the mountain, I have received there (i.e. in the mysteries) the double name of 'Cooereet' and 'Bakchant' (taking part in the procession). Covered with robes of perfect whiteness, I flee the birth of mortals, my hand does not approach the corpse that is buried, and I do not tolerate, among my food, anything that has lived".

K. Kuiper, Philosophy and religion in the drama of Euripides (contribution to the knowledge of the religious life of the Athenians at the time of Pericles), Haarlem, 1888, 114, points out, already in the last century, that "at least at the time of Euripides, the Cretan Zeus-Idaios worship showed such prescriptions". The author wants to say that Orphism does not necessarily have to be abducted into it. More than that, he wants to prove, throughout the book, that Euripides represented anything but Orphic-puthagorean religion.

Note.-- With the citation of the above excerpt we want to show that Euripides was undoubtedly an initiate. If not, he would not have written down such texts, which, no doubt concern his own person, and had them performed on stage.

(3) B1. -- Euripides' "religion".

Kuiper, o.c. 383, says that "Euripides was pressing the footsteps of Herakleitos. Referring to the Cretan Zagreus legend, the latter had declared, 'One and the same being is Hades and Dionusos' -see above p. 56 (Fr. 15: tragic - dialectical view)-, referring to the eternal alternation of death and life in the creative divine fire and, applying the law of the eternal cycle also to human life, Herakleitos had said "that the current of origin is also the current of destruction (...) and that the same cause, which makes us behold the light of life, brings before us the dark hades." (Thus Ploutarchos of Chaironeia (+45/+12s), who correctly reflects Herakleitos' ideas, though not literally).--

MHD 127

Kuiper, o.c., 384, specifies :”similarly Euripides finds, in the God of Crete, (...), a clear personification of the ‘deity’ he ‘worships’: the aither - *cf. supra p. 122v. (Anaxagoras’ physical interpretation)* -, from whom everything arises and to whom everything turns - *cf. supra p. 3v. (esp. Anaximandros v. Mil.: the legal order of the hylic principle)* -, ‘Zeus’ the life-giver, but also Hades the life-killer.

Kuiper, *ibid.*, specifies in what sense precisely Euripides, the skeptic, is interested in the mysteries: ”Now, moreover, called to Crete by the symbolic purity of the Idaic Zeus worship, he prefers to present this ‘god’ with his serious questions. The doubter, who, at so many art-rich violent temples of his homeland, had turned his head away, we now see, climbing the peaks of the panakra - i.e., as the name (‘pan.akra’) says, the very high mountains of Crete - to share, with the simple faithful, in the mysteries of this mysterious ‘god’ and to bring him, as our gift, the prayer of his entire life: -- The prayer for light”.

In other words, the rationalist Euripides - see above p. 19 (Aristotle’s interpretation of Zenon’s paradoxes); 21 (Xenophanes’ metatheory); (51 below: Herakleitos’ secularization resulting in ‘irrationalism’) - ”doesn’t see it anymore”, not on the grounds of non-thinking, but on rational grounds.

That which Dodds, o.c., 105, proves by texts, such as ”blessed” (‘olbios’) - the term of the mysteries, when they speak of eternal life - is the one that mastered the method (‘mathèsin’) of ‘historia’ (research). (*Fr. 910*).

These and other texts leave no doubt: Euripides was at home in the Milesian natural-philosophical method of inquiry. Although a poet rather than a thinker himself,