

C.6-2 Elements of harmology

Location

6. Courses from 1990 to 1993

6.1. Elements of Philosophy of Thought and Methodology, 1990-1991, (EDM1-EDM71, 97p.)

6.2. Elements of harmology 1990-1991, (EH72-EH201, 157p.)

6.3. Elements of Logic, 1990-1991 (EL202-EL321, 351p.)

6.4. Elements of Methodology, 1990-1991 (EM322-EM363, 334p.)

6.5. Elements of Platonism, 1991-1992 (EP1-EP117, 147p.)

6.6. Elements of Platonic Psychology, 91-92, (EP1-EPS114, 150 p.)

6.7. Elements of Rhetoric, 1991-1992 (ER1-ER300, 356p.)

6.8. Soloviev Cosmology, 1991-1992 (SK1-SK65, 78p.)

6.9. Apocalyptic Theology, 1992-1993 (AT1-AT71, 79p.)

6.10. The Healing of a Man Born Blind, 1992-1993 (GB1-GB85, 104p.)

6.11. Elements of thinking, 1992-1993 (logic) (ED1-ED79, 91p.)

6.12. Elements of Rhetoric, 1992-1993 (R1-R61, 70p.)

6.13. Elements of Philosophy of Culture, 1992-1993 (CF1-CF84, 92p.)

Remark: *This course has been provided with larger spacing than the text of the original course. References in the older version of this text therefore do not correspond to the current pagination of 'Word'. For this reason, the original pagination is displayed each time with the letters 'HAR'. They stand for 'Elements of HARmology', and are derived from the old page number.*

Introduction:

This course is about reality, about discussing everything that exists, in whatever way. The Ancient Greek 'to ontos' means 'to be', 'to exist'. We inherited many insights regarding this from Ancient Greek culture. Hence, we speak of 'ontology' or the study of being. The existence of 'being' is also the premise of this course. Yet, for us humans, reality remains particularly complex. We cannot help but limit ourselves to samples. We do this through generalization and generalizing. By generalizing—attempting to surmise the collection of existence—and generalizing—forming a view of the whole—we can form somewhat of an idea of reality. We arrive at basic concepts and basic judgments. We order reality, both around us and within ourselves. This leads us to a harmology, a theory of order, and to logic. In doing so, we arrive at concepts that we use when formulating judgments. We then attempt to relate those judgments to one another in a meaningful and logical manner to form valid judgments.

Here are the four major parts of this course:

6-1: Elements of theory of thought and methodology (sample 1 to 10, p. EDM1

to EDM 71)),

6-2: harmology (sample 11 to 25, p. HAR72 to HAR201),

6-3: Logic (sample 26 to 41, p. LOG202 to LOG321) and

6-4: applied logic or methodology (sample 41 to 46, p. MET322 to 363).

The page numbers in the four parts simply follow one another.

C.6-2 Elements of harmology

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EDM72

11.-- Harmology (theory of order/order theory) (72/76)

As stated: we 'establish' ('found'), we lay the foundations of the theory of thought and method.

1. The first preliminary lineup...

is the theory of being (metaphysics, ontology, -- not without reason, called 'first philosophy' by Aristotle (EDM 10)). We have provided its essence, namely the basic concepts and basic judgments which logic and methodology also

employ. With 'being', that reality ('not-nothing'), we take root in the testable, that is all that can be found and, immediately, discovered. Cf. *EDM 10*. Logic and methodology, after all, do not hang in the void and merely the informal.

2. The second starting lineup...

is one or another theory of order. -- The term 'harmology' is related to the Ancient Greek 'harmonia', literally joining, fitting together. We have made 'harmony' of it, that is, the beautiful and sublime form of fitting together. Not surprisingly: the Paleophythagoreans - *EDM 03* - (-550/-300), in their artistic disposition, perceived the world and life as 'cosmos', all that adorns, ornament, -- beauty.

Since then, 'harmony', in the sense of "integration that creates beauty", has become a fixed component of many Greek philosophies and served as an ideal in sculpting, painting, or constructing buildings. The Greek plastic arts bear witness to a (conscious or unconscious) doctrine of order.

Note : what so-called 'Modern' mathematics calls 'order (relation)' is only one aspect of the Ancient Greek concept of order (arrangement): namely, the relationships between the elements within a set (= equivalence relation). Think of the relationship between "exactly one/ some/ all".

The identity of philosophical ordering.

Is 'identitive' anything that is interested in either total identity (reflexive or loop-shaped relationship of something with itself), partial identity (analogy, partial identity), or the negation of both? Cf. *EDM 25, 66*. We can express this in the form of a range (gamma, differential): totally identical - partially identical (analogous) - totally different (= totally non-identical).

What is expressed in the "logical square", for example: all – some yes – some no – all no (none).

HAR73

It is abundantly clear that the comparative (= confronting) method – *EDM 67* – is at work here: how else would one perceive similarities and connections (= relationships)? Note well: do not confuse 'compare' with 'equate'. In more than one instance, the term 'compare' is used in the assimilative sense, namely, equate. Here it is used in the sense of:

(i) more than one given ('his(the))

(ii) 'confront' with one another to see which connections can be found and discovered.

Position

Some logicians and logisticians claim that classical logic has no regard for relations. The reader should have long since been cured of that fundamental error by what precedes. Review, from that perspective, *EDM 20/27* (*tropology*), especially *EDM 26* (' *being*' as not manifold or monosenseful, but identitive).

Throughout the preceding ontology, we have continually related data to one another, compared them, and confronted them with one another with a view to connections and relations. -- Let this be said once and for all.

Note: That the classical Greeks had a keen eye for relations is evident, for example, from *EDM 36* and following (the categories under which the relation is explicitly mentioned; the systems that constantly play a role (*EDM 37*)).

Decision.

Ontologically grounded harmology is, in fact, a science of relations.

Library st. :

-- Descamps, *La science de l'ordre* (*Essai d'harmologie*), in: *Revue Néoscholastique* , 1898, 30ss.;

-- Franz Schmidt, *Ordnungslehre* , Munich/Basel, 1956.

Schmidt, oc, 11., says: "The entire metaphysics (ontology) of the West – from Plato of Athens (-427/-347) to Friedrich Nietzsche (1844/1900) – can be seen as a science of order or ordering."

Consequence: every metaphysical system therefore appears as one of the many ways in which one can conceive of order (or order).

Which merely confirms what St. Thomas Aquinas (1225/1274), already in the 13th century, the pinnacle of Ecclesiastical or Scholastic thought, said: "Sapiëntis est ordinare" (It is characteristic of the philosopher to order).

Which merely repeats what *St. Augustine* (354/430; leading figure of Patristics) says in his treatise *De Ordine* , On Order.

HAR74

Not only ontology, the basis of the theory of thought and method, -- but also logic and methodology are orderings.

Josiah Royce (1855/1916; idealist thinker), in his * *Principles of Logic* *, New York, 1912-1 (1960), 9, states that logic is a normative—developing prescriptions—specialized science. He makes every effort to demonstrate that traditional, 'formal' (= concerning the form of being) logic is merely a part of 'the science of order'.

Note-- Our psyche (soul-life) and ordering.

People who associate with the disturbed—mentally disturbed, in whatever form—and/or with the possessed, quickly observe that precisely the ordering spirit (understand: intellect (intuitive) and reason (discursive), disposition (feeling values), will (choosing values)) falls into paraphrosune, into thinking alongside it, in such beings—which, according to Platon, we do especially during the night dream and, by day, in crime. Cf. *EDM 61*. —Let us briefly touch upon a few articles on the subject.

1.-- *R. Declerck, Dr Olga Quadens, This is how you should be able to work*, in: *Eos* (Technology for people), 12(1984: Nov., 119.

Human consciousness and sleep—especially certain phases that closely resemble waking states (REM sleep)—show a correlation. Note: REM = Rapid Eyes Movement.

In this process, the following occurs: from 'noise' (static, disturbing disorder), our brain system—instrument of our mind—creates order as a self-ordering system. In the disorder of our perceptions, namely, our brain creates order. It thereby demonstrates phenomenally (*EDM 17*) that a presupposition is at work in this order-establishing activity (rational; *EDM 18*), namely the mind as a system organizing itself and what it perceives.

Remarkable finding: Ulf Merbold, a test subject, showed, during the first two months of his stay in space, “in a state of zero gravity”, a strong increase in inhibitory activities. Thus O. Quadens in the interview, ac,119.

Dr. Quadens, who often worked with astronauts during the preparation phase, says: “Biochemists (*note*: chemists who study life phenomena) view the functioning of the brain too much as a biochemical whole. -- We do, admittedly, view the brain as a biochemical structure within which information circulates. But there is much more: the perceptions that a person acquires during the day are arranged and organized within this framework (*note*: mental framework) during REM sleep. (*Ibid.*)

2.-- *Liesbet Van Doorne, Schizophrenia can be cured in many cases* , in: *De New Guide* (Ghent), 07.12.1984.

Here we find ourselves in the midst of psychiatry (care for the mentally ill).
-- This concerns a study day in Kortenberg for domestic and foreign experts.
Findings:

i. Schizophrenia – a term denoting a split personality – is, for example, the fact that someone imagines that he or she is Napoleon; the schizophrenic is himself or herself and at the same time, in an intersecting manner, someone else; in both diagnosis and treatment, too many unknown factors ('elements'; *EDM 01*) are still at work;

ii. Schizophrenia is defined by experts as “the disease in which one isolates oneself from reality”. - Compare with what we, in a Platonic spirit, have called 'para.frosunè', delusional thinking (“*thinking beside it*”; *EDM 60* : the unreal man).

Incidentally : in traditional psychiatric terms, 'psychosis' (mental illness) is distinguishable from both 'psychopathy' (one characteristic usually disturbs the behavior) and 'neurosis' (nervous disease).

Van Doorne writes: “(Schizophrenia) is a psychosis that arises because one wants to create order in the disorder of one’s life. One can no longer keep up with “the order of life” in which one finds oneself, and one adapts an order of one’s own.”

Perhaps this explains the fact that schizophrenia mostly occurs in young people from the age of sixteen: it is precisely then that significant demands are placed on the individual. One must chart a career and build relationships. The relationship with the familiar family begins to change. All of this gives rise to confusion and tension.

The illness manifests itself (...) as the young person begins to isolate themselves and, for example, can no longer keep up at school at all. Or those who are already working can no longer respond to the demands placed upon them.

In the attempt to create order in one's own life—which consequently no longer aligns with the order of the life around it—thinking becomes disturbed and one ends up in a psychosis.

Manifestations of schizophrenia are delusions (“I am being irradiated when the radio is playing”), hallucinations (“One hears voices”), and stress (*note*: feeling of overload).

HAR76

Contact with the environment was lost. Emotional life became blunted. There was a loss of initiative. One withdrew into one's own 'inner world'. The result of this was mutism (not speaking) and abnormal body motor skills—either a total absence of movement or an exaggerated and frequent repetition of a specific movement.

Note -- (1) Those who associate with possessed people discover exactly the same phenomena. This may explain why experts say that there are “too many unknown factors” at work. And this refers us to *EDM 18* (trans-empirical/trans-rational aspect, namely that one person or group of persons, in the invisible, crosses through thought).

(2) In existential terms: the schizophrenic is thrown, situated, against his will, in an actual order which says 'nothing' to him (*EDM 50 : the purely negative and especially the frustrating privative 'nothing' ; EDM 57 (resistance)*); quite the contrary; he/she then designs, as best he can, an order of his/her own, situates himself/herself in his/her own way. Cf. *EDM 37 (situs/habitus)*.

This is all the more true since, since 1855, we find ourselves in the Postmodern multiplicity, indeed, sometimes contradictory multiplicity ('pluralism') of multiculturalism (cultural multiplicity; *EDM 41*) and its many confusions.

Conclusion. -- From the foregoing, it is abundantly clear that a theory of order or harmology is more than a mere 'intellectual' pursuit, suitable for specialists in logic or methodology.

Now when we design such a theory of order, based on Primitive, Ancient, Medieval (Scholastic), Modern, or Postmodern data, we ought to know that, in addition to scientific rigor (*EDM 15 : Peirce's 'scientific method'*, which aligns with “what is real”), we also bring about mental health.

It is known that the Paleophythagoreans, perhaps more and with greater emphasis than the other Ancient Greeks, were fond of order. Their sense of the numerical and spatial mathematical side of reality—they founded arithmetic and geometry—was accompanied by a philosophical concern for health—sofrosune, spiritual health (*EDM 06*). Did they already have such a clear understanding of the connection between clear thinking and mental health? In any case: we know what is at stake with a theory of order.

HAR77

12.-- Harmology: theory of relations. (77/79)

Let's start immediately with a little example.

Ch. S Peirce (*EDM 12*), one of the great founders of the logistics of relations, devised, in his imagination, a “closed system”, of which every member is either a teacher or a student. However, such that no one can be both at the same time.

He labeled the position “teacher/teacher” as 'colleague'. He called the relationship “student/student” 'fellow student'. -- The position “teacher/student” was called 'student'. And the position “student/teacher” was called 'teacher'. The latter sounds 'invented', but let us just accept it as “technical terms”.

To facilitate the step towards logistics, which is mathematized logic, Peirce introduced letters—abbreviation symbols—instead of the terms 'teacher' and 'student', etc., in order to be able to calculate logically. In other words, to be able to implement a 'calculus'.

G. Jacoby, *Die Ansprüche der Logistiker* , 53/55, states upfront that the phenomenon (*EDM 17* ; // 55, 58, 60, 71, 74) “mathematical logic”—rationally speaking (*EDM 18*)—has as a presupposition—willingly or unwillingly—identity (*EDM 25*), the core of traditional ontology.

Note -- For those already unfamiliar with logistics, please note the following.

Erwin Schroder (1841/1902; his *Algebra der Logik* (1890/1895) is a founding work) and, even more clearly, Ch.S. Peirce are the founders.

Let us note in passing a few possible symbols. -- Some write 'aRb' ('R' = relation) for “relationship between a and b”; others write 'r ab' (read: “the

relationship 'r' between 'a' and 'b'"); still others express the same thing as 'B(a,b)' (read: "the relationship 'B' between 'a' and b').

To generalize, one uses terms such as 'x', 'y', 'z', etc., so that one can say "For all instances (instances) of 'x', it holds that ...". Let us now consider some types of relations.

1.-- The reflexive (loop-shaped) relation.

The logisticians express themselves as follows: "the relation of something – e.g. 'a' – to itself".

In ontology, one says exactly the same thing but differently: "something coincides (totally) with itself". The term 'relationship' – compared to everyday language – is used metaphorically (*EDM 20*) in logistic language, in the sense that a relationship in colloquial language presupposes more than one term, whereas the total identity of something with itself, naturally, represents only one term. The loop shape is its symbol. In technical language, 'reflexivity'.

HAR78

Note -- Something of this can be found in the reciprocal verbs: "I look at myself", "I already see myself standing there", etc.

2.-- The non-reflexive (non-reciprocal) relations .

We take a few samples.

a.-- The mutual (symmetrical) relationship.

Let no one confuse 'reciprocal' with 'mutual' (as in the responses to New Year's wishes). The relationship between both sides is answered by the other side.

Example . -- 'Mutual marital infidelity' - a well-known term; -- 'with mutual consent'. -- Also: "originating from both sides"; "argument and counter-argument" (as in a heated argument); -- in natural science "work and counter-work" (= action and reaction), if from both sides.

Note -- One should not think that this remains merely a theory detached from life and the world. -- Terms such as "Marriage Encounter" are known. In a certain philosophy, far removed from the world of natural sciences, such as in the works of *Fred. J. Buytendijk* (1887/1974; Dutch physiologist and psychologist; known for his beautiful work 'De vrouw'), one concept is central, namely the encounter, that is, the mutual acquaintance between more than

one person, which takes place on a deeper level over time. When, in an 'encounter group', a gesture or a word receives no response, there is no question of a true encounter. — Just as in a marital relationship. Unrequited love lacks precisely the 'symmetry'. The 'each other' is not there (*EDM 50 : nihil privativum* ; “True love is nothing”).

b.-- The transitive relationship.

At least one intermediate term is situated between two or more terms of the relationship. -- In mathematics: the relationship from a across b to c.

In everyday life: “The friends of my friends are also my friends.” A more subtle example: “She married him because of his possessions” (she – through him – possesses).

c. -- The clarity relationship.

The essential core here is 'addition' (= unambiguous relationship). -- For example, “My girlfriend and I”. Exactly one term is located on both sides of the relationship. -- in this case: I and my girlfriend. -- The unambiguous relationship becomes ambiguous in two ways: 'one-ambiguous' and 'many-ambiguous'.

HAR79

Just one teacher, on the one hand, a multitude of students, on the other. -- Many Nazis, on the one hand, one Führer (Leader), on the other.

Note: One may consider the number of terms involved: dyadic (two-part) is a relationship if it comprises two terms; triadic (three-part) if there are three. One says 'n-adic' if it concerns 'n' terms.

E.g.: “I give you this little book” (I/ you/ little book).

An application.

The relations of clarity play a fundamental role in interpreting ('interpreting') or giving meaning. -- One need only consider the fact that King Baudouin, for conservative Catholic reasons, refused to sign the law regarding abortion passed by Parliament.

For days, for weeks, the Belgians (not to mention the foreigners) indicated the same fact in more than one sentence. Which points to a “one-manifold relationship”.

Sociometry.

Jakob Levi Moreno (1889/1974) is the founder of psychodrama—reserved for doctors. In it, the actors allow psychological (and, perhaps, physical) ailments (including conflicts) to surface within the group. This is achieved, for example, through theatrical performance.

Normally, this becomes a – what the Ancient Greeks called – 'katharsis', purificatio, cleansing process, purification process. Also: 'growth process'.

In such a growth group, attention is paid primarily to the relationships. To the reflexive (what the participants think about themselves), -- to the reciprocal (action and reaction, followed by another action), -- to the transitive ("Would you introduce me to her?"). It becomes a communication and interaction analysis. -- The scientific approach to such a society-in-miniature is called 'sociometry'.

General decision

Theory is 'dry'. But life is 'juicy'. -- When we, while living, enter into relationships—if they are lasting, relationships grow into 'connections'—then this can be rationally illuminated in the theory of relations. The opaque life, called 'anankè' by Plato, becomes more transparent through it.

HAR80

13.-- Harmology: relations, logistically speaking. (80/89).

As already stated: 'logistics' is mathematized logic. -- Before we proceed to the actual philosophical harmology, let us pause briefly at the connections—connectiva, 'funktoren', 'modifiers', -- conjunctions—which are so many relations, as they have become customary in recent logistics (logistics only really takes off in the middle of the 19th century). Not that exact knowledge of them is absolutely necessary for correct thinking. But they are an extremely welcome refinement of ancient intuitions.

1.-- The encompassing (implication).

Upon closer examination, the fact that "something encompasses something" is a matter of whole (total) or partial identity.

For example: "Something encompasses ('implies') itself completely" (= totally identical encompassment). -- "Something encompasses partially (yes, partially not; EDM 68: *restrictive relation*) something else" (= partially identical encompassment). -- "Something does not (absolutely) encompass something else" (= negated encompassment).

Now reread *EDM 68* regarding the 'quality' (content) of a judgment: the encompassing, in its three fundamental types, is the secret presupposition.

The identity basis is hereby crystal clear. For either total or partial identity is expressed, or it is denied (the negate). It is invariably the stake.

Incidentally: why Aristotle calls ontology the 'first' philosophy, apparently now even more strongly than ever. For it is the doctrine concerning the 'archai', principia, presuppositions—of a comprehensive nature, which is always, in whatever way, at work.

of , **inherent to** ”,

Let us view the scope in the reverse direction.

(1) “Something comprises (totally, partially or (totally) not) anything”.

(2) “It is inherent to the second thing to be the first thing (total, partial or (total) not)”.

Let us take a concrete (*categorical*; *EDM 36*) example.

“If it rains, this implies (= partially) that the rained things become wet.” --
“It is inherent (inherent) to (rained) things, if it rains, - partially - that they become wet.” One says exactly the same thing, but the predicate (model) of the first judgment becomes the subject (original) of the first.

Decision. -- “Inherent to”, is actually encompassing.

HAR81

Semiotic.

Since Ch. S. Peirce (*EDM 12*) and Ch. Morris (1901/1971; *Foundation of the Theory of Signs* (1938)), the theory concerning the sign ('theory of signs') has been called 'semiotics' (whereas others, following in the footsteps of Ferd. de Saussure (1857/1913), use the term 'semiology').

Long before the study of signs, the sign was used in practice—for example, in mathematics. As soon as logic became a 'calculus' (accounting, calculating), it followed the same path: it introduced (abbreviation) signs—in order to be able to calculate with them.

Application.

(a) The implicator ').

(in Peano's pasigraphy) or, especially, ' $\rightarrow$ ' - A deduction (consequence, 'inference', implication, encompassing) is then 'drawn' as follows: " $p \rightarrow q$ " or " $p \rightarrow q$ ". Which is an implicative. In the sign system of J. Lukasiewicz (1878/1956; Polish thinker and logician), one writes 'Cpq' (in colloquial language: "if p, then q"). Which means that pq implies (encompasses). Or that q is inherent to p.

(b) The bi-implicator

(EDM harm 78 (reciprocal relation of symmetry) " $p \iff q$ " or even " $p \equiv q$ " (in Peano's pasigraphy: " $p \cdot q$ " expresses – what is called 'equivalence' (equal value, equal worth). -- In colloquial language: "if p, then q and vice versa" (q is specific to p and vice versa, or "if and only if p, then q").

Applicable model

J. Royce, **Principles of Logic**, New York, 1961, combines (pairs) the terms 'singing' and 'dancing' into "Singing and dancing, encompasses dancing" (note : this is intended here purely 'combinatorially'). In other words: "Singing and dancing encompasses, among other things, dancing". If we introduce the signs 'x' and 'y', then it becomes: " xy (the logistic product) $\rightarrow y$ " (in Peano's language: " $xy \cdot y$ ").

In colloquial language: " xy encompasses (around) y". Or: "(Around) y is specific to xy". Or: "If xy, then (around) y".

2.a.-- The reflexive relationship.

In their sign system, logisticians usually neglect total identity in this context, but more ontologically it has its place here.

Let us take Royce's example, in which the terms 'singing' and 'dancing' are combined. "Singing as singing", "dancing as dancing". More abstractly: "x as x", "y as y". That 'as' means that one is talking about the (total) identity of, for example, singing, dancing, -- x, y, etc.

To anticipate: "encompassion as encompassion" -- "irrelatability as irrelatability", "negation as negation", "sum or product as sum or product". "As something" is "something as so- or such-as".

HAR82

The absurdity.

The contradiction (inconsistency, contradiction) is the counterpart of reflexive identity. -- For example, not-singing as not-singing, -- -x as -x are

diametrically opposites. Thus, for example, “singing and dancing” and “not-singing-and-dancing as not-singing-and-dancing”. -- Semiotically: “x is irreconcilable with the negate of x” or even “x or (= aut) x (negate)”, because both terms are totally non-identical.

Note -- Another name: “exclusive (strict, dilemmatic, excluding) disjunct.”
Incidentally : the Latin 'aut' means 'either, or'.

2.B.-- The non-reflexive relationship.

Logistics has two types.

a. The logistical product.

The phrase “singing and dancing at the same time” (= “singing and dancing”).-- Semiotically: x and y can be combined into 'xy'. -- Another name: conjugal, represented by the conjunctivist '^'. For example, “x ^ y” (= “x and y at the same time”).-- In Lukasiewicz's language: 'Axy' (= “x -and-y”.

b. The logistic sum.

“Singing and/or dancing” implies that one either sings or dances (alternately, alternatively) or sings and dances. -- Semiotic: “x + y”. -- Another name: disjugate, whose disjunctive is 'v'. For example, “xvy” (= “x and y and xy”). -- In Lukasiewicz's wordplay: 'Dxy'.

The denial:

Think of the negative (purely descriptive) and the privative (disappointing) nothing (EDM 50).-- Royce's model: “Instead of singing and/or dancing, one can also do nothing”.-- Semiotic: the binary term '1 or 0'. If one denotes x, y, xy, or x+y with '1', then one denotes its absence with the sign '0'.

Note: Other name: “inclusive (alternative, including, -- divisive) disjunction”.

Incidentally in Latin: 'vel', which means 'and/or'.

Note -- A negate (denial, denial, negation) is, in Lukasiewicz' system, represented by the negator (denier) 'Nx', 'Ny', 'Nxy', 'Nx+y' (instead of 0x or 0y, etc.).

Note -- Some formalized systems work with 'I', i.e. 'incompatible with' (e.g. 'x I y' is “x incompatible with y”), and their combinations.

Conclusion . -- The total (reflexive) identity (and its negation) and the partial (analogical) identity (and its negation) are the supporting ideas, ontologically speaking, behind these logistic 'values' and 'signs' ('symbols').

HAR83

Note -- The axiological or value-theory relations .

EDM 33 (the transcendental 'good' (value)) briefly drew attention to the object of value judgments ('evaluations').

Incidentally, a couple of 'connectives' should be mentioned here.

1. Refusal judgment: “neither one good nor the other” (if, for example, two goods (values), then neither of the two).

2. Exchange solution: “if, for example, more than one good, then one good and not the other.

3. Variety: “if more than one is good, then now one, then the other”.

4. Preference: “if more than one good, then preferably one over the other”.

5. Combination: “if more than one good, then all”.

The position of J. Royce.

Royce, **Principles of Logic **, 74, says: “The actions (*note* : of something) form a collection of data (entities), which are, in any case, governed by the same laws as those governing classes (*note*: concepts) and judgments. The so-called ‘algebra of logic’ can be applied to them.”

Indeed: through mathematization, one can 'treat' the life actions of, for example, man as concepts and judgments. First, introduce signs—abbreviation signs. Then 'combine' (establish mutual relationships), as we just did. This yields a kind of 'algebra', a 'calculus', a calculation that clarifies the life actions—just as through a general theory of relations, opaque life—'anankè', that which happens to us without us seeing through it—becomes clearer (*EDM-harm* 79). To speak with Platon: more 'nous', intellectus, spirit, enters our life.

The content once again.

There has been a great deal of discussion regarding the implication. -- We started it. Now that we are concluding, one last thing.

The enclosure can represent all connectives. -- For example:

A. The reflexive relation: “if x, then x” (“x if x”).

B. The non-reflexive relations

- a.** Irreconcilability: “if x , then not $-x$ ”.
- b.** Non-contradictory exchange solution: “if 1, then not 0”.
- c.** Sum: “if $x+y$, then either x or y or both ($= x+y$)”.
- d.** Product: “if xy , then both x and y (simultaneously, together)”.

One can see it: reflexive (totally identical) or non-reflexive (partially identical or negated) relations!

An application model.

Let us apply what we have just learned to a paralogism (erroneous reasoning; -- to be distinguished from 'sophism' (deliberately incorrect reasoning)).

HAR84

Note -- One can prove something directly (direct proof), but one can also demonstrate it indirectly (indirect proof). Proof by contradiction (e.g. in mathematics) and the “argumentum ad hominem” (literally: an argument played against someone) are types of this. Here, the premise of the believers in God (*EDM 51*) is played out against them. Specifically: the undeniable fact of nothingness—the privative nothingness, that is;—namely, physical and ethical evil (*EDM 51ff.*)—is turned against the existence of God. One also occasionally encounters this kind of 'argumentation' in logic courses.

A.-- Colloquial wording.

Here, in order, are the components of the reasoning for “if you assert that, then it follows what you refute”.

Preface 1 . -- If God exists, then He is good and almighty.

But either if God can prevent evil but does not want to, then He is not good; or if He wants to prevent evil but cannot, then He is not omnipotent.

Prefix 2 . -- Evil can only exist either if God can prevent it but does not want to, or if He wants to prevent it but cannot.

Preface 3 . -- Well, evil exists.

Nazin . -- So God does not exist.

As can be seen, the structure of a valid argument is such that at least one subordinate clause follows from a preceding clause (containment, implication of the subordinate clause in the preceding clause(s)). The preceding clause or clauses contain at least one subordinate clause.

Here: if the three preceding clauses, then the one concluding clause. -- The preceding clauses begin with the God-believing premise: "if God exists, then ...". From this follows, unless it is a paralogical reasoning: "therefore God does not exist". From the affirmation of God flows, via reasoning, the denial of God;

B.-- Logical syntax.

This term from semiotics (the study of signs) means that one does not look (so much) at the content of what the judgments say, but at the logical relationships between the sentences. These are then cast into a symbol-shortened form, rewritten.

a1.-- Rewriting of the sentences.

'God exists' = p;

'God is good' = q1;

'God is almighty' = q2.

'God can prevent evil' = r1;

'God wants to prevent evil' = r2.

'Evil exists': s.

HAR85

a2.-- Rewriting of conjunctions.

Now the sentence connections. -- The encompassment (implication) =). (Peano's pasigraphic method). -- The internal contradiction (contradiction) = w (which corresponds to the Latin 'aut'), namely or (in the sense of dilemma). -- The negation = p (negation of p). -- Behold the connectives.) -- -- **The logical syntax (cohesion) of the reasoning.**

Look what it becomes when one examines the 'skeleton' of the reasoning.

VZ 1: p).q1 ^q2 ^r1 ^ r2 (negate)) . q1 (negate) w r2 ^ r1 (negate) . q2 (negate)

VZ 2: r1 ^r2 (negate) ^ r2 ^ r1 (negate)). s

VZ 3: s

NZ: p (negative).

The entire reasoning, now: VZ 1 ^ VZ 2 ^ VZ 3). NZ.

Read: if VZ 1, VZ 2 and VZ 3, then NZ.

The enclosure governs everything. The other connectives (joints) serve merely to connect what the enclosure governs.

C.-- Logical semantics and pragmatics.

Consider that entirety of connected signs (the syntactic aspect). If one were now to 'fill in' with sentences other than the sentences of which they are the

syntactic representation, this would succeed in a number of cases (result in the correct outcome).

Semantics, in semiotics, means examining the sentences themselves and their meanings, starting from the syntactic signs. Reason: the purely syntactic signs mean all sorts of things! -- Pragmatics, in semiotics, means examining the intentions with which the sentences are spoken (or thought): here, namely, refuting the claims of the believers in God.

Note-- “Epistemological screening”.

'Epistemology' means 'study of science', a part of Gnosticism (the study of knowledge). -- The Gnostic considers the question of whether, yes or no, the sentences that are spoken contain truth (EDM 32ff.). -- What we are going to do now.

C.1.-- Theodicy.

Literally: “justification, defense, of God”. The term, which denotes an ancient matter, comes from the Cartesian G.W. Leibniz (1646/1716). The object of that branch of theology is the relationship “God/evil”: how to 'reconcile' the existence and mode of being of God (i.e., rhyme their coexistence in one and the same 'being' (= total and even interconnected reality)) with the fact of the disappointing 'nothingness', i.e., physical and especially moral evil?

HAR86

C.2.-- 'Antilogia' ('criticism').

Zenon of Elea (EDM 08), the founder of 'eristics', that is, logic and methodology, insofar as they concern themselves with the ability to argue according to strict logical rules, is known for his method.

He proceeds as follows.

1. He puts forward the propositions of his teacher Parmenides.

2.a. First 'antilogia' (literally: 'contradict'): the opponents of Parmenides refute, in their own way, his propositions.

2.b. Second 'antilogia': Zenon refutes the refuters (contradictors). It happens that he establishes that “neither they nor he” can rigorously prove everything. What Aristotle noted as a logical process, summarized in the phrase “you, contradictor, prove neither everything (= all your assertions, propositions) nor I”. Shorter: “neither you nor I”.

Cf. Cl. Ramnoux, *Parmenide et ses successeurs immédiats*, Ed. du Rocher, 1979, 158ss. (*Techniques de formalization*).

For centuries and centuries, people have been arguing about the relationship between “God and evil”. No one has ever provided an 'apodictic' (that is, radically convincing to all people endowed with reason) proof—neither on the part of believers nor on the part of atheists. A sort of stalemate, then.

C.3.-- *Theory of the mythologists.*

'Mythology', here, means “theology outside Biblical context, supported by mythical experience” (*EDM 05*).

Perhaps the works of W.B. Kristensen regarding the mythical theology concerning evil in the universe and in mankind remain the most revealing (*Collected Contributions to the Knowledge of Ancient Religions* , Amsterdam, 1947; - *Introduction to the History of Religion*, Haarlem , De Haan, 1980-3).

Main thesis: the deities of non-Biblical religions, even the highest, are “harmology of opposites”; they themselves are a mixture ('*harmonia*', *combination* ; *EDM 72*) of good (physical/ethical) and not good (physical/ethical); their actions in the cosmos exhibit that same mixture: -

St. Paul counts those deities among the (principal) “elements of the world” (*EDM 01*), in which he does not place too much trust, as a Biblically minded man. Those invisible beings are, to a large extent, responsible for nature-bound evil as well as evil arising from freedom.

HAR87

So not some Supreme Being of which any knowledge exists, among Primitives for example (think of the 'Primal Monotheism' of Lang and Schmidt). Regarding that Supreme Being, it is claimed in radical Pagan circles that it is not responsible for the evil in the cosmos. Which is one of the aspects by which it reaches above the finite, lower deities -- as 'exalted'. -- So much for a Pagan viewpoint.

C.4.-- *Biblical thesis.*

What Primordial Monotheism grasps hesitantly and tentatively, arises crystal-clearly grasped from the *Bible* (*EDM 51*). Viewed from the Old Testament (Yahweh) and the New Testament (Holy Trinity): a Supreme Being

stands above all suspicion. At most, Yahweh, the Holy Trinity, tolerates evil. Quite the contrary:

a. the immanent, built into creation itself, divine judgment (= intervention by God),

b. the transcendent judgment of God (God's intervention, directly, outside the natural course of created things) contains a corrective (modification for the better) of evil.

Consider the outrageous sin, which is punished within the framework of this earthly life. Consider the Last Judgment, in the (distant) future, at which God will set things right.

C.5.-- *Theodicy.*

Philosophical theology, a foundation of the Early Greek thinkers, — “theologia fusikè”, theologia naturalis, 'natural theology' (distinguished from the mythical and the Biblical) — can interpret it as follows.

1.-- *The artery of reasoning .*

Reread - *EDM-harm 84* - the text.

A single little word 'only': “(Preface 2): Evil can only exist...”. That little word would first have to be proven by the atheist. -- Well, it is simply put forward as an axiom, -- without proof. The atheist circumvents—consciously suppressing/unconsciously repressing—this primal question: “Could the existence and essence of God not somehow coincide with the evil in the world?” In such a way, namely, that God is good and omnipotent after all.

Platonic: the atheist commits 'para.frosunè'; he/she thinks beside the point.

2.-- *Argumentum ad hominem.*

We take the atheist at his word. -- He claims two things at the same time:

a. God does not exist; **b.** evil exists.

HAR88

What the atheist, during that reasoning, does not seem to grasp is that “evil exists nonetheless, even if God does not exist”. That 'nevertheless' escapes him.

Further specification.

The secret premise of preface 2 (“Evil can only exist if ...if ...”) is “All that exists has a sufficient reason (in itself or outside of it)”. The so-called principle of (necessary and) sufficient reason or ground.

Since, in the atheistic hypothesis, God does not exist and yet evil exists, He cannot be considered—as a (necessary and) sufficient explanation—for (the origin of) evil.

Conclusion : for the fact that evil exists in a godless universe, an explanation outside of God is necessary. Evil has its origin, therefore, crystal clear in the universe itself—not in a God who does not even exist!—Well, that is precisely the thesis of the believer in God.

Conclusion: “If you, as an atheist, assert what you assert, then what refutes you follows.” Antilogy of the antilogy!

3.-- The origin of evil.

Let us now consider the hypothesis of belief in God.

(i) (Un)consciously the atheist assumes that only a kind of meddling and even 'authoritarian' God can exist (*note*: which quite a few believers in God also seem to hold, when one sees them in action).

Such a God cannot tolerate independence (autonomy: as the moderns so like to say) in what He Himself created. Such a 'Supreme Being'—which still bears the unconscious characteristics of the “cosmic elements” (= the deities of the Gentiles)—must constantly intervene—like a disciplinarian—in the very course and structure of His creation. In order to prevent the physical and, above all, the ethical evil arising from the autonomous will.

(ii) The God-believer, however, who has been freed from that pagan remnant, realizes - especially in the face of evil - the autonomy of creation.

(a) Physical .

The non-free creation is, in its own way, independent. Consider the scientifically verifiable laws (*EDM 16* : physical testing): a stone, for example, falls, -- even if someone happens to be walking right underneath it.

(b) Ethical .

The freely choosing creature (*EDM -- harm 83* : value judgments) - in his freedom of ability (even though there is no freedom of permission; *EDM 58*) - can decide both without God and against God.

's **dilemma**

'Dilemma' is a crossroads (= one faces contradictory choices (*EDM-harm* 82)). Either He creates, physically independent and ethically free beings and, in that case, He can neither constantly nor may constantly intervene ('interventionism'), or He creates physically dependent and ethically unfree beings and, in that case, the result is a number of unfree, subjugated beings, in whom any self-development is impossible from the very beginning.

“My God, my God, why have You forsaken me?”

The problematic nature of theodicy is abundantly clear in the fate of Jesus.

He incarnates, lives as a human being, and, after his investiture at his baptism in the Jordan (“This is my beloved son”; understand: the prince whom I choose as the coming ruler), ascends ... to die on the cross, in an autonomous world—according to the Bible, surrendered to Satan and other “elements of the cosmos.”

Crucified, He undergoes and experiences the far-reaching independence of creation. He cries out: “My God, my God, why have You ‘abandoned’ me?” Understand: “why have You left me to the autonomy alienated from You?”

The Heavenly Father's answer to this is, according to Scripture, the glorification. Jesus reveals himself as 'beloved son' (= prince, ruler,-- with, without, or against the “elements of the cosmos”) both in the underworld (“descent into hell” or ascent into hell) and on earth (the appearances as the risen one) and in the rest of the cosmos ('Ascension' in which He, according to tradition, reveals himself to the 'cosmic' rulers).

However, in doing so, the Bible situates the solution to evil, insofar as it is associated with a God who is both good and almighty, in the transempirical (transrational). Cf. *EDM* 17ff.

Unfortunately, it is:

- (i) phenomenal, i.e. in the immediately evident data, and
- (ii) even rational, i.e. reasoning further from the evident data ...
- (iii) the domain of the transempirical is difficult or even impossible to prove with strict logical arguments.

So that it remains a matter of antilogy and antilogy of the antilogy: the unbeliever cannot refute the fact of glorification and the believer cannot definitively prove it. -- Zenon already understood it: “neither you nor I”.

HAR90

14.-- Harmonology: structure/ collection - system. (90/97)

We reflected on the concepts of 'relationship' (ontological and logistic).

Now comes a chapter on the structure—that is, a network of relations—and—what goes with it—the set and the system.

Library st.: *D. Nauta, Logic and model* , Bussum, 1970, 175ff..

The structure—according to that work—is the total (whole) or the entire network of relations between elements. -- Let us ourselves immediately add to this: the elements of a mere set or of a system (constellation).

The concept of “common characteristic”.

A multiplicity can be brought into unity when it consists of elements (multiplicity) that exhibit at least one common characteristic (unity). Or expressed differently: elements that are certainly non-identical (different/separate), but which are, in a certain sense, identical because they exhibit one and the same (group of) characteristics. Analogy, therefore, lies in the fact that they are partly identical and partly non-identical.

Distributive and collective structure.

One could also say: metaphorical and metonymic structure (*EDM 24; Please reread .*).

Let us say that, as soon as there is a relationship, there is a minimal and substantial (= essential) structure. 'Network' has a minimum – the relationship between two elements – and an – infinitely – expandable maximum, of course.

Note: A certain usage of language—in specific scientific and philosophical circles—regarding 'structure' uses that term in the stricter sense of “fixed (unchangeable, 'invariant') relations.” -- Good to know.

1.-- Distributive structure.

'Distributive', from the Latin 'distribuere', to divide.

The mathematical model speaks best to our minds. In particular: in mathematics, one can replace the expression “ $ax + ay + az$ ” with “ $a(x + y + z)$ ”.

One sees that the common term 'a' is spread, distributed, over the three distinguishable terms. This is a crystal-clear clarification of the concept of 'spreading' (over a multitude).

Majority

One of the characteristics of the dispersion structure is 'interchangeability' or similarity. The 'a' in the three expressions 'ax', ay, az is exactly the same.

HAR91

And convertible (interchangeable, similar). -- Thus one can—to cite Husserl's little example again (*EDM 38: the identical general*)—exchange the red, spread (distributed) over all (possible) relative things, insofar as it is merely red. That red is, after all, identical in itself.

Some application models.

Anyone familiar with scents and perfumes may know that, for truly sexy women, the musk scent characteristic of Tibetan mountain goats is sexually stimulating, -- that, for truly sexy men, latex from the hevea plant (from which rubber is produced) is likewise sexually stimulating, -- that, when one has surrendered to one or both of the aforementioned scents, mentha piperita, the aroma of peppermint, has a calming effect. The three scents differ, therefore, fundamentally; yet they are all three 'scents': scent (hevea, musk, -- meha piperita), -- just like a (x, y, z).

Distributive structure . -- Anyone familiar with more recent physics knows that energy, mass, and the speed of light are three physical realities which, however interconnected, are strongly distinguishable. Thus n (energy, mass, speed of light). Again: distributive structure.

Look at the market: a young salesgirl offers a young man a young plant for sale. So young (salegirl, young man, plant). Distributive.

Note: Plato already noted that 'all' constitutes a 'whole' (in his sense). The medieval scholastics (800/1450) called a collection 'omne' (literally: something that encompasses all elements).

2.-- Collective structure.

'Collective' means 'jointly'. Solidarity. -- Take a goldfly: all the parts of that sweet little insect differ from one another—legs, wings, body, thorax, etc.—but together—jointly, solidarily, 'collectively'—they form the one goldfly.

Note-- Non-majority .

Unlike the elements of a set, the elements of a system are not alike, at least not always. Far from it.

Some application models.

The scents—hevea, musk,—mentha piperita—are, collectively, one system: the combination of the distinctly different scents has a collective effect that is first stimulating, then calming.

HAR92

As elements of the 'collection of scents' they are similar; as elements of a sequential system they are very dissimilar: the first two have either a feminine or a masculine stimulating effect, the last one works in the opposite direction. Thus: hevea (stimulating) x musk (stimulating) x mentha piperita (calming).

Who does not know Einstein's physics formula " $E=mc^2$ " (energy is mass multiplied by the square of the speed of light)? As elements belonging purely to physics, energy, E , mass, m , and the speed of light, c , are alike. As elements in the overall system of nature, however, they are far from alike. This is expressed in the Structure of the Physics Formula—in which one may not simply interchange the signs E , m , c^2 .

The young girl selling young plants is a system—the sales and buying system—in which the elements—girl, plants, young man—are absolutely not alike or interchangeable. After all, the social role of selling and buying differs fundamentally, and the role of the marketable product differs from the deeds of selling and buying.

Note -- Plato already noted the difference between 'all' and 'whole', and scholasticism had its own term for a collective, namely 'totum', a set that shows coherence.

Application: the expression "all people", for example, differs quite a bit from the expression "the whole person" and, even, from the expression "the entire humanity".

General decision:

(1) In the set the common property is indeed spread out, but identical and immediate, general.

(2) In the system, the common property is not distributed over separate elements, but is “the cement thereof,” identical to all parts (hyposystems, subsystems) is the collectively shared structure (network), which is, immediately, in a shared manner, general. -- Identical-general in both cases, but in a different way (distributive, collective). Behold, as clear as possible, the similarity and difference of the two.

Note: One now sees that the metaphor rests on the set and the metonymy on system. Which is clearly evident in the metaphorical and the metonymic synecdoche (*EDM 23ff.*) .

Consequence: one can say that the set is characterized by a metaphorical structure and the system by a metonymic structure.

HAR93

Note-- The Ancient Greek concept of numbers.

A set is a number (of elements) that can possibly be expressed as a number. Let us briefly consider *Euclid of Alexandria* (-323/-283; *EDM 01*), in the thirteen books of his * *Elements of Geometry* *. In books 7/9, he deals with number mathematics (arithmetic). True to his axiomatic-deductive method, he begins with definitions (definitions of concepts).

a.-- The first: “Unity – in Greek 'monas', monad – is that according to which every being one is called one (unique)”. -- That is called, now, 'element' (at least in mathematical language).

b.-- The second: “Number(form) - arithmos, number form, because the Ancient Greeks viewed every number geometrically (*EDM 31: geometric form is not ontological form of being*) - is the set - plêthos, multitude, set, collection - that arises from the summation of the units ('monads').

Note : 'to add up' is, at the same time, certainly in the Paleopythagorean sense, “to form a geometric figure, a configuration”. Consequently: in Ancient Greek, 'number' is only applicable to more than one monad (unit). 'Number' is invariably a set (and geometric system) of at least two elements.

Library st.: *Fr. Krafft, Geschichte der Naturwissenschaft , 1 (Die Begründung einer Wissenschaft von der Natur), 319.*

Conclusion. -- The two concepts—set, system—merge mathematically—numerically (set) and spatially (system as a geometric form).

Current systems science (systematology).

The concept of a 'set' is usually clearly known, thanks to 'new' mathematics. This is not the case with 'systems theory'. Therefore, a brief explanation.

1954: Foundation of the Society for General Systems Research.

Ludwig von Bertalanffy (1901/1972), Kenneth Boulding (economist-sociologist), Rapoport et al. are the founders of an organization for the promotion of research into systems of all kinds.

Bible st.: -- *FE Emery, ed., Systems Thinking (Selected Readings)* Harmondsworth/Baltimore, 1969-1;

-- *P. Delattre, Système, structure, fonction, évolution (Essai d'analyse épistémologique)*, Paris, 1971 ;

-- *DD Ellis/ Fr.J. Ludwig, Systems Philosophy* , Englewood Cliffs, NJ, 1962.

-- Particularly inspiring from an ontological perspective is *Leo Apostel et al., *Deenheid van de cultuur* (Towards a general systems theory as an instrument of the unity of our knowing and acting)*, Meppel, 1972 (mathematical, communicative, and artistic activities are interpreted from a systems-theoretical perspective).

HAR94

Note -- *L. von Bertalanffy, Robots, Men and Minds* (Psychology in the Modern World), New York, 1967, 61, says:

a1. the organizational needs specific to our complex production processes (e.g. human-machine systems, armaments research),

a2. *N. Wiener, Cybernetics or Control and Communication in the Animal and the machine*), New York, 1948-1,

b. L.V. Bertalanffy, 1930+, who sought a general theory of systems, lie at the origin of a general theory of systems.

Note : *Aristotle, Polit., V , 5*, already uses a kind of cybernetic language: a constitution, for example, has 'telos' (purposefulness), but can deviate

('par.ek.basis'), yet can also be fed back ('rhuthmosis', 'ep.an orthosis'). Cf. O. Willmann, *Gesch. d. Id.*, III, 1035.

Typology. -- D. Nauta, *Logica en model*, 173ff., distinguishes three levels regarding the system.

1.-- 'Concrete' systems.

A crystal (physical), a living organism (biological), a factory (culturological).

2.-- 'Conceptual' systems.

All abstractions, -- constructions of our mind (oc,175), such as schemata (EDM 39) of concrete systems (an atomic model, representation in mind and on paper of the concrete atom), the schema of a curriculum, --- a mathematical set of points, -- a logically constructed number system.

3.-- 'Formal' (or language) systems).

Programming languages for computers, -- the entire logistics (logical calculus (EDM -- harm 80) or a part thereof. It is clear that, with such a scheme, a general systems theory has been outlined.

Note: What does Nauta understand by 'formal'? Any language (= sign system) in which

(1) of concrete realities

(2).1 a conceptual representation (reconstruction)

(2).2 is symbolically represented,

Nauta et al. calls it "a formal or linguistic system". In it, relations (EDM -- harm 80ff .), respectively structures are represented 'syntactically' (EDM-- harm 84).

Note: ' Formal' ontologically is much broader: every 'forma', essence, is a 'formal' matter.

HAR95

Incidentally: the term 'formalized' instead of 'formal' is, oi, clearer. A formalized system contains (a) a system of signs, (b) which is ordered axiomatically-deductively (more on that later).

Goal-oriented system.

One of the types of system is the teleological system.

Let us begin with the Ancient Greek term 'archè', principium, that which governs something ('principle').

If something is controlled by something else, then one must take that controlling 'element' into account—both in terms of knowledge of it and in terms of dealing with it.

A principle becomes teleological when it controls 'praxis', the activity in its course. Let us simply say: 'regulates'. This 'regulatory mechanism' is the core of goal-oriented systems, which are 'steered' towards a goal by their 'principle'. Which brings us in the vicinity of control science (cybernetics).

Appl. model.-- A school class .

This system consists of the teacher(s), the students, the classroom, and the classroom infrastructure (blackboard, chalk, desks, books, etc.). It is governed by a single concept: the cultural development of students. Before it is realized in the form of the result, the goal determines the entire classroom activity and its course. In other words, it is a goal-oriented system.

Purposeful order(ing).

EDM-harm 72ff . gave us an approximate insight into the concept of 'ordering'.

Library st.: *D. Mercier, Métaphysique générale (Ontology)*, Louvain/Paris, 1923-7, 536.

The text of the great Neoscholastic says: “ordering is:

(i) take data one after another and

(ii) they place (*note*: situate) according to the same principle of unity (...).

The order(ing) is the unity in multiplicity or, furthermore, the unity in diversity.

Mercier then immediately moves on to purposeful ordering: “Order is the placement (*note*: arrangement) such that various data are, each, in their place and correspond to their respective (*note*: each among them its own) destination.

In short: order is the precise arrangement of data according to the relations that their purpose imposes upon them.” (Oc,539).

One also speaks of 'functional' relationships (which fulfill the function or role in achieving the goal (result)). 'Functional systems' would, therefore, be a good term.

Organic (organismic) systems.

Note: The German Historical School. -- F.K. von Savigny (1779/1861; jurist), the founder; -- K.F. Bekker (known for his *Organismus der Sprache* (1827-1; 1841-2), Jakob Grimm 1785/1863; with his brother Wilhelm founder of Germanic philology) Leopold von Ranke (1795/1836; leading figure in 19th-century German historiography).

This school places the concept of 'life' (instead of the Rationalist 'concept') – primarily as a “living organism” – at the center, instead of the ahistorical (meaning: non-traditionally) thinking Enlightened Rationalism (EDM 41).

She embraces an organic view of the world and life (nowadays also referred to as 'organismic'). She defines:

- (1) the set governs the singular element (or the particular part thereof)
- (2) moreover: the system controls the individual parts.

Well, in the view of that school, the collection or the system (the totality) is the goal that 'defines' ('determines', 'controls') an 'organic' reality—whether this organismic reality be a legal system, a people, a culture, a language, a fairy tale, a historical movement, or whatever else.

Note: Apart from the clear Romantic background, this view runs parallel to the systems theory of L. Apostel et al. (EDM-harm 94). Analogous to a biological organism, a cultured organism is teleological.

L. v. Bertalanffy, *Robots and Minds* , 53/115, along with the German Historical School, distances himself from the mechanical model (exemplar) that originated in the Enlightenment.

“ *Toward a New 'Natural Philosophy'* (*The Open System of Science* ” is his title.

The 'new' scientific viewpoint – according to v. Bertalanffy – is: the world-(universe) “as organization”, as an organized whole.

Here he emphasizes the concept of “organized complexity” (Oc,58). All levels of reality and science exhibit such a thing: the atom (physical), the living being (biological), the psychosocial mass phenomena (inherent to our current culture) (cultural).

The only way out—according to v. Bertalanffy—is a truly general systems theory encompassing all levels. Cf. oc, 61ff. In this regard, he reiterates the distinction between mechanistic (inherent to cybernetics) and organic systems (which he very emphatically advocates).

HAR97

Note-- Collection and system in the great tradition.

We already noted it down. But, just a moment, a little more explanation.

A.-- The ideas of 'all' and 'whole' in Plato.

Connections (similarities or coherence) play a central role in Platonic thought.

A. Guazzi, *Le concept philosophique de 'monde'*, in: *Dialectica* 57/58, Neuchâtel (CH), 1961, 89/107.

Steller starts from the question “Is 'cosmos', world, in Platon, an idea?”. Platon left no explicit confirmation in this regard, but, since his cosmology (theory of the universe) is a 'physical' (philosophical) reissue of his 'dialectics' (= method), it can be confirmed.

The 'idea', in Plato, is the pre-existing pattern that makes a multitude of phenomena one: however distinct they may be, all daisies in nature exhibit the same fundamental pattern, by which they can be summarized. That pattern is the idea 'daisy'.

Guazzo starts from *Plato*'s harmology: the ideas 'all' (think of “all people”) and 'whole' (thus, for example, “the whole man”) are, fundamentally, equivalent ideas. For they mean “all parts” (in the Platonic sense: all elements, all components; dialogue *Theaetetus* 205a).

Moreover: the One (all that exhibits unity) is inconceivable without the 'parts' (elements, subsystems) and, conversely, the 'parts' are inconceivable without the unity, the 'One'. Thus *Plato* himself, in his *Parmenides* (passim, di throughout the entire text).

Note: This is confirmed by EW Beth, **De wijsbegeerte der wiskunde (Van Parmenides ut Bolzano)**, **Antw/Nijm.**, 1944, 29/56 (Plato), where 'stoicheiosis', 'elementatio', literally: 'analysis of parts', is discussed, which is nothing other than a theory of sets and systems avant la lettre.

B.-- The scholastic doctrine on the matter.

Lahr, Logique, 493, says:

(i) the general concept (“all people”) is to be distinguished from the collective concept (“all of humanity”).

(ii) Oc, 499: the classification (typology) is twofold.

a. One can logically classify an 'omne' (“all copies”).

b. one can also classify a 'totum' (“the entire specimen”), but 'physically', -- think of the parts of a plant.

Note: As stated: the encompassment rests, in part, on the set and the system. Cf. *EDM-harm* 83. “ If set/system, then encompassment”. Cf. *EDM* 25 (*synecdoche*).

HAR98

15.-- Harmonology: sign (symbol) and model. (98/105)

Let us begin with the names. -- Theory of signs, 'semantology', 'semasology' denote the general theory of signs. -- *EDM--harm* 81 we know that the names 'semiotics' (Peirce, Morris) and 'semiology' (de Saussure and the Structuralists) are common.

The three semiotic aspects.

One can view a sign or symbol in three ways:

a. syntactic (*EDM--harm* 84v .; 94 (*formalized thinking*):

b.1. semantic (*EDM--harm* 85) and

b.2. pragmatic (*EDM--harm* 85).

We provide a humorous example to make these three aspects easy to remember.

a. Syntactic.

Perhaps something was once heard about the unusual West Flemish priest Van Haecke. One day, he combined the following Latin phrase from the name of a priest named 'Faict': “Faict ficta facit” (translated: “Faict commits imaginary things”).

Syntax of letters: the set 'ficta' and 'facit' has the same elements as 'Faict', a five-letter name simply moved by Van Haecke (made into a different configuration). A typical 'combinatorial' (element-connecting) activity. - So much for the sentence itself.

b.1. Semantic.

One can also situate this combinatorics in life ('Sitz im Leben'). The sentence “Faict occupies himself with imagined matters” possibly refers to

Faict's activities—imagined according to Van Haecke's judgment. That sentence reflects a reality outside the sentence itself. It contains a description, indeed, a value judgment.

b.2 . Pragmatic.

Still the 'Sitz im Leben', but now different: what was Van Haecke's intention in formulating that sentence? What result did he aim for? Perhaps he wanted to make those who grasped the wordplay laugh (humorous pragmatics). Or he wanted to criticize Faict's pastoral care (pastoral-care pragmatics). That, too, is situated outside the sentence itself.

Note: A sentence is a compound sign: immediately we have the three aspects that every sign can have.

Syntactics

The relations (*EDM-harm* 77;80) between the elements of a sign, internally, and between signs themselves, externally, are the object of syntactic semiotics. -- Thus, one distinguishes between 'synctategorematic' (incomplete) and 'categorematic' signs.

HAR99

The name of a person, for example, is, alone and without any additions, a complete character to identify someone. An incomplete character only truly functions when thought of together with other characters: such as the first name and surname in a complete address (with street, street number, municipality, municipality number, or even an indication of the country name).

Structuralism.

-- *Ferdinand de Saussure, Cours de linguistique générale* , Paris, 1931-3 (1916-1);

-- *JM Broekman, Structuralism* (Moscow/ Prague/ Paris), Amsterdam, 1973;

-- *O. Ducrot et al., Qu'est-ce que le structuralisme ?* Paris, 1968.

--- Regarding the Structuralist theory, regarding syntax: *Role. Barthes, Eléments de sémiologie* , in: *Communications (Recherches sémiologiques)*, Paris, 1964 (No. 4), 114/140 (*Syntagme et système*).

De Saussure himself defines his 'semiology' as follows: “a science that studies the life of signs within the context of social life” (a specialized science that studies the life of signs within the framework of social life). Cf. *Cours*, 33.

He defines the sign as follows: “Le signe linguistique unit non une chose et un nom, mais un concept et une image acoustique” (the linguistic sign does not connect a thing and a name, but a concept and an acoustic 'image'). For de Saussure, the entire sign—“le signifié” (that which the acoustic sign intends, namely the concept) and “le signifiant” (the acoustic sign)—is a mental or psychic thing (*Cours* , 98).

Note: In colloquial language, 'sign' refers to the acoustic, i.e., audible to the ear (internal or external) sign – e.g., the word 'tree'. De Saussure, however, calls 'sign' both the word and the concept together. Thus, for example, 'tree' (the word) and the concept that corresponds to it (the concept 'tree').

Conclusion: for Saussure, the life of signs within a society takes place entirely in the psyche (the life of the soul).-- Which we ought to note carefully.

Relationships: syntagmatic and associative.

Cours , 170ss. (*Syntagmatic and Associative Reports*). -- De Saussure 's semiology is essentially an applied theory of relations. Applied, namely, to direct and indirect 'speech' (language use).

A.-- The syntagma.

Literally (in Ancient Greek): “something joined together”. -- De Saussure means the linear order of words and ideas.

HAR100

He calls this “the chain of language use”.

A linguistic syntagma consists of at least two units (elements). For example, 're-lire' (to reread); “contre tous” (against all); “la vie humaine” (human life); “Dieu est bon” (God is good); “s'il fait beau, nous sortirons” (if the weather is good, we will set out).

A linguistic term—e.g., 'bon' (good)—only acquires 'value' within such syntagmas as “Dieu est bon” (God is good) because it is opposed to what precedes and what follows.

On this rests the famous theory of the Structuralists that a sign only acquires meaning within opposites. -- We invariably find ourselves in full relational theory.

B. -- *The association.*

Let us note that other Structuralists speak of a 'paradigmatic connection' instead of 'associative connection' ('paradigm'; cf. *EDM 36 (other meaning)*). - De Saussure now situates himself outside 'reason' (language use).

The related words ('acoustic images,' he says) connect ('association') with each other in memory. This is how groups are formed.

For example, the word 'enseignement' (education) will unconsciously—Structuralism is, here, related to depth psychology—evoke a multitude of other words: 'enseigner' (to teach); 'renseigner' (to inform). Or also: 'armement' (armament), 'changement' (change). Or even: 'éducation' (upbringing), 'apprentissage' (learning process).

Conclusion: all these words, in an associative context, have something in common. -- There you have the structural theory of language use in a nutshell.

Semantics.

The relations (*EDM-harm 77; 80*) between what, in colloquial language, is called a sign and that which is signified by it, mentally or extramentally (outside our inner life), are the object of logical semantics. If you will: the relationship 'sign/signified'. Which differs from 'signifier/signified', above. So pay close attention.

G. Frege (1848/1925; German mathematician) introduced the pairing "Sinn/Bedeutung". 'Zin', in its meaning, is the content of knowledge and thought (concept). For example, 'morning star' and 'evening star' (two 'senses', concepts). '(The) indicated: in Frege's terminology, is that which is 'indicated' or 'meant' by the concept. Here, in this case, the planet Venus (both morning and evening star).

HAR101

Note -- Note that in the given example, the "content/extent" pairing (*EDM 29*) does not entirely hold true: the content 'evening star' refers to Venus in a different position, cosmologically, than Venus' position as 'morning star'. Classically logically, this involves two contents and two extents.

Note -- One sometimes hears it said: “Signs are not 'realities', but they do indicate 'realities'”.

In colloquial terms , this is correct. However, strictly ontologically, it must be noted that the sign—even if purely psychic, like Saussure's 'le signe'—is also a type of 'reality', namely psychic 'reality', for example (which is non-nothing). Cf. *EDM 10* .

A semantic definition.

JH Walgrave, Rond hetprobleem van de symboliek , in: *Tijdschr. v. Philos.* , 1959: 2, 298/316, discusses *Suzanne K. Langer, Philosophy in a New Key* , Harvard Univ. Press, 1957-3 (a work dealing with the renewed interest in symbols, in the broadest sense of the word, in philosophy). Walgrave raises the most general definition: “A concrete representation which – by its knowingness – transfers consciousness to the knowledge of something else (...)”. (Ac,299).

Two remarks:

(i) This definition is strongly reminiscent of one of the meanings of 'symbol' (= allegory), as that word is used, for example, in religions. For instance, a divine image is the 'sign', allegory, symbol that 'transports' the consciousness of the Primitive believer to the knowledge of 'something else', namely a transempirical, transrational reality.

Cf. *EDM 18*. Indeed, in the consciousness of the Primitive, who knows his religion a little, the image is “the deity that is visibly and tangibly present within it, although it itself remains invisible, intangible”. “In and at the same time above” the phenomenal reality.

(ii) Walgrave says 'concrete' (representation). -- As if an abstract sign from mathematics or logistics does not also “transfer consciousness to something else”, namely the content of knowledge and thought that corresponds to it (*EDM-harm 80ff.*).

Conclusion: we drop 'concrete', and the definition is correct, except for the term 'representation'. A signpost is not a representation. And yet it is a sign. - So: “something that refers to something (else)” will be a more solid definition, -- an ontological definition, which works with the term 'something', 'something else' etc. (*EDM 10*).

One application .

Let us return, for a moment, to Saussure's semiology (sign theory) (*EDM-harm 99*): both the (acoustic) 'image' (practically: the word used) and the concept belong together. Why? Or rather, through what? Because they refer to one another, even if this is within the psyche (the soul-life).

Peirce's theory of drawing.

Situated within a truly general doctrine concerning the sign, a tripartite nature of “thought, speech, and writing signs” is put forward.

i. The concept (with what accompanies it, such as an 'image' in imagination) is – for Peirce – in itself already a sign.

ii.a . The linguistic sign or word is the second sign.

ii.b. The written linguistic sign is once again a sign.

They rise towards one another. For “something refers to something”, “sets on the way to”.

Again the encompassing (EDM--harm 80, 83).

We said: there has been much discussion regarding 'implication'. Could it be because people did not realize that encompassment is merely another form of 'sign', that reference, setting the way towards?

(i) Reflexive. -- “a encompasses (implies or refers to) a”.

(ii) Non-reflexive. -- “The parts (elements, -- in Platonic language) comprise, refer to the whole (set or system) and vice versa”. -- This is how we arrange the data. Identical, di-reflexive, (totally identical) or non-reflexive (partially identical, analogous).

The tropological interpretation.

We resume EDM 20v..

(i) Metaphor : “Colonel A., in Aceh, fought like a lion.” “He was there like a lion.” Understood by this: if one knows how he fought and also if one knows how a lion operates, then “he fought like a lion” (comparative implication revealing similarities). Both considered together—A., the colonel, and the lion—imply a similarity. Upon which the metaphor rests. But then A is a 'sign for' (referring to) the lion (and vice versa).

(ii) Metonymy . -- “Eating apples contributes to health”. Or “(...) is a contributing cause of health”. - Anyone who understands the connection

between eating apples and health sees that eating apples implies coherence. That is: it refers to it as a sign.

(iii) Synecdoche . -- “Apples (= an apple) are healthy”. Who sees that 'all' apples implies 'exactly one' (as an example) (is a sign of it and thus refers to it)? And vice versa.

HAR103

Who does not realize that 'all' parts of the house for sale also comprise the 'threshold' as a component—thus referring to it, standing as a 'sign' for it? And vice versa?

Again: either similarity or coherence.

Conclusion. -- A sign is either metaphorical (collective, -- based on distributive similarity) or metonymic (systematic, -- based on collective connection); also: synecdochic (co-signifying in the form of similarity between elements of a collection or in the form of coherence between the parts of a system).

Draw and structure.

This brings us to *EDM-harm 90*. -- A sign refers to, — encompasses — the relationship, in other words, to something (else), either in the form of the distributive structure or in the form of the collective structure. -- We find ourselves in the midst of a traditional theory of relations.

The map and the signpost.

Whoever finds the two preceding pages too 'abstract' should take an application.

(a) A map is a metaphorical (based on likeness) sign of the landscape that is 'depicted' on it.

(b) But a signpost is a metonymic sign: it does not rely on similarity, but on coherence. It refers to a destination that it 'indicates', -- “to which it refers, as a good sign”.

Note: A certain usage of language is called the metaphorical sign 'iconizing sign', while the metonymic sign is called an 'indicative' sign.

Model-theoretical

The (unknown) original – subject in the judgment (*EDM 67*) – encompasses (implies), when comparing the two, the (known) model – predicate in the sentence.

And vice versa. -- The model, however, is twofold: a metaphorical (based on similarity) model or a metonymic (based on coherence) model. But then the model is a twofold 'sign' and refers to its (twofold) original. And vice versa. -- Or the sign is a synecdochic sign.

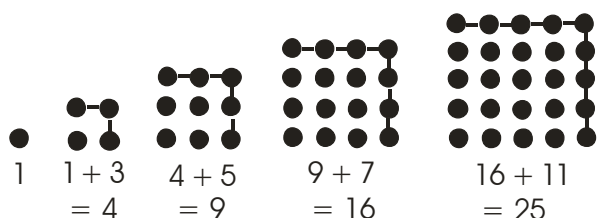
Heuristic (= informative) value.

Whoever sees a sign relationship, his mind is set on the path to insight, to truth. Acquires information regarding that signified by the sign.

HAR104

A Paleopythagorean application.

Cf. *EDM 03*. -- *EDM-harm 93* (number concept) taught us, without a drawing (understand: drawing), an Ancient concept of 'number'. -- We will now briefly demonstrate how a drawing can be a sign. -- It is known that the Earliest Pythagoreans already possessed an initial theory of numbers. They also had a concept of 'square'. -- Here is how they, who never separated geometry from number theory, 'depicted', 'drew' the square number.



Note-- (1) It is clear, upon closer inspection, that every drawing “refers to the number indicated below it”. There is a 'sign' in front of it.

(2) If this is the case, then spatial mathematics (configurations) serves as a model for number mathematics. And vice versa.

What has proven to be a main concept in Modern mathematics since the Renaissance (think of Cartesian coordinates).

Incidentally: (3) The drawing shows that multiplications (1x1; 2x2; 3x3; (etc.) can be translated into additions: is '4 x 4 = 16' not equal (or equivalent) to '1 + 3 + 5 + 7' (i.e. the order of the odd numbers concerned)?

In other words: addition refers to multiplication and vice versa. Addition and multiplication serve as 'models' for each other.

Current model theorists have rightly pointed out that the above drawing—however old—is one of the first surviving evidence of an ancient model-theoretical insight.

Pragmatism.

The relations (*EDM-harm* 77; 80) between the sign and the one who notices and/or uses it are the object of logical pragmatics. In particular, the intended results (what is typically 'pragmatic') of the encounter between the sign and the interaction with the sign have become the object of (pragmatic) attention.

In this way, a sign can be used by someone as a signal for someone (else) – applied pragmatically.

Significa .-- Lady Victoria Welby, lady-in-waiting to Queen Victoria (1819/1901), initiated the signific study in 1896. 'Significa' deals with human means of expression, - primarily viewed as means of understanding between those who use those means of expression as means of understanding.

HAR105

There once existed a Signific Circle, with *G. Mannoury* (1867/1956) as members - a mathematician (fundamental research), author of *Handboek der analysee significativa* (2 vols, 1947/1948, and of *Significa* (1949)

-- *LEJ Brouwer* (1881/1966); *Fundamental Research into Mathematics* ;

-- *Father J. van Ginneken, SJ.*, Professor of Literary Studies, *University of Nijmegen*;

-- *Frederik van Eeden* (1860/1932; physician, -- orator, poet, writer, -- philosopher; highly gifted in the occult (transempirical-transrational) field);

-- furthermore Dr. Godefroy, Prof. Clay, Prof. Westendorp Boerma, Prof. Fischer et al. The psychological and sociological aspect of the signific, in particular, kept the attention going.

Rhetoric.

We will treat rhetoric separately. -- Now, a brief word here. -- Anyone somewhat familiar with traditional rhetoric knows that it is semiotically structured.

1.-- Semantics.

The person engaging in publicity—who addresses people (e.g., on TV)—has 'something' (a message, information) to tell someone else. This means: his words (gestures, what he shows) refer to something (in order to convey information about it). The 'discovery' (heuristic rhetoric) results in that semantic content.

2.-- Syntax.

The so-called 'arrangement' of the message, in text or images, syntactically and logically connects the parts of the text or performance. This results in harmological rhetoric.

3.-- Pragmatics (significant).

The 'shaping' (= stylization, stylistic care) – within the text – and the 'deliverance' (hypocritical rhetoric) convey what the publicity and the orator intend as a result, namely to reach a genuine understanding regarding the message (which is firmly imprinted in the memory through mnemonic rhetoric), to 'persuade', to 'come across convincingly'.

Conclusion. -- A good theory is practical. A good theory of signs is very practical. We see this clearly in its application regarding rhetoric.

Note: Teaching is one type of rhetorical performance: it would be worthwhile to semiotically investigate teaching as an act:

- i. the message (discovery);
- ii. the arrangement (of a lesson, for example),
- iii. stylize the message—imprinted in memory—and deliver it authentically.

Teachers are therefore semiotically involved ('engaged'). A semiotic insight could clarify this.

HAR106

16.-- Harmonology: similarity and coherence in the psyche. (106/111)

“*If the soul listens*”, all living things have their 'language and sign' (as G. Gezelle once said). We are now going to see that, but harmologically.

We will take two psychological examples.

1. -- Théodule Ribot (1839/1916)

He was both an experimental psychologist and a philosopher. His still valuable book, * *La psychologie des sentiments* *, Paris, 1917-10, 171/182 (**Les sentiments et l'association des idées* *), teaches us that the mind—understood as a faculty of value (EDM 33), which values everything that exists, positively or negatively in some way—also possesses identity.

(i) Phenomena (ii) can be approached rationally. Which we have already been doing throughout all those pages. But (i) phenomena (ii) can also be approached axiologically (value-theory-principally). Value is interchangeable ('convertible') with 'being', i.e. with reality.

1.A.-- Facts.

The empirical data (experience) that Ribot gives us are typically—no longer 'coincidental' after the preceding pages—twofold.

A.1.-- Similarity.

“A mother may suddenly feel a sympathy welling up inside her. This, for example, for a young man who resembles her son or, more simply, who is the same age.” -- Thus Ribot. -- Let us say, following what precedes: “the young man is a 'sign' (metaphorical model) for her son”; “on the basis of a certain resemblance, the young man 'embodies' her son (and, immediately, 'a right to sympathy').”

Second model: “Similarly, there are also fear reactions that are called 'unthoughtful' ('instinctive'). But an observation that penetrates a little deeper can trace them back to a similar explanatory basis – as in the case of the spontaneously sympathetic mother, where similarity played a role.”

So, Ribot again. -- We can repeat: “a given is a 'sign' (metaphorical model) for the mind as a capacity for shock”; “the given, based on similarity (to previous shocking experiences), 'entails' something analogous as a reaction”.

A.2.-- Boundary (cohesion).

(i) -- “The lover in love transfers the feeling that was originally caused by the person himself from his 'maîtresse' (mistress) onto her clothes, her furniture, her home”.

Rephrased: “the mistress’s things stand as a ‘sign’ for her person herself, as metonymic models”; “those things” encompass (a reference to) the one associated with them, -- here as the possessor, for example.

(ii)-- “For the same reason, envy and hatred vent their anger on the inanimate objects belonging to the enemy.”

(iii) -- “In absolute monarchies, the cult of the sovereign is transferred to his throne, to the emblems (= symbols) of his power”.

Thus again Ribot. -- Let it be clarified: “the inanimate objects—they may be a throne, emblems, or whatever—which belong to the same whole, viewed metonymically, 'contain', as 'signs' (here: metonymic models), (a reference to) the beings associated with them”.

Note: What psychologists and sociologists call 'fetishism'—a psychologization and/or sociologization of an originally religious studies concept—is clearly present here in Ribot's examples. A 'fetishist' identifies someone's object and that person themselves. Emotionally.

1.B.-- Interpretations ('explanations').

Ribot, discussing cases of similarity, says: “The explanation of many of those cases lies in an unconscious or subconscious state, which is not so easily grasped. But, if that state penetrates consciousness once again—the will plays a role therein (but very indirectly)—it illuminates the whole.”

Ribot says: “It is known that the association of thought contents ('thoughts') was reduced to two basic laws: the law of similarity and the law of delimitation.”

Note: The law of similarity contains the concept of 'collection' (distributive structure) as a presupposition; the law of delimitation the concept of 'system' (collective structure). Or alternatively: metaphor, metonymy, and synecdoche.

Ribot thereby touches upon a fundamental concept (*EDM 36: categories*), namely 'transfer' ('transfert'). Specifically: “transfert par contiguïté” (transfer based on adjoining, bordering, adjacent, -- coherence) and “transfert par ressemblance” (transfer based on similarity).

Incidentally: Freud, the founder of Psychoanalysis, known for borrowing heavily from brilliant predecessors, did not fail to incorporate Ribot's concept of transference into his system of thought. Listen: Ribot calls those two laws “descriptive rather than explanatory”.

Yet—he immediately adds—they reveal “quelque chose en sus” ('something moreover').

HAR108

He says: various writers have pointed out an often subconscious, but effective influence. “Une influence' souvent latente mais efficace”. Let us simply state that 'subconscious' or 'latent' means the 'unconscious in our inner life'.

2.-- Charles Baudouin (1893/1963)

He was a Swiss psychoanalyst with many years of experience in child analysis in Geneva. Major work: *L'ame et l'action (Premises d'une philosophie de la psychanalyse)*, Geneva, 1969-2.-- Let us listen to this highly gifted expert on child analysis.

2. A. -- Facts.

Again, two clearly distinguishable types.

A.1.-- Similarity model.

In his **Etudes de psychanalyse**, Baudouin paused to consider a certain Berthe, who, at a certain moment, suffered from arm neuralgia (a type of nerve pain in the arm). Behold the phenomenon.

Psychoanalysis, at least in Freud's view, seeks the rational explanation first and foremost in the value tendencies ('les tendances') emanating from the unconscious and the subconscious.

1. Thus, through patient analysis, Baudouin stumbled upon the fact that Berthe, unconsciously or subconsciously, was mimicking her classmate's entire situation. Which entails resemblance.

What is more: coincidentally, that classmate also bore the same name, Berthe. She identified with that Berthe. Which is one possible application of identity.

2. What exactly did Berthe imitate—mimesis (R. Girard)? Not her classmate, but the 'happiness' of it. That Berthe—a model, after all—had suffered for a time from an arm ailment... which had given her much free time. Through which— and this is where the psychoanalytic shoe pinches—that same Berthe had been able to work her way up to “an educated woman”.

It was precisely that-in-Berthe—the coherence model—that mobilized a kind of (un)conscious envy—perhaps in a healthy sense—: just like Berthe—the epitome—Berthe—the imitator—wanted to become an “educated woman” (an ideal). Berthe-1 functioned as a metaphorical 'sign' (model) for Berthe-2, who wanted to resemble her. Behold the imitation of values.

3. Further explanation. -- the mechanism.

(1) “One immediately grasps the reasoning by analogy (“raisonnement par analogie”), which had led to identification and to pathological imitation.” -- Thus Baudouin.

In other words: the unconsciously reasoning mind (intellect and reason) executes unconsidered, indeed, forgotten or so, 'mechanisms', i.e. processes not controlled by itself. Here of a logical nature (in the form of harmology).

HAR109

(2) Baudouin says:

(i) the memory of 'Berthe' and her arm belong to the strictly individual sphere;

(ii) but the unconscious mechanism by which that memory 'works' (causes), namely by 'producing' the symptom (the arm pain) - literally, says Baudouin - belongs - at least from a depth psychological perspective (= interpretation) - to "a primitive layer" (it is known that, since Freud et al., psychoanalysts like to refer to 'the primitive in man' as an explanation.

In summary: a value proposition (axiological moment) employs (analogy) reasoning (logical moment) to achieve the goal. -- By 'logical aspect' we understand, primarily, applied logic, of course.

A.2.-- Cohesion model.

One can also say, with Ribot, 'boundary model'.

Ch. Baudouin, **L'âme enfantine et la psychanalyse **, I (*Les complexes **), Neuchâtel/Paris, 1950-2; II (*Les cas*) / III (*Les méthodes*), Neuchâtel/Paris, 1951, is a true gold mine regarding psychological experience and interpretation. In II/III (*Les méthodes*), 162, the author states the following.

(a) The child is not a miniature adult, but rather a being in some preliminary stage of adulthood.

Incidentally : this is confirmed by others.

(b) “It has been observed that - especially young - children had changed profoundly ... simply because one or two of the parents had undergone 'psychoanalysis' themselves. And this without it being necessary to treat the little subject itself”.

To which Baudouin adds an explanation: “This is explainable:

(a) if, on the one hand, one assumes that the ailments of the child in question were not yet firmly entrenched, and

(b) on the other hand, if one premises that the traumatizing (illness-causing) situations that caused those illnesses depend essentially on the environment—especially the family environment. By changing this environment, one can change the entire context ('tout le tableau').

Let us clarify by analogy (partial identity): when a teacher struggles with 'problems', then, following what Baudouin says, it seems obvious that the entire classroom atmosphere immediately “runs into trouble”—that some 'sensitive' child picks up something in his soul of what the teacher is struggling through in his soul—that the teacher—to put it somewhat bluntly, but clearly—'infects' one or more (susceptible) pupils with his 'ailments'.

HAR110

Moreover: if such a child enters treatment, the infected teacher should also be immediately involved in some part of that treatment.

2.B.-- Interpretations (explanations).

Baudouin relies on this: the relevant facts are 'irrécusables' (indisputable). “However insufficient the explanations may be (provisionally),” he says. -- After the phenomena, the rational (or even transrational) explanations.

Regarding this, with Baudouin—who was both a solid psychoanalyst and possessed years of very open experience—what follows. Baudouin believes that the Individual Psychological tendency within the depth psychologies of C.G. Jung (1875/1981) might well offer another (also valid) explanation.

In other words: Baudouin stands inclusively—not exclusively—opposed to interpretations other than his own. Which brings us to *EDM 08 (Zenon)*—

“neither you nor I” (here reversed: “neither I nor you” (can explain everything))—to *EDM-HARM 86* (*assertion/antilogia/counter-antilogia*).

Cited is Frances Wickes, **The Inner World of Childhood** , New York/London/Appleton, 1927, 17. Wickes states that, in early childhood, a kind of 'identity' (sic) exists between, on the one hand, the unconscious of a child and, on the other, the unconscious of, for example, the parents. Ontologically: a partial identity, of course. Here, both similarity identity and coherence identity.

Applicable model.-- A child experienced—in his dream (which confirms Freud's intuition that the dream might be the 'royal road' for analysis) the conflict—not his own, but—that of his father (Fr. Wickes, oc,26).

Another child (Wickes, oc,2S) experienced a sense of insecurity (felt unsafe in some way). Analysis revealed that this was merely an “intuitive perception” of his parents’ objectively uncertain situation.

Baudouin is rather distant from such 'irrational' factors. But he is formal: “It is crystal clear: a child somehow understands the atmospheres in his environment” (oc, 162).

“Intuitive perception” (Wickes), “spiritual osmosis” (Benoist-Hanappier) or, even, “mystical participation” (L. Lévy-Bruhl (1857/1939; ethnologist, who studied the Primitives—somewhat like the Postmoderns in this respect (*EDM 41*)—with a much more open (read: inclusive) mentality), C.G. Jung),—these are various names for the same ambiguous (*EDM-harm 79*) phenomenon.

HAR111

JL Moreno (*EDM 79*).

His **Gruppenpsychotherapie und Psychodrama** (** Einleitung in die Theorie und die Praxis **), Stuttgart, 1973-2, 14, mentions something that can give us an idea of what 'mystical participation' is.-- It occurred among Pomo Indians (California West Coast).

In a village, an ethnologist became the witness to a Primitive form of 'psychodrama'. -- An Indian—despite appearances, he was dying—was brought into the village. Immediately the wijman, the 'consecrated man', (*EDM 03*) or 'shaman' ('medecine man'), appeared with his helpers.

1.-- Information.

First of all, he informed himself: the man who had brought in the 'sick person' said that:

- a.** he had met a male turkey, something he had never seen before;
- b.** whereupon he was overwhelmed by feelings of fear.

The wise man withdrew, only to reappear after a while.

2.-- Action

2.1.-- He, with his helpers, acted out the situation that had caused the emotional shock... This, -- rendering every detail as accurately as possible. -- Thus the wise man—in the midst of a group of friends and neighbors—played the role of a male turkey, -- making circles around the 'sick' just like a bird flapping its wings wildly.

2.2.-- However, there was one major difference: he did this in such a way that the 'sick man' could gradually realize that the male turkey was actually nothing bad and therefore that his fear of it was unfounded. -- Result: the man improved visibly and recovered completely.

Commentary .

(1) It is obvious: resemblance plays a major role. People imitate the traumatic event, -- as closely as possible.

(2) Among many others, neighbors, friends, the person concerned—the patient—also takes part in this (which is cohesion).

Those two similarities and coherence are the supporting pillars of a therapy. 'Mystical participation' is present here: not Westerners, but Primitives participate in a fluid manner concerning the life force (*EDM 05 : mythical life force is 'fluid'*). Which, perhaps, is still true for children, even in a Modern living environment. Cf. *EDM--harm 75 (order)*

HAR112

17.-- Harmonology: the study of opposites. (112/123).

Until now – except in the ontology concerning the (negative and/or privative) nothing – *EDM 50* – the emphasis lay on the identical (similarity, coherence). A balanced harmology now shifts the emphasis to the study of opposites.

Ordering is also seeing opposites.

That true ordering involves, besides seeing similarities and connections, also exposing opposites—distinctions, divisions—is already evident, centuries ago, from the definition of *Saint Augustine* in his great and highly influential religious and cultural-historical work **De civitate Dei** (On the City of God).

In it, he defines the essence of 'order(s)': “Order is the configuration (*note*: placement, positioning) that indicates the place destined for things to the data—appearing by comparison as fitting together ('parium') and incompatible ('dis.parium').”

This definition has remained famous. The great Church Father derived it from the equally great orator and rhetorician (teacher of rhetoric) Mt. T.A. Cicero (-106/-43), who himself still stood, in part, in the Ancient Paleopythagorean and Platonic tradition.

Pay attention to two things:

- a.** orde(nen) is 'to place', to situate, i.e. configure;
- b .** Ordering is the placement of matching (identity) and incompatible (non-identity) data. In other words: the placement of what exhibits both identity and non-identity.

Basic differential

Let us first provide the basic scheme of all order.

Totally identical:	Part-identical	Totally non-identical:
Similarity (metaphorical)	Analog	Distinction
	(partially identical,	(metaphorically:
Cohesion (metonymic)	partly non-identical)	
(synecdochic)		Separation (metonymic)
		(synecdochic)

In other words: something is either wholly the same (e.g. the reflexive identity of something with itself (a contains a)), or analogous, or totally not the same.

Reread *EDM 20/27* (tropology) for a moment, and you will see that tropology, in linguistic form (stylistically), represents the basic differential above—at least especially as regards the partial identities.

HAR113

The concept of 'differential'.

(1) What the Ancient Greeks called 'dia-stè-ma', (Lat.: intervallum), space (interval), is, in a sense, the basic scheme of all comparison, -- comparison which is the thought movement par excellence that is active in ordering:

outside (in between, inside), outside
border 1 border 2

Expressed in terms of 'arranging': what is within the space between is inter-arranged.

Incidentally: this diagram is one of the basic insights into topological structure in mathematics. Consider a cohesive ball of clay. It can be deformed topologically (the geometric 'shape' is variable). But the mass, if topological, must not change as a cohesive whole. It thus remains within (between) its extreme limits of malleability and deformation.

(2) Second feature: the differential places (orders data) such that a series of 'values' (data) is placed, e.g. negative on the left and positive on the right, or vice versa (as in our basic differential).

Converging/ diverging/ parallel.

(1) Aristotle uses the term 'homoiotropos', convergent, converging or converging, to name analogous data.

(2) However, one can contrast this with divergent and parallel data (divergent, parallel data).

Incidentally: Cardinal J.-H. Newman (1801/1890) made the concept of 'convergence' one of his forms of argumentation, namely that inductive samples can be such that they do not strictly prove (*EDM 08: neither you nor I; 110 I nor you*), but nevertheless, taken together—a form of summative induction (*EDM 39*)—point in the same direction and, thus, converge.

Consider, for example, the tracking down of the perpetrators of a murder: after some time, a number of isolated details point to the same perpetrator, for instance, without necessarily possessing strong evidential value.

Historical remark . -- Aristotle , in his *Katègoriai* (Lat.: *Liber de praedicamentis*), Fundamental Concepts, sets forth:

- a. how we use terms to denote the 'beings' (data),
- b. how we make use of ten categories (*EDM 36v* .), how these categories prioritize 'elements' as **i.** opposite (pair), **ii.** movement (change) in the form of any modification, **iii.** succession/simultaneity (diachrony/synchrony).

HAR114

In his **Metaphysics **, book **Delta **, he supplements this 'hypotheory': he names the following as 'elements' that are presupposed: one/many, same/not-the-same (the latter: difference), equality/inequality, opposites, earlier/later, quantity/quality, relation, completeness, limit, configuration, whole/part, etc.

Although in a major break with Aristotle, the enlightened Rationalist David Hume (1711/1776; leading figure of Empirical Rationalism; *EDM 16* : parallel with Logical Empiricism) nevertheless exhibits very similar basic ideas.

As an Associationist thinker regarding the comparative method, he extracts from internal and external empirical data 'elements' such as – synchronically – similarity and adjacency (= adjacentness, coherence, appendage, contiguity, contact) and – diachronically – sequence (sign/continuation; e.g. in the process 'cause' (= sign)/ 'effect' (= continuation)).

Auguste Comte (1798/1857; founder of Positivism, a rather intellectualizing, French form of Empiricism) likewise sees that “the facts” (*EDM 35, 58*) – like 'elements' – are connectable ('associable') by means of their similarity (synchronic) and their succession (diachronic).

Bertrand Russell (1872/1970; the famous liberal human rights advocate), after he had turned his back on Platonism, also viewed it in an analogous way.

Theory of Contrasts.

It should be noted that we have already encountered this doctrine in another form, namely *EDM 50v* (absolute or relative nothing).

Let us begin with a literary model.

The contrast is, besides being a logical phenomenon, also, for example, a literary device. Let us listen to the Byzantine liturgy during Holy Week, namely during “the holy and great Wednesday”.

Library st.: *E. Mercier, La prière des églises de rite byzantin* , II (*Les fêtes*), Cheve-togne, 1948, 127.-- “While the sinner—a prostitute—offered you, Lord, an extremely costly perfume, the disciple—Judas, the betrayer—reached an 'agreement' with the administrators.

With great pleasure she poured out what she had bought for a great deal of money. With great haste he sold the one who cannot be paid for. -- she accepted “the Lord” in Jesus. He took a stand against “the Lord”. -- Thus she was set free, while Judas went about his work as a slave of the arch-enemy (Satan).

HAR115

Terrifying is Judas' baseness. Sublime is the repentance of the prostitute: grant it to me, Savior, who went to death for us, and save us all.

Wretched is Judas's lot: while he saw the prostitute kissing Jesus's feet, he was considering how he would inflict the treacherous kiss on Him.

She untangled the hair; he became entangled in his soul: instead of offering precious perfume, he hatched a repulsive malice within himself. Desire prefers the unpreferable: shield our souls, Lord, from such a thing.

Assuming: exactly the same words are said, but not in that contrasting form. Result: the powerful impression of the text is largely lost.

Let us now turn to the logical structure of the contradiction. Let us take, as a guideline, *D. Mercier, Logique* , Louvain/Paris, 1922-7, 107s..

In Neoscholastic terms, the Cardinal distinguishes a plural regarding 'opposition'.

a.-- The transcendental contradiction.

This concerns, of course, the contradictory opposition. -- Example: 'being-(the)' and 'non-being(the)'. This is being(the) as not non-being(the). And vice versa.

This inconsistency (the absolute contradiction or total non-coexistence) of, for example, white as contradictory to everything that is not-white—the latter understood as “as not-white”—is immediately clear. The contradiction is absolute. -- In dilemmatic form: white or not-white (where 'or' in Latin is 'aut').

-- There is no intermediate term (*EDM 71 (law of excluded middle)*) between irreconcilable things.

b.-- The categorical oppositions .

'Categorical' means “all that is non-transcendental” (*EDM 30v .*). -- Here a plural is established.

b.1.-- The contrary or ordinary contrast .

Here again a dichotomy, but now within the elements of a set (or the parts of a system): one or more of its elements are not the other elements; one or more parts are not the others.

Appl. model . -- Take the color spectrum of the rainbow: white is not the rest (the opposite, -- not in the contradictory, but in the contrary sense, of all non-white shades, e.g. purple or black: these are simply different, each individually). They exist simultaneously in the rainbow.

HAR116

--'White' and “non-white as non-white” do not exist simultaneously. Consequence: something cannot be both white and non-white at the same time and from the same perspective. But the rainbow can be simultaneously white and red and black and blue. Reason: these colors are simply—contrary, not contradictory—opposites of one another.

Another example: someone is unscrupulous in business but very conscientious in his marriage: both characteristics exist together in one and the same man; but where he is unscrupulous, there it is impossible to say that he is conscientious (which would be an absurd contradiction, an absolute contradiction): there they do not exist together. For what is unscrupulous is unscrupulous.

b.2.-- The correlative or mutual opposition .

Here a reciprocal relationship is at work (symmetry): the terms (elements, parts) are distinct, indeed, separated, but they are only possible (sensible, conceivable, real; *EDM 32 (' true ')*, *43 (' possible ' if modality)*) within the mutual relationship in which they exist,

Appl. model. -- 'Father' and 'son' exist only because the father has a son and the son has a father. Yet the father is not the son, and vice versa.

'Double' and 'half' go together: the double exists only if there are two halves. Yet the double is not half.

'Knowledge' and 'object of knowledge' do not exist without that mutual relationship. Yet knowledge is not the known object of knowledge, but merely the knowledge thereof. -- Thus: a symmetrical opposition that gives rise to its own dichotomy (complementation).

b.3 -- The privative (expressing the deprivation) contrast.

Consider the privative suffixes in grammar: -loos, -vrij. For example, werkloos, zinloos, -schaamloos, schaamte vrij. Consider privative verbs: to peel an apple is to strip it of its skin. The negate (denial) expresses, here, a void, namely the deprivation of what ought to be there, normally and/or ideally.

Appl. model. - "That lady does not see". -- In the exercise of her sense of sight, she is deprived of an active faculty that humans normally or ideally possess.

When one says: "A stone does not see," this is not a privative negation, but a contrary one. With a stone, not seeing is no void.

Conclusion . -- The word 'not' is ambiguous. And the contrast likewise.

HAR117

Note: The restrictive contrast.

Just reread EDM 68; 70. -- Do we not sometimes say: "Here is contradiction and no contradiction"? "That woman is conscientious and not conscientious"? "He is the son of his father and not the son of his father"? "She sees and she does not see"? And similar statements?

The opposition—contradictory, contrary, mutual, indicating deprivation—can be disregarded (or affirmed) with reservations. In such cases, it concerns shades, 'nuances'. A weakened opposition.

Taseology (the study of tension).

The foregoing seems alien to life. Yet the contrast is more than that. We already saw this in the text of the Byzantine liturgy (Judas the opposite of the prostitute).

For reasons of (vital, existential) importance, we now consider 'tension' as an application of the theory of contrasts.

'Tasis' in Ancient Greek means 'tension'. -- Play and conflict are two applications of tension. They play a huge role in the cosmos and in society. Hence a structural analysis (*EDM-harm 90: structure*). 'Structure' is the network of relationships.

The structure of tension.

Think of a football field: the two teams are playing to get their hands on the ball and control it. -- Think of two boys fighting over the same ball.

Rivalry and competition also exhibit that structure: two firms compete against each other for the same sales territory. Two students do their best to be first in the class.

Which basic structure is at work in all those cases?

(1) There are always at least two 'camps'.

(2) There is one and the same 'stake' (the football, the ball, the sales area, first place), -- 'stake' is, in fact, what is at stake in the game, the conflict, the competition, the rivalry.

(3) The camps have opposing interests in the same stake. -- Nicely put: "there are too many contenders for too few objects".

In the game, for example, this is even deliberately organized. Otherwise, it is no longer 'playing'.

Mechanical model.

Mechanics deals with forces. These can enter into a tension relationship. Consider the upward force in a volcano, which acts against the compressive force of the crater wall, while 'neutralizing' the downward forces of gravity.

HAR118

The upward force wants the lava out; the downward force of gravity wants it in, and the sideways force of the walls obstructs this, more downwards than upwards.

Structural analysis : in that convergence of forces, the 'starting point' is the lava (exactly one given) and *the 'camps with opposing directions'* are the forces (more than one in number). Consequence: tension.

Human model.

Mimeticism (imitation, imitation thinking) – 'mimèsis', imitatio, imitation, representation, in Ancient Greek and Latin – by René Girard (1923/2015), a French cultural scholar, is one of the theories in which tension is central.

He labels the theories of the three great '(cultural) critical' materialists – K. Marx, Fr. Nietzsche, S. Freud – as doubtful and, in Freud's case, as outdated.

His theory of desire states: the fundamental desire (natural desire) in man is not sexual desire or homicidal urge (*EDM 52ff.*), but the desire for imitation. All human behaviors are, according to Girard, driven by the mimetic hypothesis (presupposition), which is misunderstood ('méconnaissance') by people themselves and by a number of theorists. Consequently, this desire for imitation remains virtually unconscious.

Which, incidentally, is one application of the Platonic concept 'para.frosunè', thinking alongside reality (*EDM 61; 74*).

Freud's lucid moment.

EDM 56 first : “my neighbor has exactly the same desires as I do”. Girard quotes Freud: “The little boy shows a great interest in his father: he would like to become and be what his father is, -- yes, replace him from every point of view. -- To put it mildly: he makes his father his ideal.

This attitude towards the father—or towards every man in general—has nothing passive or feminine about it: it is, essentially, masculine. And, moreover, it is very easily reconcilable with the Oedipus complex that it helps prepare.

Thus literally Freud himself. Freud viewed mimesis in a purely erotic realm (not in its full breadth) – in a moment of clairvoyance.

HAR119

Identification and mimeticism .

Girard says: “There is a clear similarity between identification (*note*: identification with someone one looks up to) – specifically: identification with the father – and the desire to imitate: both consist in choosing an example (...). That choice can become fixed on any man (...), who then occupies the place that normally belongs to the father in our society, namely that of example”.

Note -- Reread, now, *EDM-harm 103* (*the imitation of Berthe 1 by Berthe 2*).

The 'father/son' tension.

Library st.: *H. Robinson, Renascent Rationalism* , Toronto, 1875, 171.

Here, Robinson reflects on the structure of the conflict. Within a single and shared (*note*: similarity and coherence) situation—the convergent aspect—mutually exclusive value tendencies ('tendencies')—the divergent aspect—are at work: they are based on imitation (convergent at first glance), but an imitation that aims at the same object ('stake') (divergent). This sometimes happens between son and father.

The Oedipus complex.

One knows the more than central role—one might say—in Freud and the Freudians of this kind of 'complex', this structure, which gives rise to tension.

Girard on the matter: “The little boy becomes aware that the father stands in the way of his access to the mother. His identification with the father consequently takes on a hostile tint and results in it coinciding with the desire to replace the father, even in the mother. -- This identification is, moreover, 'ambivalent' (*note*: dual, two-edged) from the very beginning.” (Oc, 252). So much for Freud's own text again.

It is immediately made clear how “la rivalité”—rivalry, indeed, envy (jealousy)—arises: by imitating his father in the latter's relationship with his mother and, in a rivalry, repressing it, the son unconsciously creates the Oedipus complex. Thus Girard's theory, who reproaches Freud for not seeing (or only indirectly seeing) mimesis, the urge to imitate. “It is the father who shows the son what is desirable, precisely because he himself desires it (the mother).” (Oc,253).

The structure

This one is clear:

- i.** only one 'object' (stake), the mother;
- ii.** but two contenders, the father and the son. Imitating is the conflict-generating factor.

Note -- *EDM 59* (*P. Diel*) taught us that vanity can also play a role.

HAR120

The concept of 'complex'.

Library st.:

-- Ch. Baudouin, *L 'âme et l'action*, Geneva, 1969-2, 97/141 (*Esquisse d'une théorie des complexes*);

-- J. Jakobi, *Complexe, archétype, symbole* , Neuchâtel (CH), 1961 (translation of *Complex, Archetypus, Symbol*).

The depth-psychological reality 'complex' is best defined as “tension, preferably conflictual tension, between more than one tendency (value orientation) within the soul”. Here, the tension becomes something psychic.

Example : a tendency within us 'wills' ('desires') an object of pleasure, e.g. a man - outside - marriage, -- which, within Biblical revelation for example, or in other cultures that impose strict norms on marriage, is forbidden by norms of conscience.

- i . The same stake, namely the husband out of wedlock;
- ii. but two tendencies, a pleasure- or hedonistic value tendency and, simultaneously, e.g. through upbringing or one's own intuition, an ethical (= moral) value tendency—in Freudian terms “two desires”.

The voltage, as described by us above, is therefore a structure invariant—namely, unchanged in its core, the voltage returns in very different regions of reality. Which is evident from (summative or amplifying induction).

Playing is not fighting.

Robinson tends to see a kind of conflict already in the act of playing. -- Yet the difference is visible through analysis of the phenomena (*EDM 17*) themselves.

1.-- When two football teams are playing, centered around exactly one ball, tension arises: the desire of one party to 'have' the one ball stands diametrically opposed to that of the opposing party, which wants to 'have' exactly the same ball.

2. -- However, when a rule of football, for example, is clearly violated, the referee intervenes. That is still 'playing', even if it is sometimes 'rock hard'. But perhaps with a dose of 'violation' of the rules of the game.

3. If, however, some players become 'brutal'—that is, if they use real violence—then the referee is faced with 'aggression' in the stricter sense—aggression. Then playing becomes 'fighting'. It becomes a few quarrels, involving blows, and wars of all kinds: the tension becomes genuine conflict tension. That makes a phenomenal difference.

Conclusion. -- Tension is better not called 'conflict'.

HAR121

Conflictology

A conflict, *stricto sensu*, is a contradiction involving violence. -- A structure is visible here as well.

(1) An 'identity' - e.g. a man, a gang - exhibits 'assertiveness' i.e. self-conscious resilience (which is in a sense normal, especially in our Modern aggressive society). That is, in Platonic terms, the lesser lion (*EDM 61ff*). In the language of Paul Diel 'vanity'.

(2) The means by which this drive for validation is fully awakened is **a** . rest (night's rest), **b** . food and drink, **c** . sexual life, **d** . wealth (together, in Platonic terms, the great monster). -- what is also called: the materialistic values of life. Fr. Engels (1820/1895; fellow thinker of K. Marx) still writes in this sense.

(3) The degree of asserting the identity in question is such that one persists, if necessary with physical and moral violence (fist force, cynicism (*EDM 61 ff.*)): one exercises violence without much qualms of conscience. 'Morality' is 'weakness' in the struggle of life.

In Platonic terms, "the little man", i.e., the man who lacks 'spirit', i.e., the sense for "all that is higher values" (what is also called 'spiritualism'). Insofar as the violent man does exhibit 'spirit', this 'spirit' is in the service of the lesser lion and the great monster.

Applicative model . -- In short: the structure is

- i.** one's own identity (way of being)
- ii.** persist against the rest.

Let us now read *P. Sigaud, *États-Unis . - Les autorités montent en ligne contre les gangs de jeunes** (*Journal de Genève* , 13.07.1990). In that article,

the difference between play and conflict (violence) is clearly expressed, exactly as a Platonizing psychology designs it.

Here is the text. -- "The Americans have learned to live with the general issue of violence in all its forms: big banditry, crime syndicates, drug trafficking

However, for several months now, they have come to the realization that a relatively new phenomenon is emerging, precisely because of its alarming scale: the 'gangs' of young people between fifteen and twenty years of age, who demarcate entire city districts by means of revolver shots, within which they lead an organized life (...).

Samples . -- According to the latest analyses, the fifty states – including Alaska and Hawaii – are affected by this toxic disease.

HAR122

a. Los Angeles. This Californian city is the oldest operating ground of the youth gangs. Number involved: about 80,000, divided as follows: 59% Hispanic Americans, 39% Black Americans, 2% Asians; only 72% whites. All those gangs together had 554 crimes on their record in 1989 (burglaries, hold-ups, armed robberies, all possible forms of extortion, drug offenses, murders).

b. Chicago. In second place. 15,000 youths divided among 125 gangs. The vast majority Black, in greater numbers than Hispanic Americans. 1989: 72 crimes (12 more than in 1988).

c. New York. Only about forty gangs. According to a number of sociologists, this is due to the extensive fragmentation of the population into a multitude of ethnic groups.

d. Boston. About forty gangs, comprising 2,000 youths. 80% Black, 13% Puerto Ricans. 1989: 9 murders (three times more than in '88)

e. Washington. 1589: 434 crimes, the record.

These samples lead to an induction (generalization) - EDM 39 (also 47, 54, 113) -: the plague is becoming widespread.

Explanations (interpretations).

EDM-harm 79 taught us the one-manifold relationship (in order to interpret). -- Cf. also *EDM-harm 111* .--

1.-- A policeman -- “It is always the same issue: soon they will allow children who are still just playing hopscotch to own firearms. If one could not buy rifles and revolvers so easily, young people would settle their disputes differently.”

2.-- A psychiatrist -- Armando Morales (Professor of Psychiatry, University of California) -- He sees it twofold.

a. The neglect of emotional life from which many young people suffer takes effect: “The gang replaces the family structure, which the gangsters have almost never known.

Note: This is the umpteenth case of the privative nothing (*EDM 50* (// 70,78, 82, 84), i.e. the absence of what one expects ('frustration', which, here, leads to an aggressive drive; the so-called “frustration-aggression”), of which traditional ontologists speak.

b. “Moreover, they have the impression that there is no place for them in US society. The 'gang' provides them with a place based on hatred and brutal violence.” -- Thus Morales.

Note-- Once again: the privative nothingness, a vital void.

HAR123

The gang.

These young people are no ordinary criminals. Nor are they murderers wanted by every police station. -- So what are they?

a. They exhibit 'rituals', 'codes', 'customs'. In Washington, the gang members dress in black sweatshirts with hoods. In Pine Bluff (Arkansas), one must have committed a burglary approved by “the leader” to become a member of the Folks. In San Antonio, the local terrorizers—without batting an eyelid—had the audacity to hand out business cards to police officers during a carnival celebration, stating “all kinds of vandalism”.

Note: This proves what we saw in *EDM 61 ff.* (*cynicism*) - see also *EDM 64* (*desecration*).

b. Morales: “The number of members varies from five to several hundred”. But this is of little importance.

c. Everything depends on the field of activity, on the objectives pursued, and on the personality of the leader. What is decisive is the behavior of each member, the unifying mentality. - Thus Morales.

The leader.

“The Man”, -- the nickname of Rayful Edmond (25), is now in prison in Marion (Illinois).

Between 1986 and 1989, he was the top figure in the cocaine and crack (a drug) trade throughout the District of Columbia.

Headquarters: his grandmother's house in a Negro neighborhood. Together with about twenty relatives, he controlled 20% of the drug trade there.

Weekly revenue: 2,000,000 dollars. -- The gang numbered +/- 150 members. -- They received 700 kg of cocaine monthly from Los Angeles (...).

For three years, The Man led a princely life: trips to Las Vegas, a Jaguar, a magnificent villa, opulent furniture, a \$45,000 wristwatch.

He handed out 100-dollar banknotes to all the children in his neighborhood. To his many female admirers, he gave gold earrings.

“I was the King, the King,” he said in his cell. “I had friends everywhere. As soon as I get out of prison—in a year or two—I’m opening a nightclub.”

Decision.

The crimes, in all their forms, prioritize: conflicting interests that turn violent in response to some objective. Those interests—the identity—assert themselves against the rest. That was the structure (*EDM--harm 117. -- 121*). Which was discussed just now.

HAR124

Oppositionism

Bibl. st.: J. Muurlink, *Anthropology for Educators and Caregivers (Ideological Manipulation or Self-Determination)*, Bloemendaal, 1981, 17/18 (*Oppositionalism*).

The term is new, but the matter it denotes is ancient. “Oppositionalism arises when one strongly opposes a particular term or concept and sets

another term or concept against it, to which absolute validity is attributed.” (Oc,17).

In Platonic terms: the one idea is confused with absolute non-value (*EDM 50: privative nihil*) while its opposite model is confused with value mere (the good, in Platon's language).

Applicable model

One sees something like this among a number of biologists and/or psychologists.

a. The former 'absolutize' the role of innate predisposition: at birth, in an individual biological being or in an individual soul, all or virtually all possibilities of life are predetermined—fixed.

b. The opposite, or rather, 'oppositional' view exaggerates the role of the environment: an individual being is, in his fate and life course, wholly or virtually wholly 'determined' by the environment in which he situates himself.

Note-- Reread EDM 68 now, just for a moment (*restrictive*).

In Platonism, in principle, there is no place for 'oppositional thinking': since Platon, it was recognized that against every assertion (affirmative), one can, practically always, posit an opposing opinion (negative). How? Why? Because/since seemingly absolutely opposite things are interwoven in real life. This was called 'koinonia', interweaving. Common sense already regularly establishes that a singular being is determined both by disposition and by its environment. The real is usually a hybrid form.

Appl. model

a . The Some, the Modern subjectivists, including Descartes, largely absolutize the individual subject (= the self).

b. Recently, the Structuralists, led by Saussure, have largely absolutized—to a large extent—what are called—structures (in this case: the rules by which our individual lives are determined, usually in an unconscious manner).

Restrictive: both the self ('subject') and the structures play a role. -- 'Koinonia', intertwining of both.

HAR125

**18.-- Harmology: doctrine of dichotomy (complementation).
(125/139)**

Ordering takes place 'combinatorically', that is, essentially in pairs. To this end, our mind splits the data—being—into two elements or groups of elements (set theory) and/or into two parts or groups of parts (system theory).

In short: a totality is split into two parts (dichotomy, complementation). -- It is striking that we spontaneously grant one of the two complements a kind of precedence and speak of a single given within the totality in question, and “the rest” (everything else within that same totality).

Of course, it can also be done as follows: One thinks of the totality and of what is situated within that totality. That then becomes “the totality” (whether a collection or a system) and everything that helps that totality come into being.

In short: all elements collectively and each element individually; all parts collectively and each part individually. Think of *EDM 39* : summative induction, a thought process based on this (from each element/part individually, one concludes that all elements or parts are collective). That is a dichotomy 'sui generis' (of a very distinct nature). -- These abstract things become 'alive' thanks to their applications.

1. -- Dichotomy: systechi (opposite pair).

We have already encountered this type of dichotomy: *EDM* (= course 8.1.)- *Harm 37* (su/stoichia: coherence of stoicheia (elements)).-- More on that follows.

Sumerian model.

Library st.: *SN Kramer, L'histoire commence à Sumer* , Paris, 1975, 153.

The Sumerians are an Archaic-Ancient people—they called themselves 'kengir'—who settled in Sumer between 4000 and 3000 BC. In cities such as Ur, Lagash, Uruk, and Eridu. They invented cuneiform writing.

Note: What is now Iraq and Iran is approximately the region where they lived.

Opposite pairs .

In the texts one finds typical couplings, which are systems: for example 'winter/summer' or, rather, 'Winter/Summer' (for the seasons, a natural and cosmic phenomenon, were the visible representation of 'Causative Deities',

who 'caused' those natural phenomena and immediately controlled them (as elements of the cosmos (*EDM 01*)).

HAR126

Biblical model.

“The serpent was the most cunning creature among all creatures in the fields (...). She said to “the woman” (*note*: Eve): “So that means that 'God' said 'Thou shalt not eat of all the trees in the Garden of Delight (*note*: paradise)?”

The woman replied: (...) But of the tree in the middle of the pleasure garden, God said: “You shall by no means eat of it. You shall not even touch it! Otherwise, it will cost you your life.”

Then the serpent replied: “I don’t believe any of that! To die? By no means! But what is true is that 'God' realizes that the day you do eat of it, your eyes will be opened and you will be like the deities, namely, at home in good and evil.” (...) Thus Genesis, the first book of the *Bible* (*Gen 3:1/5*).

Note: For the correct understanding of 'good and evil', see *EDM--harm 86ff.* (harmony of opposites). The 'first sin' (the Fall) would thus have been a collaboration with “the deities”, the elements par excellence of the cosmos, who “do not scrutinize so closely” and, if necessary, employ (ethical) evil to achieve their objectives , -- if necessary, a form of cynicism (*EDM 61ff.*).

Good and evil together constitute 'the totality' of the conscientious and the unconscionable. As model and counter-model.

Antique Greek model.

As *Gad Freudenthal* once explained in **The Theory of Opposites and an Ordered Universe** (*Physics and Metaphysics in Anaximander*), in **Phronesis** (*A Journal for Ancient Philosophy*) (Assen): Anaximander of Miletus (-610/-547), the intellectual companion of the founder of Greek philosophy, Thales of Miletus (-624/-545), sought order(s) in *fusis*, *natura*, nature (understood as all that is), in order to establish opposites. A prelude to a theory of order, -- very early in the Greek philosophical world.

The systems of the Paleopythagoreans.

'Harmonia', incorporation, is a central concept in Pythagoreanism (*EDM 03; 72*).

There is another list preserved, of which, naturally, the basic system is “identity/non-identity” (*EDM--harm 112*). Further dyads (pairs) were:

- (1) orderliness/disorganization,
- (2)a form/formlessness, solidity/unsolidity,
- (2)b mathematical: straightness / curvature, -- scientific: light / darkness,
- (2)c human sciences: masculinity/femininity, right-handedness/left-handedness,
- (3) ethical: good/evil.

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Note: One should now reread *EDM 36v* .: the list of categories, attributed to the Pythagorean Archytas, is essentially a set of systechiae.

Which we then find in Aristotle. Things like the “place/time” pair are the totality of nature (being), but split into two 'elements' which, in their opposition, are nevertheless interconnected.

Note: “Su-stoichos” can, for example, mean “all that belongs to the same series”: thus, in a certain usage, all the points of the same line are 'su.stoicha', coinciding.

O. Willmann, Gesch. d. Idealismus, I (Vorgesch. u. Geschichte d. antiken Ideal .), Braunschweig, 1907-2, 273 (Paleopythagorean), 10 (Plouarchus of Chaironeia (+45/+125; Eclectic Platonist) speaks of the pairs of concepts “higher/lower, good/evil, perfect/imperfect”, -- this, to demonstrate how the systemechy continues to fascinate).

Plato.

The pair of opposites “tautotes (identity) / heterotes (non-identity)” is a basic systemechy. Especially, for example, to organize concepts (and ideas): the diairetic method organizes concepts from the most comprehensive to the less comprehensive (e.g. from 'living being' to (one type, species of living beings) 'human'); the synoptic method works in the reverse. *EDM 29 ff* . discussed such scopes of concepts. There is always something 'identical' and something 'non-identical'.

The Parmenides Dialogue.

The pairs of opposites are given very strong emphasis in that dialogue.

For example, *Parm 129 a/e* . There, there is talk of the 'interweaving' and the 'keeping apart' of concepts. “One gets into the greatest predicament (...)

because of the requirement that the ideas exist in themselves, i.e., separated from one another (133b). After all, the ideas all appear to have their existence or essence in their mutual involvement, -- just as, for example, the ideas 'slavery' and 'dominion' encompass each other". (*W. Klever, Dialectisch denken (Over Plato, wiskunde en de doodstraf*), Bussum, 1981, 53)

Incidentally: G.W. Hegel (1770/1831; Marx's teacher), the quintessential innovator of 'dialectics', was once called *Platon* 's *Parmenides* "the holy Scripture of Philosophy" -- apparently because of the emphasis on the 'koinonia', the interconnectedness, of the ideas.

Incidentally: the dialogue *Sophistes* says "Insight arises only through the mutual intertwining of ideas ("ton eidon sumplokè")". (259e); -- 'Harmonia' said the Pythagoreans, -- combination.

HAR128

Note-- Reread *EDM--harm 99v* .: the syntagma in speech (= language usage) consists of expressions, the smallest unit of which is twofold (and containing somewhat opposing terms). The entirety of Structuralism is an elaboration of this.

2.-- Dichotomy: rational (intellectual) blindness/emptiness.

I. Kant (1724/1804; leading figure of the German Enlightenment) once reacted against the 'oppositional' dichotomy between, on the one hand, the pure Rationalists (Descartes, Leibniz, Wolff), who placed unilateral emphasis on pure reasoning, and, on the other hand, the empirical rationalists (Locke, Hume), who placed unilateral emphasis on sensory perception as the sole source of valid reasoning.

In summary, Kant said: "Thoughts without content are empty; ideas without concepts are blind."

The concepts of 'blind' and 'empty' are both opposites and—apparently according to Kant—correspondents (*EDM 116*). In other words: a *sustoichia*, a pair of opposites.

The common property and the elements of a set exhibit exactly the same systemechy:

a. A loose set of elements without a common property is 'blind' (without unifying insight).

b. A common property without elements that can be summarized by it is 'empty' ("hangs in the air").

It can also be put differently:

a. a regulative model (valid for all models that are its application, i.e. the applicative models) without applicative models is empty; -- for example, a grammatical 'rule' (= regulative model) without applications;

b. application models – however numerous – are blind ("say nothing") without a regulative model; -- for example, a number of similar grammatical expressions (= applications) without the 'rule'.

In another way:

a. a theory without the corresponding facts and/or practice is empty;

b. but facts and/or practice without the corresponding theory are blind.

In summary:

a. "Nothing is as practical as a good theory";

b. "Grau, mein Freund, ist jede Theorie, grün des Lebens goldner Baum" (Colorless, my friend, is every theory, green of life's golden tree), (this last statement is attributed to J.W. Goethe).

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3.-- *Dichotomy: Description (definition) of the being form.*

EDM 31 and 34 taught us what the essential form—the essence or the essential nature—of something is.

a. To begin with, there is never a form of being without the systemechny 'what/that' (essence/existence). A figment of the imagination—a fantasy, as psychologists so like to say—is something, namely: one can describe its 'what' ("I dreamed by day that my beloved was standing there, but when I opened my eyes after the nap I caught, I saw 'nothing'": that daydream is 'something' that exhibits a form of being) and one can also describe its 'that' (the 'what' existed only in my sleepy imagination). -- The same applies to the absurd.

b. Furthermore, there is invariably a dichotomy in the description. After all, the essential form is that which makes something distinguishable/separable from 'the rest' ("everything else").

1.-- *The singular (individual, singularized) form of being.*

Think of yourself: what you define, how are you going to describe, or define, it? Only by pointing to everything that makes you distinguishable or separable from 'the rest'.

Duality. - The unique (only one) distinguishes itself from the rest both by the general form of being (application: you are a human being ... and not an animal or plant or rock or an angel, which characterizes 'the rest') and by the individual form of being (you are this human being here and now and ... not that one there and a little further away; although human like all human beings, you are nevertheless distinguishable/separable from all other human beings ('the rest' of people)). Duality!

2.-- *The particular/universal being form.*

We have just clarified that. -- A human being, for example, or a part of human beings—think of the Negroes—have a universal (all human beings) or a particular (some, a part) form of existence. Irreducibility to the rest—universal: everything that is, for example, not human; particular: everything that is not some human beings—is the means of definition. But only if a dichotomy (all/ not all; some/not some) underlies it. Cf. *EDM 30* (*scopes of concept*).

4.-- *Dichotomy: foreground ('figure')/ background.*

The Structuralists, following in the footsteps of Saussure, drew our attention to combinatorial reason. “Das Kombinieren im eigentlichen Sinne (von 'bini', je zwei) hat Gleichgeordnetes zum Gegenstande” (Combining in the proper sense (i.e., 'bini', in Latin 'two at a time') has as its object whatever fits together in the ordering). (*O. Willmann, - Abriss der Philosophie* , Wien, Herder, 1959-5, 46).

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This text by a Willmann, the Platonist, proves that Structuralism modernized an ancient intuition.

So far, we have provided one-sided set-theory examples of dichotomy. Let us now also consider system-theory models.

1.a. *Common sense (commonsensist).*

Everyone, with his/her 'common sense' (i.e., all people who are more or less normal, common sense), prioritizes the 'foreground/background' dichotomy—unconsciously. “That beautiful girl there, on the blonde beach,

frolicking in the sand—how she stands out, with her jet-black hair and bronzed skin, against the horizon bathed in the light of the setting sun!”

1.b. Perceptual psychological

In perceptual psychology, a 'figure' is a (geometric) form that detaches itself from a totality—think of the concept of 'system' (*EDM--harm 91 (coll. str .), 93 (systematology)*)-- . But precisely because of this, the 'figure' becomes the foreground against a background! Yet always within the totality in which both belong together. A dichotomy!

Applicable model

One listens attentively—observation—to a beautiful song. The melody—especially in the form of the refrain—detaches itself from the whole (totality) of the song, thanks to the perceived repetition thereof. One can then speak of “the theme”.

Note -- Gestalt or form psychologists will, here, speak of 'Gestalt' ('form') instead of figure. And our Paleophythagoreans (*EDM 04*) (*EDM--harm 104*) speak here of 'arithmos', correctly translated as 'number-form harmony'. Both Gestalt (form, perceptual form) and number-form harmony always stand out against a background.

2.a. Surface area/depth

M. van Loggem, trans., Norbert Sillamy, Lexicon of Psychology , Utr./Antw., 1974, 87v., broadens this system.

a. The fact.

A student at school falls behind (surface area).

b. The explanation (interpretation).

Falling behind is merely the “surfacing” of a disorder (figure) that reveals both the overall state of health and the overall psychosocial situation (both aspects are background).

Sillamy says: “The organism (of the student) functions as a whole, the parts of which, which occasionally come to the fore, cannot be separated.” (Ac, 88).

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2.b. Structuralist language use.

When reading structuralist texts, it is striking that the terms 'surface/depth'—or in the form of 'surface structures/depth structures'—occur quite frequently.

5.-- Dichotomy: internal and external comparison.

Library st.: L. Davillé, *Le comparaison et la méthode comparative (en private dans les études historiques)*, in: *Revue de synthèse historique* XXVII (1913): 4/33; 217/257 ; xxviii (1914): 201/229.

The comparative method is commonplace in harmology (more on that later). In doing so, the proposer distinguishes two viewpoints that ... represent a dichotomy. A given entity—e.g., an ant—can be 'compared' (= analyzed) internally: the parts and various functions of the organism (which is a biological system) are compared with one another so that the relationships are revealed.

But that same given can undergo an external comparison: the ant is analyzed insofar as it is situated within a totality, e.g. the ant nest.

If you like: first the hypo- or subsystem (internal equation), then the (hyper- or super)-system in which the first is located (external equation).

Applicable model: Augustinian social criticism.

a.1. St. Augustine of Tagaste (354/430; the greatest Church Father of Western Patristics), like many contemporaries, held in great esteem the fact that Rome, as a world empire, had established a kind of legal order, the foundation of the 'Pax Romana' (the Roman peace). Many peoples who previously lived in (sometimes continuous) discord were brought to 'peace' by the strict legal order of the Romans.

a.2. But Augustine was (became) both a Christian and a Platonicist. A Platonicist

(i) establishes facts (= phenomena)

(ii) but coinciding with the idea of those facts, which, in fact, constitutes the ideal thereof. Thus he proceeded from the premise that the idea (= ideal) 'peace' exists in a higher (divine) order.

Here is what he writes: "The order and justice that the Roman state established amount—ultimately—to a caricature (literally: "laughable imitation"),—to a degenerate form—ominous in nature—of a natural and

Christian order.” (*Fr. Ferrier, S. Augustin* , in: *D. Huisman dir., Dict. des philosophes* , Paris, 1984, 141).

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In other words: the visible and tangible phenomena (*EDM 17*), the foreground, stand out, within a Platonic view, against the idea, understand: the ideal, the background. A typical Platonic dichotomy.

b.1. For *S. Augustine* , behind that mask of the actual Roman legal order, forms of injustice and violence (*EDM--harm 121 : conflictology*) lurk. -- Two-part Augustinian analysis (= comparison).

(i) In an internal comparison, he observes that, within the Roman Empire, centered mainly in and around the 'eternal city' (Rome), a possessing class continually accumulates wealth, -- the basis of a life full of pleasures - a kind of Ancient 'Dolce Vita'.

(ii). In an external comparison, he establishes that the Roman state and state community wallow in war profits, the result of imperialist wars outward. Was the name of a conquered territory, at that time, not 'pro.vincia', territory of profit?

It is clear: both comparisons—understand: analyses based on comparison—go “hand-in-hand,” i.e., they are correlative (symmetrical). There is, namely, a (causal) connection between internal Roman capitalism and external Roman imperialism.

b.2. There was more:

i. the possessing class, as a proponent of the premise that 'property' is 'absolute property' - *ius utendi et abutendi* (the 'right' to ... use and misuse what is property) - had to stop listening (*note* : *parafrosunè*, to look past it and think otherwise) to those who denounce such abuses;

ii. those who do not accept such abuses—and, above all, say so out loud to boot—had to be eradicated like a kind of 'weed', banished from the community, and go into exile: for they were touching something that the capitalist class considered “its happiness.” Thus wrote the great saint in his magnum opus *Dei* (On the City of God), 2/20.

Applicable model: the Grossian principle. -- “Das Grosse'sche Prinzip”, in German.

Library st.: *E. Grosse, Die Anfänge der Kunst*, Freiburg im Breisgau, 1894;

Die Formen der Familie und die Formen der Wirtschaft, Fr. i. Br., 1896.

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The premise of this non-Marxist writer reads: “Economic activity:

(a) is the life center of every cultural system,

(b) is - in the most profound and irresistible way - the main factor of all other cultural factors”.

So much for the axiom.

Note: Somewhere, he broadly illustrates his premise with a sentence by Ludwig Feuerbach, a radical left pupil of Hegel.

Jakob Moleschott (1822/1893; mechanistic materialist), * *Lehre der Nahrungsmittel für das Volk* * (1850), is summarized, after being read by Feuerbach, in his **Natuurwetenschappen en revolutie** (1850) as follows: “If you wish to improve the people, give them better food instead of railing against sin: *der Mensch ist was er iszt* (man is what he eats)”. (*H. Arvon, *La philosophie Allemande**, Paris, Seghers, 1970, 188).

Grosse, in turn, expresses this as follows: “Wenn man weisz was ein Volk iszt, so weisz man auch Was es ist” (“If one knows what a people eats, then one immediately knows what it is”).

Note-- From a systems theory perspective: the entire culture can be interpreted as a (hyper- or super)-system. If internal comparison is applied to it, one quickly establishes that the factor – 'stoicheion' (*EDM 01*) – 'economy' (primarily understood as the production, distribution, and consumption of preferably vital goods and services), a hypo- or subsystem of the overall culture, is a principal factor such that it literally 'governs' the total culture as its basic premise.

A dichotomy within the culture itself, which places emphasis—a deserved and verifiable emphasis, that is—on one or, perhaps, the main factor. Or again: the economy is the figure that dominates its background. -- We will now consider one illustration of the Grossian principle.

The legal position of women.

W. Koppers, SVD, *Die materiaallwirtschaftliche Seite der Kulturentwicklung*, in: *Settimana Internazionale di Etnologia Religiosa* (IVa Sessione (Milano 17/25.09. 1925)) Paris, 1926, 109, gives—following in the footsteps of Father W. Schmidt, SVD, (1868/1954; religious scholar known for his concept of 'Urmonotheismus' (Oermonotheisme (EDM--harm 87))), which was endorsed by the Grosse in his religious studies research—the following applicative model.

HAR134

(a).-- *Internal comparison.*

1. Generally speaking, it is the case that in Modern Europe, since the liberal, free-market economy, the legal position of women has undergone a serious change: thus, today—1925—she generally possesses the right to vote, the right to university studies, the right to free choice of profession (...),—things that were non-existent for her decades ago. -- Thus Koppers.

2. “Who would now misunderstand or even deny that the Modern – specifically: the Capitalist – development of the economy is to be held primarily responsible for that state of affairs?” -- Thus Koppers literally.

Note-- Conclusion: the economy and women are two hyposystems within the (hyper)system 'culture'. Once compared, they appear to be causally related: the free market economy creates an emancipatory legal position for women.

(b).-- *External comparison*

The concept of 'analog reasoning'. Let us begin with a very simple applicative model: both Earth and Mars are planets; well, Earth has an atmosphere; therefore Mars also possesses—probably (EDM 46)—an atmosphere.

Definition: from a known but analogous model, one concludes towards an unknown original (in model-theoretical language).

Or, as *Pater Lahr, Logique*, 608, says: “As a method, analogy is a reasoning that concludes from some similarities (note : it is a case of metaphorical analogy) that have been verified (observed), into other similarities yet to be verified”.

Koppers is now carrying out such reasoning.

(i) The data. -- These are such that, in traditional (Archaic, Classical) cultures, they give rise to an analogous (partly similar, partly different) relationship “economy/woman”.

(ii) The name for the very special legal position unique to women in very limited parts of the globe is 'matriarchy' (mother rule). Or also 'mother right'. This means: to understand such a culture, one must presuppose that the woman – embodied in a limited number of women or even a single one – controls it to a large extent.

(iii) Starting from the Modern legal position, together with its cause (the economy), Koppers concludes that specific economic reasons explain (make understandable) that parent law.

(iv) The position of those matriarchal ladies must have been such that – metonymically – the entire culture (not just a part of it) can be called 'matriarchal'.

HAR135

6.-- Dichotomy: *Prosopopoeia* (description of outlook) / *ethopoeia* (description of interiority).

H.I. Marrou, **Histoire de l'éducation dans l'antiquité**, Paris, 273s., gives, in thirty-six parts, the structure of—what was then called—the 'enkomion', still translatable today as what in academic circles, in Latin, is called 'laudatio'—eulogy.

But look closely at the structure in its division:

a . One praises someone according to their environment and physical appearance; - the Behaviorist aspect (that which is visible and tangible when viewed from the outside).

b. But those little flowers apply, in classical antiquity at least, even more to the 'soul', that is, the inner self, of the praised one.

Note: It is known that this dichotomy also governs the entire endeavor of the **Geisteswissenschaft** (spiritual science) of W. Dilthey (1833/1911), founder of the **comprehensive**, **verstehende** method, as its fundamental premise.

Through what is externally observable, the Diltheyian attempts to penetrate, primarily through empathy and dialogue, to the soul-life—called 'Geist'. Dilthey actualized and re-established an ancient pattern of thought.

Applicable model

To make those abstract ideas 'alive'—to make the 'empty' (*EDM--harm 128*) 'full', to 'fulfill' it, as the Phenomenologists say—here is an application.

a. Herodotus of Halicarnassus (-484/-425; founder of geography and ethnology, -- also called “the father of historiography”), in his *Historiai* (literally: information gathering), spoon-feeds us the information, as it were. - -- But first, a brief characterization:

- i. Herodotus was traditionally religious;
- ii. But he was, with his extremely democratic openness—further reinforced by his well-traveled business life (he was a businessman)—at the same time a follower of Milesian natural philosophy, which, instead of merely tradition-bound belief—or rather with that kind of religiosity, engaged in 'historia', inquisitio, and the investigation of the 'fysis', the nature of things.

Conclusion: a synthesis of old and new.

b . Multiculturalism. -- Herodotus, as a Greek from Asia Minor, was familiar with many cultural types that were sometimes very different from his own. This gives him an inclusion (instead of traditional exclusivism) of “all that is different” (cf. *EDM 41*) that is welcome to Postmodernists. -- We shall see this shortly.

HAR136

Note: Multiculturalism does away with a rigid divide that led to the “Babylonian confusion” of peoples (cultures).

a. The Exclusivist views “anything that is different” as “not-I”, as so 'different' that an unbridgeable chasm yawns.

b. The Inclusivist, on the other hand, sometimes sees and experiences “anything different” as very painful, but in an endeavor of 'inclusion', he or she nevertheless tries to keep the conversation going. The gap is bridged as much as possible.

Note: This radicalization of the “I/other” dichotomy is also somewhat reflected in the research behavior of many a Behaviorist: what is being studied, the 'other' human being—in the eyes of the Inclusivist, the 'fellow man'—is apparently so radically different that one “clammers” (brackets) one’s inner life—as what is called in electrician circles “the black box” (the electrician cannot open it, but can insert or remove wires), upon which one applies 'stimuli' to obtain 'reactions' (answers). Stimulus-Response scheme!

That is precisely what the Diltheyan transcends: he attempts at all costs to achieve direct contact—meeting (*EDM--harm* 78)—in a rather inclusive attitude toward “all that is different”.

c.1. What Herodotus says.

Library st.: DH Teuffen, *Herodot (Sieben und Andere Wunder der Welt)*, Wien/Munich, 1975, 82/86 (*Die schrecklichen Reiter*), fl. 84f.

Note: 'Neuris', in Ancient Greek, is the land of the Neures (Neuroi), according to some a Scythian (// Skutisch) people, in any case the northern neighbors of the Scythians (Skuten), roughly in the east of present-day Poland.

What Herodotus learned about the Neures seemed simply inconceivable to him. “These Neures—so he says—are, in my impression, a people of Magi. For the following is related by the Skutes and the Greeks living in Skutia (Scythia).”

Each Neur transforms himself once a year, for the duration of a few days, into “a wolf,” to then become “a human” again.

Herodotus, unaware of what motivates those Neures, says: “Such stories cannot convince me. But people assert it with rock-solid conviction, indeed, they swear an oath on it.” (Hist., iv, 105).

c.2 . What current religious scholarship says on the matter.

Teuffen, oc 84, writes: “The witnesses rightly swear to it, for ‘the wolf’ was the totem animal of the Neure. They were convinced that they were related to ‘the wolf’.”

HAR137

They depicted this kinship in their liturgical plays, during which they wore wolf masks and wolf plays.

Such beliefs were commonplace among the peoples who inhabited the forests of the north, where the wolf was, incidentally, numerous.

Seventeen centuries after Herodotus

- In 1240, in * *The Secret History of the Mongols* * (recorded at the behest of the Khan of the Mongols, Ugedei, the son of the infamous Genghis Khan), the following is mentioned: "The great ancestor of Genghis Khan was a 'Grey Wolf', who was begotten by 'the High Heaven' and chosen by 'Destiny'. -- His wife was a 'White Hind' (*note*: female deer)". -- According to Teuffen, *ibid.*, the totem animals of two tribes are mentioned here.

Conclusion . -- As an already 'classical' (meaning strongly rational thinking) Greek (*EDM 05*), for whom the mythical worldview already belonged to the past, the otherwise so open Herodotus stands rather distant—like the Behaviorist—from what his informants testify:

- a. he can see the view of it;
 - b. but no longer penetrates the inner world of the Totemistic mentality.
- The dichotomy here operates between Rationalism in its rather exclusive rejection of 'mythical stories' and the empathetic 'understanding' ('verstehen,' says Dilthey) with its inclusive attitude.

Applicable model

Teuffen, *oc*, 84.-- *Scythian Shamanism* (*EDM 04*). Let us read further, along the same lines, in Herodotus.

a. **Herodotus** knew—according to Teuffen—only the outward appearance of Scythian Shamanism. What its soul was eluded him almost entirely.

Nevertheless, his account—he deliberately wanted to be a reporter—is so accurate in its details that we—who have more information at our disposal from religious studies—can not only verify exactly what Herodotus meant, but also know immediately that, in his account, we possess the oldest known depiction of Shamanism.

b.1 . *Description of the view.*

Herodotus writes: "After a funeral, the Scythians perform purification as follows. They anoint their heads and then immediately wash them off. Thereupon they 'purify' the body after the following preparations.

HAR138

They lean three rods against each other, spread strips of felt over them, and pull them firmly together.

Then they place a basin in the middle of the space between the rods and the felt strips and throw glowing stones into it (...).

Thereupon they take hemp grains, crawl under the felt covering, and lay them on the glowing stones: the grains begin to give off smoke and they generate a strong vapor (no Greek sweat bath surpasses this steam bath, I think).

The Scythians are so happy at this that they weep loudly. -- These are the baths. They never bathe in water.” (Hist., iv: 73; 75).

Explanation:

Teuffen, oc, 84, says: “Herodotus has just given an account of the funeral celebrations. Following this, he describes the sweat bath.”

Upon reading, one observes the exact perception of the visible and tangible actions. But between the lines, one also reads that Herodotus grasps the meaning-making of the Scythians only partially—if only he has not misinterpreted it.

Thanks to current ethnological research, we currently have a wealth of accounts regarding similar practices among numerous other peoples who reached the same cultural stage—or, at least until recently, had reached it—as the Scythians of that time. These accounts come mainly from Central and North Asia and from the Americas.

b.2. View description.

Hist., i: 202. -- Teuffen: “Herodotus could know nothing about America, and North Asia was also beyond his reach. But of the Central Asian Massagetes he mentions a similar practice, -- albeit from an indirect source, by hearsay.

There are said to be, among them, other 'trees' that bear fruit of a special kind. -- When the Massagetes are gathered in a larger group, they light a fire, sit down in the circle around it, and throw the fruit into the fire.

Thereupon—from the incense caused by the combustion—they enter such a state of intoxication as Hellenes become drunk from drinking wine. The more

they throw of those fruits into the fire, the more 'drunk' they become, until they leap up to dance and begin to sing.

HAR139

Explanation.

Teuffen writes, oc, 85: “What Herodotus calls 'trees' were certainly hemp plants whose branch ends contained a resin (which is also used to make hashish (marijuana)).

Note: -- This refers to Cannabis sativa, from which drugs are still extracted today. That resin causes the intoxication.

Herodotus, however, did not visit the Massagetae himself—and therefore did not see the fruit and its surprising effect himself. Thus it did not occur to him that it was hemp.

This, -- all the more so because he heard nothing in Scythia of its narcotic side effects. -- Perhaps also those side effects were kept secret from strangers by the Scythians because this had to remain a ritual secret.

Consequence: Herodotus learned of hemp only for its usefulness in weaving linen. This was all the more interesting to him since hemp, in Greece at the time, was still unknown as a commodity, unlike flax.

Decision.

Herodotus could not have known that what took place in the Scythian sweat tent was not intended as physical purification—as he thought—but rather as the farewell that the living—led by the shaman—provided to the deceased in the underworld, during which they fell into a state of intoxication-like ecstasy under the influence of hemp. Thus one resolves the patent contradiction that, for Herodotus, was attached to the assertion that the Scythians “rejoiced so much that they ‘howled’ like wolves.”—Thus Teuffen’s commentary.

Decision.

The dichotomy of 'outward appearance (prosopopee) / inwardness description (ethopee)' in Greek rhetoric, with which Herodotus was already somewhat familiar, if only through the practice in the popular assemblies ('ekklèsiai'), where every citizen had the right to speak, holds water, for it captures real things: no matter how precisely one can describe the outward

appearance, like the scientifically oriented Behaviorists and their ilk, one knows virtually nothing about the inwardness behind that outward behavior.

The cited texts of Herodotus, who nevertheless thought in a deeply religious and radically inclusive manner (and was therefore excellently suited to penetrate into the life of the soul—'Geist,' says Dilthey), prove this by their surface description without rendering of depth (*EDM--harm* 130). Consequently, we read only two overview descriptions.

HAR140

19.-- Harmology: measuring equation. (140/143)

L. Davillé, ac, xxvii (1913), 20, says: “The comparison can be either direct or indirect.

a. -- One can, after all, directly confront at least two data with each other, without a detour, without a third data.” The binary comparison of A and B without C only allows one to speak of A or B in terms of B or A.

b. However, if one must introduce at least a third data point to compare them, then one is dealing with an indirect comparison. This is precisely the case whenever a common 'measure' (*note*: 'measurement model') is used.

The ternary equation of A and B with C allows one to speak of A and/or B in terms of C.

Appl. mod.

It is known that, for example, one carat is equal to 1/24 of “fine gold” (“or fin”) in a given mass of “gold”; which means that perfectly pure gold is 24/24 carat. To measure “fine” (“pure”) gold, a measuring model called “carat” has been introduced. All “original” gold can be translated into the single model “carat,” multiplied by a number (1/24 - 24/24).

Euclidean model.

Euclid of Alexandria (-323/-283), in his *Stoicheia geometrias* (*Elementa geometriae*), sets out a first axiom: “Data that is identical to the same third is immediately mutually identical”.

This is a spatial- and numerical-mathematical application of the measuring equation. “If A and B are equal to C, then A and B are immediately mutually equal.” (*L. Brunschvicg, Les étapes de la philosophie mathématique* , Paris, 1912-1; 1947-3, 88). In other words: C is the 'measure' or (common) measurement model of A and B.

Cartesian model.

R. Descartes (1596/1650; founder of Modern Rationalism), in his **Regulae**, xiv, discusses the comparative character of the Euclidean axiom.

By means of comparison we find the figure (*note*: configuration, spatial-mathematical form), the extent, the motion etc. - the singular natures (*note*: Descartes calls the irreducible data by this) - in all the data in which they happen to be present.

On the other hand: given a derivation of the type “Every A is B, every B is C; therefore every A is C”; it is clear that our mind compares the given and the sought term, A and C, with one another, yet from the viewpoint that both are B. (*M. Foucault, Les mots et les choses*, Paris, Gallimard, 1966, 66).

HAR141

Thaletic measurement model.

Thales of Miletus (-624/-545; founder of Greek philosophy) was also interested in all kinds of emerging (natural) sciences of the time.

Gaius Plinius (Caecilius) Secundus (62/114), *Historia naturalis* (*note*: 'Natural history', the literal translation of the Greek 'historia fusikè', investigation into 'fysis' (nature)), 36: 82, relates that Thales found a method to measure the height of an Egyptian pyramid. It is perhaps the oldest known example of a measurement method based on comparison.

1. The concept of a 'model'

A measurement model is only one type of model. 'Model' is a known given G that serves to describe an unknown given O ('to describe' means to provide information). Here, O, the original, is the height of a pyramid.

2. The Thaletic measurement model.

Given: the pyramid; asked (sought): its height.

Note: -- One can also phrase it differently: one asks to depict the height in

a. a measure (measurement model),

b. expressed in numbers (number model). Or: one 'projects' the height into a measurement model and a number model. 'Representing', 'projecting' means representing in something.

Rule.

Thales' regulative model states: "For all vertical objects, it holds that at a certain moment a light source, e.g. the sun, exhibits a position—here the position of the sun (t_z = moment of the position of the sun)—which, for all measured measuring models—such as the sun staff used by Thales—is such that the shadow cast by it (1 hor = horizontal length) is equal to the height to be measured (1 vert = vertical length) thereof".

Simpler : Thales seeks a stick that at a certain moment casts a shadow that is as long as the stick itself. Second part of the rule: "at exactly then (t_2) the position of the sun is, simultaneously, such that the shadow cast by the pyramid (1 horizontal) is as long as the height (1 vertical) of the pyramid to be measured".

Application.

When the shadow of the sun staff is as long as the staff itself (which is easily feasible (*EDM 16: technical testing*)), then one only needs to measure the shadow cast by the pyramid to find the desired height.

HAR142

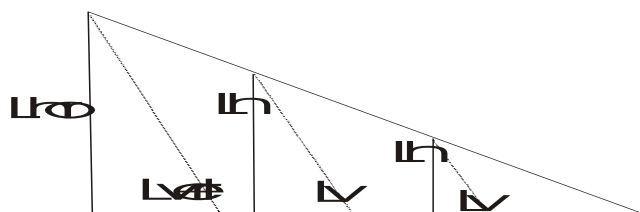
Decision.

The cast shadow is the known—model, measurement model—to 'describe' the unknown—original, the height of the pyramid to be measured—in measurement models that apply to both. These are then models of the second degree.

Fr. Krafft, Geschichte der Naturwissenschaft , I (Die Begründung), 89, says: "Thales simply applied the method long known in Egypt."

Such observations give us an idea of the Ancient East. It is not surprising that an old saying goes 'ex oriente lux' (light comes from the East). Seen in this light, the Greeks, although our pioneers, were actually latecomers.

Note: The 'principle' (presupposition) of both the Egyptians and Thales is the principle of isomorphism (model identity), applied to similar bodies.



The measuring equation according to R. Descartes.

Library st. : *M. Foucault, Les mots et les choses* , 67ss..

Descartes notes that one can measure both continuous and discontinuous data.

a. In both cases

(i) first consider the totality (= set, system),

(ii) but one divides them - true to Descartes' analytical method - into 'parts' (elements, components), called 'units'.

Note: -- Descartes is sometimes accused of having no sense for totalities. That is evidently incorrect. However, he is averse to 'vague' thought models. That vagueness is overcome by splitting totalities into 'parts'.

b. Descartes concludes:

“ **(a)** Comparing two quantities (quantities, -- understand: continuous data) or comparing two discontinuous data requires, in any case, a common unit (*note:* measurement model) used in the analysis.

(b) Thus, the measuring equation amounts in any case to the arithmetic relations of equality and inequality (*EDM-harm 112*). The 'measure' allows “le semblable”, the similar, to be analyzed according to the calculable form of identity and non-identity”.

This text characterizes the Cartesian method “by heart”.

HAR143

The transsubjective, 'objective', character of the (measurement) model.

Library st.: *H. van Praag, Measuring and Comparing* , Teleac, Hilversum, 1968, 7.

As the French mathematician Henri Poincaré (1854/1912) demonstrated, it is:

(a) the choice of the measure is a subjective matter,

(b) the use of the once chosen measure an objective fact”.

Applicable model

(a) It depends on my free choice whether I measure “a distance traveled” in meters, yards (three feet: 0.9144 m, since 01.07.1959) or fathoms (une toise, in French, -- six feet or 1.96 m).

(b) But, although chosen by the 'I', the measure has to do with an objective length (e.g. distance traveled): the result of the measurement will—different in meters, yards, or fathoms each time—be exactly the same as regards the distance. The measurement result itself will be identical, -- which every human being will be able to replicate.” -- Thus van Praag rightly.

Note:-- The ancient concept of 'metron' (Gr.), mensura Lat.), translatable as 'measure' or 'norm' ('rule'), is usually broader than our current concept of 'measure', says Van Praag, *ibid.*, as follows:

The Greek philosopher Protagoras of Abdera (-480/-410; leading figure of Greek Protosophy) aroused the indignation of Socrates of Athens (-469/-399; the founder of Attic philosophy, known as 'Classical') with his famous statement: “Man is the 'measure' of all things”. Socrates rightly argued that 'measuring' and 'pure subjectivity' are mutually exclusive.

Let us revisit, briefly, *EDM--harm 131v* . (Augustinian social criticism), in that light. -- Augustine – certainly as a Platonist – compares:

(i) the phenomena, expressed in modern terms: “the facts” regarding the ethics in the structures of the Roman peace,

(ii) with the ideal of 'Roman peace'. In ancient languages one will not encounter 'ideal', but rather 'metron', 'mensura', 'measure' (measuring model).

It is the case that 'measured' by the 'measure' of the ideal, the Pax romana is “a laughable imitation” (caricature). The measure in ethical-political matters (human science data), however, can never be expressed in numbers. The Cartesian method is therefore not applicable there. This does not imply that such a measure is purely subjective. There will always be something subjective in it. Yet, the objectivity is also undeniable.

HAR144

20.-- Harmology: differential theory. (144/153)

Harmology is the study of relations. -- We have seen them pass before our eyes. Now once again a new relation or, rather, network of relations (structure), namely the fan, the gamma, the spectrum, -- somewhat more learnedly: the differential.

Vocabulary.

Fan: think of the sprawling yet held-together magnificent feathers of the peacock as it parades. Spectrum: a single white, caressing beam of light is spread out in splendor of color through the glass prism. Gamma: the definition reads: “a series ordered on the basis of differences”. Like the musical scale or the color gamut.

Definition.

EDM--harm 112v. already gave us a first description. Let us now delve deeper into that. -- The structure called 'differential' can be described in three aspects.

a.1.-- Configuration.

A clear example of configuration can be found in *EDM harm 104* (Pythagorean). -- A configuration or placement structure amounts to a number of places in which a number of elements/parts can be situated. -- As for the differential, there are three 'places' on one line:

+	+/-	-
---	-----	---

The n-foldness of a differential is at least 3-fold, as in the simplest example above. However, there are 4-fold, 5-fold, and EDM configurations.

a.2.-- Polarized value series.

It is already clear from the drawing above that the elements/parts must be divisible into + (positive), +/- (restrictive), and - (negative).

In other words: a differential is a systechie (opposite pair) +, - that is torn apart and, in the created interval (space), filled with at least one value (here +/-). This implies that the theory of opposites (*EDM--harm 112 ff.*) retains its full weight here.

+	+/-	-
all of them	not all	all not
entirely	not entirely	not at all
greater than	directly	smaller than
Good	good and evil	Angry

You can see it: invariably a graduated list of values.

Note: The term 'polarity' means, besides being provided with poles, “the separation (diverging) of a unity into an opposing duality” (van Dale (1989)). 'Polarize' means to create or even intensify contradictions.

b.-- Combinatorics.

Library st. : C. Berge, *Principes de combinatoire* , Paris, 1968.-

Another name for 'combinatorics'. Mind you, in French, where 'combinatoire' predominates. According to C. Berge, oc, 6, *Leibniz* , in 1666, at only twenty years old, is said to have published the first treatise on combinatorics, namely * *Dissertatio de arte combinatoria* *. But oc, 5, the author states that “la combinatoire existait dans l'antiquité chinoise” (combinatorics existed in Chinese antiquity).

Starting point : the configuration. Thus, one seeks a 'configuration'—according to the proposer—whenever one wishes to place 'elements' (e.g., objects) in such a way that a specific arrangement is respected.

For example, Noah's Ark, in which pairs of animals each had to be assigned a place to escape the flood. Simpler: placing a number of goods in a (too small) cupboard.

The reverse is also possible: one has a number of elements at one's disposal and seeks a spatial structure to bring them home.

The addition of the positions and/or elements to be placed is also the work of combinatorics.

Here: values—polarized values—are placed in the 'places' suitable for that purpose. This is evident from *EDM-harm 144* , at the bottom. The boxes (places) are provided with a certain order(ship). Specific 'values' fit into them, whose structure is depicted in that order (shipment).

Examples.

See *EDM: 43 (45)* (*alethic mod.: necessary/ not necessary/ necessary not*) , -- *EDM 46* (*alethic mod.: true/ likely/ false or true/ likely/ unlikely/ false*) , -- *EDM 58(43)* (*ethical mod.: mandatory/ not mandatory/ not mandatory*) , -- *EDM 68* (*judgment quality: is/ is not/ is in a certain sense yes, in a certain sense no*).

Another example.

Placement of psychological tendencies on a line according to the object: introspective psychology/ depth psychology/ information processing psychology/ cognitive psychology/ neo-behavioral psychology/ naive-behavioral psychology, -- are arranged on a kind of differential, which ranges from the analysis of the 'inner life' (*EDM--harm 135*) to externally observable behavior

HAR146

Note: Humanistic psychology is excluded from this schema because it opposes the scientific discipline of psychology, -- at least in the eyes of a number of psychologists.

Gestalt psychology, around 1920+, reacts against introspection, which it retains as a method but rejects as an object of psychology.

The diagram reveals cognitive and information processing psychology as a standpoint.

Incidentally : cognitive psychology

(i) somewhat prioritizes Neo-behavioral psychology: the SR schema (*EDM 36*). Specifically: a stimulus (S) elicits a response (reaction) (R) somewhere. But between S and R, Neo-behavioral psychology situates:

- i.** motives and drivers ('motivation'),
- ii.** reinforcements of motives/drivers ('incentives') and
- iii.** the learning process (habit factor).

'Behavior' (outward description) is the result of S -- motiv./ incent./ leerpr. --R.

However, cognitive psychology situates intellectual factors ('cognitive factors') primarily between S and R, except for what the Neo-behaviors place in between. Such that R ... creates a 'meaningful' (understand: plausible to the human mind) situation.

Information processing psychology is a type of cognitive psychology, but one that examines the inner self more closely ('Study of Mind'). In doing so, the 'S-R' schema is abandoned. The complexity of the inner self and behavior receives more attention (a whole range of structures/systems make up the human being).

The emphasis will be on:

(i) the information (from the environment), accumulated in a primary 'system', the memory (in the sensory, immediate processing and lasting form),
(ii) is recalled from memory and thus leads to 'behavior', arising from a 'decision'.

Mathematical examples.

The concept of 'function' (e.g. $x = y + z$) is known - read: "x is a function (dependent) of $y + z$ " - (EDM 38). -- Its variable(s) vary, show differences, preferably in a 'minus' (= infinitely small) way.

Consequence: the function itself varies along with it (is the mapping). The 'differential' of a function is its variation (change). Subject: differential calculus.

HAR147

The rule of three.

The rule of three is one application of a mathematical differential, namely from zero to, for example, one hundred (one thousand, ten thousand, etc.). Key position: exactly one. -- Verify: a statistical induction results in, for example, 53%. This encompasses a range from, for example, 0 to 100, consisting of minute differences. In this way, one can know, for example, to within a hundredth (one thousandth, one ten thousandth, etc.) what percentage, per mille, etc., a value represents.

Thanks to those 'differences' ranging from zero to the maximum that is chosen, -- from smaller to larger.

The Cartesian Coordinate System.

Descartes revolutionized mathematics by introducing coordinates: the x-axis (horizontal, for example) varies—with small differences—from -infinity to +infinity; the y-axis (vertical) likewise varies from -infinity to +infinity. Two intersecting, interrelated 'differentials'.

The logical differential.

This can now be sharply defined: it is a system, opened up in the middle (interval); it is the 'place' (combinatorial) of values that show (small) differences in an ordered form.

Besides the mathematical and non-mathematical models above, there are infinitely many 'differentials'. -- For example: "all possible/ all actual -- extremely many, very many, fairly many -- rather (much/ few) -- fairly few,

very few, extremely few -- almost none, exactly one - none". One sees the ordered – logically ordered – differential.

The polarity profile (semantic differential).

A 'profile' is a sketch of something such that some details (aspects)—preferably the supporting, 'relevant', important ones—appear 'expressive': think of the silhouette (side view) of a face.

Example.

Bibl . st.: D. Szanton, *Cultural Confrontation in the Philippines* , in: *Cultural Frontiers of the Peace Corps* , Cambridge (Mass.)/ London, 1966, 35/51 (fl. 53).

The article has 'multiculturalism' as its theme (*EDM 41v. (Postmod .)*; *EDM--harm 135*). The members of the Peace Corps had to process the culture in the Philippines, together with the population.

The recording (reception) extended from;

- (1) preference/ acceptance, via
- (2) aloofness, until
- (3) rejection/dislike.

A differential, which is also found among students towards teachers. And ... vice versa!

HAR147

Opinion survey.

Opinion polls are 'in'. The polarity profile is reflected here as well.

Library st.: Ch. Osgood (1916/1991; American psycholinguist (1954: with T.E. Sebeok 'Psycholinguistics'). - His * *The Measurement of Meaning* * (1957), revised by P. Hofstätter, presents a 'semantic differential' regarding meaning analysis, with mathematical accuracy.

Appl. mod.. -- One analyzes the public's perception ('image') of someone - e.g. a school principal, a film diva, a politician.

A teacher can be assessed in the following way: the parents are presented—in a secret interpretation—with a three-part differential value consisting of “competent/undecided/incompetent”. The parents fill in one or

more of the boxes. Result: x percent 'competent', y percent 'undecided', z percent 'incompetent'. This is then summed up to - x, y, z.

The polarity profile of the teacher.

Think of marketing (sales science): a new product can be tested using a “sells well/undecided/sells poorly” differential among resellers and consumers. – A series of ordered differences.

The scale.

Scale is by nature, as it were, polarized: have the terms 'large-scale' and 'small-scale' not become commonplace over the last few decades? They represent a differentiation that has gradually been built into our everyday language.

Appl. models.

For example **(1)** economic.

Large, medium-sized, and small enterprises populate a free-market economy. -- Moreover: since Lord J.M. Keynes (1883/1946), one speaks of micro- and macroeconomics. The national economy on a small or medium scale (micro-) and the national economy on a national and international scale (macro-).

For example **(2)** ethical.

The so-called 'political theology' introduced an emphasis on macro-ethics—think of the 'liberation theologies'—: someone can be extremely just from person to person, but as a member of a social class—the 'rich', for example—be ruthless towards that same neighbor. Micro-ethically just, macro-ethically unjust.

For example **(3)** historical.

K. Bertels/ D. Nauta, **Inleiding tot het modelbegrip **, Bussum, 1969, 86ff., discusses a pupil of the historian Lucien Febvre—a proponent of the “histoire de mentalités” (psychological historiography)—namely Fernand Braudel (1902/1985).

HAR149

The so-called 'structural' view of history proposes a typical (cultural) historical phasing (phase division).

Note: -- 'Fasis', apparitio (L.) appearance, was used to describe the showing of a celestial body in the firmament, more precisely, its appearing at the horizon. Think, for example, of the phases of the moon.

'Phaseology' means discussing (the sequence of) the phases, stages, and time spans. -- Now, regarding cultural history, Braudel distinguishes:

(a) micro-history – which plays out “by the hour”; “by the day” or, more in terms of time span – think of the hour-to-hour shifting power struggle within the political class during negotiations –;

(b) Middle or Meso-history; -- for example, a development that extends over a few decades (tens of years);

(c) macro-history, which covers long periods; for example, the role played by the Atlantic Ocean from 1600 to 1850. -- The chronological or diachronic differential is clearly visible.

Note: -- History of science model.

The history of the specialized sciences—'historical' epistemology—is 'in'. I.B. Cohen, *Revolution in Science* *, Harvard Press, 1985, analyzes what exactly a “scientific revolution” might be. Contrary to many other epistemologists, who believe that a scientific revolution is a micro- or at most a meso-historical event, Cohen argues, based on his knowledge of certain revolutions in the specialized sciences, that some revolutions are macro-historical. He distinguishes, in particular, four phases, ranging from the individual discovery of something new that entails a turning point, to the general acceptance of that discovery. This process sometimes spans hundreds of years. Take, for example, the 'Copernican' revolution (regarding geo- or heliocentrism).

The scale of the aesthetic categories.

EDM 36 taught us that categories are 'fundamental or basic concepts'. 'Aesthetics', i.e. the doctrine concerning beauty in all its forms (philosophy of beauty) – to be distinguished from the 'aesthetics' of beauticians, who specialize in female beauty (one type) – exhibits a curious scale, which can again be interpreted in terms of “small (small-scale) / undecided / large (large-scale)”.

Given that this is both important and not immediately clear, we will now explain.

HAR150

C. Lefèvre, SJ, *La composition littéraire*, Bruxelles, 1936-3, 13s. says: “The terms 'pleasant' - 'graceful', 'beautiful': 'substantial' are concepts that express - what one might call - “a progressive series” ('une progression'), (Ricardou, *De l'idéal*, 112s.)”.

Indeed: the concepts “gracieux/ beau/ sublime”—all three appearing (aesthetically) 'pleasant'—are small-scale concepts:

- a. gracefulness (le gracieux) is beautiful on a small scale;
- b . beauty is the comprehensive middle category;
- c. the sublime (le sublime') is beautiful but on a large scale.

Examples.

a. The delicate, colorful lace of today's sex lingerie is small-scale 'beautiful' - beautiful, lovely, graceful -.

b. the classical image of a Greek goddess, Aphrodite rising from the waves, is 'beautiful';

c. the high Alps, even in the height of summer gleaming with 'eternal snow', are grandly 'beautiful', 'sublime'; 'sublime'.

The aesthetic antithesis.

When we have to laugh or weep over something, we say that “it was beautiful”. The beautiful, in the profound sense, also encompasses the laughable and/or the tear-inducing. But here a separate 'category' is at work, seriousness (EDM 59: *inviolability*).

But then in the soteriological sense. 'Sotèria', salus, salvation, means total well-being. That we experience total well-being entails seriousness: for that is, for every being, the summary of all possible values (EDM 33: *axiology*). To this, subjectively, our 'happiness'—again a summary of all that is valuable to us—is bound.

Well, that too is 'serious'. For that—for the sake of general salvation and happiness—we dedicate ourselves day in, day out. -- Now we can, regularly, relax and leave the 'seriousness' of life as a struggle for salvation and happiness out of consideration: then we surrender ourselves, for example, to an aesthetic experience of all that is beautiful. Even the ugly!

a. The small-scale ugliness – the comical – is bothersome, but not serious enough;

b. the ugly is the encompassing middle term;

c. the large-scale ugliness, the 'unclean', is the tragic, too serious to still laugh at.

Models.

Guido Gezelle (1830/1899), Flanders' greatest lyricist, has left us magnificent examples.

HAR151

A. The lovely.

Feet (1858 (?)).

This little foot -- and that little foot -- went to wait for the calves.

(*Note*: hats).

The calves ran in the corn.-- This little foot -- and that little foot, -- they walked sorely

(*Note* : fast) forward.

This little foot and that little foot -- I shall wash thoroughly in the water.

The water will rinse them.

This little foot -- and that little foot -- will cool in the water.

They will shine as red as the little roses.

They will be as white as milk.

Like little blisters.

(*Fr. Baur, introduction, Guido Gezelle's poetic works (Tijdkrans, Rijmsnoer, Laatste verzen*), Amsterdam, 1943-1,722).

Let us listen to ' *O Zaaarde blomke* '.

Note: -- 'Zaaarde' is related to the German 'zart' (soft). -- "O little saarde flower,-- the mother heart -- first crawled out of the earth, how glorious is -- your headdress -- drenched with morning dew". (*Caesar Gerule, Selected Poems by Guido Gezelle* , II, Amsterdam, sd, 127).

Note: -- Diminutives are one of the linguistic devices to represent or suggest small-scale beauty. The world of babies and children is also a gathering place for the lovely. Gezelle, close to the people, loved it.

B. The Sublime.

The same aesthete who was Gezelle comes across very differently in *De reuze* .

Stripped bare, in the sunburn, -- all your limbs naked and exposed, -- ruler in the Netherlands, -- king of the great forests, -- oak , so strong in former

times, -- who has fought you down? -- Winds fell, strong and many, -- storming and thrusting at you; -- seized you by neck and throat, -- wanted to bury you in the sand: standing, so the all too evil -- winds left you, fearless one! -- Thundering dragon's mouths , heavenly powers, unknown, -- sparks of fire and forks shot, -- bravely near the *top* of you: -- nothing has moved or thundered you down under the -- lightning fire. -- Who then has fought you down, -- green giant, with all your might? -- Who could force all your strength, -- hairless, and bring you into shame? -- Standing and remains, before human hands, -- nothing, that which lives forever. King of the Netherlands, -- strong is he who never trembles. Mankind has brought you down, master (*note*: *bedijgen* = to become strong), green giant.

(01.10.1896; Fr. Baur, *ibid* 391).

Note: -- Notice the antithesis “stand/ brought down”. What a difference in terms of aesthetic empathy with this poem, which interprets the large scale.

HAR152

One more copy: *From the old tree* . Here is the opening:

“With an arm stripped bare, -- half-knuckled (*note*: truncated until a fist remains), -- who stands there and thrusts -- a non-existent fist -- into the sky? Is it a giant -- in image? No, it, it is -- no human construct. It is rather -- a deformity, -- a stone mountain monster, -- that, standing fierce and proud, -- bears the sharp blows -- of the sparking heavenly fire (...).”

Note: It is known that in ancient myths (*EDM 05*) large-scale beings of all kinds sometimes play a prominent role: everything seems to indicate that Gezelle here views “the giant of a tree” as a mythical monstrosity, as a mountain monster. Ballads also feature such figures. Let us simply say that Gezelle, when he dwells in the grand beauty, creates ballad-like texts. The grand ugliness, which comes across as 'demonic' (= sinister), provokes no laughter but deadly seriousness. Towards the tragic.

One type of “harmony of opposites”.

We have already encountered this central idea of Archaic and Classical myths (both fables and parables and fairy tales) - *EDM--harm 86; 126*) - in the ethical-religious sense. Now in the aesthetic sense.

(1) Jean Racine (1639/1699) is one of the great 'Classical' French tragedians. In his comedy * *Les Plaideurs* *, he has a summoned man say—

humorously—to the commissioner: “Monsieur, ici présent, -- M'a, d'un fort grand soufflet, fait un petit présent”.

Note- “The gentleman here today has inflicted a punishment on me, a hefty slap in the jaw as a small gift.” -- Something in itself serious, under special circumstances—a slap in the jaw—is here, within the context of the comedy that relativizes ('diminishes') the seriousness of life, transformed into something comical that has lost virtually all seriousness.

(2) Nikolai Gogolj (1809/1852) was a tragicomist in Russian literature. **Bible st.:** *L.Kobilinski-Ellis, Die Macht des Weinens und des Lachens (Zur Seelen-geschichte Nikolaus Gogols , in: R . von Walter, Uebertr., Nikolaus Gogol, Betrachtungen über die göttliche Liturgie, Freiburg i. Br., 1938, 80/100.*

(a) At first glance, Gogol (also: Gogolj) smiles constantly, -- matter-of-factly – soberly depicting all that is petty in its infinite smallness - in the Ukraine around him and within himself.

HAR153

"It reminds one of microscopy," says Kobilinski-Ellis. "One hears the soft giggling and even grinning of things, in their pitifulness."

(b) At the same time, however, all that Gogol finds laughable (and therefore unserious) is that which makes him weep. - That is the tragicomedy of Gogol.

Platonic aesthetics.

Gogolj was a deeply religious Orthodox Christian. Consequence:

a. He views the 'phenomena' (*EDM 17*)—the everyday, seemingly ridiculous—life in Ukraine—as a caricature (*EDM--harm 131 ff. (// S. Augustinus)*), which stands in stark contrast to the background of the normal and/or ideal.

b. But Gogol situates that normal-ideal, as the East predominantly does, within God's ideas regarding creatures. The 'realist' Gogol laughs; the mystic Gogol, who sees everything in comparison with what God expects of it (God's ideas), weeps. The laughing weeping of Nikolai Gogol.

Note: The circus clown finds himself almost constantly in an analogous situation: he transforms deadly serious life into an endless series of things to laugh at, by imitating them in such a way that the deadly seriousness is

bracketed, making way for the time of the aesthetic experience of things, and the laughable can come through.

Extracts:

(1) “**Even** Gogol's first still-folk-and-comic work - *Evenings at the Dikanka Manor Farm* - contains two main characters who already display the characteristics of the demonic-caricature: the sorcerer (Terrible Revenge) and the beautiful witch (We (The Earth Spirit))”. (Oc, 84).

(2) The sorcerer figure - visible present representation of sin and eternal damnation - contrasts with the heavenly-angelic ideal of the Eastern churches.

The greatest sinner—a kind of Evil Antichrist—finds himself abandoned to the terrible laughter of all things in the world. In his utter despair, he asks the pious hermit to pray for him nonetheless. But the latter curses him. Whereupon the sorcerer says: “Little father, you are laughing at me! ... I see your mouth smirking.” (...)”. (Oc, 85).

Note: The Byzantine liturgy has a phrase: “the totally ridiculous underworld”. Is this phrase not brilliantly developed into world literature in Gogoli's work? Unforgettable is that endless, 'otherworldly' laughter of all things—all beings—at the caricature that is hell.

HAR154

21.-- Harmonology: quantity and quality (154/163)

Quantitative change/ qualitative leap.

We delve deeper into the differential once again. -- The (gradually) changing realities—'beings'—show, with clockwork regularity, a sudden qualitative leap during (gradual) changes—again: differences.

One still encounters people who view magnitude – quantity – as contradictory to quality –.

Consequence : sometimes scathing criticism—antilogia—of quantification (conversion, representation into quantitative data, e.g. numbers, calculations) and of the mathematical methods used in doing so.

However justified in a number of cases, that criticism is nevertheless misplaced in the others. EDM 37 – the categories – showed us how Aristotle

already solved the problem; properties – qualities – and – quantity-relations – relationships merge in the pair, the opposing pair, “quantity/quality”. Consider the sentence: “He loves his wife gladly”, compared with the sentence “He loves his wife very gladly”. The adverb 'very gladly' expresses the quantity – here: intensity – of loving, which, in itself, is naturally a quality.

Conclusion: it is therefore no longer surprising that a change in quantity and/or quality causes a correlative change in quality and/or quantity. In Ancient Greek: there is “harmony (merging) of quality and quantity”.

A.-- The Eristic doctrine on the matter.

'Eris' in Ancient Greek means (reason) dispute. 'Eristics' is the science of argumentation. At a certain point, the dialogue becomes a tense conversation, which may occasionally degenerate into nitpicking.

Library st.: *EW Beth, The Philosophy of Mathematics (From Parmenides to Bolzano)*, Antwerp/Nijmegen, 1944, 78/86 (*Eristics*); 86/92 (*Skepticism*).

Beth, a logician-mathematician, rightly learns the true value of eristics. Oc, 85, he says: notwithstanding apparent pettiness or vulgar thinking—active therein—eristics:

- (1) is the introduction to more in-depth research, and
- (2) possibly; displays full probative value.

In other words: eristics can also be a method.

Reread *EDM--harm* 86 (' *antilogia* ') 110, where that method becomes apparent.

HAR155

Theorems of all kinds are refuted – falsified – by means of the countermodel.

A.1.-- Euboulides of Milètos (-380/-320)

is a Micro- or Kleinsocracy practitioner (of the 'Dialectic' direction (Megaric school)). Two paralogisms (logically incorrect reasoning of an unconscious nature) are attributed to him, which disregard gradual differences and their impact on quality.

Model 1.-- The bald head.

Taking just one hair from someone does not mean that he or she becomes 'bald'. Taking two, three, etc., from him or her does not mean that either. Therefore, one can take all of someone's hair without him or her becoming 'bald'.

Note : At a certain point, everyone will say that the person who has had their hair removed becomes 'bald'. At that moment, the qualitative leap occurs.

Model 2.-- The grain heap.

Is Euboulides reasoning falsely: exactly one grain does not yet constitute a 'grain heap'. Neither do two, three, etc. So a hundred thousand grains do not make up a 'grain heap' either.

(a) The natural languages.

Note the ordinary, everyday language usage and its akribeia, or precision. Cf. EDM 27 (*Neo-Rhetoric*). However subjective regarding the qualitative leap, one calls someone 'bald' when the impression arises that the head is massively depilated.

Natural languages distinguish between 'exactly one' grain, 'a few' grains, "a small pile" of grains, "a heap" of grains, "a large heap" of grains, "an unmanageable heap" of grains; the most uncultured common man distinguishes, often very sharply, such qualitative leaps.

Note: Compare natural language usage regarding "one coin"/ "banknote"/ "pocket money"/ "amount"/ "small capital"/ "capital"/ "large capital".

Intuition, threshold sensation, agreement, and habit each play a role in assigning distinct names to qualitative jumps, of course.

(b) Artificial languages

These naturally also distinguish these parts of the set or system (singleton (exactly one element), less or more extensive particular sets, universal set). But for lack of ordinary acribeia, they have no names for them.

HAR156

The reasoning error .

P. Lahr, *Logique*, 701 , says Euboulides knows **(1)**

(i) which applies to each member individually, namely that, even when accumulated, it is not a collection/system, to

(ii) to even the entire collection of individual elements.

Note-- EDM 39 taught us what summative induction is: “from each individual to all collectively”. This totalization does not take place in Euboulides, who abuses it as an eristic. The terms “exactly one”, ‘particular’, and ‘universal’ exist thanks to qualitative leaps in increasing summative induction.

A.2.-- Aînèsidèmos of Knossos (+ -50)

He is a Skeptic. The Skeptic (EDM 17) places 'skepticism', investigation, at the center, but in such a way that this investigation leads only to uncertainty and doubt—hence the name 'skept(ine)' for someone prone to doubt.

He is a 'phenomenalist': we know only the 'phenomena' ('ta fainomena'), i.e., all that is immediately given. What our senses—internal and external—perceive is 'true' (real). But, for example, a general form of being (essence) of a group of phenomena—think, for instance, of all lilies of the valley—escapes our direct perception and is therefore 'uncertain', a 'figment of the imagination'.

Library st.:

- V. Brochard, *Les sceptiques grecs* , Paris, 1887-1 ; 1969-2, 253/298 ;
- RG Bury, *Sextus Empiricus*, 4 vol., Cambridge (Mass.), 1961, I (*Outlines of Pyrrhonism*), xxxvii/x1;
- JTP. Dumont, *Aenésidème* , in: D. Huisman, dir., *Dict. des philosophes* , 22/24.

Furthermore, Ainesidemus was a pupil of Heraclitus of Ephesus (-535/-465; the first true 'Dialecticist'), who placed enormous emphasis on the continuous process encompassing differences. This is called 'Mobilism' or philosophy of movement.

(1).-- Tropics.

Now pay close attention: do not confuse this with the term 'trope' from tropology (EDM 20). 'Tropos' is a turn. A turn of phrase. Also: opinion, i.e., a turn in interpretation.

Well, for the Cretan who was Ainesidemos, shifts of opinion are central. He is a 'relativist', meaning our opinions as shifts regarding reality are very relative, for neither our perceptions nor our movements of thought reach far enough into reality. So much so that we must 'suspend' every definitive

('dogmatic') judgment concerning matters themselves—in an 'epoch', a suspension of judgment—because, fundamentally, we do not really know.

To 'prove' that, he makes use of 'tropics'.

HAR157

The tropes, understand: interpretations (for the turn that our opinion represents amounts to an interpretation), rest on—what in Platonic terms is called—"the noble yoke". 'Yoke' means 'that which encompasses (connects) at least two poles, parts, or extremes'. 'Noble' means "all that compels awe and wonder". -- How, then, does Aínèsídemós view that noble yoke of our experience, or knowledge?

(i) The object itself, in itself, of our perceptions and our insights of an intellectual nature, can give rise to more than one trope, understand: change of opinion, interpretation. How must something rare – and thus unknown, unprocessed – be viewed?

(ii) the subject, which Aínèsídemós strongly identifies with our senses, can produce more than one interpretation. For example, a hard of hearing person

a. does not hear well what is being said and

b. immediately he/she doesn't know or think it very well either.

(iii) The 'yoke' itself between object and subject can also give rise to doubts. For example, one perceives 'something that moves' from a great distance -- with the result that, because of that distance, that object is susceptible to more than one 'trope'.

(2).-- Tropics based on quantitative differences.

The object itself may undergo changes (differences).

(2).a.-- Distributive (metaphorical) changes

EDM 20 teaches what metaphor is; EDM--harm 90 what distributive structure is.

Regulatory model.

If something (= a being) – within the reach ('yoke') of our perception and our understanding – occurs either more frequently or less frequently within the same time span (interval), then at a given moment it comes across qualitatively differently, possibly in a discontinuous manner.

Appl. models.

a. Both the comet and the sun are celestial bodies (similarity). However, the comet—due to its rarity—arouses wonder among the population, whereas the sun—due to its frequency—does not have a sensational effect (difference).

b. Earthquakes are rare here (they cause emotional shocks); in California, for example, they are 'everyday occurrences' (the emotional shocks have been smoothed out).

Summary.

The Ancient Romans said “*Assueta vilescent*” (Things, once one gets used to them, lose their sensational character).

Analogous examples are found later, for instance, in the Gallic rhetorician Favorinus of Arles (80/160). They are psychological and axiological (theory of value).

HAR158

The differential : some (unique)/ very/ fairly rare/ fairly/ very frequent.

(2).b.-- Collective (metonymic) changes.

EDM 22 teaches what metonymy is; *EDM-harm 91* what 'collective' structure is. -- 'Something' (= form of being) – e.g. a cohesive mass of clay – insofar as it is collective, i.e. in the coherence of the parts, it is modified, changes qualitatively, possibly in a stepwise manner. Behold the regulative model.

Appl. models.

a. According to Ainesidemos, a single grain of sand appears 'spiky', whereas many grains of sand together in an accumulated mass are felt as non-spiky.

b. A substance ('mass') in small quantity—one glass of wine, for example—strengthens the soul. With increasing dosage, however, a large quantity has the opposite effect—too much wine, for example. This is a case of a “turnaround into the opposite.” Posology, or the science of dosage, operates precisely on the basis of the differential suggested just now, within which leaps occur.

c . After this biochemical model, an ethical one. -- Take the 'décolleté' (lower neckline of a women's garment). Viewed within the ethical standards (= norms) of previous generations:

i. if cut too deeply, then 'indecent' (offending the sense of shame) and thus indecent (against the conscience);

ii . if not cut too deeply, then 'modest' and therefore morally justifiable. The sense of value responds with qualitative leaps to the differences in the exposure of the décolleté.

Note: The leap between indecent and modest regarding the exposure of the female body can be expressed somewhat mathematically ("A few centimeters of fabric probably wouldn't do any harm"), but seems, to a large extent, arbitrarily determined (*due to multiculturalism; EDM 42*).

Differential: cut too deep, deep, shallow / ordinary, little, very little cut -- with somewhere between the two, the breaking point, the turnaround into the opposite.

B.-- Dialectics

In Ancient Greek, 'dialektikè' means "the ability to enter into conversation". But, in a stricter sense, the term 'dialectics' means "the total interpretation of reality (whereby it is one type of ontology) as a totality of changeable opposites". -- It is in this more restricted sense that we mean it now. —

HAR159

Library st.:

-- W. Van Dooren, *Dialectics (a historical and systematic introduction)*, Assen/ Amsterdam, 1977 (Fri. oc, 5/8 (*Phases and aspects of the dialectical method*));

-- P. Foulquié, *La dialectique* , Paris, 1949;

-- D. Dubarle/ A. Droz, *Logique et dialectique* , Paris, 1972 ; -- *Aspects de la dialectique, Recherches de philosophie* , II, Paris, DDB, 1956 ;

-- J.-P. Sartre et al., *Marxisme et existentialisme (Controverse sur la dialectique)*, Paris, Plon, 1962.

Given the enormous influence of dialectical thought in Western cultural history, first a description

(i) Objective dialectics.

Reality is one all-encompassing process, this change. Or, at least, that reality is brimming with processes such that the predominant impression is one of “one great process”. That process, those processes, consist of contradictions that themselves evolve along with the changes. In those changes, dialecticians discern quantitative changes that lead to qualitative leaps.

That entire complex—the 'system' of reality (says Hegel, one of the great dialecticians of the Modern Age)—is such that the contradictions in reality undergo 'Aufhebung' (literally: lifting; better catharsis (EDM --harm 79), purification-on-a-higher-level).

Behold the four axioms of dialectics. They appear frequently in *J. Stalin* (1879/1953), *Dialectical Materialism and Historical Materialism* (1937; as a corrective to *R. Descartes, Discours de la méthode pour bien conduire sa raison et chercher la vérité dans les sciences* (1637))

Note: Many dialecticians deny the possibility of a strictly logical definition of dialectics. But since Fr. Engels (1820/1895; a fellow thinker of K. Marx) and, following in his footsteps, 'Diamat' (= Dialektischer Materialismus, -- by Plechanof, in 1891), dialectics is often defined fourfold as above:

- a. Totality (“all that is”),
- b. Change (movement, -- kinesis, motus; mobilism),
- c. qualitative leaps
- d. Purification.

(ii) Subjective dialectics.

Opposite the object, which is dialectical in itself, stands—within the 'noble Yoke' (Platon)—the subject, which not only perceives that dialectic but also co-lives through it, existentially involved in the total process as it is. The subject, too, exists as a totality, encompassing changes and leaps, as well as the purifications.

HAR160

***Heraclitus of Ephesos* (-535/-465).**

Heraclitus of Ephesus (Lt.) is considered the first 'dialecticist' in the sense just described.-- Some fragments.

(1) The Universe ('Logos').

The quintessential presupposition of Heraclitean thought is the fact that everything is somehow 'logical' and interconnected. "(...) Everything becomes ('ginomenon', literally: originates) according to the Universe (...)". (Fr. 1, in: *H. Diels, Die Fragmente der Vorsokratiker (Griechisch und Deutsch)*, I, Berlin, 1922-4, 77).

(2) The cosmic fire.

Second presupposition: analogous to what many Archaic cultures know, namely a cosmic fire, Heraclitus posits, parallel to the Universe, a cosmic fire, that is, an omnipresent energy. But his 'rationalism' already reinterprets this sacred given so early in Greek history: "'God' is day/night, winter/summer, war/peace, abundance/famine. 'God' undergoes transformations. Just like fire which—if mixed with incense—changes its name according to the scent of the various perfumes incorporated into it." (Fr. 67; O.c.,90).

Note: This is already a prelude to thinking in differentials: in the religious incense offering (to a deity, for example), one observes, while mixing, that a different scent suddenly comes through. -- Therein lies one type of basic schema of a dialectical nature.

(3) The universe process.

'Kinesis', motus, movement (in the extremely broad sense of 'change') is central. Hence the name 'Mobilism' (philosophy of movement).

Some excerpts.

a. Fr. 61: "Seawater is the purest and the most abominable: drinkable for fish and sustaining life, undrinkable and deadly for humans".

Note the "harmony (merging) of opposites", so characteristic of all dialectics.

b. Fr. 88: "One and the same" in us: living and dead, awake and asleep, young and old.-- When something turns into its opposite, 'this' is 'that'. And 'that' is 'this' as soon as it turns into its opposite.

Note the basic concept of "turnaround (into the opposite)" among all dialecticians.

c. Fr. 59: "The 'path' (*note* : the course) of the fuller's screw is both straight and curved. It is, in fact, "one and the same".

Note the far-reaching identification of opposites in one and the same reality.

Fr. 60: "The 'way' (*note*: process) up and down is one and the same".
Behold what logos and 'fire' work out as principles of the universe.

HAR161

Diamond

'Dia.mat' is the contraction of 'Dialectical Materialism'. -- Following in the footsteps of Engels and Plechanof.-- Let us now examine how Stalin, in his Dialectical Materialism and Historical Materialism, describes the relations between quantity and quality—in a dialectical manner. Cf. P. Foulquié, *oc*, 645.

1.-- The 'movement' (= change, both origin (becoming) and decay (demise)) of matter (with which the materialist Stalin radically identifies all being (reality)) establishes (causes) something new.

2.-- This new, however, arises in a twofold manner.

(a) circular. For example, the fact that one generates motion (in the purely mechanical sense, here) using thermal energy, whereby the kinetic energy is converted back into thermal energy.

(b) abruptly (revolutionary).

Appl. mod.

a . Scientific.

Physically: water that reaches zero degrees Celsius freezes; once it reaches one hundred degrees Celsius, it evaporates. Two gradually achieved qualitative leaps. Chemically: arsenic trioxide ('rat poison'), a chemical product, has a healing effect in small doses and a killing effect in large doses.

b. Psychological.

Bullying, endured once, is tolerable and bearable; if repeated too often, it becomes hateful. Until "the straw that breaks the camel's back" (as the common man says 'dialectically'). A qualitative leap that escalates into aggression, for example. Think of the revolutions of the proletariat.

c. Sociological.

The working masses, if not exploited too much, find this tolerable; precisely the same masses, if exploited too much, become revolutionary (think of the Russian Revolution in 1917). -- That same—yes, as Heraclitus says—"one and the same" masses endure the Soviets' harsh and ruthless whip

system for about seventy years. Until the disadvantages of the planned economy, inherent in every socialism worthy of the name, weigh so heavily that, within a few years, a 'revolution' in the opposite sense—towards a free market economy—takes place in the Soviet world. Everyone is astonished by the “suddenness,” the reversal into the opposite, of such a qualitative change.

d. Aesthetic.

One enjoys hearing a captivating piece of music for the first time. One enjoys hearing it again and again. Until one starts to get tired of it. Or, due to excessive repetition, “can no longer hear it” (a small series of leaps).

HAR162

C. -- The relevant experimental science.

Do not think for a moment that the 'quantity/quality' relationship is viewed only by eristics and dialectics.

Anaxagoras of Klazomenai (Lat.: Anaxagoras of Clazomenae (-499 -428).

Library st.: DE Gershenson/ DA Greenberg, *Anaxagoras and the Birth of Scientific Method*, New York, 1964-1 (with an introduction by Ernest Nagel).

Theorists claim that Anaxagoras' work—within the framework of Ancient thought—exhibits virtually all the main characteristics of the current natural sciences. Thus, regarding experimental or empirical proof.

Well, one of those proofs is an application of the structure “gradual quantitative change/ sudden qualitative jump”.

Air experiments:

1.-- Partially mythical worldview. -- A myth tells that “the sky beneath the earth carries it”.

2. Anaxagoras reinterprets this mythical idea: he concludes from it that every gas was susceptible to a considerable dose of pressure.

He applies this, according to oc, 40, to the gas that is air:

- i.** air is invisible, seems like 'nothing';
- ii.** yet it is primarily moving air—wind, storm wind—that is palpable, perceptible (think of the destruction caused by a storm wind).

The experimental proof : Like modern scientists, Anaxagoras was not content with “popular observations,” characteristic of common sense. He took

the step towards experimentation, in which man himself creates (and controls) the conditions. Thus, he provided proof that air, “however intangible, can resist a strong force.” In this, he was one of the first.

Expressed dialectically: “one and the same” air, which is easily dispersed when we—for example, walking against the wind—step through it—air usually offers little or no resistance to any material body—suddenly does offer resistance.

Anaxagoras put forward public experiments, of which we still possess reliable accounts.

One model.

1. He takes a wineskin (of leather), twists the neck of that sack—gradual quantitative changes—until, due to the rising pressure, the compressed air made the very pliable sack from a moment ago undeformably hard. The sack, first pliable then hard, is one type of transformation into the opposite.

2. Thereupon, he had it proven by means of pressure tests that the bag resists pressure.

HAR163

Note: Anaxagoras did the same or similar things with, for example, the 'klepshudra' or water clock.

Note: Consider, during the first test—with the wineskins—the moment when Anaxagoras wrings so hard that the leather of the sack 'bursts' (this is a pure case of a qualitative leap).

Note: What Anaxagoras demonstrated is taken up again at the end of the Middle Ages/beginning of the Modern Era, but in a modernizing context. Proof:

a. Francis Bacon of Verulam (1561/1626)

In Novum Organum scientiarum (1620), the experiment of an Anaxagoras is called “productio experimenti” (the bringing forth of the experiment) in the Latin of those days. The formulation reads as follows.

Given : a causal link – e.g. the heating of water, which, under normal circumstances, boils and evaporates at 100°C – is actually established exactly once.

Question : can this single case of verification be generalized to all cases?
In other words: does water boil and evaporate in all cases if heated to at least 100°C?

method -- The only way out is taking samples (induction). In such experiments, a kind of law applies: “if—according to Bacon—the cause (heating in this case) is gradually changed, then—if it is a general law regarding causality—the effect (in this case, boiling evaporation) also changes gradually.” -- In other words: there is proportionality, to a certain extent, between both changes.

b. John Stuart Mill (186/1873)

Empirist; *A System of Logic, Rationative and Inductive* (1843)) reprises the 'tables' (rules of induction) formulated by Fr. Bacon. What the latter calls 'productio experiment'. Stuart Mill 'the method of accompanying changes'. Formula: "if a phenomenon is changed, while 'all factors except one' (which is a curious dichotomy; *EDM--HARM 125*) remain unchanged, then precisely that one factor is the sought cause".

Appl. mod .-- Pater Lahr, *Logique*, 589, gives the following model.

a . Sign (antecedent, factor ('element')). -- Change the number or amplitude of the vibrations of a sound-producing body (e.g. a shepherd's flute).

b . Continuation (consequent, result). -- The effect of the previous change is that the sound changes. Thus, the different pitches emerge—one after the other—as if in a spectrum.

HAR164

22.-- Harmology: 'chaology' (theory of disorder). (164/175).

Although this little chapter is actually applied harmology (theory of order), one cannot ignore the fact that since the beginning of this century, there has been a buzz—first among a few (*EDM--harm 149*), later among many, as is the case in a scientific revolution—of 'disorder', 'bifurcation', 'fluctuations', 'hypersensitive reactions', 'unpredictability', etc.

Library st. :

- *l'Ordre du chaos* , Paris, Belin, Bibl. Pour la science, 1987;
- AV Holden, *Chaos* , Manchester University Press, 1986;
- H. Degn, et al., eds., *Chaos in Biological Systems* , New York, 1987;

-- J. Gleiek, *La théorie du chaos (Vers une nouvelle science)*, Paris, A. Michel, 1989 (// *Chaos*, New York, Viking Press, 1987);

-- Ervin Laszlo, *La grande bifurcation (Une fin de siècle crucial)*, Paris, Tacor International, 1990 (// *Design for Destiny (Managing the Coming Bifurcation)*), New York, Harper and Row, 1989 (Preface by Ilya Prigogine);

-- Ilya Prigogine/ Isabelle Stengers, *Order from Chaos (The New Dialogue between Man and Nature)*, Amsterdam, Bert Bakker, 1987 (Foreword by Alvin Toffler).

From this impressive—and extremely incomplete—bibliography emerges something that, at first glance and insofar as it is misunderstood by quite a few publishers, runs directly into the turmoil of every concept of order. Hence this short chapter.

Reference is made in passing to J.-P. Oupuy, *Ordres et désordres (Enquête sur un nouveau paradigme)*, Paris, 1982 (concepts such as 'ordering chance', 'order based on noise (disorder): 'self-ordering' ('auto-organisation') are discussed by Francesco Varela, Henri Atlan, René Girard, Cornelius Castoriadis, Heinz van Förster, Ivan Illich).

Reference is made to a promotional piece such as “ *Chance and Renewal* ”, a theme developed for *La Radio romande Espace 2* (Switzerland) by two world-renowned figures: the semiologist (semiotician) Umberto Eco (1932/2016), author of the filmed novel *The Name of the Rose* (translated into more than twenty languages) and *Foucault's Pendulum* (a Mannerist work), on the one hand, and, on the other hand, the 1977 Nobel Prize winner in Chemistry (irreversible thermodynamics), Ilya Prigogine (1917/2003) (with Is. Stengers, author of *La nouvelle alliance*, Paris, 1977).

The general public is warming up somewhat ...

HAR165

Even literary pieces reflect the 'disorder theory' that is becoming increasingly prevalent: Jake Page, *Chaussettes en goguette (Pourquoi diable y en at-il toujours une qui se fait la belle ?)*, in: *Sélection (Reader's Digest)*, 1990: juillet, 68/69 (the author associates with adolescents and observes that they have an invincible tendency to leave disorder just about everywhere in the house).

Note -- M. Ambacher, *Les philosophies de la nature*, Paris, 1974 - left. oc,103ss. (*Les Philosophies de la Nature procèdent d'une expérience qualitativement constituante*) - teaches us that nature was interpreted twofold in the past:

(i) nature viewed as a machine, in whose initial conditions the rest of its course is contained in a deterministic manner - mathematically derived - and predictable (Cartesian, Leibnizian, -- Newtonian view);

(ii) nature - the same nature - seen from Dialectical presuppositions (*EDM-harm. 158ff.*), which calls forth a more qualitative nature.

As E. Beth once wrote: the 'mathesis universalis' (= general theory of order, but mathematizing) of a Descartes and a Leibniz is, according to the Dialecticians, replaced or at least supplemented by—also—a 'mathesis universalis', a theory of order that proceeds less mathematically, and more from a philosophical and cultural-historical perspective. The new theory of disorder clearly combines the two interpretations of nature.

As proof. I. Prigogine/ I. Stengers, *Order out of chaos*, 13.

The Brussels School (Leader: Prigogine) prioritizes a comprehensive theory of systems and change.

1. The universe - universe - consists of two types of subsystems (parts).

a. Some components function just like perfect 'machines' that form a closed system. These components are stable, predictable, and derivable and calculable from initial situations. They are fundamentally determined (hence the physical Determinism that was predominant throughout the Modern era). This type of system makes up the smallest part of the universe.

b. The universe consists, for the most part, of open systems that exchange matter, energy, and information with the surroundings.

Consequence: "the greater part of the universe is not stable or in equilibrium at all, but in a more or less great state of disorder, -- with all the consequences thereof, because it bubbles and seethes with change and 'disorder' and with constantly occurring processes".

HAR166

In summary: **a.** Equilibrium systems, **b.** near-equilibrium systems and far-from-equilibrium systems populate the ordered universe

2. Fluctuations.

Non-equilibrium systems ... 'swing' ('fluctuate'), they change rather chaotically. Sometimes it happens that a single swing or a set of swings together—by means of 'positive' feedback—is amplified to such an extent that the initial conditions (the initial order) are destroyed. The Brussels School calls this occurrence or process a 'singular point' or 'bifurcation'.

Unpredictability.

Such reversals exhibit the structure that the common man, with the common-sense language characteristic of him, brilliantly characterizes as “how things can turn out”. It is radically impossible for the specialist scientist, mathematical or not, to determine or calculate in advance in which direction the non-equilibrium system will evolve. Specifically, across the fundamental crossroads, namely either into pure chaos (disintegration) or into re-established or actualized order (new system).

Dissipative (energy-wasting) structure.

When a system emerges re-established or actualized from provisional and partial disorder, the Brussels School speaks of 'dissipative structure', because these processes—in contrast to simpler structures (whose place they take)—require more energy to survive.

Self-organization.

A more controversial premise of *Prigogine et al.* is that 'order' and 'ordering' ('organization') arise 'spontaneously' from 'disorder' (which is invariably only partial and provisional). This is then called 'auto-organization' . -- The book **Order from Chaos** provides countless examples of the latter.

Appl. model. Oc, 14.

a. A Primitive population. In a state of equilibrium: thanks to food and drink and other living conditions, the mortality and birth rates are “in equilibrium”.

b. In a near-equilibrium situation: the birth rate rises gradually. There is an equilibrium disturbance. But controllable and predictable.

c. In a far-from-equilibrium situation: the birth rate “literally shoots up”. Non-linear effects: minor signs precede major sequels.

In other words, the course of the Primitive community in question becomes erratic and unpredictable. Until some fork in the road (bifurcation) decides whether or not it continues to exist or survives on a higher level.

Note: It is evident that energies of all kinds and energy levels of all kinds are involved in what we describe.

Incidentally: somewhat in an analogous direction, *Jeremy Rifkin writes* *Entropy (A New WorldView)* , London, Paladin Books, 1985,-- omoc, 20/39, in which the author discusses the interpretations of the universe by the Greeks, the Christians, and Modernity (* The Machine Age * (oc, 27f.), * The Architects of the Mechanical World View* (oc, 29/40)), - only to then address “ The Entropy Law ” in Part Two (oc, 41/70) and “ Entropy: A New Historical Frame ” in Part Three (oc, 71ff.).

Steller primarily highlights the energetic side of the problem, whereas the Brussels School first and foremost highlights the chaotic moment. -- For the rest, both viewpoints dominate the crisis of Modern Determinism, namely through the introduction of the concept of “deterministic disorder,” one of the many names for scientific innovation.

Incidentally: *Order from Chaos* , at 17v., points to the revolutionary role of thermodynamics regarding energy processes (think of “the second law” – the world machine is running aground in the direction of “heat death”, due to the inescapable energy loss in the universe (“entropy”)), the starting point of J. Rifkin's considerations.

Decision.

A revue such as *Actuel* , 1990 : juillat/ août, 148ss., titles part of the content as follows: “ *Délires chaos* ” (*La théorie du chaos a révolutionné les sciences. Il explose dan l'art*). -- “Disorder everywhere.”

In the specialized sciences that discover “disorder” and unpredictability down to the ripples of a burning cigarette.

In the “House Parties” banned by Mrs. Thatcher, England’s Prime Minister. In a music video by Adamski, number one in England. In comic strips, informational art, fashion, fractal painting. Everywhere (ac, 150).

Ac, 156, even speaks of a “Chaos Happening” of a group of musicians, computer scientists, and young creatives.

In other words: Disorder, originating from the specialized sciences, is becoming a fashion.

HAR168

A model.

What we are describing now is more than a basic elementary school model. Scientists are discovering partially disordered processes everywhere that lead to a crossroads.

A study group from the University of Santa Cruz (New Mexico) has analyzed the tap test in a strictly scientific manner. -- Here is a sketch of it.

(1) Equilibrium/near-equilibrium.

Let us very carefully open a water tap. -- The drops begin to fall (from a static system, the water becomes a dynamic system) - in an identical and therefore predictable, calculable manner, deducible from an initial situation. -- Let us open a little more.

The drop accelerates in terms of rhythm (increased frequency), but remains regular and predictable.

(2) Far out of balance.

A 'critical' (meaning: encompassing a 'crisis') phase: the drop gradually or suddenly exhibits a totally irregular rhythm containing 'fluctuations'. Hypersensitivity. Unpredictability. 'Chaos'. Another name for "turbulence" (in French: 'turbulence').

(3) Crossroads. -- Equilibrium/near-equilibrium.

Let us open even further. -- The system returns to equilibrium thanks to self-ordering (without human intervention): once again, a continuous (uninterrupted) trickle of water appears. 'Determinism' reclaims its rights, -- along with predictability.

Another little model.

Once again, at first glance, both a primary school model and a subject-specific scientific model.

(1) A fragrant Mary Long cigarette is lit (it changes from a static system to a dynamic system). -- Equilibrium/near-equilibrium. -- A regular - determined - column of smoke rises continuously to a few centimeters above the source of the fire.

(2) Far from equilibrium. -- Suddenly - one never knows exactly when - the smoke particles swirl tumultuously, in capricious-Manneristic-circles. Name 'deterministic chaos'. Now we understand the allusion in the *revue Actuel* , 1990: juillet/ août, 150, where it says that specialized sciences discover 'chaos' even in a burning cigarette.

It is one of the countless simple yet complicated processes in our universe, which is predominantly endowed with similar 'dynamic processes'.

We keep these simple models in mind, especially as teachers—perhaps also in our education that prepares for society.

HAR169

Edward Lorenz's water wheel. The 'butterfly effect' concept.

If a small cause produces large—unexpected, indeed, unpredictable—consequences, one may speak of the 'butterfly effect'. The taking flight of a butterfly can—namely, in states far from equilibrium, such as those of our weather—cause a whole series of thunderstorms, or at least contribute to causing them. *Thus J. Gleick, La théorie du chaos* , 38s.

The cited models contain such butterfly effects. Let us now look at another model.

A mathematically trained meteorologist at MIT, Edward Lorenz, 'simulated' (= imitated) the weather – since approximately 1960 – using the first computers. He was the first to recognize the butterfly effect.

J. Gleick , oc, 46ss. (*La roue hydraulique de Lorenz*), illustrates. One can 'represent' the butterfly effect (and immediately prove it inductively) in a purely mechanical system, the water wheel.

Note: To convince the doubters among his colleagues, Willem Malkus, professor of applied mathematics at MIT (Massachusetts Institute of Technology), constructed the water wheel in the basement of his lab years later.

a. Static system.

A water wheel is a wheel with paddles (buckets, receptacles). Once these are filled with water, movement is created sooner or later. Think of our watermills.

b. Dynamic system.

i. Equilibrium/near-equilibrium.

Water flows continuously into the blades, inside the wheel, from a water supply device situated above. As long as the supply—'input' in computer language (cybernetic)—is very small, the receptacles do not fill sufficiently to overcome the frictional resistance of the stationary wheel. The wheel remains motionless.

Further supply of water—dialectically: gradual quantitative increase (*EDM--harm 159*)—causes fuller basins, with the effect that the wheel—e.g. to the left—starts to turn,—at a constant speed (thus calculable).

Further supply causes a series of accelerations.

ii. Far from equilibrium.

Malfunctions occur. Sometimes, due to the speed, the trays do not get filled sufficiently. Sometimes—unpredictably—the movement to the left (in this case) reverses into its opposite, to the right (again: spoken dialectically) a reversal).

HAR170

Cosmological model.

*J. Kletczek/ P. Jakes, *Heelal en aarde** , Groningen, Rebo Productions, 1987, 96v., formulates it well. -- “ *From chaos to order* ”. This is how the authors of the book summarize the development of the cosmos as an all-encompassing system of processes.

A. An “ordered universe

From an immeasurable and extremely dense concentration of 'fire', a collection and system of very heated elementary particles of matter in complete disorder ('tangle').

That same whole once experienced a turbulent, 'turbulent', 'stormy' period, which was given the name 'big bang' or primordial explosion, such

that the density decreased and the size (volume) expanded ('expanding universe').

In the ten billion years since then—hadronic, leptonic, photonic, and stellar periods—from these arose, for example, atoms, molecules, crystals, minerals, all that lives (insofar as dependent on inorganic matter), celestial bodies, super-galaxies. An “ordered universe”, cosmos (as we have said since the Paleophyteans; *EDM 03*). With Prigogine, we would say “by self-ordering”.

B. The butterfly effect

Suren Erkmann, **Voyages en zones de turbulences**, in: ** Journal de Genève* * 28.11. 1987, linking to the butterfly effect regarding weather conditions, presents one possible final model of the universe, in the wake of recent chaology: perhaps the entire system of the universe, if it ever reaches a state far from equilibrium, becomes so thrown off balance by the fluttering of a butterfly—a series of oscillations—that it 'bifurcates' downwards, into chaos.

This, in turn, resembles the 'heat death' of the universe of the nineteenth-century thermodynamicists.

Which, in turn, aligns with some—certainly not all—religious outlooks—'prophecies' that predict a fiery death of the universe. But these are merely analogies (partial identities), of course.

But we mention them because, in the wake of recent purely scientific discoveries regarding 'deterministic chaos', some publicists and 'rhetoricians' will attempt to instill such a worldview through various means.

Which will then become yet another ideology (a rigid, dogmatic, seemingly 'scientific' view of life and the world). Against which we must already rise up in resistance, because it has no solid foundation.

HAR171

Definitions.

After a few simplifiable models, the regulative model or being form.

1.-- Disorder (chaos).

As *E. Laszlo*, *La grande bifurcation*, 135., states, 'disorder' traditionally means 'confusion', 'muddle', -- the negative, or privative nothing (*EDM 50*)

regarding order(ing). - But the new meaning is “one type of order(ing)” that excels by:

- a. complexity (intricacy),
- b. hypersensitivity ('sensitivity') with the elusiveness ('subtlety') and unpredictability thereof,
- c. with possibly the seeds—as becomes apparent after the crossroads—of a re-established, actualized order(ing). So also oc, 15.

Conclusion. -- Let no one, therefore, confuse the traditional sense of the word 'chaos' with the recent one. At least not without further consideration.

Note: Laszlo emphasizes 'complex systems'.

1. “The characteristic property of a linear system is that a doubled 'input' (*note: factor*) also leads to a doubled 'output' (*note: result*)”.

Note: Think of the water wheel: in a regular phase, the speed of movement doubles if the water supply accelerates.

2. “The behavior of a nonlinear system, however, is much 'richer' and can 'differ' drastically depending on the degree of nonlinearity. -- Now, of course, nonlinear differential equations have traditionally been known in mathematics.

a. The solutions, however, can only be kept under control for small values of the nonlinear parameter”.

Note: Think of near-equilibrium states.

- b. “Partly due to the development of the computer, a remarkable phenomenon has been observed: with increasing non-linearity, a system often begins to behave, initially quite chaotically.”

Note: Consider the far-from-equilibrium states. However, subsequently, new stable solutions can suddenly arise (which do not occur at all in the quasi-linear region). This continues to repeat itself, so that such a system can exhibit a great richness of structures.

This complexity can already be observed in systems with only a few degrees of freedom (meaning: particles): typical examples are the 'mobiles' produced by the gadget industry, which often consist of combinations of only two or three pendulums.” (*M. Fannes/ A. Verbeure, New Visions in Physics : Cooperative Phenomena*, in: *Our Alma Mater*, 1989: 3, 249).

Note-- Paradoxes .

(1) G. Jacoby, *Die Ansprüche der Logistiker auf die Logik und ihre Geschichtsschreibung*, Stuttgart, 1962, 138 (also: 85, 87, 94, 135), states that the ancient meaning of 'paradox' is "anything that goes against established opinions", such as, for example, at a certain moment in cultural history, the idea of 'antipodes' ('opposites') or the idea of 'n-dimensional geometry' (which works with, for example, four or more dimensions).

(2) Erik Pigani, *Qu'est-ce qu'un paradoxe ?* in: *Psychologies* (Paris), No. 70 (1989: Nov.), 64.

a. ' **Paradox** ' concerns a judgment (statement) that contains a contradiction or a set of judgments that are mutually contradictory (EDM 70). For example, "Stay here and go away!" Or, more subtly, the sentence "What I say is untrue". The latter is a small eristic example.

b. In the natural sciences, a ' **paradox** ' exists when the same matter, or energy and information, simultaneously exhibits more than one mutually contradictory state.

For example, the light vibrations:

i. light is observable as wave motion;

ii. In 1900, however, Einstein discovered that light consists of particles (photons). According to the type of experiment applied to it, light therefore exhibits wave character at one time and quantum character at another. That is the 'paradox' of light.

Note: It is clear that Pigani uses the term 'contradiction' in case b in the figurative sense of 'opposition'.

Thus we can now say that matter (energy, information) exhibits simultaneously—or subsequently—both order (deterministic, then, or nearly so) and disorder. Yet another 'paradox' in matter.

2.-- Oscillation.

E. Laszlo says: in the natural sciences or biology, for example, the direction a two-way system will take is unpredictable. Why/how not?

Even exact knowledge of the initial conditions of the system itself or of its environment (hyper- or supersystem) does not allow the course to be deduced from what precedes it.

The only thing at one's disposal are 'fluctuations', phenomena within or outside the system that involve a degree of randomness. -- At least until one or more fluctuations control the system again (after the crossroads).

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3.-- Crossroads.

Always according to E. Laszlo, oc, 14, 17. -- Generally speaking, 'crossroads' is the divergence of 'paths'. Splitting.

The more recent redefinition of 'crossroads' comes:

i. from the theory of 'dynamic' systems, -- a recent branch within classical dynamics,

ii . from thermodynamics regarding imbalance (= thermodynamics concerning irreversible processes). This natural science analyzes the force structure ('dynamics') and the development of 'complex' systems in the material universe.

As in the examples above: when systems shift from equilibrium to near-equilibrium and, especially, to far-from-equilibrium, a 'crossroads' occurs.

a. Equilibrium.

Here, 'equilibrium' means not only symmetry (reciprocity) and rest (static system), but also and above all a 'dynamic state' such that the internal forces act in such a way that the system does not fall into inertia, but remains 'active'.

Consider the water wheel before water is supplied, and also when there is equilibrium and near-equilibrium, starting from some water supply.

b. Far from equilibrium (extreme imbalance).

If a system deviates significantly from its equilibrium, sudden, non-linear events occur. For example, purely inorganic systems that then reach precisely the level of biological beings and, even, that of human culture.

Which entails a kind of broadly conceived 'cosmic' evolution. -- Oc,17.

A 'crossroads' establishes:

a. an opaque 'disorder' (we now know how limited, indeed, determined (at least in the inorganic world) that disorder is) – which corresponds to the Platonic concept of 'anankè', 'fate' (that which befalls us without being transparent),

b. however, such that 'creative forces' are at work in that disorder, which eventually create another state (a re-established system).

4.-- Unsteady/unsteady system.

points out this , *Une nouvelle alliance de la science et de la culture* , in: *Le Courrier de l'UNESCO* 41 (1988: mai), 9/13.

a. Unwavering, stable system. Predicting the position of the Earth is possible because the Earth's movement around the sun—at least as far as its essential characteristics are concerned (one neglects, for example, the disturbances caused by other planets)—is a stable dynamic system.

b.

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Modern dynamics up to and including Einstein posits that the entire universe is such an unchanging, 'deterministic' system.

b. Unstable, unstable system.

Predicting the development of the Earth's climate within a relatively short time span (as meteorologists do, for example) is impossible, however, because short-lived climatic states constitute an unstable dynamic system.

Here Prigogine refers to the meteorologist Edward Lorenz (*EDM--harm 169*). -- People like Henri Poincaré (*EDM--harm 143*) and the Russian mathematician Andrei Kolmogorof, -- like Karl Popper (the well-known epistemologist) put forward a universe that essentially consists of unstable systems. -- Thus Prigogine regarding the crisis of classical Modern dynamics.

Conclusion. -- “The new rationality”.

We saw, in passing, what 'rationality' was (*EDM 05, 18*).

A. For the Brussels School, prioritizing a universe as an unstable system is a definition of 'new rationality' (ac,13). 'Rational' is thus henceforth reason insofar as it has insight into unstable systems. -- Moreover: Prigogine extends this 'new' - chaological - rationality to the entire culture: it is the foundation of a new culturology (including (re)education).

This view is sometimes also called 'holism', but then in the sense of “(re)situating man within the dynamic, 'evolutionary' structures of an unstable universe.

Consequence: Prigogine sees in this a convergence between the natural sciences and the humanities or social sciences.

This is reminiscent of CP Snow, **The Two Cultures and a Second Look **, London, Cambridge University Press, 1974 (reprint): he too sought a merging of 'culture 1', the natural scientific education, and 'culture 2', the 'humanistic' (literary) education. One might call this 'cultural assimilation'.

B. -- Opposed to this stands cultural differentialism.

For example, Herman De Dijn, **Over de gat tussen wetenschap en cultuur (en of ze moet of kan dicht worden *)*, in: *Onze Alma Mater* 1988: 4, 299/309, who places a (Postmodern, emphasizing gaps) question mark behind the theory regarding the two educational systems of the Brussels School, as well as behind that of a Frank Capra.

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De Dijn, from a narrow Existentialist standpoint, situates Holism, typical of Prigogine/Stengers and Capra, within a nascent cultural revolution of which other progressive movements also form part, such as ecologism, liberation theology, feminism, etc. (ac, 301). Not a word is mentioned of the term 'New Era' (= New Age, Nouvel Age), which is nevertheless regularly cited as an encompassing term, alongside that of 'Postmodernity'.

De Dijn – rightly – emphasizes that it is not rigorous science itself, which entails an extremely high degree of specialized knowledge, but rather a representation of it in non-specialized terms that is incorporated into life – 'existence', as has been said since S. Kierkegaard (1813/1855; “father of Existential thought”).

“What is actually disseminated is not the scientific insights themselves, but often a watered-down version.” (Ac, 301).

De Dijn makes little or no distinction here between popularized science and – what he calls – “all kinds of para- and pseudosciences, often accompanied by a surrender to all kinds of unfounded practices and miracle cures” (ac, 300).

What Prigogine/Stengers and even a Capra advocate should not be lumped together with quackery (which, incidentally, certainly exists and is punishable). As for that ... (dismissed by Rationalists) quackery, the distinction between valuable and worthless or deceptive is not always as simple as De Dijn suggests.

De Dijn too often confuses the contribution of the sciences with their purely theoretical aspect. "Finding the right attitude to life is something entirely different from possessing a theoretical solution" (ac,303). That is, of course, entirely correct. But the question is whether vulgarized (or non-vulgarized) chaology, for example, does not actually bring something more than that, namely thought models that are analogously transferable to other cultural domains.

Speaking of existence, of life, in terms of "meaningful living", "acceptance of oneself": -- of a series of existential virtues ("striving to live in the truth") can, perhaps, be supplemented by speaking of the same existence in terms of "system", "equilibrium", "near-equilibrium", "far-out-of-equilibrium", "disorder", "crossroads", etc.

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23. -- *Harmonology: crisis theory. (176/184)*

A. Noiray et al., *La philosophie*, vol. 1 (*Abondance/Expression*), Paris, 1972, 83/86 (*Crisis*), teaches us that the term 'crisis'—in Ancient Greek "to make a distinction", but also "that which decides something (unraveling)" or "decisive phase of, for example, an illness"—actually: sifting—became common in the specialized sciences and philosophy in the course of the 19th century.

With the Liberal thinkers and with Marx in an economic sense; -- with Nietzsche and Freud in the culturological (psycho- and sociological) sense; -- with Husserl, the Phenomenologist, in the sense of the history of science. It is immediately clear how analogously—partly identical, partly non-identical—the term 'crisis' is used.

The economic crisis.

One speaks of an economic 'crisis' when the entire economic system becomes 'unstable' (unstable system). When the 'active population'—primarily through the voices of analysts—wonders "how the economy will turn out".

This is apparently a “far-out-of-equilibrium situation”, with all the unpredictabilities that entails.

a.1. Classical Liberal crisis theory attempts, based on economic optimism ('belief in progress' 'belief in growth'), to demonstrate that economic crises are either impossible or temporary.

a.2. However, the 'phenomena' (the verifiable facts) falsify this theory, at least partially. Consequence: since “the Great Depression” ('depression' means 'prolonged crisis') within the Capitalist systems of the West—between World War I (1918+) and World War II (1939+)— the crisis has been central to economic theory, or at least carries significant weight.

b. Karl Marx was one of the first to attempt to analyze the crisis in depth. His interpretation: it is the result of overproduction.

The capitalist system, after all, places the profitable production of goods and services at the center; this all the more so because it controls the means of production—land, factories, machines, capital. Thus, with a gradual increase in volume (*EDM--harm 159*), overproduction usually arises quite unexpectedly, with the resulting consequences for sales.

For the Marxist, this is one type of 'contradiction' reversing into the opposite: because production is so 'successful', it turns from profitable to loss-making. “Harmony of opposites”.

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c. The cycle—or cyclical theory—claims that the economic system is an up-and-down: phases of prosperity ('economic boom') alternate with times of adversity (supply exceeds demand, resulting in downturn ('recession'), crisis, even depression)—about three to four per century. This frequency has been falsified by some since the Great Depression of 1929.

Brief structural description (*EDM--harm 90; 117; 121; 123*).

It resembles – what the common man calls – “a demonic or hellish cycle”. If there is overproduction – an oversupply of goods and services – then there is a lack of demand (the market cannot keep up).

Immediate stockpiling of unsaleable goods and services. -- If such stockpiling occurs, then price decreases and also layoffs (resulting in a reduction in purchasing power (which in turn reinforces stockpiling)).

In summary: “La crise est un cycle qui s'étend” (Crisis is an expanding cycle).

Yet the capitalist system – unlike many a socialist experiment (think of the depression in the Soviet countries) – has survived every crisis to date:

a. As a dynamic system, the free market system contains, in addition to equilibrium and near-equilibrium, also far-from-equilibrium. The crisis therein is a series of 'fluctuations' of opaque disorder, which usually presupposes gradually increasing factors (overproduction, reduction in purchasing power);

b. but that same free-market system contains fork in the road: even in a depression, factors persist that are independent of what preceded them and that make a 'qualitative leap' towards a re-established system possible. In this way, the free-market system survives its 'disorders'.

The psychological crisis.

Library st.: Ch. Zwingmann *ua*, *Zur Psychologie der Lebenskrisen*, Frankf. a. M., 1962.

The book shows us a series of qualitative leaps.

a1. Growth crises (in children and adolescents; such as crises leading to suicide among young people);

a2. crises typical of middle age (crises of the unmarried and potent, marital crises);

a3. crises typical of the 'third age' (premature aging, personality changes, climacteric, retirement, periods of mourning).

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b. crises independent of age (seasonal crises, illnesses, dying).

Note-- Regarding life stages: J.K. Feibleman, *The Stages of Human Life* (*A Biography of Entire Man*), The Hague (The Netherlands), 1974 (*the individual as a changing system*).

Definition: -- Ch. Zwingmann, *Einführung* , in: Ch. Zwingmann ua, *Zur Psychologie der lebenskrisen*, xi/xvii , explains as follows.

(1) Subjective.

A life crisis entails “anxious expectations”: one fears a more or less profound deterioration. -- Note: when one expects something happy with uncertainty, one does not speak of a crisis, even if the change is very fundamental. - Crisis entails a pejorative assessment.

(2) Objective.

A crisis is one type of change, with two specific differences.

(i).-- Quantitative . -- Within a period of time (interval), the psyche changes faster than before and afterwards.

(ii).-- High quality .

The crisis as change—in contrast to the previous and the subsequent life process—is unpredictable (far out of balance).

Zwingmann says: “Die Krise steht also, so to speak, unter einem Fragezeichen” (The crisis (understood as crisis) is, so to speak, governed by a question mark). In other words: one never knows how the coin of the psyche-in-crisis might roll. -- So much for the regulative model.

Appl. model. -- The serious illness.

From a medical—clinical perspective—according to the author, the dynamic system exhibiting a severe illness is a phenomenon that, with gradual change, suddenly entails a prognosisless stage that can result in either life or death. Which is pure 'disorder' in terms of biological life. The indecisiveness is expressed in that 'either/or'. Unpredictability.

Appl. model. -- Identity crisis.

Human systems, as soon as they—individually, intersubjectively (between individuals), socially (in a societal context)—experience a qualitative leap (e.g. in the life of drives; think of wishful thinking) amidst all kinds of quantitative changes, which contains a 'substantial' (deeply operative) dissatisfaction, are “in a state of crisis”. Note: the entire structure of the psyche is at stake and its course is unpredictable.

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Chálogical interpretation.

The current theory of disorder characterizes biological and psychological crises as follows.

E. Laszlo, oc, 13.

The term 'crossroads' is applied to it. If complex systems enter a hypersensitive reaction phase (*note*: phaseology (*EDM-harm 149*), and are thus difficult or even impossible to grasp, then they exhibit the possibility of a crossroads. -- Laszlo emphasizes:

i. Some insight into what a crossroads actually is is important, because we humans are ourselves complex systems subject to 'tensions'. (*EDM--harm 117*: taseology).

ii . The systems in which we live—apart from the cosmos, e.g. technologized societies—are also a distinct type of complex system. -- As individuals, we are not necessarily subject to 'tensions' (understand: crisis tensions, 'acute' tensions). But it is clear that, for example, our societies are indeed subject to acute tensions. -- Moreover: the level of tension they reach might well encounter a critical threshold (*note* : dialectically: “a qualitative leap”). Thus Laszlo.

Conclusion. -- A crisis theory such as that of Zwingmann et al. aligns to a very high degree with recent chaology on the subject: they confirm each other, although they use partially different terms. At the same time, both theories are a confirmation of dialectical presuppositions, which are thereby both confirmed and improved.

The cultural crisis.

E. Laszlo, oc, 16.-- Laszlo gives briefly outlined examples of culture crisis.

1.1. In 1917, due to internal disagreements and military defeat, the system of Tsarist society crossed the critical threshold (understand: crisis threshold) of its stability ('stabilité').

1.2. From that chaos of 1917, with the October Revolution, a Lenin arises with his unexpectedly Marxist system of the Bolsheviks.

2.1 . The system of the Weimar Republic, in Germany, 1920+, reaches the threshold of its stability and degenerates into disorderly situations.

2.1. From that chaos arises a Hitler with his Nazi system.

3.1. 1948: The system of the Nationalist Shan Kai-shek with the powerful Kuo-Min-Tang collapses.

3.2. The Communist system of Mao Zedong (Mao Tse Tung) rises from its ashes.

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Conclusion: Chaology can serve to represent cultural shifts of a revolutionary nature as accurately as possible. Do not forget: the three revolutions cited are more than political reversals: they are 'ideological', namely, they put forward a specific concept of culture that replaces the previous concept of culture, which has become 'dilapidated' ('unreal' (*EDM 60*)), or at least re-establishes or improves it.

In chaological language.

E. Laszlo, op. cit., 18. -- Regarding the domain of the humanities and/or social sciences, the author states the following.

(1) When 'faith' (steadily prioritizing) in the established order becomes 'wobbly' (unstable dynamic system), all kinds of 'fluctuations' arise. In the human world, these take the form of ideas and/or movements (advocating ideas) that seek to revise the social order that has become questionable.

(2) A striking difference from non-human systems: a human system, even in a severe state of equilibrium ('far-out-of-balance'), is not necessarily uncontrollable. Reason: the 'actants' (the acting beings) in society are the people themselves. Thus, it is conceivable that they, situated within the system itself, intervene in a guiding ('steering') manner in the multitude of fluctuations (think: ideas, currents around ideas).

Among such fluctuations, E. Laszlo mentions new 'lifestyles' (a new concept), alternative forms of behavior (think of the hip behaviors of the sixties), technological innovations (think of the computer revolution and the accompanying information society), Ecolo-Pacifisms—we add to his list: the Neoliberal ideas, which are taking root even in Marxist states—think of the Eastern Bloc.

Note: One sees that when one transfers a term like 'fluctuations' from the physical (natural scientific) order to the human (human and spiritual scientific) order, the correct meaning becomes 'figurative' (metaphorical/metonymic; *EDM 20 ff.*).

As we *at EDM-harm 175* have already clearly stated. Which – incidentally – is the reason why, for example, Existentialists see a gap rather than a connection between a (purely) physical and a (purely) human world.

Against that background, one can very well understand the 'critical' reservations of a De Dijn.

HAR181

The ecological crisis. *Prigogine, Une nouvelle alliance de la science et de la culture*, in: *Le Courrier de l'UNESCO*, 1985 (May), 11.- Everyone is beginning to realize that our living space – our 'ecosystem' – is heading towards a critical tipping point.

Here is how Prigogine, with the optimistic spirit of his doctrine of disorder, sees it.

(i) Thanks to the development of new observation models - from radioactive isotopes to artificial satellites - we have come to realize that ecosystems are unstable systems.

This, especially since nonlinear dynamics (*EDM--harm 171*) provides us with the theoretical means to understand the amplification of oscillations and the appearance of crossroads that can occur in such systems.

(ii) 1. An improved understanding of the instability of ecological systems – together with the analysis of the future prospects of our planet (*note*: a kind of futurology) – naturally takes precedence.

2. We ought to take it further than the notion of 'conservation'. We know that—ten thousand years ago—our planet experienced an optimal climate in the Sahara and Gobi Deserts, where civilizations flourished. -- Nothing prevents us from cherishing the utopia of a return of such facts.

Note: This contrasts sharply with the sour and pessimistic outlooks (perhaps a form of doom-mongering) regularly found in 'alternative' circles. The spirit of modern natural scientists—since the days of a Galileo or a

Newton—still blows through Prigogine's chaology and the 'new rationality' he advocates.

Self-organization ('auto-organisation').

EDM--harm 166 taught us that the Brussels School speaks of self- or spontaneous ordering. -- That brings to mind the 'invisible hand' of the liberals, which establishes order out of disorder.

Library st. : *Guy Sorman, Les vrais penseurs de notre temps* , Paris, Fayard, 1989, 245.

Steller is in interview with Friedrich (von) Hayek (1928/1992), the man who founded Neoliberalism, which, for example, reflects Reaganism and Thatcherism. Here is how (von) Hayek thinks 'chaologically'.

Liberalism is the only political philosophy that is truly 'Modern'.

HAR182

It is even the only one that can coexist with the most recent physical and chemical and biological disciplines, in particular with the science of disorder, which Ilya Prigogine 'formalized' (*EDM--harm 84* (logical syntax), 94 ('formal systems'))

As in nature, so it is in the free market economy :

Order arises from chaos. The spontaneous ordering process of millions of pieces of intelligence (= information) and decisions does not lead to disorder but to order of a higher level (*EDM--harm 177* : even surviving economic crises).

Adam Smith (1723/1790; *Wealth of Nations* (1776), the magna carta of early Liberalism) was the first to have an initial foresight of this, two centuries ago.

No one can truly 'know'—as (von) Hayek repeatedly states—how to plan economic growth (*note*: planned economy), because we do not really 'see through' its workings. The free market mobilizes such an overwhelming number of decisions that no single coordinator—however powerful—can process them.

Consequence : believing, like Socialism, that state power can replace the market is an absurdity.

Von Hayek says: “no one can really know”; “we do not really see through the workings of the market”; “if there is such an overwhelming number of decisions, then even the most powerful coordinator is powerless”. That is the unpredictability of the dynamic system of the economy. Translated into chaological language. Unpredictability that relies on “the invisible hand,” of which Smith et al. speak, to 'explain' (an improper term here) the fact that, despite chaos in a market form, an abundance of goods and services still arises. Which is precisely what does not happen when millions of civil servants in state service want everything to run 'orderly'.

Von Hayek has, indeed, correctly understood the very strong resemblance between Prigogine's self-ordering and Smith's invisible hand.

Self-organization/ invisible hand.

Those two terms seem 'explanatory,' yet are they truly so? One might perhaps also speak of a series of coincidences that have succeeded so far. But to explain something out of mere chance, to make it understandable—what kind of 'explanation' is that?

Revisiting *EDM--harm 180* : did Leninism, Nazism, Mao Zedong communism ... rise from chaos as a result of self-organization or invisible hand(s)? The result is, in any case, not appetizing.

HAR183

The difficult or unguessable rules of the game.

Library st.: *Raymond Ruyer, La Gnose de Princeton (Des savants à la recherche d'une religion), Paris, Fayard, 1974.*

Princeton Gnosis is the name for the philosophy of a number of American professional scientists “in search of a religion”. They are also called 'Cosmolaters' (= Cosmoworshippers), 'Palomarians' (an allusion to the famous telescope of Mount Palomar). The term 'theosophists' is, perhaps, the best, because they prioritize not only phenomenal and rational realities, but also transphenomenal (transempirical, transrational) realities (*EDM 18*).

Well then, these worshippers of the Cosmos, who are pantheists (recognizing no personal Supreme Being), nevertheless put forward an “unknown master of games” (Oc:13). Here is how.

(I).-- Model. -- the Eleusinian card game.

The Game Master is, in turn, any player who draws up a set of rules secretly drafted but written down on paper, which are revealed after the game.

The game leader therefore places, for example, a card on the table, and the players react to this by guessing (what Peirce would call 'abduction'). If a card is placed on the table, it is placed to the right of the first card, provided they manage to react blindly to the secret rules. The person who guesses the secret rules fastest gets rid of all their available cards first.

(II).-- Original.

In the model of the Eleusinian card game, we see the actual, secret structure of the entire cosmos, “the system of real life” (oc,13): life in the cosmos “lays a card on the table”, the rules of which we ought to guess.

Transfer : Perhaps Prigogine's self-ordering is merely a name for such a secret game scheme, -- who knows?

New Age. -- The term 'New Era'

usually not translated from English -- signifies an increasingly widespread cultural movement that is, in its origin, astrological (the Age of Aquarius).

In other words: however unmodern they may be, a number of Postmodernists (*EDM 41*) – also “in search of a religion”, but fundamentally different from the Princeton Gnostics – posit that our cultural crises are the reflection (model) of a 'cosmic revolution', which only the Astrologer recognizes. -- One can see: since Biblical belief in God waned, quite a few 'Ersätze' (substitutes) appeared.

HAR184

Crisis magic.

With this, we remain in the atmosphere of New Age, which actualizes Archaic ideas.

Library st.: Arnold van Gennep, *Les rites de passage* (*Etude systématique des rites*), Paris, 1909-1, 1981-3. -- Reread EDM--harm 111 now (*Primitive psychodrama*).

The fact that the Pomo Indian encounters a turkey in the middle of the fields causes a 'crisis', even an identity crisis (for he is no longer himself upon returning home). In the language of Van Gennep: the 'encounter' with the bird is a 'passage', a 'transition' that contains a critical threshold.

Van Gennep thus studied passing through a doorway, crossing the threshold, hospitality (which brings a non-family member “over the threshold”), adopting a (stranger's) child, -- pregnancy, childbirth, birth, -- childhood, puberty, -- initiation, consecration, -- engagement, marriage, -- funeral, -- change of seasons.

These are so many 'transitions', understand: crises in the mind of Archaic humanity.

Says HF Lans et al., *Ethnological Encyclopedia* , Zeist/Ghent, 1962, 20/34 (Religion and Magic): consecrated acts (i.e., consecrated or sacred acts) or 'rites' “help man overcome his crises”.

Indeed: the 'soul' (possibly: substance of the soul, life force, concentrated in the soul (EDM 05), -- 'dunamis', virtus (Lat.), in the language of the Gospel) falls, in the midst of a “state far from equilibrium”, in the midst of a qualitative leap in life (EDM--harm 159), into 'soul distress', i.e., a lack of life force.

To remedy this disorderly situation, Archaic cultures established 'rites', which entail catharsis, purificatio, (Lat), -- acts of cleansing.

The magician:

- (i) presupposes the soul in distress,
- (ii) cleanses it ('cleansing' in the narrower sense) and
- (iii) elevates it to a higher level.

In the language of traditional Christian theologians, (disordered) nature (and extra-nature) (i) is taken as it is, (ii) is purified and (iii) elevated to a higher, in this case (in this instance) 'supernatural' plane, re-established -- in historical language 'actualized'.

In other words: with this, a fork in the road is resolved through an evolution on the sacred realm, i.e., on the realm of the mysterious life force ('soul').

This explains why so many revitalization religions are emerging to cope with the current cultural crisis. Revitalization amounts to re-established order.

HAR185

24.—Harmology, comparative method. (185/194).

This course is not only a logic, with its presuppositions (= foundations), but also a theory of methodology. We can now outline the first and most general method. All other methods presuppose comparison.

A historical fact.

It is 1990. Two hundred years ago, Jean-François Champollion, the French Egyptologist, was born in Figeac—which was, of course, celebrated in Paris with an exhibition. He dissected the infamous Rosetta Stone: by comparing the Egyptian text in hieroglyphs with the Greek text on the stone, Champollion deciphered hieroglyphs for the first time. This is a spectacular example of the comparative method.

'Method'

Ancient Greek uses the term 'methodos', the 'way' to be followed, the approach, the manner of tackling. The 'way' (hodos) is that which leads to the stated goal, namely to describe and interpret (to explain, to make understandable, to comprehend).

Library st.:

-- L. Davillé, *La comparaison et la méthode comparative (en private dans les études historiques)*, in: *Revue de synthèse historique*, xxvii (1913): 4/33; id. xxviii (1914): 201/229 ;

-- H. Pinard de la Boullaye, SJ, *L'étude comparée des religions (Essai critique)*,

II (*Ses méthodes*), Paris 1929-3, 40/87 (*La méthode comparative*);

-- M. Foucault, *Les mots et les choses (Une archéologie des sciences humaines)*, Paris, 1966, 66ss. (*Descartes' theory of order*);

-- IM Bochenski, *Philosophical Methods in Modern Science* , Utr./Antw., 1961, 149/155 (*The Methods of Mill*);

-- H. van Praag, *Meten en vergelijken* , Hilversum, 1965 (*quantity/quality; addition, topological ordering and sequence; counting, measuring and weighing; gradation, interval measurement and time measurement*).

To compare.

First, thorough remark: do not confuse, in common usage, comparing with “equating” or with “seeking out or emphasizing similarities”.

Whoever compares seeks out relations (*EDM--harm 77*) - reflexive (loop-shaped) of something with itself or as itself, non-reflexive of something with something else -.

When comparing, note encompasses (*EDM--harm 80*) - reflexive (something encompasses itself), non-reflexive (something encompasses something else). When comparing, note identities (*EDM 24*) - reflexive or total of something with itself, non-reflexive or partial (analogous) of something with something else.

HAR186

Whoever compares, in a value-free sense, also pays attention to the absence of relations, encompassings, or identities: he or she therefore also pays attention to differences and gaps. The presence and absence is the work of the comparer.

To compare.

Second, thorough remark: do not confuse relations, contents, identities with metaphorical relations, contents, identities! The metonymic relations, contents, identities are also relations, contents, identities.

Reread in that sense *EDM 24* (*metaphorical, but also metonymic synecdoche*) as well as *EDM--harm 90* (*distributive and also collective structure* (*all, but also whole*)), 97; *EDM--harm 103* (*iconic and indicative sign*); *EDM--harm 106* (*similarity and coherence*).

Look closely at the basic differential *EDM--harm 112*, where it is also stated that ordering also sees opposites.

Decision.

The entire field of harmology stands or falls with its method: comparison.

A slogan by Max Müller (1823/1900; religious scholar).

Let us remember this well : “The comparative spirit is the truly scientific spirit of our age, nay of all ages”. (The spirit of comparison is the truly scientific spirit of our time, -- what am I saying? Of all ages).

In other words: confronting data with one another is true scientific rigor.

A definition.

L. Davillé, La comparaison , in: *Revue*, xxvii (1913): 23, says:

“ (1) Instead of dealing with individual cases when it comes to dealing with phenomena or objects,

(2) The comparative method attempts to bring sets ('ensembles') into focus, (i) either similar (ii) or complementary.

Davillé thus also sees the duality of 'set/system' (set relies on distributive similarity; system on collective coherence).

A definition.

R. Descartes, Regulae ad directionem ingenii , xiv, says:

“ (1) If one disregards the intuition ('perception') of a separate reality,

(2) then - one might say - one obtains, by comparing at least two realities, all knowledge”. (*M. Foucault, Les mots et les choses* , 66).

HAR187

Unity doctrine

'Unity' in Ancient Greek meant identity. Comparing is therefore seeing both unity in multiplicity and multiplicity in unity. Cf. EDM 32. 'Multiplicity' both metaphorically (difference) and metonymically (gap). 'Unity' both metaphorically (similarity) and metonymically (cohesion).

Update . -- *H. Jans, Order out of disorder* (Ilya Prigogine, Belgian Nobel Prize winner in Chemistry 1977), in: *Streven* 1978: March, 527ff.

Fr. Boenders, Prigogine and Wildiers on Teilhard de Chardin (1881/1966; Jesuit paleontologist), in: *Streven* 1982: July, 930/941.

Boenders writes: “Ilya Prigogine: (...) Our time is, indeed, characterized—and this will become even clearer at the end of this century—by a search for unity in diversity. One among those who best understood the necessity of that search for unity, which extends beyond the domain of science, was precisely Teilhard (...)”. (Ac, 930).

The axioms.

We can formulate the presuppositions of all comparisons, with *R.A. Koch*, **Die Uraxioma in ihrer Bedeutung für die philosophischen Grunddisziplinen **, in: ** Tijdschrift v. filos. **, 31 (1969): 4, 749/766, as follows.

a. There is a universe (*note*: total reality) with all its parts. All that is called 'being' is either a part of the universe or that universe itself.

b. There is a universe with all its parts. All that is called 'being' has validity ('valid') either as a part of the universe or as that universe itself.

Note: -- Koch formulates the prepositions in two ways: descriptive and value-theory (*EDM 33*). -- 'Universe' is the collection and system of all that is.

Mathematical.

In *Le Courier de l' UNESCO (Voyage au pays des mathématiques , 1989: Nov. 11*, we read: “The description given as early as fifteen centuries ago by the Greek thinker Proclus of Constantinople (410/485) says: ‘The mathematical mind exposes the one in the many, -- the undivided in the division, the boundless ('infinite') in the finitude’.”

Edmund Husserl (1859/1938; founder of intentional phenomenology), in his ** Philosophie der Arithmetik **, The Hague, 1970 (a work from 1891), therefore begins with the concepts of 'multiplicity', 'unity', and 'number'. The theory of unity can be called the mathematical part of thought.

HAR188

Note: -- Ancient thinkers had a number of mathematical concepts at their disposal. - For example:

a. 'stoicheion' element (*EDM 01*);

b . 'plêthos', collection (quantity);

c. 'sustêma' collection, system

d. 'arithmos', number.

For example, Thales Van Miletos (-624/-545; first Greek philosopher) defines number as follows. “The first definition of number is attributed to Thales, who defined it as “a collection of units” (“monadon sustêma”), -- a definition almost identical with Euclid's, namely “the multitude made up of units”. (...) Eudoxus defined a number as a “determinate multitude” ('plêthos horisimenon')”. (*Thomas L. Heath, A Manual of Greek Mathematics , Oxford, 1931-1, New York, 1963-2, 38*).

Translated : “The first definition of 'number' is attributed to Thales. He defined 'number' as “a set of units” -- a definition that is almost identical to that of Euclid, namely “a set consisting of units”. (...) Eudoxos of Knidos (-406/-355; mathematician-astronomer) described 'number' as “a well-defined set”.

Note: -- In Thales' definition, the term 'monas', unit, appears. In the Ancient Greek framework of thought, particularly the Paleopythagorean (*EDM 04*), this is defined in two ways: the unit exists for every set or system, -- terms referring to at least two units. Thus, the number 'two' is the smallest number, immediately following 'one' (unit). So that 'the monad' (this is also how the term 'monas' is translated) exists as a constituent unit both for every 'number' (in the Ancient Greek sense) and within every number. Cf. O. Willmann, *Geschichte des Idealismus* , I (*Vorgeschichte und Geschichte des antiken Idealismus*), Braunschweig, 1907-2, 272).

'Analysis' and 'synthesis' as a general method.

The great tradition of methodology has always held that comparison is the method par excellence.

Ch. Lahr, *Logique* , 550/556 (*La méthode générale: l'analyse et la synthèse*), confirms this.

1. Analysis (ana.luo, I resolve something into its elements) is the breakdown of a totality into its 'parts'. 'Synthesis' (sun.tithèmi, I put together) is the (re)composition of the totality, which was broken down by analysis. -- Remember 'totality' is both 'set' and 'system'.

2. Lahr distinguishes two types of analysis and synthesis:

- a.** the 'rational' analysis/synthesis;
- b .** empirical (experimental) analysis and synthesis.

HAR189

The 'rational' compares concepts or truths internally and externally. The experimental compares extramental realities, which are situated outside the human mind.

For example, I can dissect (analyze) the term “spiritual living being” and reassemble it; I can dissect the statement (truth) “Man is a spiritual living being” and reassemble it. That is 'rational' analysis/synthesis.

But I can, in experimental psychology for example, examine whether that definition corresponds to the reality of concrete people. Which is what experimental analysis/synthesis is.

In the language of I. Kant, one would speak of 'analytical' (rational) and 'synthetic' (experimental) analysis/synthesis.

Note: -- The Platonic meaning of 'analysis', backward investigation of a reality, and of 'synthesis', forward investigation of a reality, signifies ... something other than what a Lahr means by it. We have already touched upon this briefly in EDM 02 (*hypothetical method*).

Where Lahr's definitions do correspond within Platonism is 'stoicheiosis' (Lat. elementatio), the stochiastic method, which consists of what Lahr calls 'analysis' and 'synthesis'.

The Cartesian method.

René Descartes (1596/1650; founder of Modern thought) saw in mathematics—alongside direct intuition or 'insight' (EDM--*harm* 186) and the experimental method (think of Galileo)—the quintessential example of philosophy. He was not merely methodical in his reasoning; above all, he wanted to be a methodologist.

Library st. : E. Lenoble, René Descartes , in: J. Bricout, dir., *Dictionnaire pratique des connaissances religieuses* , II, Paris, 1925,778/786. Lenoble characterizes the Cartesian comparative method.

1.-- 'Mathesis universalis'.

As M. Foucault explains in **Les mots et les choses**, *Paris*, 1966, 66/72, Descartes aimed at a general theory of order, which he conceived “as a mathesis, understood as a universal science of measure and order” (oc, 705). 'Mathesis universalis' is “all-encompassing mathematical theory of order”.

2.1.-- Totality/ element.

'Reason' ('raison') – according to Descartes – grasps, to begin with, something with its intellectual intuition, which grasps the totality globally. The same 'reason' grasps “le simple”, the singular element “clear and distinct”.

HAR190

Consequence: the complete Cartesian method entails splitting a whole into constituents—'simples'—and reassembling it into the whole. Analysis and synthesis. A global method, but also and above all a splitting method—to avoid vagueness. The 'global method' indeed leads to vagueness.

2.2.-- Analysis and synthesis.

a. Faced with complex data—composite and even intricate data—we must break them down until we expose their irreducible elements.

That Descartes absolutely does not forget the totality in this process is evident from what follows: the '*énumération complète*', complete recounting (= *summative induction*; EDM 39), checks at the end whether all the individual components or 'simples' have been examined and are ready in the mind. That is the testing of the analysis.

b. Only now can the reconstruction of the totality begin. One by one, we think the elements together based on simple relations. Thus from the simplest data—step by step—to the most complex.

Testing: once again '*énumération complète*', complete recounting, summative induction. Checking whether all relations and all elements have been analyzed and reconstructed is testing of the synthesis.

Note: -- What the Ancient Greeks called '*akribeia*', accuracy, becomes, from the Modern natural sciences onwards, exactness, precision leaning towards the mathematical.

Note: -- Idiographic/ nomothetic .

'Idiographic' means "that which represents the unique individuality" (e.g. the local colour of a landscape; the uniqueness of a person (EDM 30: *singular concept*). 'Nomothetic' is "all that represents the universal (general)" (EDM 30).

Fr. ED Schleiermacher (1768/1834)

The founder of the current Hermeneutic method (EDM--harm 135: Diltthey), in the Romantic spirit, says that Hermeneutic psychology proceeds in two steps.

(1) Divinatory method.

Schleiermacher attempts to "directly understand" a given ("unmittelbares Verstehen"). "The divinatory (literally: empathizing) method consists in

transforming oneself into the other (person) in a certain sense in order to immediately grasp the individual.”

(2) Comparative method.

Schleiermacher calls this “mittelbares Verstehen” (indirect understanding). “The comparative method views who must be 'understood' (*note*: the 'verstehende', 'begrijpende', or even 'comprehensieve' method) as something general (something universal).

HAR191

She then finds the characteristic (the distinctive) by being compared with others under the same general (universal) viewpoint.

(3) Do not divorce

“Both methods should not be separated from each other.” (*Kl. E. Walker, Die grundsätzliche Beurteilung der Religionsgeschichte durch Schleiermacher* , Leiden/Köln, 1965, 29/30).

Decision.

The hermeneutic method, as conceived by Schleiermacher, focuses attention first and foremost on the uniqueness of the individual. However, it never does so without situating that individual within something general, namely by means of comparison.

Schleiermacher – in the spirit of (German) Romanticism (late 18th/early 19th century) – wishes to penetrate the deeper soul and spiritual life of his fellow man (*EDM harm* 130: surface/ depth); 135 (*prosopopoeia/ ethopoeia*)).

Note: This corresponds to what L. Dévillé calls “internal and external comparison” (*EDM--harm* 131). Schleiermacher first examines the individual being that is his fellow man – 'divinatorial' (somewhat like the clairvoyant who attempts to penetrate into intimacy) – yet not without simultaneously situating that singular being within something general – 'comparative' –.

The divinatory approach is idiographic (it refers to the individual), the comparative is nomothetic (it refers to the universal).

Note: The terms 'idiographic' ('idios' in Ancient Greek means "that which characterizes something/someone in its essential core") and 'nomothetic' ('nomos' means, in Ancient Greek, "all that is universally valid") actually

originate from a re-founder of the humanities, namely W. Windelband (1848/1915; axiological Neo-Kantian): the natural sciences seek in 'nature' regularities that apply universally; the humanities, especially psychology, seek in an event (history) that springs from the human 'mind' the unique in all its interconnections.

Note-- Incidentally: the measuring method—so frequent in the current sciences—was already set out as a comparative method *EDM--harm* 140,

After all, measuring in the ancient sense always involves comparing something with a measure.

HAR192

Some other applications.

The comparative method takes on an endless number of forms. Besides those sketched just now or previously, here are a few more examples.

1. The mathematical equation.

Anyone who has studied algebra, for example, knows what an enormous role comparing quantities (quantities) plays.

(1). Look at e.g. calculations

“ $7 + 3 = 10$ ”. Anyone learning arithmetic in primary school usually does nothing but teach such 'number forms' (= formulas). But they forget to realize that this is the application of the comparative method: the sign '=' signifies equality in terms of quantity as it becomes apparent when comparing. Only those who compare see equivalencies.

(2). If we look at algebraic calculations, for example,

“ $x + y > / = / < z$ ”. It is clear that the sign '>', '=', or '<' can only be placed after comparing x, y, and z.

The specialist scientists—physicists, chemists, biologists, social scientists—who arrive at some kind of numerical or literal equation consider themselves overjoyed.

Library st.: *FJThonnard, Précis de philosophie (en harmonie avec les sciences), Paris, 1950, 124/131 (Les sciences mathématiques),* points out the central role of comparison in mathematical operations.

2.-- The linguistic and literary comparison.

Exactly one model. -- the syntax (*EDM--harm 84; 98*).

In the meantime, two terms have gained acceptance.

a. Taxinomy. -- That is the science of classification (classifying is ordering).--

b. Taxonomy.

b.1 General: any classification system.

b.2 . Particular: the biological classification system (think of Linnaeus).

Let us also not forget the term 'taxology', i.e., the scientific study of classifying ('ordering' based on comparison, internally and externally) anything whatsoever.

Applicable model

(a) Grammatical.

Our traditional grammars order words and sentences comparatively based on coordination and subordination (parataxis/hypotaxis).

“When the little blonde came walking there, his mother was extremely happy”. Main or independent clause “His mother was happy”. Subordinate or dependent clause “When the little blonde came walking there”.

Plato distinguished 'onoma' (nominal component), the subject with what accompanies it, and 'rhèma' (verbal component), the predicate with everything that accompanies it.

HAR 193

The 'arrangement' (= ordering, classification) of words within the sentence is governed by that duality: at least one subject (expressed or not) and at least one predicate (expressed or not) form the structure (*EDM-- harm 121, 123*) of a judgment (sentence). The arrangement of words obeys this. So that comparing, here, is revealing structure.

Note-- Compare coordination/subordination with metaphorical/metonymic (/ / distributive/ collective). Cf. *EDM-- harm 186*. What do you discover?

(b) Literary (literary-scientific).

Let us read, for once, an outdated but still instructive work: *J. Loise, Les secrets de l'analyse et de la synthese dans la composition littéraire* , Mons, 1880.

“Unity (*EDM-- harm* 187) - although clearly delineable from diversity - is unthinkable without that diversity. This applies in both philosophical and, for example, aesthetic fields.” (oc, 3).

Or again: “Unity is merely the complete condensation of various elements into a harmonious whole.” (oc 3) .

O. c., 1/22 is titled 'Le principe “l'unité dans la variété”'). Behold the quintessential presupposition of literary analysis.

Applicable model

Alain-René Gélinau, ed., The Poetry of Transcendence / La poésie de la transcendance , Paris, Argel, vol. 1, 1984.

This bilingual book is an introduction—poetic, that is—to Postmodernity (*EDM 41*). Let us consider the American poet Walt Whitman (1819/1892).

“Not I, not anyone else can travel that road for you, -- You must travel it for yourself. -- It is not far; it is within reach. Perhaps you have been on it since you were born and did not know. Perhaps it is everywhere on water and on land”. (oc, 32/33).

Translated, insofar as translation is possible: “Neither I nor anyone else can walk that path for you, You must walk it yourself. -- It is not far, it is within your reach. Perhaps you have been walking that path since you were born and did not know it, -- Perhaps it is everywhere on the water and on the earth”.

Note: One main idea: once beyond the reach of all that is 'rational' (*EDM 18*), man, as a lonely individual, stands alone.

The sentences reflect that in a spread-out manner.

HAR194

Note -- The term 'transcendence' here means the fact that the Postmodern human, e.g. in the form of poetry, transcends (overcomes, 'transcends') the purely rational such that he/she explores transrational realms of total reality, -- all alone (or so Whitman claims).

The reader of the poem unconsciously compares the phrases of the entire text and thus discovers—with the poet—its 'unity,' which immediately also

leads him/her to the transcendent realities. -- This confirms Loise's presuppositions.

3.-- *The spatial mathematical equation.*

Reread *EDM--harm* 93, 104, 188. -- Look at the drawing of the point figures 104. Suddenly, when one understands Paleopythagorean mathematics, one 'structures' as it wishes: one sees the figures as models of originals, which are the square numbers. Which is done comparatively. 'Seeing' is only possible through comparing, confronting, -- however unconsciously.

Space figure test.

Let us take the window figure test (W. Vermoere), as it can be used, for example, in the third year of kindergarten to assess the mental maturity of five- and six-year-olds.

a. *Infrastructure* (= used material).

A number of geometric figures (not easily transparent) that are complicated for a child of that age are presented. That is the material for interpretation. Comparable to a kind of "initial chaos" (*EDM--harm* 179).

b. *Superstructure* (= effort to interpret).

Observe the tested child closely while he is engaged: he enters an intellectual 'crisis' (*EDM--harm* 178). He experiences a crossroads amidst the disorder that the presented figures represent to him. Downwards (he understands nothing of it). Upwards (he suddenly sees through the structure): in/through those chaotic figures he discovers a geometric figure understandable for his age.

People then say: "The child must 'structure'": in the labyrinth of parts of the presented figure, the requested figure suddenly rises before his mind.

First, as Descartes teaches us (*EDM--harm* 189/190), it analyzes (splits). At the same time, or certainly at the end of the successful experiment, it synthesizes the fragments of the fragmented figure presented into the desired figure (structure).

Thus the child twice establishes order out of chaos.

HAR195

25.-- Harmonology: assimilation to differentialism (195/201)

From similarity to difference we get: assimilationism (concordism) / identivism / different(ial)ism (disconcordism).

We said it: the comparatist looks at both similarity/cohesion and difference/ gap. -- But there are emphases:

a. the assimist or concordist seeks as many similarities and connections as possible -- unity in the unmistakable multiplicity and diversity;

b. the identivist attempts to neutrally realize the balance between the two;

c. The different(ial)ist seeks as many differences and divides as possible - the multiplicity and the contradictions.

The three attitudes, however, do nothing but compare, -- but with different emphases.

1.-- Asimilism. A model.

Library st. : Daniel Audétat, *Lausanne, capitale de la science politique (Le futur Institut international de politique comparée pourrait établir son siège à Lausanne)*, in: *Journal de Genève* , 14.02.19B7.

The institution of which the author refers exists only as a draft. Nevertheless, in the course of 1986+, it brought together researchers from more than thirty countries—universities—from all over the globe in a provisional committee. The initiative comes from the French Professor Jean Blondel (professor at the European University Institute in Florence): he wants to clarify, on a planetary scale, the political activities and the structures hidden within them—“on the basis of the comparative method”.—But let us watch closely.

a. Until now, political science has been fed by regional, indeed, ethnocentric and 'locally thinking' studies. The consequence: disparate fragments serve as... flawed material for comparative political science.

b. J. Blondel: such studies must be brought to a higher, supra-regional level; we realize—so he says—“that we are all part of the same world”.

Conclusion: by 'comparative political science' he understands the identification of “common characteristics” inherent to every politics, within the framework of multiculturalism that characterizes our world.

Behind which lies a high ethical concern: reaching a consensus on a planetary scale.

Note: As a thinker who attempts to defend such a concordist position in a philosophical manner, mention should be made of *Jürgen Habermas* (1929/...), Frankfurt School, second generation.

HAR196

His works, including *Theorie des kommunikativen Handelns*, I (*Handlungsrationalität und Gesellschaftliche Rationalisierung*), II (*Zur Kritik der funktionalistischen Vernunft*), Frankf.aM, 1981, as well as *Der philosophische Diskurs der Moderne* (12 Vorlesungen), Frankf.aM, 1985, attempt to challenge the idea to place 'interaction' ('Interaktion') at the center of our multiculture.

Interaction, learning to live together, collaborate, based on consensus, understanding; whereby disputes are deemed to be settleable in a modern-rational manner.

Habermas stands, after all, in the great German intellectual tradition of Kant and Hegel, but with the Anglo-Saxon Language Analysis (which centers on logical analysis) as a corrective, against which an updated Marxism (the Frankfurt School is Marxist, Neo-Marxist) forms the background.

Modernity, after all, is in his eyes not only negative ('negative Dialektik'), but also positive: "Let us purify the unifying Modern thought and action, but nevertheless press ahead immediately."

2.-- Differentism. -- A model.

Consider, for example, what are called 'differential sciences'. Differential psychology, for instance, studies the differences and divides between the distinct psyches—e.g., the inner life and behavior of a child, adolescent, young adult, adult, and the third age. The emphasis here lies not on similarities and connections—the common characteristics—but on what distinguishes and separates.

Variology

'Varius' in Latin means "different, distinguishable, separable". Variology is the analysis of what exhibits difference/gap.

Library st.: *H.-J. Hampel, Variabilität und Disziplinierung des Denkens*, Munich/Basel, 1967, 82/104 (*Variologische Denksysteme*).

The short chapter in this book reveals how thinkers emphasize 'variation', contradictions, the diachronic and the synchronic (*EDM--harm 112ff.: theory of contradictions*) and color their entire thought structure accordingly.

Postmodernism.

We already encountered Postmodernism, *EDM 41*. Now a new characteristic: fragmentarism.

1. ' Postmodernity ' is the ascertainable fact that, in terms of life presuppositions, we live in a multiculturalism, a multitude of very incoherent worldviews.

HAR197

It is a repetition of what in the Bible is called 'Babylonian confusion' or 'Babylonian chaos' (*EDM--harm 179*) the Chaologists see this too, in their own way, very clearly). Or it is a repetition of what a Herodotus experienced on his business travels (*EDM--harm 135ff.*) (cf. also *EDM--harm 147* , where the model of the American Peace Corps is discussed with its variants regarding responding to it).

Conclusion: 'Postmodernity is first and foremost a situation, a set of factual data with which we are confronted.

2. ' Postmodernism ' is an attitude to life in response to that situation.

Without any sadness, the Postmodernist wishes to see not only the negative effects of Postmodernity, but also the positive possibilities:

a. to begin with, he learns to live with it;

b. Furthermore, he usually arrives at the axiom of equivalence regarding cultures: in his view, one culture is not worth more than another. Thus, non-Biblical religions are equal to Biblical ones (Judaism/Christianity/Islam). Similarly, Primitives are just as much "people-with-culture" as the most 'cultured' Westerners.

c. Not only differences, but also disputes occur interculturally: instead of consensus, a good understanding regarding basic premises, there is (a healthy dose of) dissensus regarding fundamental issues (think of unborn life: one is for, the other against abortion). Inclusion thus goes so far that the otherness of the dissenter, of the 'other', is also 'included'.

Behold, briefly outlined, what Postmodernism is. We live in a 'fragmentary' culture.

Lyotardism.

J.Fr. Lyotard (1924/1998) represents an acute form of Postmodernism . His work **La condition postmoderne **, *Paris, Minuit*, 1979, is well known, in which he addressed Postmodernity from a philosophical perspective.

Library st. :

-- *Les Cahiers de Philosophie* (Lille), 5 (1988 : printemps), Jean-François Lyotard (*Réécrire la modernité*);

-- L. De Cauter, *Postmodernism for Children* , in: Streven 1987: Oct., 77/79.

1.-- *Small stories, yes; the one big or meta-story, no.*

The term 'story' here means “a view of life and the world concerning cultural history”. Think of the myths of the Primitives, which depict the origin and course of the cosmos, -- of Biblical sacred history, of the belief in Progress of the Moderns (Liberals, Marxists), who, on the basis of 'reason', 'specialized sciences', and 'technology'—big, all-encompassing words—predict a better future for us.

HAR198

Meta-story.

The term 'meta-' refers to *Metalogicus* , a work not of logic but about logic and its proper value. Its author: the medieval humanist *John of Salisbury* (1110/1180).

The term 'meta-' also refers to linguistics: 'metalanguage' is “language about language”. Compare this with what we call, in grammar, direct and lateral (indirect) speech:

“I, Maaïke, say that it is very hot in Saint-Tropez, but that fortunately a cool mistral wind is blowing”;

Maaïke says that it is very hot in Saint-Tropez, but that fortunately a cool mistral wind is blowing.

Analogously, Lyotard introduces the term 'métarécit', metaverhaal:

(i) each of us, individually, -- every culture, separately has a story, a representation in the form of an insight into the course of individual or group history;

(ii) meta-narratives claim to be able to summarize individual and group histories and even judge them according to their value.

Well, Lyotard—a multicultural Differentist—claims that such a thing is impossible. No one can deny individual and group differences and disputes: the conclusion is that they cannot be summarized or judged—without doing violence to the facts in any way. The facts are a maze, a labyrinth, from which no one can find order. No 'grand narrative' creates order out of that chaos.

2.-- Language difference. Even more: language dispute.

Lyotard takes as an example the distinction between “I know that” (descriptive) and “I ought to act in conscience...” (normative, prescriptive).

This is the Postmodernist re-establishment of an old distinction, indeed, of an old separation, which we discussed in *EDM 58*, namely “to be/ ought” ('Sein/ Sollen'). According to Lyotard, an abyss yawns between, for example, scientifically descriptive and ethically prescriptive language.

In *Réécrire la modernité*, 45, he says:

a . there is the 'tinkering' ('bricolages', experiments involving guesswork) in current biogenetics, where, for example, embryos are cloned to 'manufacture' individuals “to measure”;

b. for example, in France there is an “ethical commission” that arrogates to itself the right to pass value judgments on this matter 'in the name of morality'.

HAR199

To which Lyotard replied: “Can one let biotechnological experiments run their course without raising a finger, or must one ‘regulate’ (‘réguler’, regulate) -- provide them with rules)?”

If one ought to regulate them, then which regulation: a preventive (prior) or a curative (after) one?

But there is more: what is that 'right' in the name of which such a commission intervenes? Where does it derive its 'authority'? What can it

invoke as the “subject of the norm of conduct” (understand: who decides on the rule?)? This commission labels itself as 'ethical' (binding in conscience): indeed, it is not political or legal, but ethical. But does a generally accepted ethics actually exist, in whose name such a commission can effectively exercise its control over genetic experiments (...). Thus Lyotard.

Explanation.

(1) *Language*

Biogeneticists speak the language of positive scientific facts: they speak about the matter in terms of experimental facts, in their laboratories, about which, incidentally, there is far-reaching consensus (any researcher can replicate them and immediately establish that they are lawful).

(2) *(Meta)language*

The ethicists speak about the issue in a different language, namely that of a generally accepted ethics (morality), about which dissensus exists in our multiculturalism with its differences and disputes regarding the foundations of morality: how to speak in terms of 'good' and 'evil' in such a situation of profound disagreement about what exactly constitutes 'good' and 'evil'?

Lyotard: “Ecoutez: il ya différend. Fichez-nous la paix votre votretention à unifier la totalité des phénomènes de langage. Respectez la guerre qui les divise” (*Réécrire la modernité* , 47): “Listen: there is undoubtedly a language dispute. Leave us alone with your pretension that you want the totality of linguistic phenomena unite. Respect the war that divides them.

The metalanguage of ethicists regarding the language of (biogenetic) specialist scientists has no real premise, basis, or 'foundation'. It is therefore not a metalanguage.

Behold what stands for Lyotard's discordism. “Facts are not norms”.

The educational problem.

Given: A student is being questioned and believes he earns 16 out of 20, - according to his 'standards'. The professor, however, believes he earns 12 out of 20.

Question: how to resolve something like this if a Postmodern multiplicity of norms exists?

HAR200

Or given: a primary school teacher gives a rating – e.g. “very good” –; a parent of another child ‘disputes’ this as “far too much compared to my child”.

Question: if there is equivalence of norms—here: the teacher's norm and the equivalent norm of the contesting parent—how to resolve this conflict—dissensus?

Note -- It might well happen that Habermas (*EDM--harm 195*), reviled by the Postmodernists, with his premise that, in a dissensual, divided culture experiencing 'language disputes', interaction and understanding must certainly be prioritized as an objective, proves more than right.

Nominalism.

Euripides of Salamis (-430/-406), the mystically inclined third great tragedian of the Ancient Greeks, wrestled throughout his life with the dissensual world of thought and life of Protosophistication (-450/-350), in which pragmatic power thinking predominated.

He characterized Nominalism in an immortal, simple manner: “If 'good' and 'evil' were the same everywhere, then there would be no more dispute among people.”

In fact, however, only the names (*note*: in Latin: nomina) that are used are the same everywhere, but what is indicated by those names differs from region to region.

The view that our knowledge and experience of 'good' and 'evil'—the norms—does not extend beyond the situation outlined by Euripides has been called 'nominalism' since Middle-century Scholasticism. In itself, 'objectively' nothing is 'good' or 'evil'. Only the 'name' ('good' or 'evil') creates the seemingly objective quality of 'good' or 'evil'. Which amounts to multicultural conventionalism: people agree, as a group—'conventio' (Latin for 'agreement', 'concord')—to henceforth label something as 'good' or 'evil'. Nothing more.

Decision.

From that perspective, contemporary Postmodernism—certainly that of a Lyotard—is an updated Medieval Nominalism.

Collection, system: merely names or more than names?

The premise of the comparative method is sets and systems, specifically in the objective, ontological sense.

Library st.: *D. Nauta, Logica en model*, Bussum, De Haan, 1970, 258/259
(*The 'universal problems' and the foundations battle*).

HAR201

According to Abraham Fraenkel, a Platonist, set theory looks as follows:

a. Cantor (the formalizing re-founder) and Logicism view sets (i.e., classes of data exhibiting common properties) - *EDM--harm 90ff* . - as findable (*EDM 09*), ascertainable, testable realities;

b.1. Intuitionism views them as 'entities' invented by the collection specialist;

b.2 . She views Formalism as invented but testable for its consistency (logical coherence).

Both of the latter statements amount to a variant of nominalism.

Paradoxical sets and paradoxical systems.

Thanks to the comparative method, Postmodernists discover paradoxical cases of set and/or system.

Reread *EDM--harm 172*. A Lyotard BV constantly compares. But he specializes in differences and gaps (disputes).

Consequence: he uncovers sets that exhibit the following characteristic: their elements have as a 'common property' the fact that they exhibit as few common properties as possible.

The same applies to systems: for example, he views the multiculturalism of today as a system that exhibits as little collective structure as possible and is therefore a 'non-system'. Or "a system of anti-systems". Fragmentarism: a coherence (?) of loose fragments (!). -- Which amounts to meanings 2 and 3 of 'Paradox'.

General decision

With this, harmology or the theory of order comes to an end. Besides similarities and connections as 'links' between 'beings' - realities - we have differences and chasms, yes, disputes (conflicts; *EDM--harm 121*) established as 'connections' (in the analogous, partly identical, partly non-identical sense) between realities. Let us call the latter "paradoxical connections" in the sense just defined.

Question: can one now say, without doing violence to reality, that the connections—the non-paradoxical and also, indeed, more strongly than the non-paradoxical, the paradoxical—are merely 'invented' constructions of the human mind? We believe that the answer, after all that precedes, is clear.