1. 2 Definition and classification

Content

1. 2. 1 Definition (content) and classification (scope)

Definition and classification as applied summative induction. Definition and classification are modes of enumeration. Well, only a complete enumeration, results in a valid definition or classification. The components (instances/parts) of an enumeration must be mutually irreducible but together constitute one piece of data. Distinct but not separate.

Consequence: an enumeration may contain redundant components. For example, when the same component is mentioned more than once. For example, when the teacher mentions Pete twice when calling the attendees. Or when a female girl is mentioned. An enumeration can sin by mentioning too little. So when "young girl" is listed as a "young person" or when a present is forgotten in a call-out. Behold the two basic errors in defining and classifying.

Definition. If all and only all (= summering) cognates of the content of a concept are enumerated, then there is a proper definition. In the traditional interpretation of definition, it counts as a "determination of being": the "being" (that which is something and by which it differs from the rest of all that is real), expressing whole being and only whole being, makes up a good definition.

Classification. If all and only all instances of a collection or all and only all parts of a system are enumerated, then this gives a valid classification of the scope of a concept. One can see: defining applies to the concept content, classifying refers to the concept scope.

"A potiori" enumeration. Indeed, this is an incomplete enumeration that states the salient or at least the characteristic of the thing to be "defined" or the thing to be "classified." For in many cases a strictly complete enumeration is impracticable but an incomplete enumeration contains enough information to avoid confusion with something else. That is a potiori enumeration.

An application. In a "sketch" (an approximate summary) of what educators and psychologists call "the tyrannical child," one says: "A little tyrant lives like an unsanctioned one, is overvalued by his parents, is a spoilsport in the material sphere, accepts disappointments only if he is given concessions for them, knows how to seduce and blackmail, regards fellow men as his servants, often provokes himself the rejection by others, exhibits a semblance of maturity, appears to be an insensitive one, becomes demotivated very quickly, is an unhappy one."

Admittedly, this definition is strictly incomplete, but it paints a 'picture' that will prove its practical usefulness in many cases. Such a definition is the result of induction: just as Socrates started from individual concrete situations in order to arrive at a general concept which he wanted to strictly define over and over again, so both parents and educators have arrived at the 'image' of the tyrannical child, but not at a strict definition, but at a set of loose traits which

nevertheless make as strictly as possible 'the essence' of the tyrannical child distinguishable ('discriminable') from everything that is not the tyrannical child.

It is immediately apparent that strict enumeration - in terms of definition, among other things - can prove very difficult because the induction it is supposed to make possible is itself flawed.

1. 2. 2 Aristotelian categorems (predicabilities).

Something can be a model for an original in more than one way. The ancients left us with the categoremen and the categories in this regard. First a word about the categorems. The categories will be discussed later (1.2.6)

'Katègorèma' in ancient Greek is 'to say something of something', saying. In Latin 'praedicabile' (from there 'predicabilia'). The categorems belong to the distributive type.

In Aristotle's categorems, one can distinguish between the creature definition and the property definition. To the creature definition belong: genus (universal), species distinction (particular), species (particular). The property definition includes normal property (always present) and accidental property (sometimes present). The last two provide additional information.

1. Creature definition. Paradigm. Definition of a type of murder. Three categorems define "being," i.e., that by which something is itself (and therefore distinguishable from the rest of total reality) .

- Genus. Gr.: genos; Lt. : genus. (universal collection). Here: killing.

- Specific difference. Gr.: diafora eidopoios, Lt.: differentia specifica (private characteristic). Here: 'brutal' for reason of many knife stabs.

- Species. Gr. : eidos, Lt. : species (private collection). Here: killing by stabbing. It is seen that the species combines the two previous ones.

Structure. (1) Killing, (2) if by knife stabbing, (3) defines being. What the definitional structure demonstrates.

2. Property definition. Every being exhibits properties (in the broad Platonic sense that includes relations) but these differ under point of view of whether or not it belongs to the being.

- Being (normal) trait. Gr.: idion, Lt.: proprium (essence trait). Here: attack. There is no killing without minimal attack on something alive.

- Accidental (non-normal) property. Gr.: sumbebèkos, Lt. : accidens (coincidence). Here: by means of seven knife stabs. Not every killing occurs in this way!

Note: In the list of Aristotelian categories (see below) the term "sumbebèkos" (accidens), coincidence also occurs, but there in a not - distributive sense (as here) but in the collective sense.

Coincidence. The scope of coincidence is best revealed when one examines a fact, a being or essence - in its "course": from the defined concept of "murder" e.g., strictly deducible and thus predictable is "attack" but from that same defined concept of "murder" is not deducible and thus not predictable "by means of seven knife stabs.

Which does not preclude that from another defined essence - e.g., "murder by seven knife stabs" - (in his mind, the murderer assumes to proceed with seven well-counted knife stabs) the being property "by seven knife stabs" is deducible and thus predictable as "no coincidence."

In other words, whether a property is substantial or non-substantial depends on the creature definition.

Return to our paradigm. Based on the categoremen, we can give a responsible definition: killing after an attack by means of knife stabs in the number of seven. Behold a definition of a type of murder and in a reasoned manner. One can see that the five distributive viewpoints make up a kind of definitional scheme that defines the separate features into a coherent whole.

Note: In ancient Greece, the paleopythagoreans (-550/-300) were apparently very concerned with defining but by virtue of their arithmology (theory of number forms). Aristotle, *Magn. mor*., 1: 1, says that Pythagoras of Samos (-580/-500) articulated essence determinations (Gr.: horoi) through number forms. Thus virtues are 'measuring number forms' ('arithmoi'). Which is usually translated by 'measures'. Thus: if man, horse, god are 'measured' (understand: summed up in a general term), their measure is 'living beings'. Aristotle, *Metaph*. xiv: 1, 15, disapproves of this arithmological mode of definition but is full of praise for Plato's paleopythagorean contemporary, Archytas of Tarentum where the latter says, "What is

windlessness? Tranquility in the air mass" or still "What is a still sea? Evenness of the sea". Thus came the ancient Greek definition.

1. 2. 3 Definition as a calculated enumeration

First, an example. Someone once defined "conscience" as follows (we hereby clarify the arrangement (structure)): "(1) An inner voice (basic concept) (2) which alerts us that 'someone' is watching (added concepts), (3) is conscience (defined concept)". The "basic understanding" is that knowledge content which situates what follows concerning "added concepts" in all that ever was, now is, ever will be (reality). The most comprehensive basic concept is the term "something" (representing all possible situational concepts). We all know the expression, "That is something that (...)" to define easily!

Definition. A definition is a judgment such that, thanks to the enumeration of (1) a basic concept ("gender") and (2) at least one added concept ("species or specific difference"), all and only all of the cognate features that collectively constitute the content of the concept to be defined ('kind') constitute, are correctly rendered. As an aside, according to an ancient Latin tradition, the enumeration (basic concept and added concepts) is called the 'definiens' (that which defines) and the concept to be defined is called the 'definiendum' (the thing to be defined).

Collective example. One can also use the parts of a whole (system) to define: "(1) A house (2) consisting of attic, basement, ground floor (kitchen, sitting room, bedroom, toilet, storage room, garage), is (3) an average house." Which amounts to using the layout to express the definition.

Categorems (predicabilities, "quinque voces" (five basic terms), logical universals) are the system of commons that ensure the structure of a proper definition. The three main ones: basic term (genus), added terms (species difference), defined term (species) have been clarified above.

An example: the circle. Let us take: "A geometrical figure (basic concept), created by turning a line segment - in the sand (coincidence) as - in a plane around one of its end points (added concepts), is a circle (defined concept)." It is clear that

" in a plane in the sand" is only a coincidence that has no place in the normal, i.e. belonging to being, course of the creation of a circle, - unless by chance.

Coincidence is the fourth commonality. The fifth is the "essential" or "necessary" feature. In this case e.g., "in a plane" or "around one of its ends" because these kent traits are indispensable and an integral part of the added concepts.

As an aside, the above definition by stating "in the sand" sins by redundancy.

Other example. "The cow, given its cloven hooves, multiple stomach, grinding teeth with flattened crown AND excluding claws, single stomach, canine teeth and grinding teeth with nodules on the crown (typical of the predator), is a ruminant."

One sees that one can define by excluding. This draws the "being" of the definiendum much more clearly against the background of what it excludes.

Example. "An indeterminate situation (1), if by controlled or directed transformation changed into one so, in respect of essential distinctions and relations, well defined that the elements of the initial situation are worked out into a unified whole

(2), is an inquiry or work of forethought (3)." Thus J. Dewey, *Logic* (*The Theory of Inquiry*).

1. 2. 4 Eristics

Bibl. st.: E.W. Beth, *The Philosophy of Mathematics from Parmenides to Bolzano*, Antwerp, Nijmegen, 1944, 78/86.- The GV is a statement. The GV is finding at least one counter-model. 'Eristics' is 'redistributionism.' It specializes in refutation.

Cl. Ramnoux, *Parménide et ses successeurs immédiats*, Rocher, 1979, 158. Parmenides of Elea (-540/-480) is referred to by G.E.M. Anscombe, as already cited under 10.1, as, "the foundational text on which the whole of Western philosophy is but a series of footnotes." Which is no small thing to say. Well, his pupil Zeno of Elea (-500/- ...) reasons fundamentally eristically: "If an opponent of my teacher Parmenides recites his counter-model ('antilogia', refutation) and if contradictory after-phrases follow from this, then this is proof that his counter-model is impossible (absurd)." Zeno's axiom reads, "If the counter-model is valid, then no contradiction must follow from it."

Ramnoux emphasizes the shift from Parmenides who emphasized "being" (reality), the logical thinking of being, the ethical appreciation of being - he was an ontologist - to Zeno who preferred to "finish" an opponent as mathematically (as that time understood it) as possible. Zeno shifts to eristics.

"***Neither thou nor I.***" Beth, o.c., 19, notes that, according to Aristotle, Zeno's counter-reasoning exhibits one basic trait: "The opponent "neither as" Parmenides presents conclusive, everyone definitively convincing reasons." Nor does he give a "final reason." Consequence: no logically decisive conclusion can be drawn from the assertions of either camp. What Aristotle will later call "dialectical situation."

Update. Modern mathematics and logistics have applied such eristic method "with great success" (Beth, o.c., 84). It has been called "the method of counter models." Beth notes, however, that while that method has "full evidential value" (ibid.), it is only the introduction to "a deeper investigation" (ibid.).

Bow question. Sextus Empiricus (*Adversus mathematicos* VIII: 10). "Tell me whether thou knowest thy father." "Yes! "Now I put a man wrapped in a sheet beside thee and ask if thou knowest him". "I know him not". "But it is thy father! So, if thou knowest not this man, thou knowest not thy father". This is called "Electra. This story, good as calendar humor, took aim against Aristotle's criterion of evidentness which says that what is evident can be trusted. The man to whom the man in the sheet is shown, if he relies on what is "evident"-in the sense of "directly given"-must say that he does not know "the man" (who is not "evident").

The eristic fallacy is to interpret Aristotle's notion of "evidentiality" in too narrow a sense because Aristotle, if confronted with such an "evidentiality," would have a second have asked for "evidence," namely that evidence that comes after the sheet is taken away.

Aristotle, in such a case, knows more than one notion of evidentiality while the eristicus, against Aristotle's thesis, turns the two into one and thus misinterprets Aristotle. There is a first obviousness (the man in the sheet) and there is a second obviousness (the man bared). Aristotle is not so naive as not to know the two.

1. 2. 5 The method of counter models

General definition. "If thou assert that (model), then, upon further examination, it follows what thou refute (counter-model)." The basis, of course, is the "either model or counter-model"

dilemma. One can call this a refutation in virtue of "the absurd", understood as what is "implausible" for the opponent. We explain by means of paradigms.

Bibl. st.: W.C. Salmon, *Logic*, Englewood Cliffs (N.-J), 1970, 30. One aspect of the socratic dialectic consisted in defining - especially ethical-political - concepts. The concept of justice, translatable by our "conscientious behavior," was therefore central along with the concept of virtue - understand: being virtuous human beings within the ancient "polis" (city-state). So much for background.

Cephalus' definition (model). "Very well, Cephalus" I (Socrates) replied. "But what right is 'justice'?". Cephalus: "Telling the truth and returning what is owed". Socrates: "Is that definition correct? In other words: are there no exceptions to it? Suppose a friend in his right mind entrusts me with weapons and he is no longer in his right mind and asks for them back. Is it right to give them back to him? No one will argue that I have to give them back. (...)".

Premises on this. 1. The content of a judgment, only if it applies to all cases of magnitude (and thus is not refutable by any exception (counter-model), is correctly defined. 2. The entrusting of weapons to someone, if he is not in his right mind, is unjust. These logical and ethical propositions were preconceived as axioms by the "critical," i.e., Socrates sensitive to errors of thought.

Protosophists (-450/-350) held the axiom: "Justice, if with expertise identified, is correctly defined". They also argued, as citizens of the state, that a society should be at least livable, if not "ideal" (their "model"). To which the error-prone Socrates replied, "Well, a thief can be defined as 'an expert in taking other people's goods.'" How does this square with "a livable, let alone ideal society"? In other words, "If you assert that (your definition of justice as a 'model'), then on closer inspection it follows what you refute (the 'counter-model' of your model)."

Behold a few paradigms of "the method of counter models" within the world of socratic dialectics.

1. 2. 6. The Aristotelian categories (predicaments).

Bibl. st.: F. Ildefonse / J. Lallot, prés., *Aristote, Catégories*, Paris, 2002. This historical study attempts to define the proper nature of Aristotle's categories, including its connection

with ancient-Greek grammar and with Plato's views. This interests us here and now not so much as such as the usefulness of this list in drafting a text.

For the categories or "predicaments" (as already stated: to be distinguished from the 'categorems' or 'predicabilities,' see 1.2.2) are basically a set of platitudes with heuristic value. We follow the classification of some who link categories.

1. Basic pair. 'Ousia', Lat.: essentia, the essence, and 'sumbebèkos', Lat.: accidens, concomitant. We might say in plain Dutch "being/properties" of something that is the theme of a text. Application. Take a concrete thing, i.e. the murder of a girl. How to define using the categories?

2. Further features. These are again explained linked.

2.1 'Poion', Lat.: quale, hoedanig, and 'poson', Lat.: quantum, how many. Here: the killing, given the stabbing, is brutal (quale) and there is just one death (quantum).

2.2. "Pros ti", Lat.: relatio, relation. Three types of relation are distinguishable. 'Pou', Lat: ubi, where, and 'pote', Lat: quando, when. Here: in a city park and at night. 'Poiein,' Lat: actio, agitate, and 'paschein,' Lat: passio, undergo. Here: killing and a surprised victim.

'Keisthai', Lat.: situs, posture, and 'echein', Lat : habitus, equipment. Here: lowered and partially disrobed.

Definition. An account, reduced to the essential ('ousia', essence), can be expressed using the categories as follows. Murder of a young girl. Given the knife stabs, a brutal killing of one person in the city park at night by a violent one who surprised his victim who was found knocked down and partially undressed.

One can, of course, say that such a thing comes across as wooden. That is so with all platitudes. But it must be denied that the definition, if executed with insight, loses itself in insubstantial detail. It (1) typifies (quality / quantity) and (2) situates (relating,- place / time, action / undergoing, attitude / equipment) an event.

The distinction between categorems and categories: The categorems (predicabilities) - genus/species difference/species and necessary and accidental property - define distributively (according to set theory) a being. Categories, however, define collectively (according to systems theory).

A discussion is possible concerning the couple "attitude / equipment" because it cannot be denied that in and through that couple a couple more familiar to us moderns shines through, namely "situation / reaction," where "keisthai" means "being situated" (as given) and "echein" means "responding to the situation" (as requested). This would bring to mind the existential pairing "thrown / design": thrown into a situation, a person designs a response to that situation. Such an interpretation, however free, is not without connection to the Aristotelian couple in question.

1. 2. 7 The Chreia (chrie) as a definition

Bibl.st.: H.I. Marrou, *Histoire de l'éducation dans l'antiquité*, Paris, 1948, 241. Steller says that the chreia in ancient secondary education, once completed, amounted to a small page. 'Chreia' meant "useful configuration" of platitudes. Like Aristotle's categories, the chreia is a collective way of defining o.g. coherence of "places.

J. F. Marmontel (1723/1799; *Eléments de littérature* (1787) says that the chreia is a definition. Like the Aristotelian categories, the chreia posits the plurality of a theme. Just as a "being" (core of the categories) envisions a multiplicity of aspects, so does the theme, namely the "what," of the chreia, as we shall see. We apply the method of a paradigm as a model that we explain.

1. The two basic positions.

A person either said something or did something. Those are the themes.

- **1.1.** Who. That is the one who speaks or performs an act. Isocrates of Athens (-436/-338) was a famed "rhetor" (teacher of eloquence) and logographer (text keeper). He enjoyed a very nurturing education. He took lessons from the protosophists Gorgias and Prodicus. And also from Socrates. An advocate of panhellenism (the unity of all Greeks was his ideal), he put his hopes in Philippus II (-382/-336), king of Macedonia. However, when he determined that the latter was bringing about the unity of all Greeks in an undemocratic manner, he left himself to die of hunger. Such "characterization" is in place at the beginning of the chreia such that one "knows with 'whom' one is dealing.

- **1.2**. What. In our paradigm a "gnomè," a wise saying, from Isocrates: "The roots of education are bitter. The fruits have a pleasant taste". Note: Please note: this statement is

metaphorical. Whoever develops the theme, do not forget to translate the trope. Here: as the roots of a plant stand to its fruits, so strict education stands to its pleasant results. With this, e.g., one does not slip into an exposition of the model instead of an exposition of the original.

2. The second section highlights several aspects or perspectives.

- **2.1.** Reason. Note: One paid attention to the distinction in Dutch between "why" (cause;- unconscious motive) and "why" (conscious motive). Isocrates was very timid and had a weak voice. Which prevented him from acting as an orator in the 'agora' (public assembly). So he stayed out of direct politics but still became very influential thanks to his "bitter" efforts: he knew by his own experience what "bitter roots" are.

- **2.2.a.** Counter model. (a contrario) If educators spoil, there is a risk that without "bitter roots," the result will be "unpleasant. Spoiled upbringings more often than not do not stand up to "bitter" life. Needless to make arguments for this.

- **2.2.b.** Similarity (a simile). Here one cites related data that, while not representing the same thing, are approximate. For example: "Education (...) is the skill which consists in directing (the eye of the soul) and finding the most efficient (...) method for that purpose. It does not consist in teaching the eye (of the soul) to see because the seeing is already there; (...) it directs at its conversion (for good)." (Plato; State, 7). Note: Isocrates did not share all of Plato's insights but that does not prevent that regarding "bitter education" their views were parallel.

- **2.3**. Examples. (a simile, ab exemplo) Here Demosthenes of Athens (-384/-322) can be cited as an application: he had a weak voice but thanks to "bitter practice" he was able to perform in the agora and became the most famous orator of Hellas. Note: The "example" is a sample from the scope to which the content of Isocrates' thesis refers and belongs to the inductive method.

- **2.4.** Testimony. These are authority arguments. Here, opinions or polls that confirm (or refute) Isocrates' thesis can be cited.

Latin mnemonic formulas. Among them are two.

- A. Introduction. B. Middle. Quis (who). Quid (what).- Cur (reason). Contra (counter-model). Simile (similar). Paradigmata (examples). Testes (testimonies). C. Conclusion.

Aphthonius of Antioch (270/ ...) left us a different formulation.

- A. Introduction. B. Middle. Paraphrasis (who/what).- A causa (reason). A contrario (counter-modeI). A simili (similar). Ab exemplo (examples). Testes (testimonials).- C. Slot. (in the form of "a brevi epilogo" (a short epilogue).

Thus, ancient teachers taught definition in the form of a shorter or longer text.

One noted that both Aristotle's categories and the "places" of chreia rely both on similarity and coherence.

1. 2. 8 Ascending definition

- Scenario. Someone enters a large village. Everyone has been talking for days and weeks about "an ill-fated neighbor dispute": one tells this, another tells that, a third tells something else. Behold the GV. The GV: to find out the true event, 'x'. This is defining x.

- ***Structure of definition***. The end point of the research leading up to the definition is a form of "deiktic" ("ostensive") or demonstrative definition. R. Nadeau, *Vocabulaire technique et analytique de l'épistémologie,* PUF, 1999, 152, defines by means of a paradigm: "The term 'red', if one shows e.g. a ripe tomato (one specimen from the scope of concepts) while saying: 'The color of the ripe tomato is red', is ostensively defined". But before that endpoint concerning X is there, another mode of definition is necessary, the accumulating ("cumulative") definition. "X, if, beginning with a 'lemma' (provisional definition), demonstrated through an 'analysis' (testing of the lemma) in the form of an - at least sufficiently convergent (converging at one point) - series of actions (praxeological method) as groping samples (ostensive end), turns out to be ostensively defined." We now explain this complex articulation.

- *Lemmatic-analytic definition*. Its founder is Plato. One begins with a lemma, a hypothesis, here: one or another of the stories in circulation. All subsequent actions Plato calls "the analysis," here: the searching testing of the initial story with the X in mind.

- ***Concurrence.*** Bibl. st.: H. Pinard de la Boullaye, *L 'étude comparée des religions, II (Ses méthodes), 509/554 (La démonstration par convergence d'indices).* The stake is a searching induction: (1) a series of samples in the form of e.g. interrogations of all kinds,

(2) which at some point point at least predominantly or even decisively in the same direction - 'converge' -, i.e. expose (fairly / very / highly) likely X.

Accumulation. One "designation" (Latin: indicium) after another accumulates.

- ***Conditions***. The indicia must be both mutually independent (questioning others each time) and yet interrelated (concurrence). To the extent that they become uniform (although they may contain divergent versions), to the same extent ("at par") they provide truth ("information") about X.

- ***Treasure hunt***. This structure children play when they treasure hunt: the X, e.g. a gem that the teacher has hidden away, in the big forest, is found and "displayed" through a number of search attempts.

- Theories. The accumulating samples - in treasure hunting e.g. children haphazardly search now here then there (likewise in a judicial inquiry like the TV series: Derrick's investigations) prove that induction is involved, a groping induction. L Newton (1642/1727; *Principia mathematica philosophiae naturalis* (1688)) defined the accumulating defined by means of a mathematical 'model': just as a regular polygon within a circle, when its sides are multiplied endlessly, has as its limit the circle itself, so do the indicia. They, if at least the search succeeds, gradually point to the X as their 'limit'.

Note: "Omnis comparatio claudicat" (said the ancient Romans), i.e. "All comparison fails." Newton's model is mathematically regular and predictable, whereas in the search for treasure or the uncovering of e.g. a crime anything but mathematical regularity and predictability can be found!

1. 2. 9 Definition of the singular

"There is now a playing girl in that meadow over there." This is an "existential," articulating actual existence, statement that is, moreover, "singular" because it has as its subject a conceptual content ("a playing girl") that refers to precisely one instance from the conceptual scope, namely, "a now (time) in that meadow there (space)" playing girl.

Bibl. st.: H. Pinard de la Boullaye, *L' étude des religions, II (Ses méthodes),* Paris, 19293, 509/554 (La démonstration par convergence d'indices probables). The method is (1) induction, i.e. separate samples blotting out characteristics. (2) By accumulation cumulative method - one

defines the singular to be defined until one is sure that the whole definiendum and only the whole definiendum can no longer be confused with the rest of reality (complementation or dichotomy). Thus the singular is distinguishable in its uniqueness (singularity). Note: We refer very briefly to the DNA - method which can define precisely one human being on a biological-genetic basis.

- ***An algorithm.*** The Jesuits of Coimbra (Portugal), in their In universam dialecticam Aristotelis (1606), set up a distich (two-line verse) as a definitional algorithm: "Forma (being), figura (view, configuration), locus (place), stirps (descent), 'nomen' (proper name), patria (homeland), tempus (time), 'unum' (the singular) perpetua lege reddere solent." The sequence is governed by Latin verse but the algorithm in it is valid.

- ***Application.*** (1) Anne (proper name), (2) if forma (woman), figura (large in stature), patria (Belgium), locus (Antwerp), tempus (27.06.1977 as date of birth), stirps (pious family) known, (3) then sufficiently (as not to be confused with anybody) defined. One sees that the 'notae' (traits of knowledge) are enumerated so that the uniqueness is captured. Each of the features in itself is insufficient but the complex (the coherence) saves the definitional character.

Remark :. As already cited (see: 1.1.1; the classical and romantic concept) there is a strong tradition that states: "omne individuum ineffabile" (all that is singularized is 'inexpressible', meaning: not objectively definable). This in the context of 'science' of which it is claimed: "Non datur scientia de individuo" (concerning the singular, no science is possible). The Jesuits of Coimbra are the only exception to this. In romance track:

Wilhelm Windelband (1848/1915; founder of neo-Cantian Heidelberger Schule) introduced the distinction between "nomothetic" (formulating general laws) and "idiographic" (describing the singular) sciences, so that uniqueness got its due, even in "sciences. One thinks of geography and the science of history: there is only one Antwerp; there was only one Napoleon! One can express many generalities about these two singularities, but is nomothetic science talking about the real Antwerp and the real Napoleon?

1. 2. 10 Some more types of defining

Bibl. st.: I.M. Copi, *Introduction to Logic*, New York / London, 1972-4 (Definition). Steller first notes the 'synonymous' definition as found in bilingual dictionaries. Thus in an English/Dutch dictionary: 'advertisement' = 'announcement'. Copi restricts the synonymy to

conjugated words but on closer inspection every other definition is a synonymy but in the form of a word multiple.

'Cconnotative' and 'denotative' definitions

Copi distinguishes between 'connotative' and 'denotative' definitions. 'Connotative means "What articulates the conceptual content" (as above). Denotative' means "that which expresses or employs either specimens from a set or portions from a system to lead to a general understanding of the set or of the system." In other words: one defines along the scope of understanding. Example. Showing a computer in operation to someone who knows nothing about it suggests a general understanding in and through a concrete action with the computer as its object. The act - showing, manipulating - is substantially repeatable because usually the scope of a concept contains a plurality of instances or parts.

Structure: "A repeatable action (basic concept) having as its object at least one instance from a collection or at least one part from a system (added concepts) such that the conceptual content of the collection or system penetrates the mind."

Paradigm. This method recalls traditional grammars that first indicate a concrete application in order to suggest the general rule in and through that application. The concrete example is called "paradigm.

Operational definition. P.W. Bridgman, *The Logic of Modern Physics* (1927), as a physicist defines "operational" (by action): "Repeatable physical actions (basic concept) having as their object a physical thing (e.g., an electronic process) (added concepts) such that a physical concept content emerges." On a simple level: measuring the temperature of a sunlit stone (object) with a thermometer (repeatable action) gives an understanding of temperature (definition in degrees Celsius). Such a thing gives a physical evidence of course. One has tried to introduce that operational way of doing things into human science as well by operationally defining the physical phenomena that accompany e.g. mental processes (when we think e.g., our brains react). Cognitivism is known for that method in "cognitive" psychology.

Causal definition. Aristotle, De anima II, 2: 1: "Definition belongs not only to express data (...) but it must also express the 'aitia' (reason)." Thus: "The sun (basic concept), if covered by the passing moon (added concepts), exhibits solar eclipse (defined concept)". The added terms here articulate the reason, the cause. Which leads to a causal definition.

O. Willmann, o.c., 125, mentions in this connection the genetic definition which articulates in the added terms the coming into being ("genesis" becoming) of the definiendum. Already Plato but especially Aristotle harbored this method: "If one can ascertain the data in their becoming from the beginning, this is the most successful sense" (politica 1 :2). Thus Aristotle defines (in Plato's wake) the then state as "becoming" out of the family and the village. That becoming counts as a kind of "reason" that makes the state of the time intelligible and ... defines.

1. 2. 11 Definition of 'postmodern'

What is called "postmodern," is a culture type. Culture is a given that is approached from a requested. Postmodern man approaches reality and his role in it differently from modern man, from a different demand.

The term. "Postmodern" contains two sub-terms: "post" after, and "modern. Literally, "what comes after modernity." 'Post' involves distancing oneself from what is modern, indeed, engaging in foundational research regarding modernity and designing new foundations.

From one big "story" to many small "stories. F. De Wachter, ed., *On utility and disadvantage of postmodernism for life*, Kapellen, 1993, sees it as follows.

Concept content. 'Story' here means "comprehensive view." The premodern Bible had a great story: God creates the universe and situates man in it with the task of cooperating in a future state of salvation, the kingdom of God. Marxism had another great story: modern industrial man in the role of the proletarian is tasked with liberation from the bondage of capitalism toward a future state. The fading away of a traditional - Christian faith and the collapse of communist states leave us with a crumbling, i.e., a multitude of unpretentious and therefore "small" stories.

Instead of creating modern working culture, postmodern man wanders around: as if carried by the train of modernity, he enjoys the passing impressions of the world outside. At most, he warms to those "little" stories.

Scope of concepts. Art (architecture e.g.), bodily experience, new social movements, new moral behaviors, not least multiculture and "transculture" embody postmodern content. And this rather as "the final state of modernity" (L. De Cauter). From disjointed reality to interlocking reality. J. Gerits, *Recent trends in Dutch literature*, in: Streven (Antwerp) 1994: May, 416/417, sees it this way.

Conceptual content. Modern reason organizes, - holding itself and things around it ready apart. Postmodern man, however, experiences himself and things as intertwined. With the overall impression: "Everything is blurred."

Concept scope. Fact and fiction run together (the new historical or documentary novel; so: E. Marain, *Rosalie Nobody* (1988)). Fiction and "metafiction" (theory concerning fiction) run together (P. Hoste, *Movements of a Commuter* (1993)). Texts run together (intertextuality in which a text is incorporated into a text (P. Claes, De Sater (1993) in which fragments of Apuleius, Petronius, Homer - distinct literary genres - run together)). The self merges with the world and its data (I. Michiels, Journal brut titled "*Gleaning I's*"; Bemlef, Eclipse (1993) in which a man emerges from a car accident as someone who, due to amnesia, speech disorder, insensitive left hemisphere of the body, experiences himself and the world as blurred and merged). Overall impression: a disordered self-awareness in a disordered environment.

Both characteristics provide as approximate definitions a set of traits to characterize a culture. Each emphasizes one or another characteristic but agree on criticism of modernity that centered on the rational self with its ordering power over itself and things.

1. 2. 12 Perception : sensory and intellectual

Fr. Joignet/ P. van Eersel, *Visions (Le chaos par Prigogine)*, in: Actuel (Paris) 1990: oct, 91/93. The text begins as follows: "During an icy morning in the winter of 1961, Edward Lorenz, a very gifted mathematician, makes his way to his laboratory at MIT, the very famous Massachusetts Institute of Technology in Boston. But he does not yet realize the chaos that is about to ensue. For since World War II (1940/1945) he has been digging into mathematics. That day he becomes fascinated by a sequence of a numerical simulation (Note: a technical representation) of the evolution of a climate. In the silence of his laboratory, he typed again on his computer - an old Royal Mac Bec - the data concerning the climate to be studied (...).

Lorenz cannot believe his eyes: the course of the new curves - far from obediently repeating the old model - is moving away from it! First a few millimeters. Later, the coordinator draws the craziest figures. The new climate, shown in the simulation, has nothing to do with the predictions". Note: Lorenz discovers the butterfly effect: a minute weather change at a place causes a maximum weather change, such that from a given minute weather change the maximum is unpredictable (meaning "disorderly" gradient or rayons).

Phenomenological analysis.

1. What does Lorenz immediately perceive as a phenomenon, sensorially speaking? The curves, the numerical description (simulation) of a climate - in - evolution.

2. What does Lorenz immediately perceive as a phenomenon, logically speaking as a thinking being? Throughout the sensory representation he "sees" with his mind the evolution of the weather, a chaotic evolution in this case. Now how are we to interpret this phenomenologically? First of all, there is a concept of "perceiving. In other words, there are two phenomena, i.e. directly given realities: that which he senses (with the eyes) on the screen, and that which his mind grasps through that sensory perception, the evolution of the climate. There is also a perceiving with the mind. Consciousness psychological analysis. - Imagine a twofold scenario.

a1. Lorenz has fallen asleep at his computer. Physically he is at the screen. Note - One might suggest that sleeping his mind or even his senses still grasp something somewhere but then that will not mean much scientifically.

a2 .Comes running there a child who went from the sleeping Lorenz to the working screen looks. It perceives movements on the screen but sees them not as meaningful curves but as screen movements: its consciousness is with the latter as a phenomenon, the only phenomenon it perceives.

b. Lorenz Shoots awake, looks at the child and resumes his perception of what the screen shows: he is now not only physically but also with his consciousness, sensually perceiving and at the same time intellectually perceiving, at the screen and through the screen at the evolving climate. The child's consciousness is with the screen. Lorenz consciousness is also with the screen. Yet what thorough difference!

Immediate and Medium. - The child is immediately with the screen and its movements. Lorenz is immediately, like the child, with the screen and its movements, but is additionally through those movements seen on the screen with the evolving weather: for him he is immediately there.

(1) Even though e.g., a behavioral psychologist will argue that he has only an indirect perception of the weather. The behavioral psychologist limits the phenomenon to the physically observable on the screen. The rest is interpretation.

(2) But consciousness psychologically, that interpretation is a form of direct observation. Lorenz is with the weather, not with the curves, unless he is explaining the theory of the meaning of those curves to someone. Then only is he thinking of the mediation of those curves between him (observing) and the weather, in other words, the point of view of the behavioral psychologist.

Conclusion. When we describe awareness processes creatively, we establish what follows.

1. The consciousness of something - e.g., evolving weather - is amenable to evolution: a child that shivers from the cold rain, is aware of "the weather." And this both sensorially (wet epidermis, the eyes reeling from the raindrops, the ear that catches the rustling and so on) and intellectually (grasping "cold rain" as a phenomenon with many facets that mainly concern the individual senses). But a meteorologist who walks the child by the hand in precisely the same - objectively speaking) rain is nevertheless aware of it differently. In other words, the previous experiences (as memory data), the scientific formation partly determine in its way the consciousness that thus turns out to be a flexible, evolutionary data.

2. 2. The immediacy of the fact,

The immediacy of what consciousness perceives as a phenomenon, i.e. directly or immediately given, evolves with it. We saw that very clearly in Lorenz's grasp (sensory, yes, but through the senses intellectually) of what weather and in particular the susceptibility of weather to twists and turns is. To the unformed child, that was a dark spot, an x or unknown so even that the curves on the screen told him nothing about weather evolution. To the unformed child, those images and their movements were not simulations (descriptions) of weather evolution and so those images were an intermediate term to the fullest in which the mediate or mean became abundantly clear.

Simulations. - Of course, this assumes that simulation does translate e.g. the weather but no distorting translation: the curves really simulate (though will never be completely) the weather. So that for the meteorologists they are, transparent as in the accuracy of representation, present the weather itself. But that belongs to the theory concerning the essence of simulations as descriptions of data, their usefulness standing or falling with the degree of immediacy of the mediate means. Mean: the degree of correct representation proper to the means of description as an information-shifting translation of a given.

When Lorenz, seated in front of the screen, follows the curves in their evolution, he of course perceives with the eye those come - in - movement (do we call that with the psychologists "sensory perception") but he perceives more than that and in that purely sensory way: he is literally with his perceiving consciousness at the weather - in - movement (do we call this latter "intellectual perception"). In other words, the distinctions that psychologists make in the course of their analyses disappear in direct perception. Lorenz notes the weather in evolution both sensory (through simulation) and intellectual (through the simulation). It is the direct contact, not yet obscured by theory of sensory and intellectual perception, with the phenomenon itself in its purity. - Those who find the expression "rational perception" implausible betray an a-priori view: why should our perception, i.e. our direct contact with reality, not be possible with our mind? Man is a true unity of mind - and - senses and this asserts itself in phenomenology.

Refer also, e.g., to the process of learning to read. An illiterate person looks at a written or printed word very differently from an experienced reader. Yes, it will be impossible for the latter to look at the printed word without immediately evoking with it the corresponding sound image. The perception is sensory and intellectual. Prior experiences, here learning to read itself, play a role in perception.

1. 2. 13 Demonstrating

To interpret is to respond to a given thing in such a way that one grasps it as correctly as possible. One speaks of sense-making. In this one can distinguish degrees, namely, sense conception and sense-making.

- ***Sense***: Here we are talking about the given "according to itself," that is, as given, in itself. When we try to grasp (the meaning or essence of) something - an event, a saying, a landscape - correctly and truthfully, we pay attention to that something itself, in itself.

Thus: A company head looks at the numbers: through that "sign" he grasps that his profit margin is falling. Thus he defines both the sign (the figures) and what they mean (the loss).

Edward Lorenz and the child looking along at the screen capture reality. The child perceives only the sensory curves. Lorenz perceives sensory as well as mental: the curves give him information about weather evolution.

Note :Parmenides of Elea (-540/ ...), the founder of eleatic philosophy, has bequeathed to us an expression: "the being according to itself" ("Kath'heautou"). This is : what is given (and requested) according to the given (and requested) itself and not according to us.

In other words, in modern terms: the object decides, not the signifying subject. In Aristotle's formula for "ontology / metaphysics," this recurs as follows: "the being as being" ("to on èi on").

- Here it is both about the given (and the wanted) and especially about what that given (with its wanted) provokes in the one who is confronted with it. In other words: in modern terms: both the object and especially the subject as a signifying being independent of the object. It is the second degree of interpreting: it takes courage to see "the sign on the wall" and at least as much to "find something on it". That is the full reaction.

Those who, according to Peirce (1.2), perceive idiosyncratically, straightforwardly or preferentially, do not adhere to the data, do not limit themselves to sense-making, but establish their own sense. Similarly, ABC theory (6.11) argues that perception A can be colored and clouded by the subject's biases (B), so that behavior (C) becomes intelligible by it.

Note : Reference may be made in this connection to J. Kruithof, De zingever (An introduction to the study of man as a signifying, appreciating and agitating being), Antwerp, 1968, a work which sees the whole of human existence as signifying in a threefold degree, viz. 'signifying' (mean: judging), appreciating, acting. Making value judgments and "acting" are two degrees of signifying.

Broad meaning. Ch. Peirce (1839/1914), in his complex theory, puts interpretation at the center: man is an "interpreter. But this level of signifying is but the apex of a general phenomenon: fundamentally, everything, if it encounters something else, signifies that other. The stone that catches a falling stone 'reacts' to that encounter on a physical level. The plant that catches the same stone 'reacts' to its biological level. The animal that catches that same stone 'reacts' to its biological level. In Peirce's metaphysics, in these encounters and reactions to them, signs play a central role: they carry a message that emanates from the 'encountered' and is grasped (and interpreted) by the 'reacting' so that the universe is one large assemblage of such signs transmitting and grasping things and processes.

Narrower meaning. Bibl. st.: H. Arvon, *La philosophie allemande*, Paris, 1970, 116/120 (L' herméneutique). 'Hermeneutics' was traditionally an auxiliary science in interpreting sacred or profane texts. Fr. Schleiermacher (1768/1834) was the first, in his *Dialektik* (1839), to transform 'hermeneutics' into a broad theory of knowledge (epistemology): all human utterances (written or not) are objects of interpretation as products in which the human soul or spirit shows itself. They are signs of human inner life. 'Understanding' fellow human beings through those signs is something thoroughly different from explaining those same signs scientifically.

- J. Droysen (1808/1884), W. Dilthey (1833/1911), G. Gadamer (1900/2002*; Wahrheit und Methode*, Tübingen, 1960) among others elaborated such hermeneutics. Cfr K.O. Apel, *Die Erklären / Verstehen - Kontroverse in transzendental -pragmatischer Sicht*, Frankf am Main, 1979.

- So the object here is man as an animated and spiritually gifted being: to "interpret" him is to grasp what he shows through his behavior (words, gestures), his works (products, works of art), in a word: his cultural expressions. Through these signs, the hermeneuticist can grasp the "meaning" of what the fellow human being lived through internally. This is called the 'understanding' method.

Cognitivist meaning. That same inner world in one's fellow man can also be traced - interpreted - scientifically and biologically. Biological research, through the influences of DNA, signifies psychic life or signifies it through scanning methods that physically expose the brain workings that guide inner life. The "signs" via which cognitivism interprets inner life of fellow human beings are now no longer the signs to be grasped by the common mind but biological structures (DNA e.g.) or biological processes.

Remark Semioticism. It should be noted that the extreme emphasis on signs as intermediate terms is not tenable because only if before or at the same time as the sign one also grasps the signified, one knows that it is a sign, i.e. a reference (by similarity or coherence). What that signifies via signs stands or falls with the direct grasp of the signified, the inner life: grasping the inner life of one's fellow man oneself is the message.

Note: The drawback of signs is that they are far too few, insufficient similarity models of inner life but far too many, excessive coherence models and thus provide only indirect knowledge, i.e. indirect "interpretation.

We explain further. When the text you are now reading, reader/readers, was written, according to brain scientists, the neuronal pathways in well-defined centers of the writer's brain were active. Yet it is more appropriate at this time not to think about those neural activities to "understand" the intent (the "message," the information) of what is written. We pay attention to what the writer wanted to communicate through the signs of the text. Thus, one can empathize with his mental life such that a likeness model of what he is thinking comes through. The brain may already be needed: it is only a coherence model!

There are biologists - geneticists - who, when they examine a love game, think (and say) : "Those involved pass on their genes to their offspring." Such comments are correct.

Yet in order to "understand" what this love game is as soul life, it is more effective to empathize with what both partners live through, without thinking of passing on the genes! Only then will a similarity model of love play emerge and one does not run aground in a coherence model. What is related is certainly informative, but what is soul life itself is much more accessible through empathy.

Conclusion. There are apparently things that escape biology. What it understands does have sign value but one too indirect when it comes to interpreting human inner life.

Now turn to "signs" that are less natural law.

When we delve - archaeologists do so intensively today - into the ruined buildings in Central and South America, for example, we encounter the remnants of ancient Indian cultures. In the absence of sufficient historical information as to what the designers had in mind, we do see a similarity model as far as it is materially worked out, but the further meaning of that "sign" is often a question mark: "Did they worship deities? Or did they honor ancestors? Did they commemorate feats of arms? Did the structures guarantee magical - healing or repelling - powers?". Not to mention the ceremonies that took place in them. Or "Did they not wish to hide rather than show?". We do see the materializations of their inner world, - even if in a dilapidated state - but what they had in their minds, through the remaining signs, remains to a serious degree a mystery. Therefore, the signs do not mean very much. The inner life of those times can be

somewhat interpreted but in "unclear," understand: "indistinct" ways. The signs - in the absence of direct contact with what they mean - yield to question marks.

Again, signs without prior or simultaneous contact with their signified are indistinguishable.

1. 2. 14 Definition in story form

Bibl. st.: W. Wagenaar, *Where logic fails and stories convince*, in: Our Alma Mater (Louvain) 45 (1991): 3 (Aug.), 258/278. It deals with a case in the Netherlands. The true event we call "x" is what investigators, judges and those involved try to define.

- Story 1. Ms. A., living with her boyfriend since the age of 21, claims that she was "assaulted by her father six years ago." Her boyfriend prompts her to file a police report. 'Assault' is an initial definition of x.

- Story 2. The father relates that once he and his 15-year-old daughter "were alone in the house but only administered a good rattle to them." "Just a good rattle" is a second definition of x.

- Report. The appointed physician determines that Ms. A. is "no longer a virgin." "No longer a virgin" is a third - this time scientific - definition of x.

Rhetoric. "Rhetoric" is either the theory concerning persuasion or the very practice of persuasion. In this context, the medieval contradiction pair "material object / formal object" is appropriate. The object - in this case x - is called 'material' insofar as it is the brute, unduplicated fact (for any interpretation). It is called "formal" insofar as it is expressed in a "forma," a concept, i.e., an interpretation. A material object usually provokes a multitude of formal objects (interpretations). Here the concepts in which the daughter, the father and the physician judge x, - each from its own perspective, i.e., interests (daughter, father) or role (physician). One wants to persuade (rhetoric), the other communicates information (science).

Logically. Logically, the stories and report are prefaces from which postfaces are deducible. If story 1 is true, then the father is necessarily guilty. If story 2 is true, then the father is necessarily innocent. If scientific report is true, then the father is not necessarily guilty (because Ms. A. lives with her boyfriend). Logic does not fail but is applied. The axiom held

by each is "prove right" or "contribute scientifically." From there, all reason strictly logically and define their stories, resp. their account in such a way that the afterthought (guilty, innocent, perhaps guilty) follows. With the possible judicial consequence.

As mentioned earlier, *La Logique de Port-Royal* notes that very often the common mind or even the intelligentsia (the intellectual and artistic vanguard) reason very logically but from premises open to criticism. (cf. primitives)

1. 2. 15 Peirce's pragmatic maxim

Ch. Peirce, *How to Make Our Ideas Clear*, in: Popular Science Monthly 12(1878): 286/392, articulates his "pragmatic maxim": "Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then our conception of these effects is the whole of our conception of the object". Examine what effects - which might conceivably have practical bearings - we conceive the object of our conception to have. In that case, our understanding of these elaborations is the whole of our conception of the object. In other words, if we have the understanding of the elaborations, then we have the understanding of the object itself.

1. Peirce. "People have called this maxim a skeptical and materialistic principle. In fact, he is merely the application of the only principle of logic that Jesus recommended has, "By their fruits ye shall know them." Which means that this maxim is closely related to the conceptions of the Gospel. We should not, therefore, understand the term 'practical bearing' in a low and mean sense." In 1905, Peirce would write, "If a certain prescription for an experiment has been prepared, then a certain observation will follow." Which amounts to deduction of tests from a given concept, to its execution, to the determinations that follow concerning the practical content of the concept.

Note : The text from Matthew 7: 15/20 talks about how to obtain a true understanding of false prophets: "By their fruits you shall know them. Does one pluck grapes from thorns or figs from thistles?". Whether this is the only principle of logic that Jesus recommended is highly questionable. But to that end.

2. J. Dewey (1859/1952; instrumentalist on knowledge). Dewey wrote in 1922 that the main idea of Peirce (whose influence he underwent) was "pragmatism. Did W. James (1842/1910) harbor a "pragmatism" that tests knowing for its results, Peirce was scholastic

conceptual realist and emphasized knowledge as valid in itself and therefore changed James' name "pragmatism" to "pragmaticism. Which did not prevent Peirce from testing the on - itself value of our concepts against their practical results. In this sense, he was "pragmatic," i.e., concerned with results.

"The world in the making.

Dewey emphasizes that pragmaticism exhibits the following characteristics.

a. Not to stare passively contemplatively at the mere knowledge and thought contents but to work with those knowledge and thought contents is the message. Experiment with concepts, and you will come to know their proper cognitive value.

b. Not the endless tracing of the origins of our concepts, as the Western tradition did all too much, but rather working with concepts and tracing their results not in the past but in the future, is the "pragmatic maxim." The world not as it was until now, but the world in the making became central with pragmatism and pragmaticism.

This means that one defines the conceptual content according to the results one obtains if one applies it practically (which is what they sample from their scope tests).

1. 2. 16 What were Henok and Elias?

Bibl. st.: Ch. Peirce, *Deduction, Induction and Hypothesis*, in: Popular Science Monthly 13 (1878): 470/482.

(Note: you can find this text by Peirce at the following address- :

http://www.archive.org/stream/popularsciencemo13newy#page/469/mode/1up

The Bible, the book of Genesis 5:21/24 states that Henok was taken from the earth alive by God for reason of personal holiness and a role by extension. 2 Kings 2: 1/13 informs that Elias for reason of personal holiness and a role by extension "was taken up to heaven by God in the whirlwind - alive." Peirce now, in the form of a closing speech, attempts to define their "being" ("What they were"). And it does so in a triad of its own. We already give here the names of the distinct syllogisms

(Barbara, Bocardo, Baroco) which will be explained further in this text, under 3.1.3., "Combinatorics within the syllogism."

Barbara. All people die.

Henok and Elias were human beings.

Henok and Elias die.

In definition form. Henok and Elias (basic concept), if all humans die and if they are humans (added concept), so die (defined concept). The reasoning is evidently deductive (from universal set (all humans) to subset (Henok and Elias)).

1. Bocardo. Henok and Elias were not mortal.

Henok and Elias were human beings.

Some people are not mortal.

In definitional form. Henok and Elias (basic concept), if they are not mortal AND are (still) human beings (added concept), are not mortal (some) human beings. One remains carefully within the set of humans but drops the attribute "mortal" as applying to strictly all humans. Some people are mortal in that interpretation, some are not. The reasoning, if expressed deductively, is: of all people, one concludes by virtue of a subset that some are and some are not mortal.

2. Baroco. All human beings are mortal.

Henok and Elias are not mortal.

Henok and Elias were not people.

In definitional form. If all humans are mortal, AND if Henok and Elias (basic concept), are not mortal (added concept), then they were not humans (defined concept).

One remains cautious within the set of humans but - unlike bocardo above - one retains the kentrek "mortal" as applying to strictly all humans.

Deduction: if all humans are mortal AND Henok and Elias are not, then Henok and Elias are not humans! They are outside the set of humans.

One can see that defining depends on defined concepts. For, depending on the fact that one has already defined "humans" as either mortal or sometimes mortal then non-mortal, the

afterthought is either "were Henok and Elias not humans" (baroco) or "were Henok and Elias non-mortal humans" (bocardo).

It is not surprising, then, that classical logic attaches such importance to notions of defined "formae" (knowledge and thought contents). Fundamentally, judgments and reasoning are invariably articulated in definitional form, as briefly demonstrated above. Which indicates that at least within naturally articulated logic - one either defines or builds definitions on defined concepts.

1. 2. 17 Definition of 'Psychiatric illness'

We reproduce textually the following reaction from a reader: Thérèse Liechti (Pully, VD), *Qu'est-ce que la maladie mentale*?, in: Le Temps (Geneva), 29.10.01, 20; (...) "You state that neuro-psychiatric mental disorders account for nearly one-third of the world's incapacities. From a psychiatric standpoint, such an assertion can be considered plausible. However, psychiatry has been at work for a long time and in all levels of our society, aided by millions of Swiss francs (1 Zw. fr. = 0.6 euro). And yet the number of completely successful cures for individuals "suffering from mental disturbances" is unusually low. For more than a hundred years psychiatry has promised to cure so-called mental illnesses. Notwithstanding unprecedented publications in that field, the rise of these diseases continues. In 1952, the DSM (the American bible of psychiatry) counted 112 mental disorders. Today it counts 374. The more psychiatry is used - or rather the more it is imposed - the deeper society is sinking into mental problems. In Switzerland, the number of cases of Assurance invalidité for mental reasons increased from 23507 in 1986 to 62000 in January 2001.

A proof of ineffectiveness? Not at all because, if psychiatry fails to solve a problem, it will readily claim it is "an incurable disease." Before the seven billion people on our planet are labeled mentally ill, our authorities should once and for all test the validity of this pseudoscience to determine if it still has a place in our society (...)."

So much for the submitted text in response to a previous article.

Note: It may be argued that the fact that the number of psychiatric ailments in its accretion, cited above, may be due to more thorough research on such ailments and is thus not evidence of ignorance. Remains that writer is correct when she foregrounds the definition of what is now "psychiatric illness." The fact that the DSM evolved from 112 to 374 "defined" ailments may

be evidence of the fact that the general definition itself evolved and thus the concept of "psychiatric ailment" itself began to be unclear.

It may still be as writer clearly insinuates. If, after investigation, the latter were proved correct, the failures - which are undeniable, especially when our Western psychiatry has to do with "psychiatric ailments" of non-Western people - would have as their reason the pseudo - scientific character of established psychiatry.

Of course, before one publicly states that established psychiatry is pseudo - science is, one must first prove it. It could be that still psychiatry is "on the way" and that its undeniable failures do not prove that it is pseudo but that it still has a long way to go.

With regard to "psychiatric ailments" of non-Western cultures, we refer to so-called Ethnopsychiatry. Essentially, our Western rationalistic psychiatry that works for us Westerners (if it works!) can hardly be applied to other cultures. There people rather seek refuge and salvation with the healers of the tribe or clan, the shaman, who try to help the patients by traditional means (spirit summoning, incantations...). In many cases, patients claim to be helped much better, much more fundamentally, by their traditional healers than by (some of) our psychiatrists who tend to solve problems in the depths of the human soul with a pharmaceutical prescription for tranquilizers. See e.g. Daryush Shaygan : *Le regard mutilé, Pays traditionnels face à la modernité*, Editions Albin Michel, 1989

1. 2. 18. This chapter in summary :

Definition and classification are modes of enumeration. Defining refers to the concept content, classifying refers to the concept scope. A potiori enumeration involves listing the most important features via an approximate enumeration.

Categorems and categories define the original. Categorems strike at the essence of the definition; they define in a distributive way. Categories provide additional information.

A calculated enumeration can also lead to a definition. Optionally, one can define by stating what is excluded in the definition.

Eristics or redethematics specializes in refutation: if contradictory sentences follow from a counter-model, then such a counter-model is absurd. Such a counter-reasoning can also remain undecided, so that neither its proponents nor its opponents can convincingly draw a logically decisive conclusion. Zeno put this into words with his immortal statement, " You, nor

I prove in a convincing way your premises. Thus socratic maieutics consisted in refuting an incomplete definition with counter models in order to arrive at an accurate degree of definition.

Categories are a set of platitudes with heuristic value and define collectively.

Like Aristotle's categories, the chreia is a collective way of defining in virtue of

coherence of 'places'. The two basic places in this are "who" and "what. Furthermore, the chriea highlights a number of aspects or perspectives: e.g., the definition is supplemented by a rationale, a model for or against, examples and testimonies.

An accumulating definition attempts to trace a true event through various data and testimony. When a preliminary definition is thus arrived at, it must be further tested. Plato spoke of a lemmatic-analytical definition. One starts with a preliminary hypothesis, which is checked for correctness while searching.

The singular is defined via an accumulation of samples until it becomes distinguishable from the rest of reality.

The classical way of defining had little regard for the singular concept. The Romantic way does define the concept in such a way as to do justice to the singular.

Synonymous definitions can be found e.g. in a bilingual dictionary. The connotative definition concerns the concept content, the denotative gives the concept scope.

Operational definitions show a concept content via repeatable physical actions. One can also define causally. The added concepts then articulate the reason.

If we try to define postmodern, it appears that the postmodernist critically examines the foundations of modern culture from a holistic and multicultural viewpoint.

To interpret a reality means to give a given fact the most correct possible meaning. In this interpretation one can distinguish degrees, namely, sense conception and sense making. The story of Lorenz shows that making sense has both a sensory and an intellectual aspect. Parmenides spoke of "being according to itself," where the object decides, not the signifying subject.

The term "interpret" has a broad meaning, with just about everything responding to everything. Schleiermacher interpreted all human expressions as signs of his inner life. In this way he wants to arrive at an understanding of his fellow man, which is much more penetrating than merely explaining his behavior in a scientific way. Understanding one's fellow man presupposes an empathic attitude. This is based on resemblance. Similarity models make the life of the soul much more accessible than coherence models.

Stories are also prepositional phrases from which postpositional phrases can be derived. Once applied, it becomes clear whether or not the prepositional phrases correspond to reality. Peirce too advocates such a pragmatic maxim, which tests knowing for its results. .

Definition depends on defined concepts, which is why classical logic attaches such exceptional importance to correct definition. That this is not always easy shows us the definition of "psychiatric ailment," or rather, the lack of clarity about it.