

3. Laws of Thought

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3. 1 Laws of thought (Identity and rationality)

Classical logic starts from axiomata, presuppositions, also called "laws of thought. These are of two kinds: the identity axiom: "what is (so) is (so)," and the reason axiom: "what is, has a reason for existence." Both laws of thought are unprovable. To prove them, to deduce them from prepositional sentences, both axioms would already have to be presupposed as given, leading to circular reasoning. Unprovable, but evident, both laws of thought convince as an unquestionable intuition and become an extremely fruitful working hypothesis.

Conversely: If the two presuppositions were not true or denied, then we end up in utter irrationality. If "what is not (so) is also (so)," and conversely, if "what is (so) is likewise not (so)," then things would have no reason to exist. Then reality would be incongruous, absurd, contradicting itself. Every identity, every order, every justification and foundation of thought and action, indeed every logic, then simply becomes impossible.

Concept content and concept scope: The concept content of a fact comes down to what our mind knows and thinks about that fact: e.g. 'girls'. Our mind immediately knows what it is talking about. The scope of the concept here refers to the set to which the concept content corresponds, i.e. that they are girls. - Thus: "Among others, Anneke, Liesje and Monika are girls". The concept scope of "girls" is broader than the three girls mentioned by name and refers to the entire collection of girls. If we enrich the conceptual scope of "girls" to include "blonde girls," then the conceptual scope becomes poorer. Indeed, there are fewer blonde girls than there are girls. Not all girls are blonde.

Content and scope are represented here in the phrase "all that is '(blonde) girl'". "All that . Is" refers to the magnitude. The phrase '(blond) girl' refers to content. Or again: in the expression, "All that is like a (blond) girl" "all that is" refers to the size, and "like a (blond) girl" refers to the content.

Bibl. st.: W. St. Jevons, *Logic*, Utrecht/Antwerp, 1966, 96/102 (The Laws of Thought). A law is a content (forma) that can be found in all instances or all portions of the scope to which it refers. Laws of thought - like similarity and coherence - are order-giving.

Ontological basis. "Ontology" is theory of reality. It talks about the duality "existence (actual existence) and essence (beingness)." Whoever says of something that it is "real" is answering the dual question, "How real is it?" (existence: does it exist?) and "How is it real?" (essence: how does it exist?).

Those who say that "girls" represent reality (girls "are") are saying, on the one hand, that they exist (that they are) and, on the other hand, how they exist, namely, as girls (what they are).

Existence and essence refer to the conceptual content. The addition "all that" in "all that girls are," refers to scope.

To say of an assertion that it is logical is to say how logical it is (is it logical?) and how it is (how is it logical?).

The noble twosome. "For Aristotle, the premise that logic is ontological makes sense in that (...) the first laws of logic are the same as those of being." (R. Jolivet, *Les sources de l'idéalisme*, Paris, 1936, 136). Attempt to clarify this statement. Of everything that is ontologically something in any case, of everything that exists in any case, one can say that it is: "what is, is", and that it is as it is "what is so, is so". Moreover, the axiom of reason which states that everything that exists has a reason for being what it is also applies : "what is, has a reason". But just these same two axioms also suffer as the basis of logic. Reality and logic are related in a way, they are similar, as well as coherent. Our thinking mind is indeed oriented towards reality. Reality, Aristotle argues, is knowable, and our mind, intentionally directed toward it, grasps that reality. For example, Pindaros of Kynoskefalai (-518/-438), the famous Greek lyre poet, labels it this way. "the all-seeing sunbeam" as "the measure, ('metron'), the standard, of our eyes, while they are seeing" O. Willmann, *Gesch. des Idealismus*, 246, says, thereby, what follows : "Pindaros anticipates, with this, a thought of Plato, who says that light ascribes both to the eye the image (representation) of things, and to things themselves their visibility. Vision and visibility are attuned to each other.

To the ancient premise that what is "equal" is known by what is "equal," Plato of Athens (-427/-347), in his *Politeia*, ties his teaching concerning the unity of "being" and "knowing" in ideas. Reality, and the thinking of that reality go together. Thinking achieves reality. Therefore, both their axioms are the same. Plato spoke metaphorically of a 'kalon zugon ', a noble yoke. Two animals carrying the same yoke, for the plow or cart, are called 'twosome.' Plato uses this term to indicate the orientation of our mind toward reality. Our mind, faced with reality, brings that reality and therefore truth to light. Plato cherished a great admiration and wonder for this peculiarity of the human mind. He states that the knowing - thinking subject is attuned to the truth which the object then "reveals" due to a remarkable natural relationship between both, between subject and object. Again, the "similia similibus" the equal that knows the equal applies. Through the equal in the subject that thinks knowingly, and the equal in the object, truth, reality, is grasped. The twosome "subject and object" the perceiver and the perceived, meet in the understanding. The idea in the subject answers to the idea laid in the object. There is substantiality. The knowing mind grasps the forma.

Forma. Plato and Aristotle, scholasticism (medieval philosophy), they all put the forma, central. All that is real, all that is "something," is thanks to that forma or being-form, that which it is. The forma coincides with the essence, the mode of being. The forma is at the same time "ratio," reason, i.e., that which makes something meaningful or intelligible. The forma is objective, i.e. in the objects themselves, but he is equally in our minds. There he is the understanding of it, and this to the extent that our mind really grasps that objective forma, and allows it to come through. G. Bolland, Hrsg., *Hegel's kleine Logik*, Leiden, 1899, expresses it as follows: "Understanding is that which dwells in things themselves, making them what they are. To understand a given is immediately to become aware of its understanding. Things are what they are through the activity of the understanding indwelling in them and revealing itself in them" (o.c., 234-238). One might as well replace the term "understanding" with the term "forma" in this quote.

Were the data not themselves - in themselves, objectively - objective concepts, then they could never, argue Plato, Aristotle, scholasticism, among others, become subjective concepts in our minds. This is called "concept realism" or, in the language of Hegel, "Objective idealism," where "idea" stands for "understanding," objective understanding then. Concepts, expressed in terms, as well as judgments and reasoning, are thus seen to be a linguistic form of formae. Immediately we understand the basic structure of logic as "logic of the forma" or "formal logic."

H. J. Hampel, *Variabilität und Disziplinierung des denkens*, Munich / Basel, 1967, 17 ff., says that most agree that two axioms, the identity law and the reason axiom, govern classical Aristotelian logic. So does Jevons who calls the two laws "primary laws of thought" (distinct from "supplementary").

Thinking is identitive and rational.

- Id. Thinking is identitive. Consequence: its basis is to grasp the given in its being or total "identity". As already mentioned, this law is threefold: (a) "All that is, is" (existence) and "All that is so, is so" (essence). (b) "All that is (so) is (so) and cannot be (so) and not (so) at the same time". Which rules out radical contradiction regarding total identity. (c) "Everything (so) is (so) o.g.v. excluded contradiction and thus either (so) or not (so), a third possibility does not exist concerning total identity". Which involves the dilemma (of the two at most one).

The identity axiom is not a mute repetition: our mind, if directly confronted with a GG as GG AND if it honestly affirms what it grasps on the matter, is obliged in conscience to say that what is (so) is (so). If not he deals dishonestly, because unreal, with the GG.

- Rationality Law. Thinking is rational. Consequence: the law of sufficient reason or ground, which reads, "All that is (so) is (so), in that it has a reason (ground) either within itself or outside itself or the two simultaneously." Jevons gives a physical application: a scale is in perfect equilibrium if on both sides the physical "reasons" are equal.

"Nothing is without reason." This statement by Plato expresses the same reason axiom negatively. It should be understood to mean that the inversion "subject/saying" is also true: "All that is without reason is nothing."

Rational. In Latin, reason sounds "ratio. All that has no "ratio" is "irrational. A traditional ontology and logic as well as the full-fledged sciences literally live by the reason axiom: faced with a given, they do not rest until they have exposed the sufficient reason of it. What is called "explaining something" is stating the reason for it. Only then is that fact "meaningful," "intelligible," i.e., more than a "brute fact.

Thus Newton made the fall of an apple more understandable by putting the reason for it first. The fall of the apple is indeed determined. He who knows the total initial situation, as well as the laws of gravitation, can predict the course of the fall motion. Thus 'the fate' of the apple is determined by the initial conditions and the fall process. We used the term 'total initial

situation' above. There may indeed be a number of other factors unknown to us: a gust of wind, a heavy rain, someone tapping the apple, a bird pecking at the apple... Although the sufficient reasons or grounds are not always of a physical nature, and they are not always known to us in their totality, yet they are present and are present as sufficient reasons to cause the apple to fall. Thus, the fact that the apple falls is not at all a coincidence but a necessary and determined process. It only seems so to us because not all the reasons that cause the fall are known to us. Thus Darwin made the difference of biological species "understandable" by putting its reason, natural selection, first.

Comment. Jevons talks about "complementary" laws. One example. "Nota notae est nota rei ipsius". The property of a property is immediately the property of the thing itself (which exhibits that second property). Filled in: "Freedom is a property of man's mind; immediately it is a property of man himself." Reasoning expressed: "If freedom is a property of the mind AND if that mind is a property of man (reason or ground), then freedom is immediately a property of man (inference)." One can see: the complement in this case is an application of the reason axiom mentioned above. The "complement" is in fact a "filling in"!

The reason axiom is the reason for the exclusion of chance as a definitive explanation of something that, in the absence of sufficient information, comes across as a 'coincidence'. If what is without reason is nothing, then chance as the absence of sufficient reason is not a 'reason' or explanation. To which we will elaborate further.

3. 2 *The Identitive axioms*

Bibl. st.: G. Jacoby, *Die Ansprüche der Logistiker auf die Logik und ihre Geschichtsschreibung* Stuttgart, 1962, 11, 58 f .

Understanding. Let us take "this flowering apple here and now." Logically this circumstance becomes an understanding if it is viewed separately from the total reality. So immediately there is this flowering apple here and now and the total rest of reality. This basic division (complementation) governs the entire logic.

Axioms. They articulate the given and its complement.

1. "a is a". This blooming apple tree here and now only totally coincides with itself, and as totality the rest of reality only coincides with itself. General: what is (so) is (so).

2.1 "a is not non-a". This blooming apple here and now as totality is not the rest of reality as totality. They are so seen totally apart. General: what is (so) is not "not" (so).

2.2 "Beyond a and non-a there is nothing". A third attribution is inconceivable since a and non-a encompass the totality of all that is. General: there is either what is (so) or what is not (so). To say that what is (so) as totality is the same as what is not (so) as totality is absurd. This axiom justifies reasoning from the absurd (absurd).

If the said axioms do not hold, then there are no logically unambiguous (univocal) concepts. For then total, partial and absurd identities flow into each other.

The opposition pair "true/false". What is (so) is (so) true. Truth is the showing of what is (so). A judgment that respects that axiom makes a fact appear true. The disjunction ("either (so) or not (so)") "true or false" is complete and in unison with the axiom of excluded thirds only if - according to Jacoby - "false" plainly means "false. In this sense - which is only the strictly logical sense - all almost true, objectless and many nonsensical statements are "false" because they are not true. What they imply is not identical with the objective fact.

Three-valued logistics. Logisticians talk about two-valued and three-valued "logic. We explain. $2 \times 2 = 4$. It is true that $2 \times 2 = 4$. It is false that 2×2 does not $= 4$. It is decreed that $2 \times 2 = 4$. Thus the three 'values of truth' of logistics show themselves.

I.M. Bochenski, *Formale Logik*, Freiburg / Munich, 1956, 470, is quoted. One understands "formal" as "formalisiert," as formalized logic or logistics. "A statement of which we do not know whether it is true or false may have no decided value under point of view of truth or falsehood but may possibly have a third undeclared value. For example, the statement 'I will be in Warszawa within a year' may be thought to be neither true nor false and to have the third value that we can denote by the symbol $1/2$."

Fallacy. Jacoby: "The confusion of truth with manufacturability (ascertainability) is finished here." Reason: "True" and "false" are strictly logical concepts. Logic is not concerned with whether something is in fact true or false, but whether it is correctly derived from given prepositions. 'Inventability' is a doctrinal (epistemological) concept of knowledge. In fact, one confuses 'true' with "made true thanks to testing." Which is true in applied logic and science but not in pure logic. Epistemological concepts are subject-bound interpretations of a given (fact), not that given itself. Well, logic talks about the given itself and only extralogically about interpretations of the given. But the given itself as total identity is subject to the threefold identity axiom set forth above.

3. 3 "*Pasei akribeia*" (With all accuracy).

Plato, *Phaedrus* 271a: "pasei akribeia" (with all accuracy). Let us dwell on this in light of the identity axiom and its applications.

Calendar humor. A remote parish. With the soul shepherd, a friend looks at the small parish church: "But surely they can't all go in there!". "Indeed! If they are all there, then they cannot all go in. But, since they are never all there, they can always all get in".

The terms "they" and "all" denote two different sets, those potentially present and those actually present. The same sound denotes two meanings. That, of course, is not "pasei akribeia," with all accuracy! And yet: both understand each other perfectly! How to explain this? Because understanding the language of one's fellow man is not bound to the mere sound of the word but to what is meant by the inner sound of the word. As already mentioned (2.5): Situate the phrases mentioned by the soul shepherd in their real context within which they are spoken in life, and they lose their ambiguity. The "signs" that soul life reveals outwardly may already be imprecise, through the signs penetrates the understanding of the fellow human being. This proves that our spirit reaches beyond the material signs of language.

The synecdoche (already quoted under 2.4) is a trope, a kind of figure of speech, which, based on given connections, says one thing while it means another. Here: 'they' and 'all' indicate sometimes the potential collection and sometimes the actual collection of those present. Both collections are related: the potential (universal) includes the actual (private) collection. This allows the trope (which is essentially language-economic and clarifies as much with fewer words) to be applied: one says one thing but means another. Here evidently to commit humor. Notwithstanding the ambiguous language, given the whole context, accuracy in meaning is maintained.

Things are different with the identity axiom in, say, an unlikely appointment letter. Someone arrives at work with such a letter. General disbelief around him: "THAT, that can't be!" Then the appointee presents the letter and says, "I have been appointed!"

It is there in black and white! What is written is written!". And he shows the document. That is the proof of evidence. That convinces o.g.v. itself. There the language expresses itself in all accuracy.

Identity axiom. What has just been shown is an application of the identity axiom. "What is, is" and "What is so, is so." This axiom can be filled in evidential situations: Here: "What is written in black and white is written - in black and white". No question of selling humor here! The stakes are too serious.

In other words: in situations where the stakes do not weigh heavily, humor can be committed (tropologically),-even against the identity rule on use of a term. This rule states, "In one and the same text, one and the same term is used in one and the same meaning." That is one application of the identity axiom. Playfully, the calendar humor above given the independence of our minds from material language signs - deals with this 'freely' and introduces a plurality of meanings for the same term ('they', 'all') o.g. the given connection between the meanings.

But in situations where the stakes do weigh heavily, "playing freely" with the meaning of material language marks falls away. Then the identity axiom concerning one and the same meaning of one and the same term within one and the same text context becomes life necessity and moral duty. The mind then adheres to the "literal" text and does not play.

That seriousness is decisive is shown by Pilate's infamous saying about the inscription above the crucified Jesus to the Jews who wanted to change it: "What I wrote, that I wrote!" The command and its seriousness are brought into clear focus by the application of the identity axiom: the recalcitrant Jews are directly confronted with the identity of the inscription admitted and even wanted by Pilate. "That they may yet cash in on the obviousness of that identity!" So the Roman governor must have thought within himself.

Notes.

- One frequently hears it suggested that e.g., the Identity Act is "by appointment." Whoever claims this is influenced by logistics. But he or she forgets that the one who constructs a mathematical logic and introduces, among other things, the identity principle, has an appropriate reason for doing so, i.e. the usefulness of that principle. After all, if in the combined signs with which mathematical logic works, the term x , suddenly loses its identity, then all ordered construction of the sign system is impossible. In other words: reason is what already presupposes natural logic as a given.

- According to historians, the reason axiom was first readily proposed by

Nikolaus of Cusa (1401 / 1448; also called 'Cusanus'): "All that is, must have a reason by which it is and is not." Cusanus formulates one-sidedly because reason applies, at the same time as actual existence (existence), also to the mode of being (essence) by which it is and is not "not so. That Cusanus is historically the first with the formulation does not prevent the axiom from being postulated and applied again and again from the historical beginning of thought.

- Intuitionistic logicians (L. Brouwer (1881/1966) and A. Heyting (1898/1980)) do eliminate the formulation in their style and do not actually mention the axiom of excluded thirds and of double negation (if not -a, then a). But the elimination of the formulation is not yet the elimination of what natural logic means by it: the axioms remain unspoken and active in the exposition.

- "There is no truth" or "No one possesses the truth." -

This assertion is heard several times in the mouths of intellectuals. First of all, what do they understand by truth? A recent example provides us with Joseph Ratzinger et Paolo Flores d' Arcais, *Est-ce que Dieu existe? (Dialogue sur la vérité, la foi et l' athéisme)*, Paris, 2005. d' Arcais as a skeptic states that truth is an illusion and immediately that whoever pretends to possess and proclaim it does not survive its unmasking by skepticism.

Criticism: The firmness with which skeptics concerning truth express themselves suggests that they are thereby "proclaiming the truth" and thus covertly asserting what they deny by word sounds. One immediately sees that the identity axiom formulates the concept of truth, for, if something is or if it is so, then it is, AND it is so. Whoever thus expresses it, speaks truth. But this only comes through if the one who establishes what is, or what is so, is at once honest. This honesty belongs intrinsically to the natural logic that helps give ethics a firm foundation. In other words, ethics is through phenomenological honesty, applied logic.

3. 4 Reason axiom (Variants).

Bibl. st.:

- P. Foulquié / R. Saint-Jean, *Dict. de la langue philosophique*, PUF, 1969,38;
- A. Lalande, *Voc. Technique et critique de la philosophie*, PUF, 32. We now consider three variants of reasoning sentences that generally read, "If a reason has already been given in a preposition, AND if an equal, a stronger or weaker or a contrary reason applies, then ceteris paribus (under otherwise identical circumstances) a corresponding post-sentence is justified."

A par (for the same reason). "Already; that is, for the same reason". "A frantic hiker, if he can already orient himself in unfamiliar territory, will (for the same reason) find his way even in the places more familiar to him." A reason "works," i.e., explains. If it already worked, then *ceteris paribus* it will also work! From the truth of the prepositional phrase one concludes - for the same reason (an excellent sense of orientation) - to the truth of the postpositional phrase.

A fortiori (for a stronger reason). "Already; therefore, with the more / the less reason".

Remark. Within reason, a differential (a set of differences between two opposites) is introduced. For example: "Very / rather / hardly / not (justified) - not / hardly / rather / very (irresponsible)". Here: greater / lesser or lesser / greater.

1. If already for a less weighty reason, then certainly for a more weighty one.

- Examples: "He already acts like a weakling in ordinary circumstances; all the more he will act like a weakling in difficult circumstances."

Or again, "If already in a state of lawful self-defense, killing a thief is justified, then killing a murderer is all the more justified."

Also: a variant of traditional homeopathy is isopathy. Ilse Dorren, *Isopathy* (the diseased body as its own healer), Deventer, 1984, 26, says: "If the similar already helps so smoothly, the exactly similar (totally identical) must attack an ailment even more powerfully." The difference is in the terms homeo- (similar, which is one instance of analogy or partial identity) and iso- (totally identical).

- A biblical example: Luke 12:16: "Are not five sparrows sold for two pennies? And none of them is forgotten by God. More than that, even all your head hairs are counted. So do not live in fear: you are worth more than a bunch of sparrows". Understand: If God is even attentive to sparrows, how much more attentive will he be to people.

- Or again, Job 4:17/18. "Even in his 'servants' God puts no trust. His 'angels' he catches in deviation". The term "servants" here stands for "angels. The argument is "a fortiori": God's angels - so 'close' to God - are already subject to deviation! How much more then are ordinary mortals, human beings, subject to deviation!

- Also: Luke 18:1vv.- There was in a city a judge who had no reverence for God and did not esteem his fellow man. In that city there was also a widow who sought him : "Deliver me justice in the face of my adversary." He refused for a long time. Whereupon he said to himself, "Although I do not reverence God and do not bother fellow men, yet this widow troubles me! I will therefore provide justice so that she does not come and bore me endlessly".

Jesus said : "Listen to what this shameless judge says! Would not God then provide justice for his elect who cry out to him day and night? I tell you that he will quickly provide justice for them". Jesus reasons a fortiori : "If already - in order not to be bored endlessly by the tough widow - the shameless judge grants a good, how much more - out of love for his creatures - will God provide goods."

From the truth of the prepositional phrase with less weighty reason (a minore) one concludes to the truth of the postpositional phrase with weightier reason (ad maius). The reasons are graduated: a minore (if already for a lesser reason) ad maius (then for a greater reason) a fortiori (all the more).

2. And vice versa: If already for a more weighty reason, then certainly for a less weighty one.

- Example: "If he can already run a marathon, then running a half marathon is certainly no problem." Or still: "If he already puts 2 bags of cement on his shoulder, he will do it with one bag with less effort."

From the truth of the prepositional phrase with more weighty reason (a maiore) one concludes to the truth of the postpositional phrase with less weighty reason (ad minus). The reasons are gradually different but now in reverse order: a maiore (if already for a more weighty reason) ad minus (then one for a lesser reason) a fortiori (all the more).

The following syllogism also contains an a-fortiori rationale: "If A is larger than B, which in turn is larger than C, then A is larger than C. Well, "elephant / swan / mouse" are one application of $A > B > C$. So an elephant is larger (than a swan which is larger) than a mouse."

A contrario (for an opposite reason). "Already; so for an opposite reason not"

Thus a person who keeps missing his train because he is late will surely catch it if he is well on time. From the truth of the prepositional phrase with a reason and its inference, one concludes to the truth of the postpositional phrase with a reason and its opposite inference.

The connection between reason and inference is central. The similarity, degree difference and difference (opposite) concerning that coherence partly decide the validity of the conclusion. The basic concepts - coherence / similarity (and opposites) of natural logic are decisive. Which demonstrates their logical value.

One paid attention to the fact that the prepositional phrase is an observation in the form of a summative induction that one extends to the postpositional phrase according to the content of the reasons (equal / greater or lesser / opposite).

Remark. Common sense knows these reasonings with equal, stronger or weaker reason perfectly!

1. "If this already succeeds now, then it will succeed in an equal case" So reasons the popular man.

2. "One would jump out of his skin for less!" Understood, "All the more so now that this is happening." Or "There's nothing left to it now. Never mind that ...".

3. "Poorly raised children come to nothing. One raises them firmly".

From the tested truth of the preposition, the popular man also draws a par, a fortiori or a contrario the truth of the nazin.

3. 5 Reasons and its articulations

A reason can hide in a plural of wording. "I, as the daughter of my mother inherit from my grandmother" (reduplicative sentence). "The shepherd who is good shepherds his sheep" (relative sentence). "The good shepherd shepherds his sheep" (adjective) "In that case, I content myself" (adverbial clause). An "if, then" sense is hidden in these sentences. For example, "If I am the daughter of ...". Etc.

Gradation of reason. To begin with, we distinguish three types.

- *Conditio sine qua non*. Literally, "'condition without which not'." The reason is there but other reasons may be necessary. Thus "Water, if in a receptacle, is susceptible to boiling". Thus: The alternation of day and night requires a rotation of the earth.

This shows us a partial reason, - not a total reason. I.e. necessary reason or condition. Not so in what follows.

- *Conditio quacum semper*. Literally, "'condition with which always'." In other words. sufficient condition or reason. Thus, "Water, if heated to 100° C., (under ordinary conditions) is always susceptible to boiling." Thus: if one walks in the rain, one gets wet.

- *Conditiones coniunctae*. Literally "joint conditions." Either both or neither reasons. Thus: "Only God is omnipotent." In other words, "If and only if God, then omnipotence" and vice versa. Thus: sunlight as well as earth's rotation cause alternation of day and night.

Rewrites. The first paragraph under 3.5 above gives sentences that can be rewritten in conditional sentences: "If I am my mother's daughter, then..."; "If the shepherd is good, then...". One has the habit in some accounts of logic of rewriting living language into purely conditional sentences. One can, of course, do that to clarify the reasoning. But one risks neglecting shading. Hence the following examples.

1. Because. "Because a physical body is heated, it expands" conceals a type of reason and is thus rewritable in "A physical body, if heated, expands." The reason is physical law, namely, application of heat laws.

2. Because. "Because he is in love with them, he cannot miss them" conceals a type of reason and is thus rewritable in "If he is in love with them, he cannot miss them." Now the reason is not physical but psychological: a driving force, largely unconscious, drives a lover in love to his beloved. Free will sometimes plays only a minor role in such situations.

3. Because. "Because the girl came, the landlady was satisfied" conceals a type of reason and is thus rewritable in "If the girl came, the landlady was satisfied". Now again the reason is not physical but psychological but not as in the previous case, because it takes the form not of an (unconscious, unintentional) motive but of a conscious motive involving, e.g., deliberation (e.g., the boss lady had a lot of work).

One sees it in the paradigmata: from physical over psychological unthinking to psychological thoughtfulness. Rewriting in "if, then" sentences rightly emphasizes reasoning but neglects richness concerning shades that living life preserves. popularly said: - after what was said about gradation and rewriting above - "There is reason and reason!".

3. 6 Reason or ground in prosocratics.

Bibl. st.: J.-F. Balaudé, *Les présocratiques*, in J.-P. Zarader, coord., *Le vocabulaire des philosophes*, I (*De l'antiquité à renaissance*), Paris, 2002, 13/56. With Thales of Miletus (624/-546), pre-socratic philosopher, begins Ionian, particularly Milesian philosophizing. The main theme was the ancient 'sophia,' wisdom, which spoke of life, the world and deity. One of the main concerns was 'aretè' viability, virtue. In this sense, the first Greek thinkers remembered an ancient concept of 'aretè' that was deeply sacred and meant something like more or less magical life force. The main axiom of the primitives, "Everything real is a bearer of life force" (2.7) also pointed in this direction.

Thales. (-624/-545) The reason of origin and decay of 'things' he calls 'hudor,' translatable by "smudgy element." Is 'tainted' that which can assume all possible forms and is therefore present and active in all 'things', 'onta' (being). That finely material makes all things intelligible. Thales argues that a kind of particulate primordial substance (fluid) is at the basis of all being. Anyone who translates "hudor" by "water" in the physical sense, something that is repeatedly observed, is interpreting Thales' statement scientifically, and not in a magical dynamist sense. Thales is talking about a kind of rarefied primordial substance as "archè," as the ground of all reality. The gross substance of natural science, which we all experience directly, is, according to Thales, infused with a rarefied substance, invisible to the ordinary eye, which animates all that exists. Such a view is called "hylozoism. 'Hulè' is the Greek word for 'matter', 'substance', and 'zoè' stands for 'life'. Just about all ancient cultures thought hylozoism.

Anaximandros of Miletus (-610/-546). This "thinking companion" of Thales saw that that which makes all things intelligible is situated in what he called "to apeiron," the unbounded. It has of itself no form (understand: boundary) and passes through everything.

From Anaximandros we possess the oldest philosophical text, in which he expresses his main idea: "The 'archè', the principle, of the being, is the 'a.peiron', 'infinitem', the contiguous, that which, flowing, sails through all being. This 'archè' is such that in that from which things arise, they also perish, and this in a necessary way. For: they make reparation to one another for their iniquity, this, according to the order of law proper to time."

There has been, of course, enormous debate about the proper interpretation of that first famous philosophical sense. What, however, is certain is that the term 'archè', 'principle', has become the philosophical concept par excellence of the entire history of Western philosophy. The question arises: what exactly does 'principle' mean in this philosophical context? The answer appears both from the proper Greek meaning (i.e. that which controls something) of that word and from the philosophical use of language (as here, with Anaximandros). Concerning the latter: Anaximandros perceives the 'being' (all that surrounds him, concerning realities). The question, already begun by his predecessor Thales, is: "By what are these selves governed?". His answer, which bears witness to the archaic theology in this matter, is: the 'being' (apparently he thinks: 'the people') committed 'iniquities' (what that was precisely, only mere historical research can determine); precisely because of this (or, psychologically - logically: precisely because of this), they are governed by a necessity, i.e. the reparation (the restoration), among themselves; and, again, because of this / therefore, they are, from their origin (genesis) doomed, in that same origin, to perish; and this, according to a kind of 'court of justice; which he gives the name 'time'.

One sees that, compared to the narrow-mindedness of his predecessor, Anaximandros seeks the reason for everything in a similar sphere. Note: The term 'primeval substance' as archè is somewhat correct if one does not mean by it some present physical (resp. chemical) substance. Better true 'working substance' that grants each phenomenon its destiny.

Anaximenes of Miletus. (-595/-525). This second thinker of Thales, according to tradition, sees it in 'psuchè', inhaled and exhaled air, that through which life is possible, or even in 'aèr', air without more. Again, this thinker seeks it in the sphere of the ephemeral which, precisely because it is ephemeral, can penetrate everything. So much for the classical tradition concerning the three first thinkers. One feels that we should put our modern physical-chemical science in brackets, if we do not want to commit a naive error of interpretation and misunderstand those pre-socratic.

'*Necessity*'. 'Anankè'. Parmenides of Elea (-515/-445) belongs to the Eleatic tendency. Anankè is for him the reason par excellence because it determines the boundaries in such a way that 'justice', mean rightful distribution, is granted to each 'being'. Cohesion in the many being's and their continued existence are guaranteed by 'necessity'. Necessity is the reason both for the actual existence and for the right. Whoever puts them first, understands without annoyance what occurs.

It is understood: the all ("to pan"), all things ("ta panta"), the whole ("to holon"), the wholes ("ta hola") are at the center of the first Greek philosophers. Thus they continue the tradition of the very early poets - Homer and Hesiod - who spoke, e.g., of "the past, the present and the future being." This all-encompassing will in time become the main theme of the ontology of which we already find a beginning with Parmenides. From that comprehensive, the thinkers of that period already seek "the reason," the summary reason.

'Nature'. The first thinkers were later called 'fusikoi' or 'fusiologoi'. 'Fusis' (Lat.: natura) meant "origin" (parallel with 'genesis') and in the sense of "unusually rich and overflowing origin." The fragments that remain to us, however, virtually do not exhibit that term as a specific term. But there is no doubt that "nature" as the origin of all played a role in the statements of the first thinkers. Not surprisingly, they were called "nature thinkers."

'Archè'. Lat.: principium. It has been asserted on the basis of a misunderstood text that Anaximandros was the first to introduce "archè," "all origin. The text claims only that he gave "to apeiron" (the unlimited) the name 'archè,' i.e., 'the reason,' the premise, the explanation.

1.7. This chapter summarized:

Ontology talks about being, about the totality of reality. Thus, all that exists has an existence or actual existence, and an essence or mode of existence. In the expression "all that is something," the term "something" refers to existence and essence, which together make up the substance of that "something. In that same expression, the term "all that ... is" refers to the extent of that same concept of "something.

Thinking achieves reality, therefore precisely both thinking and the whole of reality obey the same two basic laws of being: the identity law: "What (so) is, is (so)," and the rationality law: "Everything has a reason." Thinking is identity and rational: it achieves and grasps identities, as well as their reason for existence.

For those who respect reality as it is, some judgments are true, others false, and this independent of the subject who judges. A third modality "possibly true" becomes true or false thanks to subsequent testing. However, this brings us to the theory of knowledge and applied logic, not to pure logic. The latter limits itself exclusively to checking whether reasoning was done correctly.

Rigorous logical thinking, especially in weighty situations, requires precise language. In less precise everyday language, context can clarify a lot of meaning. If not, the identity axiom applies in all rigor: in the same text, the same term is then used in only one meaning. Logic brings truth to light with the identity axiom. Whoever does not do justice to the identity axiom "what is, is" does violence to reality and is thereby unfair in a way.

The reason axiom or law of rationality has a number of variants: If in a preposition a reason is already given, and if an equal, a stronger or weaker or an opposite reason applies, then a corresponding post-sentence is justified."

Reasons can be phrased in such a way as to show a richer or a poorer shade.

Already the Presocratics were searching for the reason or ground of the whole of reality. According to them, the primal ground and origin of all that exists was located in a kind of narrow, indeterminate, air-like, through all being flowing, tenuous substance.