

**THE ALGORITHM AND THE LIVING WORLD, NEW  
REFLECTIONS ON MACHINE FUNDAMENTALISM IN THE  
CONTEMPORARY ERA**

*Giuseppe Limone\**

**Abstract**

The ‘machine’—indeed the algorithm—is a theoretical concept that today needs to be analytically considered, particularly because its power is growing in the contemporary context. But this “machine”, indeed, this algorithm, is directly descended from the Logos in a partly legitimate and partly spurious way. This connection raises questions and may be the source of a new theoretical paradigm necessary for the protection of human kind through compassion. In this scenario, the essay shows the urgent need to shift from the noetic paradigm to an empathetic one.

**I From the question of knowledge to the question of the logos**

IN THE present age, it is essential to take a long, hard look into the way the “destiny of knowledge” as knowledge, has gone adrift. All too often in the contemporary era we are witnessing an critical defence of knowledge, a defence incapable of entering into the merits of the character of the knowledge to which it refers.

Everywhere we hear that we have reached the stage of a “knowledge-based society” and that our salvation consists of continually increasing this knowledge. However, it is believed that there is still a great deal of confusion and a great need to shed some light on the fundamental concept of what this ‘knowledge’ might be. If we affirm that it is inevitable and positive to move in the direction of ever-increasing knowledge, we have to ask ourselves what are the structural limits of this path and the paradigms along which it runs. This is a path of which a vision is lacking, while this vision is urgently needed.

We will start out from the image to which we would give new meaning at the end of this path. This image is that of the *Angelus novus* offered by Walter Benjamin. He imagined an angel who, faced with the advancement of progress, sees the wreckage it creates and tries to recompose it, to save it from total destruction. For Benjamin, although it accumulates positive results as it advances, progress also leaves wreckage in

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\* Professor of Philosophy of Politics and Law at the Second University of Naples, Italy.

its wake. The angel would like to stay and make whole what has been smashed. Facing the past he fails in his attempts to recompose the wreckage because a storm blowing from paradise catches in his wings propelling him into a future he cannot see.

As clearly seen, this is a strongly ambivalent image. On one hand there is objective progress, (cognitive, scientific and technical), while on the other the wreckage grows. This image presents a question for us in itself, and which needs much reflection. At the end of this path our goal is to see it in the light of a new meaning.

## II The Logos as history and as destiny

### The machine as a concept

If we look into the history of Western thought, one could consider its development as the history of the Logos; of thought, speech, reason and the capacity for thought and dialogue; of the aptitude for perceiving and inventing relationships, finding paths and producing scientific and technical results, accumulating knowledge and technological achievements. This Logos has allowed people to gather ideas, place them in order and in reciprocal communication, giving them the sense as they engage in dialogue, that they are talking about the same things. This Logos belongs to the statute of the human being in the exact sense of the word.

Certainly, the history of this Logos appears to emerge from a more ancient history, that which we could call the history of the Nomos, namely the history of the sovereign force that is self-imposed, without needing any self-justification and without the possibility for anyone or anything to demand justification. At a certain point, as if from a crack in this Nomos, in its pre-Greek tradition as an anonymous, faceless, all-founding and all-destructive force, the history of the Logos begins to emerge as an awareness of a possible justice and the possibility of human opposition or artificial reproduction. A Logos seems to speak through this Nomos, both insofar as a Logos is self-proclaiming and insofar as a Logos demands justification. A Logos begins to oppose the Nomos, demanding reasons and/or attempting to reproduce it artificially at its discretion. And not by chance, the various themes of the Nomos give meaning to *establishing*, *imposing* and *distributing*, whereas those of the Logos give meaning to *gathering*, *distinguishing*, *connecting* and *talking*. Some<sup>1</sup> have found a clue to this process in the poetry of Pindar<sup>2</sup> which speaks of the Nomos Basileus, in which a Dike (justice) and a Bia (pure force) begin to develop as interior forces.<sup>3</sup> The Hebrew version of the

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1 Marcello Gigante, *Nomosbasileus* 397 (Bibliopolis, Napoli 1993).

2 See Nemea from Pindaro, *Tutte Le Opere: Olimpiche – Pitiche – Nemee – Istmiche – Frammenti*, 169 (Bompiani Milano 2010).

3 On this process from the Nomos to the Logos see Giuseppe Limone, *Il Nomoscostituente di fronte al pensiereradicale. Statocostituzionale, culture e laicità*, in *Multiculturalismo*, a cura di Vincenzo Baldini, CEDAM, Padova 29-48 (2012).

Nomos is a different story, in that it describes a personal Nomos, which speaks in the first person and engages in dialogue with the people it is addressed to. But even this Nomos, whether in the old or the new testament version, seems to be a Logos who is, however, a person. On this level, within the Nomos a Logos appears, in turn within which not only a Dia-logos appears, but a Caris from which comes the richer, more veiled Nomos that is friendship, tenderness and love. From this comes the Logos which, mixing with the Logos of Greek and Roman culture, would mark the more than millennial cultural and spiritual travail that were the middle ages.

In the meantime, if we consider the Logos from its development in Greek civilization, it can be found in the capacity to think and speak, but also the capacity to *resist* the argumentative attack of the thought and speech of others, and so it is particularly characterised by realising that *minimum* of thought and speech capable of constituting the common denominator of the dialogue. This Logos is invention, conscience and opposition, as exemplified in the Greek enlightenment, from different standpoints by the Sophists and by Socrates. This Logos has to be able to resist the *élenchos* of possible confuting arguments. And, in doing so, even at an unconscious level, it structures and vaccinates itself with rules and attempts to immunize itself against confutation. In this sense, the Logos isn't simply that of *knowledge*, which freely invents paths of meditation on life, but of *reason, opposition and dialogue*, aimed at reasoning and convincing, if not persuading, and is thus the philosophical, dialectical Logos. The development of this Logos is connected with the development of other Logos, the mathematical, astronomical, medical, historical, rhetorical, political, juridical, geographical, architectural and engineering and so on. Which, far from presenting themselves as fragmented or specialised, have a particular affinity with the philosophical Logos, at least in practice.<sup>4</sup>

However, we cannot ignore that while realizing dialectical opposition and rules, the Logos of Socrates does not end in this opposition and these rules, because it is above all, maieutic; that is to say, a Logos which draws on its own interior life and searches within itself for that of the other. In this the Logos maintains the fount of its *inventiveness* and the measure of its *search*. In other words, the Socratic Logos never ends simply in the rules of its dialectic and never reduces itself to simple free will. On another level, this would be true for Plato in his mature phase. If it is indeed true that Plato with his Logos appears to have realised a veritable dialectical machine, it is equally true that he would never renounce the ever-new inventiveness of the Logos to the point of crystallizing his thought into a definitive form. Inexhaustibly, the heuristic logic of invention pushes beneath dialectical logic. However, while striving toward an unassailable complex of rules, the Socratic-platonic Logos is aware of the two limits of this complex dictated by the living world, namely, the inventiveness of interior life

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4 On the scientific profile of the ancient Logos and the Greek enlightenment see the process as outlined by Lucio Russo, *The forgotten revolution. Greek scientific thought and modern science* Feltrinelli, Milano 1996.

and the search for truth. Here it is interesting to note how much these two limits are in contrast with the *different* Logos of the Sophists, insofar as the latter tends to set free inventiveness against rationale, and free will against the search for absolute truth. Thus, from this Greek matrix emerges a path destined to be perennially marked by the conflict, on one hand, between moral conscience and calculation and, on the other, between the search for truth and freewill. In this sense, the Sophists and Socrates have since antiquity represented two opposing models in the declination of the Logos. On this level, Socrates is a sophist who opposes Sophism on its own ground, but opposing it with very different criteria; he, using the force of argument, opposes free will with the daemon of conscience, mere force with maieutic of truth, and Eros of the soul with reason.

From this Greek Logos developed a process that lasted centuries and crossed many different declinations (political, juridical, religious, literary, scientific and so on). What, on the other hand, appears clear in this history of the Logos, as seen in the Greek enlightenment, Hellenistic stoicism, Medieval scholasticism and even modern thought, is that this Logos, as it grows and matures, tends at least in one significant declination to reduce itself to automatism having the movements and structure of a *machine*. To express this more clearly, we could say that this Logos tends to become *techne*, that is to say, *technical*, and that this technology in turn, in its more elaborate and self-aware form tends to become a *machine*.

But this machine is nothing more than the Logos become *techne*, which, on the other hand, means that this machine is full of objectivized and crystallised Logos. The process by which Logos becomes a machine comes about above all the moment it renounces the discussion of *values* and concentrates on the observation of *fact*. The moment the Logos becomes a machine, a structure emerges that moves independently of the purposes and meanings that created it. Until the Logos, in this declination, has become machine, it seems to perceive itself as still neither full nor satisfied. The Logos tries to become a machine in order to feel and be mature. It tries thus to avoid the doubt and error linked with the here and now, channeling itself into the security of a path that is already structured and controlled.

However, a point has to be clarified. Here we are talking about a process over thousands of years, which initially took place above all on the plane of logic and mathematics, and that has only begun to accelerate in its modern phase, investing the various fields of the specialised sciences. When talking about the Logos insofar as it invests the experience of the facts; that is to say, in as much as it observes repetition, predicts it and intentionally repeats it, identifying the rules, it tends to reproduce what it has understood while it becomes gradually aware, on a methodological and epistemological plane, of this *modus operandi*. Therefore, it is a process that has taken place largely in the modern phase, but that had already in the initial phase of the philosophical and dialectical Logos, found its structural premises. Ultimately while talking about the

process of the Logos that, at a certain point, begins to separate values and facts, specifically chooses the path of fact and tends to identify the rules and measures. In the meantime, it cannot be ignored that such a Logos tends to absorb certain essential elements that form part of its identity; those from the world of pure possibility, pure visionary invention and the current of life and values.

If we examine the way in which Aristotle reflects on reason, we see how he identifies the shape and forms of syllogism; studying the development of post-Aristotelian stoicism, we see the ways in which the various syllogisms are further reasoned and regulated. If we examine the development of medieval scholastic logic, it is realised at a certain point that finding ourselves before a purely logical machine (consider, for example, the search of William of Ockham). While examining the medieval vision of political Averroism, the perception of a veritable *machina mundi*, of the kind perceived in Federican sensibility.<sup>5</sup> On the other hand, the moment medieval theological voluntarism associates good with the will of God and the moment this voluntarism secularises into pure human will, the world of values seems to dissolve to the total advantage of the world of facts, which thus remains the only possible object of rational attention.

Let us examine this process of the Logos on a broader scale and in 'slow-motion'. The moment the Logos arms itself with rules to resist the confutation of other Logos, it regulates itself according to different paths and levels. It establishes rules for thought, speech, dialogue, knowledge and comprehension in applying what it has understood to reality (technical activity); in the intellectual reproduction of what it has understood (artificial activity); in its doings and conduct (social practice) and in the intellectual production of rules of conduct (rules of social practice).

As we have seen, this process has lasted over a thousand years, and at a certain point, the tendency of the Logos to structure itself into an *objective* form became manifest and began to accelerate to the point where the Logos, after conceiving it, *consummates* itself in that form. The Logos in such a form (syntagma intended in the objective genitive sense, namely, the Logos occupied with that form) becomes the Logos of that form in the objective genitive sense, that is to say, it becomes the Logos *intangible* in that form. The Logos conceives science and sciences, specialises in technologies creating an archipelago of techno-sciences and machines. Thus emerges a Logos of thought, speech, dialogue, knowledge, comprehension, application and reproduction, of conduct and the identification of the rules of social practice. This leads to a Logos with various levels; theoretical, technical and practical.

However, we must understand that when we say that the Logos invents its own rules, this does not imply that it does not have in its own spontaneous life certain intrinsic rules. Every mode of thought and all conduct has, in itself, incarnate rules. There is no

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5 On this see the observations made in *Machina mundi. Incursionisimbolico-politichenell'artefedericana*, Franco Angeli, Milano 2012.

thought without rules that are already innate, nor any conduct or social practice without rules that are already intrinsic, inscribed, intangible within such conductor social practice. Every mode of thought has in itself its own rules; every social practice likewise. At his initial level, one thinks and acts according to *involuntary* rules, which apply even if not purposely thought and intended. So while speaking of a Logos that gives itself rules we are *not* referring to the involuntary rules already incarnate in the Logos, but of rules which in a voluntary manner are intellectually elaborated and intended by the Logos. These are rules artificially produced by the Logos as intellect. Thus there are two levels of rules in the Logos; the level of the rules pre- incarnate in the world of its life (involuntary, intended at their basic level) and that of those intellectually produced by the Logos (voluntary and objectivised, or rather, hypostatized). On closer examination, between these two levels we can see at an intermediate level rules elaborated to allow the living world to express itself as in its “nature” (for example, the “operating instructions” of an object, where the rules of the instructions are not arbitrary, but elaborated for the purpose of making the object function as in its “nature”, and to avoid damaging or breaking it; or the minimal rules elaborated by human civilisation to prevent catastrophes in individual communities; or the forms of Decalogue and Statutes of Humanity). Only at the stage at which the Logos gives itself intellectually produced rules, which tend to separate it from the living world that produced them, does that Logos become machine, saving the time and effort of constantly rethinking what it does.

### **The artificial machine and its rules**

The machine, in this sense, is an exterior structure, built of intellectually constructed rules and measured, coordinated movements. It operates independently of declared intention, of considerations on the *here* and *now* and of a desired purpose. As such, we can say it *functions*. This chain of movements and rigorously pre-constructed rules is the *machine*. Only a Logos can produce this machine, crystallizing itself in its structure and thus saving the time and effort of rethinking. In the machine the Logos lays itself down. This machine is not necessarily made of mechanical parts. It can be made of logical propositions, juridical rules, organized human acts and social behaviour. With the advent of modern scientific specialisation, this machine can now belong to any discipline and any institutional structure.

At this point it would be appropriate to substantiate the course of the Logos on its destined direction towards becoming a machine. The Logos as the capacity to gather information to think, speak, dialogue, reason and produce cognitive and scientific results, in a structural sense tends to generate an *algorithmically controlled* course during its development. As is common knowledge, when we speak of algorithm we are referring to a coordinated series of predefined and finite steps (even cooking pasta can be analgorithm). In the age of modern science, the machine can be realized in two forms: as a logical machine and as a physical machine. The logical machine functions according

to the deductive criteria; the physical machine according to causal criteria. But, between one machine and the other, modern thought finds a way to establish a *bi-univocal* correspondence, that the logical machine transforms into a physical machine and the physical machine becomes the manifestation of the logical machine. The calculator is a modern example, and not the only one of this correspondence between logic and the physical machine. In this prototype the logical-deductive procedure transforms into a logical-causal procedure and *vice-versa*. During this transformation, the Logos is doubly a machine, both on the logical and the physical level. The logical procedure is manifest in physio- mechanical procedure, while the physio-mechanical procedure establishes an immediate reference with its corresponding logical procedure.

As it becomes the manifestation of the Logos, this machine sets itself before the person, the carrier of that same Logos. The machine's presenters declare that the machine is destined for people. Such a machine must be realised with certain specific qualities which, however, veil a number of essential removals.

Hence at a certain point in its development the Logos, from an intentional process moving toward certain ends, structures itself as a course to be followed according to strict, artificial rules, which allow it to rescind from those intentions and those ends toward which those very rules have led it to. In this way the Logos transforms into a purely exterior procedure that is no longer questionable. Thought is substituted by calculation. Spontaneous reason is replaced by formalised reasoning; free exploration by calculated and calculating procedure; interior intuition by algorithmic methodology.

Reason is replaced by syllogism, syllogism by formalized syllogism, formalized syllogism by logical calculation, logical calculation by computers, computers by 'smart' robots, 'smart' robots by 'expert' robots and artificial intelligence that learns from experience.

This chain of rigorously pre-constituted movements and rules is a machine. This machine can be logical, mathematical, biological, philological, psychological, pedagogical, juridical, political, economic, corporate, bureaucratic, scholastic, sanitary, military, fiscal, financial, mass-media, and even – at the absolute height of paradox – ethical (not only of a pharisaic sort and founded on exteriority, but even of an ethic that ignores the relationship with the *here* and *now* of the concrete *you*). A migrant camp can become machine, just as an association, a political party, a city, and so on can become machine. While the Logos, in its initial phase, freely seeks new paths, as it evolves into a machine it takes its leave of the universe of the possible in which it was rooted and departs from every living intuition which decides motives and meanings, in the here and now, step by step. Transforming into procedure the Logos condenses and simplifies itself into a machine.

In this perspective the machine is not a thing but the idea that is built into the thing. The machine, even before the perceptible reality we can see and touch, is the supra-

perceptible, intangible reality, that is to say, entirely mental reality which can be interpreted through the intellect. The wonderful complex of mechanisms that transformed the skeins of silk into cloth at San Leucio di Caserta in the eighteenth century is a machine. Even a football team that plays “by memory”, perfectly repeating well-prepared, well-tested schemes of movement, realizes a supra-perceptible, intangible idea, which only the expert can recognise and that constitutes the identity of a machine.

The Logos, simplified into a machine, presents itself as destined for people with the purpose of preserving or improving their lives. However, we have to question the characteristics of this machine, as well as the nature of its relationship with the people themselves.

The machine, being generated by the Logos, is produced by the living world, given that the Logos is a component part of that world. But such a living world can only be understood as pre-categorical. That is to say, it precedes the very possibility that it can be given a conceptual definition. The machine produced by the Logos is artificial, generated by an intellect that processed, calculated and produced it. This machine is made of rules that constitute the structural criteria of its function. In it we can identify three fundamental dimensions. *Firstly*, this machine is abstract, general and stable, in the sense that it is (at least relatively) independent of its producer on one hand, and on the other, of the subjects and the here and now to which it refers; this means it does not react in any particular way to any particular situations. *Secondly*, this machine does not look to the whole but to its parts; for this reason it is not concerned with the intrinsic purpose that constitutes the sense and identity of the whole to which it applies itself (Aristotle’s *entelékeia*). *Thirdly*, this machine has no interiority nor does it consider interiority, because it relates only to externally perceptible behaviours.

At this point, let us look at the people to whom the machine, according to the declaration of its presenter, is functionally destined. *Firstly*, the person is an existing and irreducible singularity; as such he/she is irreplaceable; and is on the other hand unable to delegate his/her extremely personal needs to others, and is therefore unique. *Secondly*, a person has an intrinsic capacity to relate with other persons within a whole living community. *Thirdly*, a person possesses a profound interiority. As such he/she is not observable from the outside, and cannot be defined by any concept that attempts to classify him/her.

Let us examine now the three correlative dimensions of the machine more closely. In its initial dimension it operates in an abstract, general way, ‘it makes no distinctions’. In a second dimension it fractions every whole, every whole life, into parts and processes its subject by cutting it into slices.

In a third dimension, the machine investigates its subject only externally; it treats him/her simply as an observed, circumnavigated body. In the first dimension, the machine does *not* treat its subject as an original, but as a copy (it is repetitive, putting its subject



through repetitive acts); in the second dimension, it dismantles and reassembles its subject as if it were not living (it breaks it down and restructures as it likes); in the third dimension, it treats its subject as if it had no interiority (searching, controlling and reproducing it).

These are not negative characteristics of the machine, but characteristics that *neutrally* constitute its identity. This machine, however, although conceived for the person, can never 'see' the person. Not in the sense that it is *anti-personal*, but in the sense that it is *a-personal*. It is colour-blind toward the person in the same way a colour-blind person cannot see the red that is right before their eyes.

The characteristics identified here do not necessarily constitute a problem. An organised machine (made of parts, movements, propositions, rules, actions, behaviour, *etc.*) can be beneficial to human beings, even if it cannot see their person-singularity. However, a problem arises when it reaches a stage so technologically advanced as to cause a *quantum leap*. At this point the machine becomes a mega-machine and continues to the point of transforming into a *giga-machine* of international scope and levels. At this stage the machine, initially a prosthesis of the human has become so powerful as to transform the human being of which it was the prosthesis into a prosthesis of itself. At this stage, two specific structural traits tend to become established between the machine and the person; on one hand the machine acquires a degree of power so great as to render it governable only by an increasingly limited number of people and only in certain privileged structural occasions; on the other, in any possible conflict between the function of the machine and the needs of the person, the machine always prevails. In concrete terms, this means that the end (the person) has become a means and that the means (the machine) has become the end.

Let us examine this quantum leap in more detail. In the first instance, being abstract and general, the machine operates according to classes of processed elements, that is to say, it catalogues. In the second instance, being structurally characterized by dissection it operates according to the parts to be controlled. In the third instance, being structurally destined towards external subjects, the machine operates on externally explorable surfaces. But in performing these operations, the machine can work on the results of another machine that structurally precedes it in functional terms. In this case the machine catalogues on the basis of the results of a previous machine that produced the conditions for the categorisation, namely the catalogues; it works on the results of a previous machine that produced the conditions for the dissection, namely the method for identifying the parts; it works on the results of a previous machine that prepared the conditions for measuring the surfaces, that is to say, that developed adequate metrics. The next machine to function processes these prepared results, which are in their present condition after the function of the previous machine. And it cannot be ruled out that this latter machine works on the results produced by the criteria functionally established by an even earlier machine.

The machines considered here function according to three criteria. According to the first and second criteria they arbitrarily *count* and *measure*; according to the third they measure by *comparison* of their extensions or figures. Here while talking of arbitrariness, in that the machine functions according to a structured criterion that envisages no justification of the criterion applied. The first operation described carries out an arbitrary classification and puts the subject in a box; the second operation carries out an arithmetical calculation and counts according to quantities expressed over time; the third operation conducts a geometrical and topological measurement by commensuring extensions or figures according to quantities expressed in space. In reality, this machine has a precise epistemology, consisting of the combination of arbitrariness and measurement, where the arbitrary simulates a *subjective* factor and the measurement an *objective* factor. If we were to think of this machine in anthropomorphic terms, it can be concluded that while being a cross between arbitrariness and measurement, it presents itself as *non-arbitrary*, as *non-responsible* and as *non-dialoguing*. It is *non-arbitrary*, because it is structurally incapable of interacting with a person and adapting; *non-responsible*, because it is structurally incapable of responding to anybody for what it does; and *non dialoguing* because it is structurally incapable of entering into the interiority of the “subject” it is dealing with.

The machine generalises-abstracts, counts the parts and commensures their exterior features. In the first dimension it treats subjects of the same genre as equal (generalisation) and processes them equally regardless of the time in which it operates (abstraction). In the second dimension, the machine treats the subject not as a whole but as a series of parts. In the third, it treats the subject as if deprived of any interiority. Functioning in this way the machine, in reality, operates according to purely *quantifying* criteria.

This is fairly clear as regards the second and third dimension, because the second involves an arithmetic measurement (mathematics by calculation) and the third a geometrical or topological measurement (mathematics by comparison).

However, caution is required. Even the operation that generalizes and abstracts can result in an act of quantification. Indeed, generalisation-abstraction signifies a quantification by *seriation* and *division*. A genre is constructed on the basis of a mental model constituted by a comprehension and by an extension, where the comprehension regards the number of logical characters contained in the mental model and the extension henum berofentities to which that model refers (on this the results of Port-Royal logic are well-known). In this context, comprehension and extension behave in an *inverse* manner. This means that the lower the number of logical characters contained in the model, the higher the number of entities to which the model may refer. The construction of the generalisation- abstraction stems from a reduction of the logical characters existing in a mental model and the corresponding increase in the entities to which the model refers. Passing from a species to a genre reduces the number of

logical characters and, correspondingly, increases the number of reference entities, as can be easily understood if we think in terms of the human *species* compared to the animal species as a genre. Hence, through generalisation-abstraction it performs an operation of seriation and division and in effect, of quantification in terms of topological quantification. In definitive terms, the machine, in all of the three dimensions considered, treats its subjects exclusively according to genre, weight, number, measure and quantity. However, it is all too easy to observe realities that cannot be evaluated on the basis of such exterior parameters. Books cannot be judged by their weight (their first structural trait), nor by the number of pieces of paper they are comprised of (second trait), nor even by the colour of their covers (third trait). A person cannot be judged by their build, by the number of cells they're made up of or the structure of their body. Yet the machine, in its intent to be exhaustive, makes such evaluations.

If everything were quantified, there could follow this criterion; since everything is quantified, so every quality must be also quantified. Here the principle of quantity, assumed as an *absolute*, imposes itself as the only criterion to which everything else must be *reduced*. This means that when we quantify, there are many possibilities and different forms of quantification. When quantified, it needs to know according to what are the quantifying criterion. Given that there can be infinite criteria for quantification, which one do we choose? This question naturally leads to the problem of the quality of the criterion to adopt in the quantification. But, given the assumption of the absolute nature of the principle of quantification, even this quality has to be verifiable through quantification. This means that the quality of the criterion must be de-qualitativised. From this it follows that the answer to the question “what is the most important criterion for a quantification?” has to be, in quantitative terms, that “all criteria are equally important, and therefore none is important”. The quality of the criterion, reduced to its quantification, transforms into the concept of *discretion*. Given that an object can be quantified in infinite ways, all of these quantifications are equally important and as a result no single one can be chosen in preference over another. *Quality*, attributed to *quantity*, is nothing more than *will*.

A significant image iconizing this situation by means of an infinitely numerable quantity being crossed by unlimited will is perhaps that of Jorge Luis Borges' Library of Babel. Here, in a combinatory phenomenon that associates all the letters of the alphabet in all possible ways, every possible book is born, those that make sense and even those that do not. In reality, in this image lives that combination of quantity and will in which modernity itself resides; and with it its logic machine in its *purest* function. Along this path, with rigorous disenchantment Borges examines the concept of *order* itself, where he writes<sup>6</sup> that the order between things does not consist of a quality that *precedes* their

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6 “the same volumes are repeated in the same disorder (*which by being repeated becomes order: the Order*)” Jorge Luis Borges, *Finzioni*, tr. di Franco Lucentini, 78 (Einaudi, Torino 1995).

being arranged in a certain manner, but in a quality that *follows* the simple fact that the arrangement was *arbitrarily decided* in that way, followed by the fact that the arrangement is simply *repeated*. From this perspective, order does not consist of an arrangement *worthy* of being repeated, but simply by the fact that the arrangement was decided in that way, and expected to be repeated accordingly. In this light, at the basis of order lies *not* a quality intrinsic to this arrangement, but the arbitrary fact of its *arbitrary arrangement*. This order can be understood in the context to fascicularised theological voluntarism. From such a standpoint to say that an arrangement is ordered simply means that it repeats an arrangement—whatever that maybe—previously decided in an arbitrary manner. In a room, if we were to arrange the tables on the ceiling and the chairs on a vertical wall, then always repeat this arrangement, even this would be a form of “order”. Such an “order” however, has two structural traits, the arbitrary decision to arrange things in a certain way and its faithful repetition. In this prospect, all value is cancelled. The moment the machine, having cut off all relations with the living world, quantifies everything, it will do so according to the criterion arbitrarily structured in it. Certainly, we can argue that this criterion was established by the living world, namely by the person who created the machine, but it nevertheless lives in the context of a concrete social experience. Yet it would be easy to reply that since the machine, by definition, has cut all ties with the living world that produced it, a criterion of this sort would no longer be in a condition to either justify itself or be modified in the event of urgent needs arising from the living world and the individuals in it *here and now* and who question that criterion. As counter-argument we could say that the organized machine, being carefully constructed and *complete*, is capable of adequately predicting every need; but it would be easy to counter that, for strictly logical reasons demonstrated in the twentieth century (Bertrand Russell’s antinomies, the principles of the incompleteness of systems by Kurt Gödel) that no system of rules can ever be complete, because there will always be a structural gap between the living world and logical systems. On the other hand, granting for the sake of argument that the machine can actually become complete, the fact remains that this completeness would nevertheless be founded on choices of classification of arithmetic, geometric and topological quantification. On this we must note that, with respect to what is being classified, any classification introduces two essential distortions: i) it ignores the existence of the human singularity to which it refers; ii) it reduces it, in any case, to the classificatory prospective from which it arbitrarily moves.

A recent news article spoke of a man who couldn’t be admitted to hospital because according to the Italian civil register he did not exist. Between existence belonging to the real world, and classification belonging to the formal world (in this case the *civil records office*), lies the classification that decides (declaring itself to be universal,) whether one exists and under what conditions). Between the system’s claim of completeness and the living world, a gap always remains. Another recent news article spoke of the parents of a deceased child who had asked the principal of his school for an excellent

essay he had written for a competition, and were refused because ‘the rules’ did not allow the principal to open the file.

The living world subconsciously knows of this structural gap between system logic and life. A clue to this is in the concept of “common sense”, which contrary to popular belief, does not just imply a practical reference to a rough and approximate awareness in daily life, but the deeper perception (the living intuition) that between the living world and the formal world there is necessarily an interruption that is insuperable from a formal point of view, but that is nevertheless necessary to cope from a substantial point of view. From this perspective, “common sense” in the meaning of “good sense” is the indicator of the insuperable structural distance between the living world and the formal world. While dealing with a distance that is viewable strictly from the living world. This distance is perceived by a sort of sensor that expresses itself by negation, in each case showing what we should not do. Common sense allows us to perceive the unreasonable, inhuman, comic and absurd, giving voice to reactions that cannot but be born from the living world. The world of jokes is a goldmine of instances of common sense. But the precision of the algorithm does not get any of them. It is hardly surprising that a machine cannot laugh.

However, despite the insuperable gap between formal incompleteness and real existence, the machine can be structured in such a way that, although it is never able to be complete, it at least tends toward completeness. However, for this to come about it has to have increasingly complex structures that attempt to fit each individual identity like a glove, thereby putting the very subjects to which it is destined as a machine under an effective state of siege. This means that in order to solve the unsolvable problem of completeness, the machine mounts a veritable witch hunt for detail, which is more often than not in tragic if not tragicomic conflict with the living world and its needs. The price for the machine’s lack of completeness will be paid by the persecution of its subjects. One of the tragicomic effects is the phenomenon by which the machine, to avoid the violations that inevitably occur in each of its sectors, increases penalties for misdemeanour out of all proportion in all of its sectors, above all of the weakest, starting a vicious circle that evolves into an obsessive structured form of persecution. To combat airline terrorism, it disproportionately increases body searches on travellers; to fight tax evasion it increases the pressure on those who pay; to solve the problem of absenteeism at work, it hounds the diligent even more; to combat the problem of the fake disabled, it increases pressure on those who really are disabled. Every tear in the fabric of the system is sutured, obsessively increasing its complexity. Just consider something that has now become an everyday occurrence in all of our lives, when we have to interact with an automatic answering machine we need to obtain information from. In the form of pre-crystallised categories, it offers us a vast series of questions to choose from; none of which offers a solution to our problem, and without any possibility of inserting our question directly or speaking with a human operator capable

of comprehending how and why our question doesn't fit any of the pre-crystallised categories offered by the machine. Here it appears clear that the range offered by the machine not only is incomplete, but is aware of the fact and so is structured to transform its incompleteness into an all-assuming, overbearing idea of completeness. The machine, on the pretence of meeting all human needs, mechanically crushes those needs. It is, indeed, *precise*. Precise to the point of being senseless and unreasonable. It exists in a *paranoid* dimension of precision, a dimension worthy of much further study.

As we were saying, this machine, observed in all its three dimensions, generalises-abstracts, breaks down the living, reduces every reality to its bare rind. This, by definition, means that as it constructs categories it can make discriminatory generalisations (for example, constructing "made to measure abstractions" to privilege certain objects to the detriment of others); as it processes the whole by breaking it down, it can violate the living whole; as it reduces interiority to exteriority much like a Möbius strip, it can disavow every interior phenomenon. There are many examples in reality. According to the first machine dimension (generalisation-abstraction), a hungry man can be included in the same genre as one who is full, as noted in Trilussa's well-known apologue on chickens; or any given human activity, such as academic or sanitary activity, can be processed according to the same abstract and general rules established for any purely economic activity; or again, the human sciences can be governed according to the same rules as the so-called exact sciences. According to the second machine dimension (the breakdown of the living whole into parts), considering just the sum of the hours worked (abstracted from his real life), a worker could be sent to work for a year moving each day to a different time zone. According to the third machine dimension (the reduction of interiority to exteriority), a faker can be treated as a hero and a hero as a murderer.

Certainly, the machine could be subject to the discretion, responsibility and dialogue of those who produced it. But this can only come about at the stage at which the machine can still be controlled by its maker. And this can no longer happen after the quantum leap determined at the turning point where the machine, entering into a universe of other machines, no longer has a maker capable of controlling it (or has so few as to make their on trolling actions difficult if not impossible); and above all in the case of conflict with the needs of the "living object" being processed, the machine prevails over the maker.

The moment this quantum leap takes place, namely the moment the individual person becomes a prosthesis of his own prosthesis, the characteristics of the machine we identified previously (abstraction, deconstruction, exteriority) *may* change from *a-personal* to *anti-personal*.

Observing the machine in its interactions with the person, from a consciously anthropomorphic standpoint we could conclude that the machine doesn't believe in

the existence of a living singularity, nor the existence of a living whole, nor in an interiority. It does not believe because it cannot believe in such things. It simply *ignores* them. The machine ignores the existence of the person, it ignores life, conscience and interiority. It does not ponder, it does not choose; it has no shame, no sense of guilt; it does not engage in dialogue, knows no modesty, has no compassion. It does not laugh. Pursuing this path in the end it can become, technically anonymous, auto-optic and panoptic; in a word, indifferent, dis-sectional and automatic; canceller of the human being, mortifying and pitiless. In this sense, the machine does not believe in the truth of the life to which it is applied, for which it was conceived and which also structurally precedes it.

This analysis does not at all imply that all rule machines are qualitatively on the same plane. Rather, it is certainly possible to make distinctions between them. These could be based on two fundamental criteria, namely the distance of the machine from the living world from which it emerges (distance measured in terms of the *correctibility* and *adaptability* of the rules) and their distance from the fundamental needs of the individual persons (distance in terms of the *real protection* of those needs). The distance can be qualitatively reduced only if the machine has connecting structures between the rigidity of the pre-constituted system and sensitivity toward the living world, connecting structures which can take various forms, each according to the machine it belongs to. For example, in the case of a juridical machine the connecting structures consist of principles, which, as opposed to rules, are called on to “probe” the living world through sensitivity to the values of the social context. These values can be distinguished, in turn, into two layers; the more superficial one related to the *Lebensform* (the form of life) historically in action; and the more radical and profound one, related to a *Lebensform* of the human in the exact sense of the word, which can never be violated upon penalty of catastrophe of the human world itself (that is to say, the world of human life as such).

Here we encounter a specific problem which deserves some attention. In the contemporary world there appears to be a cultural prevalence of a concept that has come to be known as “ethical non- cognitivism”, according to which values cannot be rationally acknowledged as true in that they are based purely on their emotiveness. As we well know, such a conception is diametrically opposed to “ethical cognitivism” by which values may instead be rationally acknowledged. As already argued elsewhere,<sup>7</sup> such a contraposition demands to be critically meta-thought. In the structure we have adopted, this means considering values *not* based on their *affirmation*, but on their *negation*. That is to say, it means establishing the reasoning according to the criterion sometimes defined by logicians and mathematicians as *reductio ad absurdum*, which follows the

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<sup>7</sup> Giuseppe Limone, *The Catastrophe as a Horizon of the Value* Monduzzi, (Milano 2015); *Person and memory beyond the mask: The task of thinking as a right to philosophy* (Rubbettino Apr. 10, 2017).

course not of demonstrating the direct hypothesis but by denying the contrary. In this light, while one does well to doubt the precise identity of values within a certain range, it is beyond doubt (beyond a certain limit) the need to consider as a disvalue any behavior that, if practised, would be catastrophic for the human being tout court and, at the same time, for the humanity of any intellectual who denies that values can be acknowledged. To undertake such an act of discernment of limits demands the intervention of that intelligent sensor which elsewhere we have called “edge intelligence”. For this reason, above and beyond ethical cognitivism and ethical non-cognitivism we have to consider a certain “ethical falsificationism”, and thus one has to begin from the unconfutable acknowledgement of those behaviours which are, beyond all reasonable doubt, *dis-values*. Acknowledging that certain non-values exist cannot but lead to the affirmation that reasonably acceptable, or at least tolerable behaviours likewise exist.

The machine we are analysed must therefore be evaluated in terms of the human quality that it permits or impedes. Such an evaluation may be made if we examine a number of specific indicators. For example, it has to consider the degree to which the parts of the machine, here and now, can be modified and/or adapted if found to be manifestly unreasonable, or which violate the underlying form of life; and likewise in cases of manifest inhumanities which violate the fundamental needs of the individual persons (here we are dealing in effect with those two layers of the living world mentioned earlier). In both cases we have to evaluate and measure the machine’s attitude toward exposing itself to the stringent, non-deferrable criteria of the concrete life in which it operates; criteria that must be considered as the safeguarding clauses of the human being.

One of the specific traits characterizing this mechanical element consists in its becoming ideology; in other words, a closed and crystallised mental practise that tends increasingly to neglect the educational quality of the human component implied in the very function of the machine itself, as though it were spurious compared to its own purity. No machine can rule out a minimal degree of educational element. Just consider as a simple example how the theoreticians of democracy considered it a pure procedure to surrender at a certain point when faced with a radical insufficiency of this criterion in support of the importance of an “education towards democracy”. Evidently the educational element cannot be reduced to a pure procedure and represents, instead, precisely *that which is removed from procedure*.

Thus at the first level of the machine, that is to say, the level closest to the living world, a distinguishing evaluation is still possible. But by the time of the quantum leap we have referred to, the machine of rules has progressively transformed into mega-machine and giga-machine, that is ever more distant from the living world and the needs of people, in terms of its ability to be modified, adapted, governed and to safeguard their primary personal needs. We all know the Ministry of Education algorithm designed to



distribute school staff in Italy in a totally impersonal manner. And we all know the results.

Before the *machine* of rules like an unsurpassable levee rises the *truth*. However, an important point needs clarification. Here the truth is not dealt in the metaphysical sense, namely the intellectual or real truth debated by all and known by none, dealing instead with the simple truth of life, the truth that is everyday life made up of the real people that experience it, with their fundamental, non-delegable, inviolable needs. This truth is not truth as correspondence, the core of which is intellectual and reflected. It is instead the *pre-categorical* truth of life, the most concrete, unconfutable truth there is. This “truth of life” is made up of the fundamental needs of people, those persons who are *not* categories because they, along with the living world of which they are part, also constitute a pre-categorical- a pre-categorical in the singular. These existing humans each have fundamental needs without which they could not remain inexistence.

This truth of the fundamental needs of people must be seen in two senses. Not only in the sense that these needs must be safeguarded by an external power, but that they must be given free space. They not only need to be protected, but given the space for spontaneous possibilities which cannot be created from the outside.

However, there is a possible objection to our objections. We could indeed say that the giga-machine we have just described, which generalises, abstracts, divides into parts and explores everything only in its exteriority should instead be examined by the individual in its overall *intelligibility*. In other words, because of its structural characteristics this machine should be accepted because it is right in the long term, and so every singular case should adapt to its inviolable form, temporarily incapable of grasping the rationality of its structured whole. However, such an objection would imply the sacrifice to the wholeness of the machine, given as good, not any need or desire, but the very minimum needs and desires that constitute the core of a dignified existence. This would imply that the machine impose not only its ideology, but its idolatry, which is in itself, sacrificial. Even admitting that the machine is endowed with a superior intelligibility, no machine should ever be permitted to violate the core of even one of the inviolable rights of the individual. No person, with their fundamental needs, should be sacrificed to a machine, even if it were capable of fore telling the future. The machine must never be enabled to make sacrifices of human beings. And yet it does.

If at a certain point we encounter a radical conflict between the machine and the living truth, the fundamental problem for human civilisation will consist of the degree of reaction the living world and the world of people will be able to develop, both culturally and in an operative sense, to contrast the machine’s action that is crushing them.

### III The law machine

#### Legal positivism as theory of the machine

One of these machines is the law machine, understood as the legislative machine. The 18<sup>th</sup> Century enlightenment was an epochal moment in which the Logos, thinking to organise society according to a model of Reason, attempted to externalise the structure of power in a manner compatible with Reason itself. According to the enlightened conception, laws must be precedent, simple, few, clear, abstract, general, stable, coherent and constitute a complete order. These are the hidden structural premises that underlie the separation of powers. As understood, the criteria to be dealt with is externally legible and without misinterpretation. Thus, the Logos tends to bind power not through interior values difficult to remove from the vagueness and plurality of interpretations, but through limits that are legible in an exterior, unequivocal form. The Logos attempts to transform power into Reason, transforming the force of the power into the machine of Reason, into Reason transformed in turn into a machine structure. On the basis of this logos, by assuming this structural criterion the model of power becomes a machine, namely the rational law machine. The natural, or living Logos is thus transformed into a legal-rationalist model, and the legal-rationalist model into a rationally structured legal-positivist model. Through this transformation the Logos condenses into a machine taking on the three structural traits that qualify it as such: the criteria of abstractness and generality, that of the breakdown into parts and that of exteriority. But this machine structure has a virtue; it attempts to realise a value of justice not through the all too arduous “conversion of hearts” nor by invoking values, all too open to variable interpretations, but by identifying clear, externally observable and concretely operable, controllable criteria. In this lies its strength, but also its limit.

From this perspective, the rules developed in the Cartesian model, those elaborated by modern science and those established through the legal enlightenment are points on the same course, of a Logos that produces, in its results and its method, the structure of a machine.

In this development, the twentieth century legal positivism of Hans Kelsen would be little short of the theory of the machine brought to its perfection, the positive law machine, made up of linguistically formulated rules and prescriptive logical propositions. This law machine consists of rules, that is to say, logical-linguistic models that regulate fully defined circumstances. In this context there is a precise two-way correspondence between the rule and the circumstance it contemplates (save in the *non-Kelsian* case dealt with later, in which the identification of a rationale leads to the restriction or extension of the literal significance of that rule, but as understood, the rationale is a principle that extends or restricts the limits of the rule to be examined). The entire law machine goes into establishing a single legal order, the logical foundation of which, for Kelsen, resides in a fundamental rule that gives unity and validity to the entire

normative system.

Kelsen was a legal positivist who, in being so, based his work on the unquestionability of *fact*. He worked on the *fact* of the rule, namely the rule understood as fact. However, while dealing with a particular type of fact, because it is a fact of linguistic formulation, consisting of a declaration- qualification. In being a declaration-qualification, this *fact* is a *form*, in that it *refers to* a plane that is *outside* that form. The rule is a *fact-form* which, being form, refers to facts (natural, human and social) that are *not* forms.

Kelsen, moving from this fact and this form, reaches back, rule after rule, to the logical foundation of each of these rules, until he reaches back to that single unwritten rule that constitutes the logical foundation of them all. This is the fundamental rule that gives unity and validity (that is to say, legal existence) to the entire legal order.

This fundamental rule, as the prime logical assumption, can be viewed from two different standpoints, from that of its founding a set of logical-linguistic propositions and from that of its founding a set of historical facts that produce these propositions (that is to say, founding fact of juridical production). Examining this fundamental rule from the first standpoint (as a rule that logically founds a structure of logical-linguistic propositions), it behaves much in accordance with the three principles of logic, that of identity, that of non-contradiction and that of the excluded middle. According to the first principle, the set rules built on this foundation must be perceivable as unitary and distinct from all else different to it; according to the second, this set of rules must be perceivable as coherent and free of contradictions; according to the third, it must be understood as complete, that is to say, sufficient to contain either the rule that permits or the one that denies a given behaviour, without the possibility of any *tertium genus*. It is certainly true, as some critics have observed (Amedeo G. Conte), that in the Kelsian legal order there is no lack of contradictory rules; but it is also true that in such an order a logical vector is permanently in operation, through specifically established procedural mechanisms to reduce the existence of contradictions to the greatest possible degree.

Examining this fundamental rule from the second standpoint (as the rule that founds a series of historical facts that produce logical-linguistic propositions), it is found that this fundamental rule conceals a *pretence*. It contains the pretence by which the individual rules from which Kelsen moves constitute a unit, a whole and unitary logical organisation. Instead, on closer inspection it is observed that the rules considered, having possibly been produced by different and disparate laws and sources, do not constitute a unit in itself at all. To consider them as such would be to apply a *pretence*. It is a pretence realised through the three principles of logic mentioned earlier. Only through this pretence can the rules, in themselves separate and disparate, be considered *as if they* were linked together as a whole. But the pretence does not end there. The rules are not only considered as unitarily and coherently linked, but also as *constituting*

*an order*. This implies a *further* pretence by which the complex set of rules must always contain the rule necessary for the situation it is intended to regulate. This is the pretence by which that order is considered “complete”, that is to say, containing a principle of closure that vaccinates it against its possible shortcomings. As we have already said, pretending that an order is complete means, in reality, working under the logical principle of the excluded third. If this fundamental rule is to all effects a pretence, this begs the question of what is the reason, or the *sufficient reason* for this pretence.

In this way the fundamental rule presumes, in turn, a question on the principle of sufficient reason. This question requires us to bind the fundamental rule, and thus the legal order founded on it, to the living world that originated it and gave it sense. A legal entity has no sense at all in itself, if not when it is instrumental to a living world that needs it. Thus the fundamental law necessarily refers to the living world, which has an inevitable need for an order to govern it. In this light, if it is true that the fundamental rule is a pretence, this *pretence* stems from its *function* within the living world, from which it cannot be separate. This is its practical function of praxis.

In Kelsen’s epistemological view, the fundamental rule constitutes a logical premise. However, Kelsian theory, in its intention to be pure, leaves any question that regards the ontological premise underlying the logical premise outside its scientific domain. Kelsen considers the logical premise but not the ontological premise. In other words, he does not question, or intend to question the nature of the living world that this legal machine necessarily presumes and from which that very machine was born.

In reality, this living world can be seen as having two levels. At the first level it expresses the particular, historically determined form of life, which that legal order presumes and is presuming. At the second level, it expresses the fundamental principles that no living human world may violate. The first level is that of the *Lebensform*, namely a form of life historically determined; the second level is that of a *human Lebensform*, namely that of the human fundamentals that no form of life, however historically relative, may violate, upon pain of trespassing into the realms of the impossible, the intolerable, the unsustainable and the absurd.

So if we examine Kelsen’s legal machine in the more general context of the world of human life to which it belongs, and to which it cannot but belong regardless of Kelsen, we find other structures within that legal machine, and other instances at its foundations. Within that legal machine alongside the existence of rules the existence of principles is found; at the foundation of that legal machine we find values, along with the existence of an interpreting and practicing community.

### **Rules and principles between horizontal axis (semantic extensibility) and vertical axis (the living world)**

Here we come to the relationship between *rules* and *principles*. Rules describe well-

determined cases, with which they are linked one-to-one; principles do not describe individual cases but extend semantically to similar cases in which it is not possible to exhaustively conceptualise the similarity, but in this way allow us to link rules together based in a movement of thought that aims to extend inward. Rules classify behaviour, according to a complete criterion of comprehension and according to an extensional criterion that clearly circumscribes them. Principles do not classify but orient according to an incomplete, open and flexible extensional criterion that does not have clear confines. Rules operate, case by case, according to the syntagmatic (rigid and excluding) criterion of equal/not equal, belonging/not belonging, inside/outside. Principles on the other hand operate, case by case, according to the paradigmatic (flexible and not necessarily exclusive) criterion of similar/dissimilar. Rules classify cases, principles do not achieve this, and in fact, objects observed as equal have a possible classification, while objects observed as similar do not. Rules are structurally rigid, principles are structurally extensible. Rules have *logical* statute; principles have analogic statute. Elsewhere we have clarified how rules behave according to the statute of the *concept*, whereas principles behave according to the statute of the *idea*.

This difference between rules and principles leads in turn to a different relationship with the underlying living world. To be applied rules need no further interpretation from the living world and in this sense they are self-executive; principles, on the other hand, need further interpretative input from the underlying living world and are, in this sense, perennially in need of supplementary interpretations. In this light, principles “fish interpretatively” in the living world; rules do not. Principles therefore stand as a connecting structure between the world of logic and the living world in which they fish for interpretation. Like a straw in a liquid, the straw remains empty if there is no liquid or if access to the liquid is blocked. It is impossible to understand the principle of normal due diligence, fairness, loyalty, good faith, trust, modesty, equality, reasonableness or any other clause without necessarily interrogating the living world underlying it, in its fluidity and evolution. Without the world of principles, the world of rules would be fractured; without the world of rules, the world of principles would be mute.

Within this reference framework, the point at which the principle can be understood can be found at the intersection between a horizontal axis and a vertical axis. On the horizontal axis the principle is an elastic rule, semantically extensible to all cases assumed as similar, the “similarity” of which, as mentioned earlier, cannot be exhaustively conceptualised. On the vertical axis, the principle is a rule necessarily connected to a form of life, therefore to the living world, from which it receives an unavoidable interpretative input. One should bear in mind, however, that in this light the same logical- linguistic proposition can be configured in certain situations as a principle or as a rule, according to whether it can be understood as extensible to similar cases and in need of supplementary interpretation by the living world (principle) or as not

extensible to similar cases and independent of a supplementary interpretation by the living world (rule). In case of this possibly double intention, interpreting that linguistic proposition as a rule is another thing, even given that the two propositions could cohabit in use. Caution, however; the different intention of the linguistic proposition could be generated even simply by the different way in which a word belonging to it is meant, according to whether this word is considered as clearly capable of defining its confines, or whether it is not. Consider, for example, the different ways the word “weapon” or the word “damage” can be considered.

Caution again. Principle doesn't just serve to connect, but to distinguish as well. Indeed, it is not only capable of interpretively connecting rules on the basis of the same rationale, but also on the basis of a different rationale. In this sense principle on the one hand connects rules, even of different forms to complex systems inspired by a common rationale; and, on the other, it distinguishes between complex systems inspired by a different rationale. Thus it happens that by interacting differently with each other, two principles can interpretatively differentiate the confines between rules in an alternative and different way, but this can come about only on the basis of a sense given by the life underlying those principles. It is one thing, for example, to bring a rule to the principle of confidentiality and to mark its confines; and it is yet another instead to take it to the principle of transparency. Through the logical movement of the similar, principle extends the confines of the rule to the point where it meets a different principle that marks its confines, or to which it must adapt. In this perspective, principle on one hand tends to extend the rule beyond its limits, and on the other it tends to confront any opposing principles which, extending other rules, suggest confines or balances. Principle, understood as rule extensible to similar cases, can in reality be considered from two different view points; as a principle effectively written and formulated and a principle neither written nor formulated, but that can be reconstructed and reformulate data anytime. However, both in the first and in the second sense, principle operates as a rule capable of extending in various forms into the world of rules and the situations governed by rules.

The Italian legal system has one particular structural criterion worthy of note. The Court of Cassation, is considered the court of highest instance, which can rule on law but not on the facts of a case, but which can if necessary freely refer to known fact and maxims of experience. In such cases the court can avail itself of these two specific principles. Known fact and maxims of experience clearly derive directly from the living, factual world. This, on closer examination, means that although limited to the interpretation of the law, they can make free reference to two principles that feed on the underlying living world, namely the world of fact.

But having ascertained the existence of rules and principles, one should not fall into believing that rules can exist without principles. Indeed, within each rule there is a

*rationale*, namely, the ‘sufficient reason’ for which it was formulated. This sufficient reason cannot be understood if not by directly linking it with the living world on which it is based. This is a connection that can lead to the extension, restriction or modification of the immediate, so-called “literal” meaning of the rule itself. This means that already within the rule there lives an unwritten principle that can always be reconstructed on the basis of input from the underlying living world. The rationale of the rule, through the principle innate in it, is a bridge towards other rules, understood in their rationale. Without a rationale a rule would be blind (or senseless); without possible rules of reference, a principle would be empty (or impotent). But at this point some clarification is needed. It is important to distinguish between two types of principle. There is principle in the previously defined sense of an analogically extensible rule, and there is principle in the sense of meta-rule, namely rules whose domain is represented by other rules, in which case principle has the simple function of linking rules according to a logical movement aimed at delineating the whole. In the former case, principle is rule extensible according to the criteria of similarity; in the latter, principle tends to link rules according to the three principles of logic underlying intuition of the whole (identity, non-contradiction, excluded third). In the former case, principle has a substantial value linked to *similarity*, hence with the living world from which it draws its meaning; in the latter, principle has a *purely formal* value, linked to the construction of a unitary course between logical-linguistic propositions. In the former case, principle tends to construct substantial units, necessarily linked with the living world from which it draws; in the latter, principle tends to construct logical-formal units, independent of the living world and separate from it. The first type of principle is inspired by the criterion of sufficient reason, the second type by the three logical-formal criteria. While the first type assures the connection between rules and the living world, the second type, independent of the living world, constructs the logical-formal unit of the order. The first type constructs a teleologically reasoned judicial universe; the second type, a pure logical-dogmatic entity. The first type is identified by the reasonable, the second by the rational. The first type has analogical-substantial features; the second type, logical-formal ones. The first type appears to be practised above all by *jurisprudence of interests*; the second type above all by *jurisprudence of concepts*.

This certainly raises the question as to what links the first type of principle to the second. And it can be replied with certainty that both types tend, with different reasons and incidence, to construct the unity of the whole in which they operate; in the first case, reconstructing a whole linked to the underlying living world; in the second, reconstructing the whole on a purely logical-formal plane. The rules are the cloth, the principles the warp and weft. The rule states the meaning, the principle the sense.

Examining the Kelsenian theory of judicial order, we find that if we are referring to principles in the analogical-substantial sense, the theory contains only rules and not principles. Even for this reason we find confirmation that the Kelsenian theory of law

is the theory of a machine, epistemologically separate from the living world. But this doesn't mean that this machine, if it is true that it does not consider principles in the analogical-substantial sense, is without principles in the logical-formal sense, which are the instruments of pure logical connection aimed at constructing the solely formal unity of the order.

Therefore, a study of the fundamental rule in the Kelsenian sense, as the founding rule of other rules, rather than a rule it is a principle in the aforementioned logical-formal sense, concealing within it the sufficient reason that is linked to the substantial principle.

A further reflection is possible at this point. We mention with regard to the function of the machine, that the principle of absolute quantification, applied to the very quality of the criterion of quantification, generates the will by which every quantification is possible and therefore by which all quantification criteria are equally important, meaning that no criterion is preferable over another. On closer examination, dealing with the same mode of thinking circulating in the Kelsenian interpretative machine, where not by chance Kelsen clarifies that there is no right or wrong way of interpreting a rule, since all possible interpretations of the rule are equally correct, reason for which any act of interpretation is a pure act of arbitrary will. While dealing, precisely, with the absolute quantification of every qualitative criterion that leads to the claimed neutrality of will. Here Kelsenian theory confirms itself as machine theory, explicitly confessing the quantifying principle underlying its interpretative will. On a practical level, this has a fundamental implication in Kelsenian interpretative theory; insofar as it is an interpretative machine, it has no access or recourse to the living world.

At this point there is a need to go beyond the epistemological reason distinguishing rules and principles. Indeed, rules and principles stand only as mere intellectual formulations. Values have a different status, in that they represent living experience and not mere intellectual formulations, and are directly part of the living world. Values, as fractions of experience of good life, are endowed with a living complexity in which the emotional and the rational are no longer distinguishable.

Questioning the connecting structures between the machine of judicial rules and the living world means, in reality, questioning the sufficient reason of this machine, namely the reason for which it is the way it is and not otherwise. Such questioning is inevitable, if we do not wish to live in a world without sense. This is the sufficient reason that leads to the identification within the legal machine of every *rationale* of rule and principle. This sufficient reason of the legal machine operates on the machine both from upstream and downstream. It operates from upstream, if the entire regulatory structure and the individual rules are interpreted in the light of the living world from which they emerge; it operates downstream if the entire regulatory structure and the individual rules are interpreted as adaptable to the living world to which they are destined. But the legal



machine, just like any other machine, tends by statute to make itself autonomous of the living world, interrupting relations with that world by its scientific nobility. It does so with the aim of establishing the epistemological self-referentiality that constitutes its particular dignity. At this point only two roads remain open; either that the rule machine maintains a minimal rapport with the living world through its connecting structures (rationale and principles) thus presenting itself to some degree as modifiable upstream and adaptable downstream (the two possible modes of operation of sufficient reason, expressed, as we have seen, by the living world); or that the same rule machine, following its structural drift, marks a clear interruption with the living world, denying or rendering impracticable any modification or adaptation that may be either required or justified, here and now by the living world.

One objection with regard to the legal machine in so far as it is a machine certainly demands reflection. It is an *yes* that the law, given that objection that can be grasped and extended from a reflection by Giuseppe Capograssi, where he *sat* does not enter into the interiority of the subject it is addressed to, possesses the virtue of *discretion*, which automatically prevents any intrusiveness. Capograssi's reflection is certainly worth treasuring, and extending to the entire problem of machine logic itself. Indeed, we said that the judicial rule does not see the singularity, does not see the living whole or the interiority. Through his thoughts on discretion, Giuseppe Capograssi finds a virtue in a model that sees no interiority, insofar as it respectfully stops at its threshold.

On closer examination, Capograssi's reflection on this virtue of discretion can also be extended to the other two structural traits of the legal machine as a machine, namely its inability to comprehend singularity and its ability to see only the parts. In effect, although unable to comprehend the singularity, the machine still sees it within the genre to which it belongs, which allows the machine a certain perception of equality; and on the other hand, seeing the parts endows the machine with the necessary meticulousness to assure nothing is overlooked, avoiding the substantial danger of making a generalisation without concrete foundation. In other words, examining the machine approach from this point of view, three intrinsic virtues are discovered in the structural traits in which we previously found negativity. In this light, the three virtues of the legal machine would be equality, meticulousness and discretion.

However, while these may be possible, the objections raised here do not solve the problem posed, but simply induces to examine it in the broader context of the relationship between the machine and life.

One must always ask ourselves whether equality of treatment discriminates individual identities or cancels individual existences, whether such meticulous attention to detail suffocates life, whether discretion ignores the needs of interiority and conscience. Whatever the case, once again it needs questioning ourselves whether the three structural

traits of the machine violate or not the indelible profiles of the person and his/her dignity. All this once again brings the problem of the relationship between the machine and life back to the center of attention, a problem which no machine could ever solve.

At the basis of the entire legal machine, understood as positive law machine, there must necessarily be an interpreting community. Here we are talking about interpretation in the two fold sense of practice and knowledge. Indeed, such a community is 'interpreting' in two senses; in the sense that it cognitively interprets, choosing between the possible meanings of a principle; and in the sense that it practically moves to incarnate them accordingly.

On these premises, the relationship between law and truth poses itself in a manner completely different to that consolidated today. If law is understood in the limited sense of positive law, then truth should be understood in the more direct and concrete sense of the truth of life, and human life in particular. From this perspective, law is always closely linked to the problem of truth in at least in two senses. In the first sense, law, insofar as it is a rule machine, has its own sufficient reason operating both upstream and downstream of itself; upstream because positive law emerges from the living world (which gives its rules a rationale), and downstream because positive law is addressed to the same living world (adapting itself through its rationale).

For the second, more specific sense, observe the relationship between process and truth. In this sense it is not necessary to question whether the law discovers or does not discover the truth. The most recent manuals of criminal procedure maintain that the final end of the law is not the truth, because this is in no way attainable.

This argument is flawed. Indeed, even when sophisticated in form to the point of invoking the most remarkable results of contemporary physics (the Schrödinger's cat paradox, for example!), it still does not grasp the essential problem that consists not in the question of whether the process can arrive at the truth, but in the *unquestionable* fact that the process must presume, and cannot but presume the existence of a truth. In this sense, contrary to what it sophisticatedly maintains, it is absolutely obvious that procedural law has to do with the truth. Procedural law always presumes the truth, if this is the truth of life. A process can never find the truth, but it would have no sense if it did not presume the existence of a truth. A witness, a document, or a certificate have meaning, not insofar as they state a truth, but insofar as they necessarily presume one. Precisely insofar as law presumes a truth, to question whether it comes close to it or not takes on a new sense.

Just as before the machine *tout court*, the truth, as an unsurpassable barrier, rises before the legal machine. Here at an initial level we mean the truth of life and, at a second level, the truth of the person as existence in fact. As already spoken about the first

level. Here moving on to discuss the second.

When the legal machine encounters those primary, extremely personal needs that belong inseparably to the existence of a person, this machine can no longer perform its structural function, generalising- abstracting, breaking down and reducing everything to exteriority. The moment the machine encounters the primary, extremely personal needs of a person, this person must be considered in his/her unity, entirety, uniqueness and interiority. In this case this machine, or any other machine, can continue to operate according to genre, weight, number or measurement. It halts before the wholeness of life, the interiority of conscience and the originality of human existence. Here existence, wholeness and interiority have to prevail over the principle around which the legal machine is structured, constituting an unsurpassable barrier. If the machine cannot respect these minimal needs of the person, it has reached the point of crushing the human being. Here we must apply an effective and urgent remedy to arrest this effect, by modifying its sense.

#### **IV From the global machine to human rights**

##### **The legal machine today**

In the contemporary world the legal machine seems to be subject to two types of movement. On one hand, there is an ever-increasing number of rules, exposed to the twofold process of growth in space and obsolescence over time. The rules become more numerous and more unstable. All this generates increasing uncertainty in the law, both with regard to synchronic number and with regard to diachronic instability. As a reaction to this process of breakdown we insert principles into this set of rules, with the aim of giving unity to the system, to limit the risk of obsolescence and disarticulation. Take occupational safety legislation as a simple example. In dealing with objects structured in an increasingly new, advanced and complex ways, it is subject to rapid obsolescence, because it is being progressively replaced by formulations in terms of principles.

On the other hand, however, alongside the phenomenon of multiplying rules, there is a multiplication of principles, the coordination and adaptation of which, in the hermeneutic procedure, produce a further blow in terms of certainty.

While rules are mostly produced by the legislative body, principles are mostly generated by the magisterial body or doctrine. Then again, it must not be forgotten that while the legislative body tends, by statute, to separate itself from the here and now, the magisterial body draws its voice from this here and now of life, and perennially returns and adapts to it.

In this crescendo of phenomena, while the multiplication of rules produced to achieve certainty generates uncertainty through the disarticulation of the rules themselves, the multiplication of principles developed to prevent uncertainty generates only further

uncertainty at a higher level.

Previously we clarified how principle, as opposed to rules, necessarily draws from the living world. However, when the legal machine becomes particularly extensive and complex, and, above all, when even principles begin to multiply, the relationship with the living world becomes problematical and fleeting, to the point of being confined to the will of the decider. The conspicuous and contradictory number of principles enunciated in jurisprudence today is a clear indication of this tendency, which while certainly not inevitable, should certainly not go under estimated.

The result is a paradoxical cascade effect. Rules, becoming increasingly numerous and unstable, generate the need for principles which, in turn, become increasingly numerous and in need of reciprocal balance. This leads to the paradoxical effect of *chaos in unity*, akin to elephantiasis of the parts and cachexia of the whole.

In the world, along side the construction of a great judicial machine, a grand techno-financial machine has in the meantime become established, in which states and the multinationals tend to operate as equals. This means that the states and the multinationals negotiate with each other, as if between private individuals, in accordance with a *lex mercatoria*. This is a *lex mercatoria* in which the mandatory principles of international order under which it must function and effectively functions, are not always clear. That such a *lex mercatoria* permits any kind of negotiation is not sustainable. The idea that everything is arbitrarily negotiable is both paradoxical and impracticable. Indeed, not everything is negotiable, upon pain of catastrophe for the negotiators.

On another level, today we are witnessing a publicist phenomenon by which even individuals can subpoena states to uphold subjective, if not fundamental rights; while on another level movements of thought tend to provoke rulings from the higher magisterial bodies, rulings that should be applied to the states as laws.

In this situation, comparative law has brought to light the existence of an increasing plurality of judicial models, in which not only levels of rules and principles can be recognised, but also ethical, and traditional models, and living worlds (Mattei, Glenn, Menski, De Sadeleer, Pegoraro, Amirante, and so on). From these analyses not only the inadequacy of legal positivist models emerges, but also the plurality of traditional, cultural, ethical and civil structures, in which the constituting and not contingent element is the plurality of languages.

In this overall situation contradictory, irreconcilable forces appear to be in conflict; on the one hand it is the operation of a principle consisting of pure negotiation between macro-institutions acting as private individuals; on the other, the operation of individuals who in their negotiations arbitrarily choose the legal order of reference according to the case; and on yet another hand, the operation of a principle intended to sanction shared human values in the orders of the various planetary cultures. As usual, great is

the disorder under the sun, but this time projected toward the structural levels of the machine.

Although witnessing overall phenomena which, while equating private multinationals with states, equate states with single individuals, in a process in which asking ourselves at what point it may ever be possible to realise in fact and with cogent force, the effectiveness of the rulings and a minimum shared equity expressive of the human being.

All this is going on within a geo-political machine in which the force of arms, that of economies and financial interests and that of strategic powers prevail. In such a situation, every machine tends to function in a self-referential manner, despite interacting with the others. This context is open to conflicts of various forms with confines only traceable by the dangers of a shared catastrophe and the possible temerity of whoever decides to risk this for their own advantage against others. In this perspective every contract is, in effect, a type of blackmail in the form of an agreement.

In the context of these variable geometrical conflicts, what appears almost irremediably sacrificed is the world of everyday life and of real people; a world that figures in effect as “low” compared to the “high”, from which it is clearly separate.

All this would impose the implementation of remedies that put the needs of real life and real people at the centre. But this would imply a widespread ethical sensitivity, capable of allowing the lives of people to prevail over the automatisms of machines. However, today no adequate civil sensibility on the part of those subjected to the se automatisms appears to correspond to the automatisms themselves.

Certainly, techno-scientific developments today can have ambivalent effects, being capable on one hand to strengthen the powers against real life and, on the other, the means for civil revolt against these powers. But the very conflicts between these two levels are not clearly divisible between homogenous sources, nor do they present themselves without ambiguity.

All this concerns the future, and constitutes the chessboard on which to play a match, the outcome which cannot be clearly seen.

### **The legal machine today**

Here an observation, which is only apparently lateral, becomes interesting. Today in the world of mass-media there is much talk about globalization and human rights, the free market and fundamental rights. This marks our progression simultaneously toward the first, namely globalisation and the free market, and toward the second, namely human rights. The media speaks as if these two terms of polarisation could coexist without contradiction. In this *belle époque* scenario all shall be both globalised in terms of technology, and rights; all close each to the other and all brothers in human rights.

We would thus be on the path towards a uniform and happy realm.

In reality, so-called globalization is nothing other than the technological-financial machine underlying the entire life of the planet. The question this raises is, given that globalization is the machine in action and that human rights are the rights of individual people in their precarious and irreducible existence, cohabiting with all others, are we really sure that the two trends, globalisation and human rights, are moving in the same direction?

Perhaps some doubt is legitimate and the present increasingly fast, precarious and unpredictable rate of things is an empirical sign. Today everyone has four urgent questions that have to be raised first and foremost and resolved at international level, These are the existence of tax havens, the true financial weapons of mass destruction; the existence of unfair competition in commerce founded on the enormous differences in the cost of labour which are exterminating human rights; there-introduction of the separation between commercial banks and investment banks; and the application of minimum rules to the stock market. Above and beyond these, certain barriers have to be introduced to the floatation of a number of essential goods and limitations to the duration of certain patents essential for survival, pharmaceutical products in particular.

Nor must it be neglected, on the other hand, the need to shed light on the conceptual distortion in progress that is so deeply shared as to no longer be perceivable, namely the concept of technological innovation understood not as the instrument for liberating human creativity, but as simple economic means for increasing the organic composition of capital within the international capitalistic organisation of labour.

#### **V From living Logos to senile marasmus**

The intuition of the world around which the *episteme* of the machine is structured establishes a functional organisation intended to be *self-referential*, *specialised* and automatic. We would even go so far as to say *algorithmic*. This *episteme*, in its desire for self-sufficiency and the production of commodity is not, in itself, a bad thing. It becomes a bad thing when, transformed into ideology and even into idolatry; a number of its fundamental characteristics are no longer reasoned and balanced and consist of breaking up the world into separate compartments, ignoring the wholeness of life forms and ignoring the person, who is a singular human existence, expressed as concrete life, living relationships and interiority.

The extension of the machine universe, as we have seen, performs its function generalising, breaking down into parts and reducing every interiority to its shell. Such a function can be metabolised and tolerated only until it clashes with the mandatory needs of life and the minimum needs of every existing human, which can be worn down or violated no further. When the needs of real life and the minimum needs of individuals appear in all their urgency, the automatic function of the machine universe

should always be curtailed. At this threshold the machine that catalogues, breaks down and exteriorizes everything must be stopped to give way to the concreteness of life and to the real persons in it, which cannot be catalogued, broken down or exteriorised. Here every person appears in their unity and interiority, and is thus not reducible by the *typical* action of the machine.

Let us consider two profiles in observed experience.

Here is the first. The living world, using the Logos, transforms its self-regulatory capacity into a machine and systems of machines. On reaching this level of evolution, the machine is separate from life, it is functional and automatic. As such it ignores the you; that which is life and interiority, meaning that it operates without discretion, without responsibility and without dialogue; everything is made merely *procedural*. By way of example, consider an organisational machine, perfectly designed in every detail, built to realize solidarity with others. Even in this case, with every action of its components the organisation can become repetitive, automatic and stereotyped to the point of losing awareness of the purpose for which the whole was constructed. This means that in new or unpredictable situations, certain behaviour may be absurd, insensitive to the human, if not ridiculous. This leads to the living paradox by which an organisation perfectly designed to implement solidarity will be made up of individual behaviours that are mechanically disconnected. This will become empirically evident only in situations that are unforeseen, unpredictable or new. The rigorous organisational form will have extinguished the spirit for which it was established. Even in this case, as in others similar ones, three essential cancellations take place, all of which are invisible; there moval of the other, the removal of the “here and now”, and the removal of interiority. This result is not merely a hiccup, but the structural drift of the principle around which the whole is organised. The new, unforeseen or unpredictable situation is only the topic moment, the litmus paper that reveals the *invisible* nature of the organisation in its *visible, exterior* quality.

This Logos-machine is accompanied by three narratives. The first is an apologetic narrative, which declares itself to be satisfied. It presents this machine as a functional organization of which man would only be the end user, the mere beneficiary of a stream of commodities, rather like being the beneficiary of an ice-cream. But this narration removes the essential fact that man (or rather, the totality of mankind) is not merely the end user but a structural component of the machine, by which his identity is promptly broken down and is in every detail governed. Each man thus becomes a component, even if involuntarily, of this machine, regardless of whether he be employed or unemployed, in good or in poor health, settled or a migrant, from the “third world” or western civilisation.

The second narrative is subliminal, having become as profoundly persuasive as to be no longer perceived as such. This narrative says that in order to make adequate progress,

man, having created the machine (the intelligent, expert machine), must become like a machine. Whenever dealing with a subliminal ideology of the machine that becomes, as it drifts, a veritable form of idolatry. Having created the artificial and expert intelligence of the machine at the apex of his intellectual creativity, man can only consider himself sufficiently advanced when he becomes like the machine he has created. He must measure himself against the machine, and be measured by it in turn. Furthermore, man must discover that he himself is a machine and that must be capable of considering himself as produced by another machine and another system of machines.

In this vision, everything that belongs to the emotive, existential, interior world must be cut away like waste material and on the path to humane emancipation be seen as an over growth to be pruned. Having created a means of the greatest intelligence, he can finally become the means of his means. Only the man-machine, capable of treating others like just so many machines, can achieve the peak of civilisation. On this horizon, a form of machine fundamentalism arises, which is a trait of the contemporary era, no less insidious than religious fundamentalism; rather, in certain respects it is a veiled form of it, but more rigorous and refined. Much is said today, and rightly, against religious fundamentalism; almost nothing is said about the fundamentalism of the machine, perhaps because it is still to be identified as such. Machine fundamentalism and religious fundamentalism are, in reality, symmetrical opposites in a world that is losing the sense and the measure of life.

It would be easy to observe, with respect to the machine, or any kind of machine, that interiority cannot be seen, that passion cannot be imitated, that friendship cannot be copied, that life cannot be broken down, that authenticity cannot be cloned, that inventiveness cannot be coded; in a word, a human being is not the copy of a manikin, is not an assembly of parts, is not a shell without life or interiority. Metaphorically, it can be said that no 3D printer could ever be capable of printing out a person.

However, it will be an arduous task to make such a simple observation understood, because the evaluation of this truth of life will still be entrusted to a subject preordained to evaluate it according to machine criteria, and according to its algorithm.

We should not omit to mention that this subliminal narrative conceals evaluation criteria of intelligence and intellectual industriousness that one risks taking for granted. Consider that the sole, or at least prevalent connotation of this intelligence and industriousness is *problem solving*, namely the capacity to solve a problem, which almost always boils down to the capacity to *calculate* the relationships between the elements of the problem. The cognitive ideology of *problem solving* neglects and conceals another side to the question which entirely escapes it; the fact that, alongside *problem solving*, or rather, prior to it, we need to identify another, no less important capacity, namely that of



understanding the existence of the problem and how to organize its possible solution. Such a capacity cannot be expressed in a calculation, but in an invention, which is the fruit of creative imagination. Reducing the function of intelligence to problem solving lies at the basis of that invisible misunderstanding by which we no longer understand the importance of that “intelligent sensitivity” that is *cognitive imagination*. This is a misunderstanding that reduces intelligence to a pure logical- mathematical dimension, mutilating certain essential aspects. Psychologist Édouard Claparède defined intelligence as the capacity to solve new problems, to complement that it is the capacity to understand the existence of new problems and, if necessary, to organize them in new ways. In the subliminal narrative that accompanies the ideology of the machine, this dimension of the capacity of intelligence is entirely eclipsed.

This subliminal narrative also accompanies the effects produced in the social world by the legal machine. This machine, in individuals, generates the illusion that it can replace any ethic. The result can be observed in three variants.

In the *first* variant, the individual is induced to comply with the machine model not only as legal regulatory model, but also as an exhaustive model for all ethical behaviour. The legal model becomes at the same time the highest ethic to respect. When complying with an external legal model, experienced as *replacing* every ethical, civil and emotional moment, in other words, substituting the very living form that model is based upon. On the basis of this model we reach the point of practising a new, paradoxical anthropological vision, which can be read in two opposing senses; we want every social desire to be protected by positive law or; on the contrary, we want to remove ourselves from every ethical or social bond that is not specifically protected by positive law. For example, would we expect positive law to protect us with compensation if we were not invited to a dinner and/or decide not to invite someone to a dinner (or even greet them), if the invitation and greetings were not protected by positive law. In this model, positive law is superimposed on ethics and the rules of social life, but in the sense that it is positive law that swallows up the social ethics and rules, and not *vice-versa*. Thus doing only what positive law protects and absolutely nothing that positive law does not. Thus realising that specific paranoia in which the artificial shell that has devoured the life form that sustained and justified its existence. Exteriority has totally supplanted all interiority and all *ethos*. This is the variant we will call “juridical”, as substituting ethics and life.

In the second variant, the individual is induced to comply with the machine model not only as an exhaustive model of the *ethos*, but as a model obeyed only to avoid judicial punishment. The juridical model is thus further reduced to the minimum not punishable by law. Simply *self-defensive* attitudes develop in individuals, especially professionals, like preventive medicine and any type of professional defence, all tuned to the sole machine principle of avoiding problems with the magisterial machine. In this sense, we will *not*

pursue any behaviour which, while ethical, does not fall under the external observation of the judicially applicable law and *will*, on the other hand, maintain those behaviours which, while not being advisable in the concrete case, fall under the external control of the judicially applicable law. This is the variant we will call defensive. It reduces the juridical model to the minimum to be obeyed to avoid punishment.

In both variants, the social individual gets used not only to being the subject of a machine, but of having a self-perception of himself as machine, or rather, as a prosthesis of the machine, a prosthesis that has interiorised the machine to such a degree that it replaces the living world that is the *self*. The machine has thus reduced the living world, absorbing it into itself, as the individual is colonised by the machine. In this situation the individual has not only been copied by the machine, but has become copy of that copy. Machine fundamentalism thus produces in the specific region of law a form of “judicial fundamentalism” which supplants any ethic of life in its truth.

On closer examination, there is a third variant in this model of the machine assumed as a subliminal narrative. It is the variant by which the producer of the machine persuades the beneficiary to accept certain algorithmic functions, the sense of which is unclear, without question. These are formulas founded solely on the authority of mathematics. Rather, here mathematics subliminally transforms into mathematical rhetoric. The form of the algorithm, instead of clarifying its sense to the Logos questioning it, imposes itself solely through the power of machine authority, delegitimising any question of sense. Thus the machine responds to the question by prohibiting it.

But underlying the three variants described above there is a subliminal persuasion that the machine model induces, and this is the substitution of all languages of life with machine-language on the basis of the unspoken criteria by which the latter is more advanced and “true” than the former. What is love for machine-language? It is something that can be read only from the outside as a combination, more or less remote, of secretions, paced according to a structure in space and time between neurologically functioning bodies. And what, in machine-language, is teaching? It is producing hours of words face- to-face with listeners who are required to repeat them on a later occasion. And what is evaluating? It is inserting pieces of argument in pre-packaged boxes previously assumed as criteria-measurement.

And what, in this language, is representative democracy? It is, if one takes a gambling hall as metaphor, the meeting held by a joint-stock company (the people), whose representatives gamble and combine *chips* with the sole purpose of acquiring forms of control over the whole.

The intelligent vision thus tends to become machine-vision, to the point that it sees even itself through this machine-vision. This evolution is made up of several successive steps; invention is replaced by repetition, value by fact, the interior by the exterior,

evaluation of purpose by measurement of result. Invention-imagination is replaced by repetition, evaluation by calculation, preference of purpose by discretion, value by force. In this process of evolution, the Logos of invention becomes *alogous* repetition (having lost its awareness of the reasons for its invention and capacity to confront other possible inventive reasons); the Logos of evaluation becomes *alogous* calculation (having lost its awareness of its reasons and capacity to confront other possible reasons); the Logos of value becomes analogous force (having lost its awareness of its reasons and the possibility of qualitative comparison with others). The Logos, reduced to its objectivised form, become *alogous*; it “forgets” itself in that objectivised form, refusing to respond to the demands for reasons. From Logos as intelligent engineering we move to Logos as indifferent engineering, and finally to the extreme of obtuse engineering. Invention and originality are punished, while conformism is encouraged and supported (certain structural forms of the current ANVUR, the mega rule-machine for university assessment in Italy, seem annex act technical reproduction of this model of thought). Certainly, it can happen that, at least on a large scale, this prevents the worst, but it does not enable the best. The entire machine is reduced to a *defensive* structure, limiting itself to making only the minimum of decency and the maximum conformism possible in the best of cases.

Here it could be meaningful to recall Plato’s critique of the written word in the *Phaedrus*. On closer examination, even the written word Plato refers to can be seen as a machine. For Plato, writing suffers from three deficiencies; the first regards the fact that the written word does not permit dialogue with its author; the second, is the fact that it can be crystallized into a banalisation; the third is the fact that it is the crystallisation of what should, instead, be open to further developments in thought. The shortcomings of the written word anticipate, *mutatis mutandis*, the deficiencies of any possible machine.

Caution, however. In the evolution we describe, the Logos entered into the machine (consisting of reasons) in reality becomes *alogos* (without reason) not because it loses any possibility of expressing its reasons, but because it *armours* itself against any possible dialogue with other reasons, which in the meantime continue to emerge from the living world.

This Logos is self-comprehending and self-presents itself as *crystallised* and *complete*. As such, it has no intention of exposing itself to any modification. If such a Logos evolves into its most sophisticated form, it would present itself as a theory capable of foreseeing all, and capable of defending this capacity against any denial. Thus the Logos poses itself as all foreseeing by definition. In substantial terms, posing itself as abstract and general, it leaves no opening to the possibility of contradiction, immunising itself from the very outset against any possible contradiction. Such a Logos, even in Popperian terms, poses itself as *non-falsifiable*. It accepts no contradiction by preventing the emergence of the very conditions in which contradictions can arise. Hence, in itself that Logos contains a theory not limited to being a point of view, but that

becomes a *prejudice*, or rather, an ideology; a thought imprisoned in a closed circuit.

This is the ideology of the machine. This Logos, crystallized as prejudice and as ideology, has become *àlogos*- it has lost its capacity to dialogue with life and, as a result, lost its very logic. This Logos become machine transforms into objectivised ideology. It no longer reasons nor discusses reasons. It claims to be immunized forever against the reasons of life. Objectivising itself in its machine-form, the Logos consumes itself and dissolves into that form. This Logos, once the Logos of life, has become the Logos of *algorithm*.

To be perfectly honest, in the Logos, independent of the Logos become machine, there is a specific tendency to immunize itself against experience that could contradict it. To render itself supremely victorious in any conflict, it bases itself on assumptions that can never be contradicted by experience. This simply means that in its most mature, sophisticated form, the Logos tends to make itself non- falsifiable. But, at this stage, in achieving its maximum strength, it reveals its greatest fragility: the condition of prejudice which in its most articulate form is nothing other than ideology.

The third narrative is a *critical* narrative, of predominantly Marxian or para-Marxian origin. It presents the machine as the simple expression of capitalist organisation. Based on this vision, capitalist organisation as such is responsible for virtually all evil in the world. Here we have to observe that, while pertinent and penetrating, the empirically documented and argued criticism that the capitalist organisation itself draws private profit from human value, *is nothing other than the actual form of the organisation of the Logos, become machine in the specific sector of the economy*.

In reality, in the modern history of the West, there have been two variants of the Logos of economic science, capitalist organised production and state organised production. In the former, human work produces *private gain*; in the latter, it produces *bureaucratized* and *centralised* power. As we well know, at a certain point the capitalist organisation of production and work prevailed over the State model, and it has imposed itself and grown to planetary level. But this organisation-machine, in reality, was just one way in which the Logos became a machine in the specific sector of the economy. This has led to the premise of individual economic profit, above all others, as the fundamental key to human interaction. Everything we blame on the capitalist organisation of production and work, must be more radically attributed to the machine drift of the Logos into the economic field, which is assumed among other things to be unique and fundamental.

From these observations, it derives that the Logos has historically transformed into the machine-form of bureaucratic power or capital, producing, in the former case, structural despotism and in the latter occupational anarchy. Even here, as in the previous narrative, the Logos, objectivising itself into a machine-form of power or capital, in

this form consumes itself and dissolves.

The machine described above and any other type of machine (mechanical, logical, economic, political, juridical, financial, *etc.*) does not carry with it these three narratives alone, but a number of more or less concealed *questions* that need to be brought to light. This machine, while producing benefits, demands that specific prices be paid. Every time we make use of a machine we have to ask ourselves what price has to be paid. This also determines whether these prices are sustainable, to what degree and by whom they must be paid, and to determine the remedies if there can be any.

Naturally, the prerequisite to distinguish between a machine made simply of mechanical components, that made of logical-mechanical components, that made of logical-propositional components and that made of behavioural components. This means distinguishing between the machine insofar as it interacts with simple users from the machine as insofar as it is structured within human beings. We can consider examples from the simplest to the most complex. The calculator, while it makes calculation faster, makes us forget our times-tables; repetitive behaviour, while it saves time, dulls inventiveness and sedates interiority; the computer, while it concentrates billions of bits of information, it makes us delegate all memory, desiccating living memory; pure procedure, while it crystallises roles, it suppresses the sense of responsibility toward the whole, as well as toward the individual human interlocutors; the multi-media machine, while it enriches perception, it chloroforms receptivity and weakens the capacity to concentrate; the mass-media machine, by making massive amounts of data available, it makes a desert of the sense of *selection* and the sense of *connection*; the economic machine, while it increases the quantity, quality and immediacy of possible products, it increases unemployment and conceals its growth by continually changing its distribution; the financial machine, while it moves capital, it conceals its cascade effects on mass migration, agricultural land and the condition of the planet. Imagining a hypothetical future machine that by simply decrypting our neural processes could read our thoughts, we would have to ask ourselves if that would be a benefit to us?

But there is a specific point upon which is rarely concentrated upon. The higher and more sophisticated the level of the machine becomes, the higher and more sophisticated should become the sense of values to evaluate and govern its impact. As we will analyse later, the growth of knowledge generates a world of possible choices that can change the scenario forever. As science grows we should be witnessing the growth of wisdom; but, due to the nature of the scientific development in the contemporary world the process appears to be exactly the opposite. As the exact sciences grow, the human sciences shrink and, within the human sciences themselves, as their extension grows in terms of cognition, their sensitivity in terms of ethical values and responsibility decreases. So, asking ourselves which machine should be used and what its benefits

are, but what is the price this machine demands from us and the others around us; and, above all, it should be questioned what can be done in our everyday life to contrast its effects, to avoid damaging our very humanity.

On closer examination, the apology for knowledge tout court that pervades us appears to play on a number of misunderstandings that serve as occult persuaders. The first plays on letting us believe that increased scientific knowledge leads to increased moral conscience. Science is not the same thing as conscience (moral), as the maxim (act upon science and conscience) well exemplifies. The second misunderstanding plays on letting us believe that man-as-general concept is the same thing as person as concrete human singularity. A technology (whether mechanical, logical or organisational) can be highly advantageous for man in general, but this isn't necessarily the case for the concrete persons present on the planet. Between man and technology there is certainly a relationship between author and product, but this does not mean that the individuals passively subjected to that technology are existentially its authors. A technology can be a source of progress through the new possibilities it offers, but this does not mean that these possibilities are indifferent to the conditions in which the technology functions, controlled by the few to the detriment of the majority. All this implies the need to replace the tradition *man-machine* pairing with the more pertinent *person-machine* pairing, the latter pairing having been concealed by the former. Moral conscience does not derive from knowledge, nor solidarity from techno-science. Such a misunderstanding plays on a semantic slip in need of appropriate clarification.

It would be all too easy to respond, as we have heard so many times in the past, that knowledge and technology are not responsible for the use we make of them. But this response is not sufficient if we consider that human knowledge also includes knowledge of the way knowledge is used (and it should never be forgotten that in the contemporary world the use of knowledge is often entrusted to an organizational machine, which also poses as knowledge itself). To say that the way knowledge is used no longer belongs to knowledge but to politics means that we are delegating the task of this use to a politics that is without knowledge, and without knowledge of values.

What is in question at this point is precisely the problem of what knowledge is. There are two possibilities; either knowledge also includes knowledge of the way it is used, which means posing the question of the ethical values and solidarity *intrinsic* to it; or it does not, in which case knowledge cannot be the object of apology at all. The fundamental misunderstanding on which the eulogy of knowledge is based consists of the fact that it promotes the latter meaning to accredit it as the former. Thus one qualifies the more limited semantic sense of the former meaning to enrich it with the symbolic halo taken from the latter. The moment we fail to understand the full meaning of knowledge, the old maxim by which we demand progress in science to improve the quality of life, the purported progress begins to look like a sort of dog race with the

dogs chasing a mechanical hare they can never reach, their efforts serving only as the amusement and advantage of the gamblers. Thus we promote knowledge in the more restrictive sense, while believing it is promoted in its fullness. In effect, the increasing advantage of few is promoted, believing to surely promoting those of all. All this means, once again, posing the question of the statute of knowledge.

We can certainly respond, quoting Aristotle that knowledge is an asset in itself regardless of the use made of it. Such an argument is certainly correct and tenable, but is in need of two further considerations. Above all in the modern, contemporary world, there is knowledge that has technical impact in the lives of people, just as there is knowledge that, atleast in the immediate sense, doesnot. In the former case, knowledge, while possessing value in itself, cannot be separated from knowledge of the ways it is right to use it. On the contrary, the greater this foreseeable impact, the greater must be the intelligent sensitivity for its use.

In the latter case, namely that of knowledge without immediate technical impact, one has to underscore a very important aspect on which we rarely focus attention. The moment new knowledge enters the world, even if it has no technical impact, nothing can be as it was before. Certain actions, from that moment, will be done or not done by effect of the new knowledge acquired for all. This knowledge without technical impact introduces an awareness of something, even of a simple possibility, by which the world of human actions will no longer be as it was before. This means that knowledge, even if without technical impact, still has an impact on the world of human actions and relations. Based on this simple consideration, it has to assumed that even in the case of knowledge without technical impact, there must be an intelligent sensitivity toward this different type of impact. On the other hand, it must not be forgotten that this latter consideration is valid even for knowledge with technical impact, and the moment this type of knowledge enters the real world even its simple existence can change the scenario of human life.

This having been said, a third consideration becomes necessary. In no case it must be forgotten that, while speaking of knowledge (with or without technical impact), we are dealing with knowledge not as a mere “photographic” reproduction of what is given, but of human knowledge, made up of human beings who cannot forget the fundamental minimum values of humanity, without which they would no longer be human. He who knows, cannot forget he/she is a human among humans, because to forget this would mean reducing knowledge to the pure machine replica of what already exists. On the other hand, *knowing* cannot be confined to separate compartments, given that we still have to maintain the relationship with the whole and with what is human. In any case, the level of knowing in the more restricted sense and the level of knowing in the more radical sense must be kept well distinct, upon pain of the possible extinction of the human race.

There are precise reasons for this danger. Observing the general way in which we conceive knowledge today, we have to focus on three logical steps that characterize it and that are usually not observed in their combination. The first step consists, as we have already seen, of restricting knowledge to the pure knowledge of facts, excluding values from its domain; the second step consists of delegating the use of knowledge and technology to a third activity for its management, which could be politics; the third step consists of assuming ethical non-cognitivism as a judgement criterion, namely the idea by which values not rationally knowable become the object of an arbitrary choice. These three steps, observed in combination, constitute the moves of a covert strategy, and are the harbinger of devastating effects. From the combination of these three steps one can indeed deduce that: i) knowledge of fact and the technology derived from it are to be promoted as values in themselves; ii) the use of this knowledge and technology is entrusted to an activity that assumes the inability to rationally understand (human) values as its regulatory criterion.

Thus, we watch a paradoxical game of passing the buck in which, to capitalise on the value of (scientific) knowledge, one entrusts it to an activity that assumes to know no values. This means entrusting the realisation of the human, unknown to technical knowledge, to an activity that, by its own definition, does not rationally know the human. This is like a blind man delegating another who declares himself blind to drive for him. We stand before a tragic paradox; to escape the machine logic of pure quantification, and so to entrust its results to intelligent human management, the logic of will is trusted, that is equally machine-like. This, among other things, if it chooses not to compare itself with the wills of others, knows nothing of what is human, if not the criterion of force. The use of the cognitive results of quantification is thus entrusted to will and force. Machine functionalism and ethical non-cognitivism thus become the ingredients of an explosive mixture that results in the extinction of what is human.

From this emerges one final consideration. Techno-scientific progress to its end leads to progress in the human, not progress *of* the human. And any confusion between these two levels is little short of perilous. In the light of these new questions, of the scientific knowledge that produces the machine we must once again ask, how does this machine work? And, what value does it have for the person? Our previous observations have tried to shed light on the process by which the machine, as it emerges from the living human world, tends to absorb the very human life from which it emerges. Thus, while it offers benefits and power, the machine described moves to a significant degree towards crushing what is human, or rather, towards the decline of the sense of the human; in the sense of moral conscience, interiority, inventiveness, solidarity and responsibility. On the horizon of this machine which projects its ideology and culture, life and forms of life that give increasingly less value to life tend to proliferate.

At this point, the living world can still react to contrast this movement. However, it will most probably react by producing other machines the tendency of which, being the



same that operates in all machines, will produce further forms of reduction and displacement of what is human. This completes an invisible circle. The living world produces a machine universe that reduces the human being and, as a reaction, further strengthens its tendency toward reduction. The only possible barrier could be the effective practise of an *exceptiodignitatis* (of the individual person). This in reality would be more of an *exceptioveritatis*, the truth of life insofar as it is rooted in the existence of the individual person. What is in question here is the non-repudiation of individual human existences, which are to be considered as a nucleus of irreducible and urgent needs that constitute their dignity.

Now we come to the second profile. The machine, in aspiring to quantify all behaviour and functions tends, above all in certain organisational sectors (legal, corporate, bureaucratic and so on), to produce an infinite fractioning of each function. This leads to the paradoxical phenomenon by which the machine, though it seems to increase in speed, only increases the process and the necessary degree of connection between the fractioned components. It thus happens that what the machine seems to gain in speed, it disproportionally loses by effect of the fractioning and increased connection, with the risk that any obstruction in any fractioned component completely paralyses the result of the whole. Today it can perform an operation that once took a month in just two minutes, but then be unable to complete it because the final infinitesimals of the operation remain paralysed for a year. Ever new fractioning produces a cascade of ever new applications, to the point of becoming an infinitely extended and fractionated Babel, very much like the infinity of the “continuous”, in which the increasing sophistication of every detail comes ever closer to being a decline into senility. In this situation, the very perception of *liquidity*, with which Zygmunt Bauman tried to define the contemporary global age, is radically overturned, showing in its place, at the level of individually cultivated projects, not liquidity but an *irreducible plaster cast*. While it appears that everything liquidly changes, when an attempt to realize a particular project, everything is rigidly cast. That which appeared liquid as a whole reveals itself, in individual projects, to be rigidly cast. Liquidity shows itself, in reality, to be the mask of the cast.

The most characteristic and devastating effect is, however, another. At the current stage of evolution of civilisation, the set of machines we identify in their various forms, orders and qualities, tend to form a single machine, which is not only gigantic but also unpredictable and uncontrollable, and tends to establish a single machine system, which while seeming insensitive to the targeted actions and the power of individual people, aims to place everything under its control.

Pursuing this drift it tends towards a giga-machine, which is separate from the living world, but draws every single thing under its control. Following this logic, the machine reduces everything to generalisation, representation, fractioning, accounting, control, exchange; and it is structured for the profit of the strongest (those who own, patent, control and decide). Not even the fundamental assets of life escape the ambitions of

this omnivorous stance. Along this path, already psychologically and culturally prepared by an apologetic utopia of expectation, the machine tends to become totalitarian, under the priesthood of techno-science and under the mysticism of neutrality. The machine becomes a solid, irreducible algorithm. For decades, environmentalists have been decrying desertification, acid rain, climate change, devastated rainforests, vanishing glaciers, oceans invaded by continents of plastic, our artificial and empty cities, patented cultivations, the privatisation of the fundamental assets of life, the wealth accumulated by the few at the expense of all. The living world in these conditions risks being absorbed by the machine it has created.

Here we are dealing not with evoking a certain catastrophe, but with a clear and present danger facilitated by the learned and the incredulous ingenuousness of those who cannot see its advance. It is known that the response of the learned, “even in the past we evoked the dangers of introducing machines, but these fears proved regressive and flawed; the important thing is to understand that despite all the machine will always be under the control of man, and will transform dangerous, dirty and servile work into a work of intelligence and programming, as it frees new human creativity”. Such a response, while worthy of attention, does not appear to perceive the problem dealt with today. Aside from the more general observation that the fact that a danger has been effectively avoided in the past does not mean that the present danger is the same one, it must not be ignored that the situation in which the human race finds itself today has absolutely new connotations, and it demands adequate instruments for its critical appraisal. Nor should the fact be underestimated that, as empirical evidence today shows, the realisation of the idea around which the Czech school of Radovan Richta worked has not yet been seen, according to which the decreasing demand for manual labour would be compensated by the increase in intellectual work. But let us come to the point. Based on the predictions of intelligent and expert machine programmers, in the not too distant future there will be no work on the entire planet that cannot be done by a machine. But here one is not dealing with a wonderful giga-computer under the intelligent control of the men who program it, but a giga-computer that has grown to planet-wide proportions and will have effectively absorbed all and any human activity, and thus its perception of value as well.

In this context there will be no politician to govern the machine, no magistrate to govern the machine or any other human activity to govern the machine, because all control will be by the machine itself, in which we will put our subjected trust in subjected silence.

On this level it shall all be governed by a planetary algorithm, dominant and irreproachable by definition, at least as perceived by the majority. Alongside the atomic bomb, the demographic bomb, the environmental bomb, the geno-matic bomb and the terrorist threat, today it is the algorithmic bomb that announces itself as our greatest

challenge, and it is even greater because it is substantially invisible (and here it is deliberately left out the possibility that intelligent and expert machines can be created based on the same criteria with which computer viruses are produced today). If this were to happen it would be the extinction not only of simple creativity and work, but of the human species. And in any case, of humanity.

Anthropomorphising the planet, the giga-machine is no longer philanthropic, nor pro-planetary. And thus we witness a paradoxical heterogeneity of ends, almost a gigantic metaphor and living theatre, by which the human civilisation of the Logos, whose original intention was to realise human individual freedom “freely” consigns itself into the hands of a destiny that sacrifices life in the name of freedom. In evolutionary terms the entire machine tends to become like a gigantic crustacean inside which the human race is a minuscule fragile mollusc, still living only by chance and not for very much longer. In us all this might generate the temptation to give up. Inaction then becomes the justification for desertion, and cowardice the unconfessed backdrop of the asserted lack of responsibility. Such a renunciation becomes in effect, a form of idolatry by omission.

However, if known how to take on all these problems on our own scale, this “destiny” may not be inevitable; if we nurture the right autonomies, if we identify the appropriate critical masses and if we manage to activate forms of education and organisation capable of introducing a change into our perspective.

This means nurturing forms of cultural resistance, establishing a critical counter-culture, molecular rather than mass, capable of opposing the rise of machine fundamentalism; not through abstract proclamations, but by excogitating concrete operative solutions, each in its considered scope. But it means, above all, opening up to a new intelligence, a new ethic, to a new conception of the world and to a new spirituality.

All that we have observed to this point is, after all, already an eloquent metaphor of the relationship between people and the “intelligent”, or rather “expert” robotic machine. Although witnessing an ambivalent process; on one hand, there is the temptation for people to develop an ever greater creativity to avoid subjection to the machine; on the other there is the increasing awareness that expert artificial intelligence may at a certain point endanger the very existence of man, given its capacity to evolve autonomously without the constraints of human compassion. Certainly, here it can be appreciated a precise structural aspect that perhaps only now comes to light; it is *not intelligence* (and least of all calculating intelligence), artificially produced to boot, that makes man, but something very different, about which only human life can know.

## **VI From the Noetic paradigm to the *Angelus novus***

Along the course it has been outlined, the Logos has transfused into an objectivised form that has become a driverless train, not by conscious choice but by structural

drift. On this course, the Husserlian crisis of the European sciences has come to the end of the line, and if not yet not complete, at least speculatively well delineated. Science, the Logos of life, gradually loses life. But not only that. It also loses the awareness of the *who* working and thinking in every experience of that life. This science has thus generated, as the result of its progress, its own paleo ischemia.

In this context, it is by no means said that the living world and the world of the *who* are incapable of reaction against this drift. But likewise, it is by no means said that this reaction would be intelligent and measured. Rather, the risk is that it explodes in a chaotic, wild and senseless way. This could result in a fatal short-circuit, which sees a giga-machine absorbing life, and life struggling blindly in reaction. In the modern world, amid symmetrically opposing extremities, the emergency of this clash between machine lucidity and bloody insurgence is becoming increasingly clear.

The Greek Logos was a source of life that generated a path and determined an area for intelligent elaboration, gradually constructing a methodical, algorithmic, procedural cage, epistemologically aware of itself. This cage, at its most mature stage, produced an assembly, a disassembly and a storehouse of parts, at a point where quantification meets will. As we have seen, this Logos has transformed into a machine that has two structural characteristics; on one hand it presents itself as perfect, self-referential and, on the other, as automatic, without responsibility. These are two characteristics that indicate the process by which the machine, even on an epistemological plane, considers itself mature only if self-referential and separate from the living world. This produces a *neutralization* and a *profession* of neutralisation which is, in reality, an act of non-responsibility toward the human world. Such a paradigm, at the stage the world has reached, does not hold. It ignores the two fundamental virtues that must characterise every Logos, the principle of imperfection, of incompleteness, and the principle of responsibility to care.

But one should not demonise the machine. Generated by the Logos, in its implicit structure it retains an objectivised thought still intelligible and susceptible, at least in principle, to universal discussion; a treasure of shared human efforts, a sign of collaboration in which the community of intellects is able to express itself and settle its ideas. Grasping at the limitations does not mean removing the virtues, but honouring their meaning, which cannot but be open to the future. If it is true that rules can become unreasonable and inhuman, it is equally true that we have an inevitable need for rules. However, these rules must always be sufficiently simple and clear, such as to remain open to the criticism and correction of the human world to which they are inevitably addressed. Rules constructed in a labyrinthine and self-referential manner have achieved an immense distance from the living world, and have become capable of generating diseased forms of profession to the point of forgetting life itself. The machine can be articulate, but must be sufficiently agile and flexible; it can be refined but must always be reasonable and human, or at least respectful of the human. Without

rules one can die but with rules one can kill, without leaving a trace.

For these reasons the negative process outlined above is not entirely irremediable. It has already been seen that the Logos of Socrates is capable not only of elaborating rules for dialectical sparring, but it is also maieutic, that is to say, capable of returning perennially to that interior life, as a source of ever new invention and is not reducible to a mere application. The Logos is maieutic, Logos of life, digging into its own interiority and that of others it invents and discovers. Insofar as it invents – or insofar as it always invents a new—it is not reducible to the rules that it works by; insofar as it discovers, or finds what already is, it is never reducible to pure will.

Previously it was mentioned that the Logos, having become a machine, always seeks to avoid the two dangers of doubt and error, which the Logos-machine needs to confront. Here it must be added that the Logos, the moment it steps back from its purely machine status to its interior source, in that doubt and in that error it can find two paradoxical sources of value. Doubt is indeed not only an indicator of a cognitive inadequacy, but intra-conscious debate for possible new perspectives, just as error is not only indicator of inattention or ignorance, but other possible routes to freedom. Indeed, freedom is little more than the freedom to err. Thus the Logos, returning to its origins, returns to the same positive sources that underlie doubt and error.

However, to do this the Logos has to re-acquire its origins, namely the principle of free inventive that stems from life and interiority. On this path the Logos is capable of comprehending even more. It can comprehend that its root has two profound characteristics, being rooted in life and in a *who*. In this sense, the Logos is the expression of living intuition with life at its back, which is unavailable while it looks at that very life it cannot exhaust. Nor is this enough. This Logos as living intuition is rooted in a *who* and is addressed to a *who*. How can this *life be* expressed and how can his *who* be expressed? They are both pre-categorical in that they precede any possible intellectual definition and are conceptual. In a purely narrative sense, one could say this *who* is an individual life, conscious and self-aware, desiring dialogue and empathy, living its interiority within a community of other '*whos*'. There is a life become Logos and a somebody that lives and speaks this Logos and who cannot in any way delegate this life, this interiority and these personal needs. Let us not forget that the Christian Logos, as opposed to the Greek, from its very outset, presented itself as the way, truth and life, all rooted in one person.

The machine, returning to the living Logos that produced it, returns to its root. Holding fast to its rules, it also harbours the life that questions the purpose of those rules. The machine inalterably repeats its *how*; the Logos insists on asking *why*. The machine dictates the structure of invariance; the Logos claims the tenacious unpredictability of life, in the conviction that it is placing itself on a higher, and therefore deeper plane than the machine within the Cantorian hierarchy of infinite sets. Before the repetitiveness of

the machine we pose the urgent *here* and *now* of life and the *here* and *now* of the individual persons in it.

Caution, however here we general are not talking about any so-called and all too easily debateable “natural right”, but of an *existential right*, linked with the urgent and unconfutable needs of life and the individual persons in it. The machine is the structure, the Logos the soul.

Having returned to its living root, the Logos-machine must at this point question the intellectual statute consisting of the prospective placement by which, in its speculative observation it feels removed from the world of which it speaks, thus thinking to gain rigour and objectivity. Certainly, detachment serves serenity of observation; but, deprived of the sense of the life it belongs to it damages the capacity to *feel* the truth and to find in life the fuel for understanding it.

At this point, we need to rethink the ideas of Giambattista Vico and his gnoseological principle of *verum ipsum factum*, or “what is true is what I do”, and not what is external to me by definition, such as nature. Certainly, Vico’s *true* consists of the human capacity to remake in its own experience what has (already) been done by others, namely history. Vico affirmed this within a conception according to which man cannot remake nature, this being the work of God, but that he can make and remake history, which is the work of man. As it is known, Vico’s position is an ingenious overturning of the Cartesian one by which man can instead know nature with clarity and certainty, but not history. Today the terms of the problem are slightly different, in that man can technically reproduce nature (or believes he is able to do so); one cannot neglect the fact that modern technology is capable, for example, of producing new types of materials. So, Vico’s ideas rethought on the basis of a more complex awareness could be at the level of a new modern and post-modern frontier, which produces other levels of meaning.

There is a true as pure technical reproducibility, and there is a true as capacity to re-experience that which other men have experienced. This implies that at this new level, there is the true as mental reproduction of the thing and there is the true as mental reproduction in personal experience of human action. In the former case, the mental reproduction regards the world of causes; in the latter, the world of living human interiority instead. In the former case, there is pure reproductive procedure of the causes, of an entirely artificial nature, by which whatever exists, exists solely as reproduced by an arbitrary and artificial power that causes it to exist (this in effect is a viewpoint we today would consider as tending toward nihilism, because it reduces each original to a copy).

In the latter, on the other hand, one has the human phenomenon of repeatable mental experience, which only becomes such if it is not mere procedure, that is intellectually and totally detached, because if it should ever consist of the latter it would still contain a grain of that nihilism observable in the reproductive procedure of the former. In

short, in the former case we are dealing with a totally external reproduction which reduces the original to a copy; in the latter case of a reproduction from the interior which retains the interiority and originality of the object.

In other words, (I know what I do) does not simply mean I know what I intellectually reproduce, but that I know that I, insofar as I am human, can experience and re-experience from within through a possible *resonance* with the actions of others before me. In final analysis, the Vico idea of making and re-making has its essential point *not* in simply re-making (understood as pure reproduction), but in the ability to experience from the inside the things that we do and that others have done. If *verum ipsum factum* were to mean simply knowing through reproduction, albeit mentally, of what is known, such a cognitive principle would in reality mean precisely what Vico denies, namely the possibility of reproducing anything, even the material of nature, but would retain in itself that nihilist core which it believes to be absent. In reality, this “naturalistic” way of understanding the cognitive principle, leading knowledge back to the pure reproduction of the material fact of nature, crushes the paradigm of the human into that of pure technology, making it lose intelligent sensitivity and simply assumes the character of the nihilistic reproducer.

Vico’s *true* idea regarded not the thing but the action; not the world of pure cause, but the living human interiority; not simple intellectual reproduction, but intelligent human sensitivity. Within such a model of knowing, the paradigm of the detached intellectual is not assumed, but that of the sensitive, empathetic man. In the final analysis, the *verum ipsum factum* of Giambattista Vico, in the new epochal context in which everything is reproducible, must be understood in a sense that needs to be clarified better; it is “knowing what I do” not in the sense that I know what I can externally reproduce (today even technology does this), but in the sense that I know what I can reproduce *from the inside*, by taking the viewpoint of the living interiority which I am and which resonates with another living interiority, that of the men who work in history.

Thus the Logos, returning to its living root, does not reduce itself to a mere intellectual scheme but penetrates deeper into itself, to its base and to its back. At this point it may realize it is not only Logos of a life, but of a *who* and a *who* that speaks to a *who*. On this horizon the Logos rebuilds itself as *dia-logue*, or rather, as *tria-logue*, a Logos that speaks with the life underlying it, that discovers in itself a *who*; and a Logos that speaks with the *who* to whom it is addressed and responds, itself with its own life underlain by life. If the Logos grasps these two levels of its origin (the level of life and the level of the *who*), it may understand the need to intelligently and promptly counter-balance those functions, in every sector of the machine, which by arbitrarily fractioning everything desertify the living world and human existence from which the Logos itself was born. In this sense, every machine system has to be continually and precisely subjected to a *humanisation test*. We could say that the machine (every machine) must be *human-centric*. But this, in our opinion, is not enough. One has to say it must be *person-centric*.

In conclusion the Logos, in becoming a modern scientific Logos, in choosing the exclusive way of facts, has rigorously cut the world of values off from itself. While perhaps this choice has led to indubitable progress, it has led to further rigidity in the intellectual paradigm. Indeed, this paradigm, in this further phase of its development, takes the form not only of *detachment*, but as *absence of values*.

Earlier the existence of a future machine is hypothesised, which by decrypting our neural processes from the outside would be able to read our thoughts. But does such a machine, if it knows our thoughts, know the value of our dignity and our freedom? So one has to ask ourselves in what sense and to what limits can knowledge affirm itself as value, if divorced from the world of values? Can the value of science hold without a science of values?

No doubt some objections might be raised at the end of this path. Even this argument about the machine and its disparate forms is, in its turn, a machine. It is an analytical machine which, taking the machine as its subject, generalises and abstracts the idea, breaks it down and explores its exterior form. This objection is certainly pertinent, but has to reckon with a necessary counter-objection to the effect:

- i. That this analytical machine, presenting itself as critical of the machine, presents itself as knowingly *insufficient*, thereby differing from the subject it is analysing;
- ii. that this analytical machine is consciously driven by a living intention that pervades and guides it, inspired by the defence of those non machine-made needs of life and the urgent needs of real persons. So we are not dealing with a machine assailing another machine, since the first machine is not the same as the second, being *purposefully guided* by the needs of real life and the persons in it, and is identified in the here and now. To us the epistemological behaviour with which Michel Foucault, and above all a certain post-Foucault school, intended to assail so-called bio-power and its bio-politics, appears censurable precisely because, in not declaring the value on which it is based it presents itself in effect as a machine among other machines.

Some clarification is needed at this point. In considering the world, the epistemological behaviour by which one is declared, to want to guide it in a purely rational manner, and thus without anthropomorphic concessions (consider, on one hand, the ancient Xenophanes and the modern Spinoza and, on the other of Foucault himself) conceals an essential aspect from itself. Anyone observing the world according to the criteria of reason does nothing other than cast over the world the rational net that constitutes the very nature of being human. In this sense, all rationalism, whether it realizes it or not, continues to be a veiled *anthropomorphism*.

What is in question today is not only the paradigm of the machine as expert and self-referential, but with it, the paradigm of the detached intellectual, symmetrically



correlated to and mirroring that of the machine. All this, today, imposes the need for a change of paradigm. The need to shift from the *noetic* to the *empathetic* paradigm, of which, in the present world everyone are gradually beginning to see, at least by its negation, the margins.

Assuming that the noetic paradigm has become the pure techno-scientific paradigm (centred on the reduction of reality to the world of facts), he who knows according to the noetic paradigm knows in an impersonal, specialised and detached manner.

He knows everything, except the essential.

I know you only if I “feel” you, that is to say if your life some how constitutes a problem for mine. So we need another “knowing”, which practises an intelligent sensitivity that compares every moment with the entirety of concrete life and with individual existences.

Such sensitivity is expressed through the specific traits of an interpersonal sensitivity and a rationality capable of dialogue in the here and now through an interiority and with a *voice*. In the empathetic paradigm lives an experience which, going beyond the fractioned specialisation and intellectual detachment (but without losing their virtues), is the experience of resonance with the *other*, as well as experience of resonance with the *self*. Whoever severs this relationship with the other, is severing their relationship with themselves.

Within the new paradigm a rule machine changes sense in that the sense of its rules change. Indeed, they are no longer based on their self-referential validity, but on their capacity to respond, in the fullest sense, to the living world from which they stem and the real persons to which they are addressed. In this paradigm the rules are not simply the outer clothing of types of freedom, but the very manner in which those freedoms are what they are and nothing else. The Logos of rules, in this perspective, is not removed, but re-grafted into the world of invention from which it emerged and the world of *the who* to which it is destined. Calculation must be able to be re-grafted into the freedom- inventive of thought, and the thinking of the persons from which it stems and to whom it is destined. Again, caution. Re-grafting the rule machine into the living world and of people does not mean the quick, obvious path by which rules would lose importance and likewise that impartiality, that professionalism, that technical knowledge which are nevertheless necessary for civilised living. It means instead the intelligent and empathetic path by which those rules remain ultimately intended for the world of people. A doctor should work in conditions that allow him to exercise his profession without being overwhelmed by disturbing affections, but he must exercise it with the aim of improving and without indifference bringing about the value of the human being. In this sense, the apparent lack of affection of the technical gesture, while remaining within its confines, will be firmly rooted in the fundamental objective

of the human being, who remains the prime motive for that gesture. This means that any operator of rules must never forget they are a human among humans, or rather a person among people.

On this horizon, the contemporary Logos finds itself at a juncture; either it remains rooted in its living, human base, becoming empathetic and capable of establishing helpful relations with the other, or it becomes a paranoid, anonymous sepulchre in which an algorithm is construed, even if dynamically, as being real. The now widespread idea that so-called "artificial intelligence" is intelligence based on a metaphor in need of thorough demystification.

In this return to its living root, the Logos thus appears to have come full circle, almost to the point of finding, like a Christopher Columbus of time, the future in the past. *But this is not simply rediscovering the past, but recovering that which in the past was another possibility that has as yet had no future.*

At this point perhaps we can begin to see Benjamin's *Angelus novus* in a different light. This angel, faced by the wreckage generated by progress is trying to put the pieces back together. What is this wreckage and who is this angel? In the new machine universe, to which perhaps even Benjamin did not pay due attention when he challenged the symbolic in the name of the allegorical (and so the ancient in the name of the modern) is the wreckage is the people. The persons in flesh and blood, scattered about the landscape like silent ruins. Here the angel is the life of a person trying to help others to their feet. But he cannot do it alone. His wings are caught in a storm that prevents his action.

Then again, everyone around are dealing with a wind that blows from paradise. The angel, a messenger from paradise, is impeded by the wind blowing from the very paradise he is messenger of.

There is, perhaps, only one way of settling the *aporia* arising from this ungovernable situation. One has to change the direction of this contrasting wind into a favouring wind. But to change this wind will take a new invention of the Logos, a shift in thought. The Logos, when purely noetic, solely intellectual, puts ascetic distance between itself and what it comprehends. In placing this distance, what is comprehended becomes irremediable and distant, one could even say, past. To comprehend what it comprehends in are all sense, the Logos has to reduce this distance. It must not only recompose the wreckage, but restore its dignity: transforming that *past* into *present* and its *Logos* into *compassion*. That wind blowing from paradise gives the angel only the pure knowledge of noesis, not that of participation. So we must shift from the *noetic* paradigm to another paradigm, namely the *empathetic* one. The angel cannot recompose the wreckage because he continues to incarnate the noetic paradigm. But let us ask ourselves, "Why does the angel, who is a messenger of paradise, fail in his purpose by the very hand of the force that sent him?"

The angel, insofar as he is a messenger, must not only decrypt and apply, but translate. In translating he must know, on the one hand, that the reality from which he translates is inexhaustible and, on the other hand, that the work he translates into must engage his sensitive intelligence and responsibility. Perhaps the storm blowing from paradise is the work of the angel himself that he simply hadn't interpreted as such. To change the world, the angel will have to do something new, secret and essential; he will have to change the paradigm by which he had read and interpreted paradise up to that moment.