A World of Infinite Relationships

Historical Excursion Around the Theory of Mind[1]

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> *'I think, therefore I am [...] I came to know that I was a substance whose entire essence or nature consists in thinking, and which does not need any place to exist, nor does it depend on any material thing. So that this I, that is, the soul, by which I am what I am, is entirely distinct from the body, and is indeed easier to know than the body; and even if this were not so, it would not cease to be all that it is' (René Descartes, Discourse on Method).*
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> *'Here is Descartes' error, the abysmal separation of body and mind' (Antonio Damasio, Descartes' Error).*
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> *'The philosophy of mind is distinguished from other current philosophical fields by the fact that all its most famous and influential theories are false' (John Searle, The Mind).*

As interesting as Damasio's book is, we do not entirely agree with his version of Descartes' so-called fallacy. Indeed, Descartes was quite consistent: for him, the soul is separate not only from the body but also from the environment in which the body moves. In the effort to reduce complexity to simple elements to the point of hypothesising the animal-machine, treating the soul like the other mechanisms of the body or like the objects of nature would have been a problem. Excluding the possibility of eliminating the spiritual element, identified with one's own being ('I, the soul'), this element had to remain distinct from the whole. And since it could not help but communicate with the body, it did so through a 'bridge' identified in the pineal gland. This may make us smile, but from the point of view of the whole it did not make a wrinkle, the important thing was to postulate that the soul existed and had a special nature. Once its existence was asserted, it could not be placed at the tail end of

[1] The text is a development of the working meeting (additions, questions, answers, etc.) opened after the report published on the pages precedents.

the ‘mechanical’ body, it had to be in front of everything and interact with everything. Descartes, however, is the first philosopher to lay the foundations for a modern theory of knowledge with the Method. His recourse to geometric simplifications and reasoning against deceptive perceptions is contemporary with that of the scientist Galileo, but at that time the fusion of philosophy and science was not yet possible (and at the same time no longer is).

Even religions produce their own logic, once they have imposed themselves. Anselm of Aosta had developed an argument similar to Descartes' to prove the existence of God. Let us put our knowledge to the test by starting with doubt: if we say that God does not exist, we cannot prove it; if we say that he exists, this implies that he is perfect, and the first quality of perfection is that he exists. The same applies to free will: if there is a Day of Judgement, once man loses his purity through original sin, he must be able to sin. Ergo, the contradiction between predestination and will is resolved. The history of philosophy, and of man-made theories in general, abounds with purported ‘ontological proofs of the existence of something’, and sometimes the perception of that ‘something’ is mistaken for reality pure and simple. For example: ‘I think of the working class, therefore it exists’ is neither proof nor a meaningful proposition, firstly, because I may be thinking wrongly; secondly and above all, because the proletariat is only a statistical ensemble of bourgeois society if it does not develop its own political organ (in a completely different sense from the current one), if it does not leap from the condition of ‘class in itself’ to that of ‘class for itself’, as the classics put it. Yet who keeps this fact in mind when taking the field to make themselves useful to the revolution? For now, activism reigns supreme.

Everyone is convinced that Cartesian mechanism or reductionism is dead, indeed, the funeral is also extended to Newtonian mechanics (well, also to communism, but that's another matter). However, a field check puts this belief to the test. Paradoxically, precisely in these times of scientific idolatry, we proceed in a dualistic manner as much and perhaps more than in the past. On the one hand we see enormous strides in technical-scientific achievements, requiring increasing doses of formalisation of reality, i.e. its reduction to simple elements; on the other we see the spread of fundamentalist superstition, of mysticism that affirms without the need for demonstration. It is the triumph of the mind over tangible reality, of the soul standing somewhere, separated from the body and the world. Reducing complexity to simple laws that explain several seemingly unconnected phenomena is still useful today if the operation is conducted judiciously; but continuing to put the soul (or mind) before the body and the surrounding nature is deleterious, it is a weapon of mass destruction in the field of knowledge. Yet the I think, therefore I am still prevails over its materialistic overthrow: I am, therefore I think.

Having emerged from the animal condition, we felt so proud and satisfied with our acquired capacity for ‘thinking’ that we made it our perennial religion. In the field of action ‘I think, therefore I do’ has become the prevailing dogma: since it works for industry, with its designs, etc., we believe it also works for society. In a human society that used acquired knowledge to design itself, this would be normal, but today in the social field, materialistically, we continue to do first and then think, to make disasters and then rush to patch them up. And we gather the patchers into parliaments (i.e. priests in temples) from which we raise hymns to the spirit and democracy. Fortunately, our supposedly isolated thinking is immersed in billions of other isolated thoughts, so that in the end it turns out that there is nothing isolated at all and that, if we want to achieve anything worthwhile, we must activate our social being to the full. Unfortunately for us, the split persists: we are ideologically individualistic and selfish despite the fact that daily practice obliges us to socialised work. What's more: we believe in selfish individualism despite the fact that our own biological programme has evolved into a system of relationships, signs, languages, action and feedback, a system that has given rise to specific areas of the brain and even mirror neurons that put us in a symbiotic relationship with our fellow man.

Paradoxical Short Circuit

We are talking about a world of infinite relationships, within which our organism has formed and evolved from coded behaviour. To describe the behaviour of an observed requires an observer, and that is already a relationship. The observed can be a single living organism, or a social organism, any system. The description we call behaviour will have somehow registered certain changes of state, within the observed, due to perturbations of the environment. These changes are usually homeostatic, intended to compensate for boundary events (I put on a sweater if it is cold), but they can be reactive, i.e. involve amplified feedback (I go to repolarise the thermostat). The source of the state change is never our nervous system but the environment. The latter can be composed, and generally is, of many individuals, many interacting nervous systems, which reciprocally induce internal state changes. A condition that our current has called ‘social polarisation’, an autopoietic, i.e. self-fulfilling movement (H. Maturana).

The relationship between the environment and our nervous system is determined by evolution and produces internal state changes that tend towards equilibrium; the relationship between the environment and all nervous systems (and between the nervous systems themselves) is determined by the aforementioned state changes and tends to amplify. Humanity seems biologically destined for a contradictory dynamic, a struggle between conservation and revolution. Indeed, the sensory apparatus comprises not only the cells that act as receptors to the ‘external world’, but also those that represent both the interface with the ‘internal world’ and the latter's intimate structure, which is the

body-brain unit. And all of them influence the state of the neuronal network. Which in turn modifies the states of the motor centres, language, etc., all phenomena that serve the individual organism to communicate with other organisms through words, signs, behaviour.

This set of dynamic relations leads our organism to represent itself in relation to the world in two ways, depending on the determinations that have shaped it: on the one hand, it adopts an elementary materialistic view, for which there is the thinking organism that perceives through the senses 'what is out there', a nature that evidently exists even without the observer; on the other hand, an idealistic view for which the reality of nature is nothing more than an interpretation of the mind. The individual brain seems unable to achieve a synthesis of the two conceptions without causing a short-circuit between its diverse areas, and therefore adopts one or the other. The collective brain, on the other hand, is rather refractory to this dualism and confines it to its proper place, namely philosophy. For the collective brain there cannot be an 'outside' and an 'inside', since it results, as we have seen, from the infinite relationships between individuals and between them and the environment. In any case, the conformation of a brain, whether individual or collective, is not made to respond to input and output in the traditional sense, as machines do: they are designed by us, it is we who need an interface to interact with them. The brain, the nervous system, was not designed by anyone, it is the product of billions of years of evolution, so in a sense it is not made to 'acquire information from the outside' but has co-evolved with this 'outside', if we want to call it that; it lives in symbiosis, it registers configurations of the environment and of itself with the environment, establishing which are perturbations and which are not, what changes they may cause in the organism. This is why a computer, no matter how powerful and perfected, can never really function like a brain, unless it makes the leap from chips to biocells, i.e. it becomes a brain.

Today, it is fashionable to talk and write about the so-called mind. There are countless publications on the subject, whose authors come from every scientific discipline (ranging from philosophers to psychologists, from cyberneticians to ethologists, from physicists to biologists). And they are four-finger-thick volumes, flanked by thousands of articles. It almost seems as if the programme of work on the theory of knowledge, defined by our current in the 1950s-60s (cf. n+1 n. 15-16), has anticipated a generalised need, which is manifesting itself not only as curiosity but as the overcoming of commonplaces, as scientific deepening that has given rise to a true 'cognitive revolution' (H. Gardner).

Consciousness strictly speaking does not exist. If one defines it as the capacity of the body and mind to be aware of itself, one might as well say that consciousness is the awareness of being conscious. The Critical Dictionary of Philosophy (André Lalande) admits the difficulty and, quoting William Hamilton,

advises against it. There is a logical pitfall: to define consciousness would require something external to it. Let us follow Hamilton's advice and content ourselves with saying what consciousness is not, at least for philosophers. It is not simply perception. It is not simply cognition. It is not simply a nervous condition of our organism. Marx likens it to language, which is our primary means of production:

> *'Consciousness is properly only a network between man and man. Only as such was it forced to develop, the solitary man would have no need of it. [...] Only conscious thought determines itself in words, i.e. in signs of communication, with which it reveals itself at the origin of consciousness itself. To put it briefly, the development of language and that of consciousness go hand in hand' (German Ideology).*

Great: network between man and man; consciousness as part of the social brain; language and consciousness develop together. What to add? Philosophical thinking individual, down.

At the Origins of "Consciousness"

It was inevitable that modern cognitive science would deal with the variations in the capacity to know as evolution proceeded. It is generally agreed that there is no substantial difference between the cognitive mechanisms of a microscopic organism equipped with sensors, a bacterium, and the self-appointed 'sapiens' man. Of course, the more evolved organism deploys a greater variety of sensors and refines the methodology of its nervous system to use them. If we dwell on man, we can see that from the Palaeolithic period onwards, he has not further evolved in terms of refining the biological means to know; and, as we have studied from several points of view, the increase in cognitive power has been achieved with the aid of artificial means that amplify the senses. This explains the contradictory behaviour of individuals and even more so of groups: for his technical achievements, man has a great capacity for design, execution and control of the results; but when confronted with social facts, he can only develop 'theories of chaos', as Marx said when referring to the random, unscientific proceeding of political economy. In the case of relations with his peers within groups, man is in an even worse situation, since situations occur that are identical to those typical in the lives of other primates. The tragedy is that he has lost the capacity for control due to instinct, fine perception in relation to the environment, and the system of social signs that govern herds (D. Morris).

We have seen on several occasions how effectively Leroi-Gourhan, an author who offers many hints for refining our theory of knowledge, demonstrates how profound is the gap between man's biological evolution and the artificial one, concerning the artefacts and structures that now cover a large part of the planet. At the same time, he also shows how contradictory is the persistence of 'animal' characters in the context of today's civilisation while we have lost the

skills and sensitivities we once had. Modern man knows ‘more’ than our ancestors, but is unable to say anything meaningful about them, even based on the abundant archaeological material. After all, not knowing one's origins is like not knowing oneself. That is why he says giant rubbish every time he tries to decipher his childhood. He is capable of looking at a cave painting and exclaiming: ‘Oh, how modern!’. Of discovering the prehistoric routes of obsidian or red ochre and writing an article on the ‘markets’ of thirty thousand years ago and the use of ‘currency’ for exchange. To excavate a Palaeolithic burial with signs of funerary activity (colouring with ochre, presence of flower pollen, alignment of stones, etc.) and not resist the temptation to proclaim to the world that man has always been religious. But what kind of theory of knowledge can one expect from bourgeois man, if all he can do is project himself and his own ideology?

In a very effective booklet entitled The Religions of Prehistory, Leroi-Gourhan finely ironises against those crude representatives of science who are unable to observe with detachment what nature unfolds before their eyes and feel the irresistible urge to give an artistic touch to the findings by drawing on their imagination. Of course, it shows that in prehistoric times there was no ‘religious’ practice in today's sense and that the most important discovery is the difference between our living practices and those of our ancestors, not the invented similarity. All we can do is classify the found material and derive reasoned statistics from it, since regularities (or invariances) are the basis of science. In doing so, we do not introduce arbitrary elements of knowledge and we realise that so-called primitive man not only knew his world better than we know ours, but possessed a theory of knowledge, hence, for those who want to call it that, a ‘consciousness’.

Consciousness and Labour

The starting point is the production of objects or the modification of the environment in order to facilitate the processes of everyday life and their reproduction. Having verified that this is intentional, one proceeds to classification and interpretation. Man has been producing objects for a couple of million years and this has influenced his evolution. We have addressed elsewhere (n+1 no. 19, Genesis of Man-Industry) the link, already evoked by Engels, between labour and brain development. We must now deal with what happens in the brain once it has developed. Let us leave aside the whole of the early period in which instrumentation and modification of the environment are insignificant (at least from the point of view of the present research) and focus on the Upper Palaeolithic, which spans 40,000 to 12,000 years ago. This is the period when Neanderthal man became extinct as our species spread across Europe. This period has passed on to us in the form of archaeological finds only a very small part of its production or industry. A large part of the artefacts useful for everyday life were made of organic material and have dissolved. Worked stone

objects, bone objects, footprints, traces of huts and hearths, rupestrian figures and inhumations have been preserved.

Let us briefly review the information we are able to derive from these intentional results of human activity. Worked stone (axes, burins, scrapers, knives, etc.) allows us to reconstruct broadly the purpose for which it was produced, especially hunting and the processing of its products. Bones found in large numbers in contexts that indicate human presence testify firstly to the residues of meals or collectively slaughtered game, secondly to deposits formed over millennia following the natural death of animals; processed bones, on the other hand, are a fundamental source of information on all human activities of the time: harpoons and hooks evoke fishing, spearheads and propellers hunting, needles the existence of clothing. The jewellery, the flutes, the steatopygial statuettes, the scapulae with notches indicating forms of counting make us think of forms of symbolism and abstraction. Fossil footprints of human feet are generally isolated and provide little information; those of huts with hearths and signs of various workings, on the other hand, give us the possibility of extracting much data (traces of similar activities have also been found in caves). Cave representations, beautiful and obtained with refined techniques, offer a great deal of information about themselves but, paradoxically, less about their purpose than we get from a very modest flint scraper. Finally, inhumations: some Neanderthal burials from the Middle Palaeolithic, i.e. very ancient, appear to have been intentional, but sapiens-sapiens only began to bury the dead with clear signs of burial ceremonies in the Upper Palaeolithic, roughly at the time of the earliest cave figures.

Certainly, intentional activity for the production and reproduction of the species begins well before the appearance of homo sapiens, but it is only in the last phase of the Palaeolithic, with the co-evolution of tools, brain and product, that the human-industrial relationship is completed, and thus the problem of the emergence of consciousness arises for today's palaeoanthropologist. For decades, modern iconography has depicted animalistic Neanderthals and our slightly less caricatured sapiens-sapiens ancestors, naked men and women with wild faces intent on hunting or domestic chores. Nonsense: they wore ornate clothes, wore jewellery and were as proud as the Indians of the American prairies were before they became degenerate prey for the first photographers. It is only since a few years that the ‘caveman’ is being corrected. It was inevitable that the ideology of the bourgeois man, who according to a stereotype he himself created is the only specimen endowed with intelligence and conscience, would give way to material data. The vast documentation available on Palaeolithic working tools, i.e. on the means of production (including what we now call ‘art’), shows that it is not a problem of ‘consciousness’, but of the relationship between brain, tool and artefact, the latter term also meaning the modification of the environment. All stored, reproducible, handed down from generation to generation. A soul was not born in the alleged Palaeolithic savage,

but rather the ability to plan one's own existence, an evolution that would lay the foundations for science on the one hand, and philosophical speculation on the other. It will be the latter, millennia later, that will imagine the thought/soul separated from the body and the environment: Palaeolithic man did not think about this at all. We do not know whether the various testimonies he left us, the traces of speculative activity, such as symbols, counting, ceremonies, represent a conscious beginning of science, religion or philosophy. Certainly statistics confronts us with a complex symbolism that is repeated in constant modules until it configures a well-structured system of meanings. If so, human activities, their products and the reflection of all this in the brain, were not separate sectors of social life: before the separation due to the social division of labour, i.e. before the classes, there was no reason to separate what was reflected from the unitary material substratum. Leroi-Gourhan makes an observation of paramount importance for the theory of knowledge: we are the product of a science that developed in Europe and became world-wide, our rationalism entailed a total separation between what we know and what we do not know, between knowledge and the unknown. Palaeolithic man did not face the world with such a vision. For him, nature was unitary, in the sense that the known and the mysterious were equally part of it, he did not seek to violate the unknown, he took it as it was. Heaven and Earth were not yet separate. Later, in the Neolithic period, i.e. from around 12,000 years ago, forms of worship undoubtedly arose together with a sharper technical division of labour (social division and religion proper would arrive at the threshold of ancient-classical society).

Consciousness Before and After Homer

The search for the moment when the separation between material life and its ideological interpretation took place is present in the work of Marx and Engels, and it may be interesting to investigate this further by following in their footsteps. Marx focuses his attention on the general succession of economic-social forms; Engels, in the course of his work on the Origin of the Family, Private Property and the State, dwells in particular on ancient Greece, analysing the transition from gentile society to class ownership and domination through the state. For that geo-historical area, the transition takes place between the 12th and 8th centuries BC. This is the age that we find described in the Homeric poems, the same age that philology attempts to arrange chronologically (the context of the Iliad is Mycenaean, but the description of Achilles' shield shows a later society, with money, law, intensive agriculture, etc.). The Homeric time gaps are well known and archaeological excavations have provided some confirmation of the data in the poems and vice versa. Engels, on the basis of the information at his disposal, shows that in the Iliad, the Achaean armies still reflect the Gentile, hence pre-classical, form. This interpretation is acquired, not least because in the meantime the decipherment of Mycenaean writing, an archaic Greek, has enabled greater knowledge.

Most probably today we call ‘Homer’ a collective work composed over time, however we will not enter into the centuries-long debate on the ‘Homeric question’. In fact, story or myth, the Iliad and the Odyssey are works that describe the era in which they were imagined and then, much later, written down. They are very useful for our research into the origins of a theory of knowledge. We have already mentioned one author, Julian Jaynes, whom we use exclusively for an essay in which he develops a theory of the historical transition from objective perception of the world to a subjective one: The Collapse of the Bicameral Mind and the Origin of Consciousness. We are obviously interested in the subject matter, while we are much less interested in the psychological theory set out in the book. We believe that the amount of data collected to support the theory itself may serve our purposes. To summarise, the Homeric poems would have been composed orally in a transitional phase, the Trojan War recounted in them would be one of the episodes of the transition itself, and the written transposition would date from no earlier than the 8th-7th centuries BC.

In the poems, as Gian Battista Vico had already noted, different languages and styles appear, but above all terms that change meaning depending on the context recur. The change becomes more evident especially when passing from the Iliad to the Odyssey, and many philologists claim that this is evidence of both the chronological difference between the two poems and the change of hand. The difference in language and historical setting is one of the arguments in the Homeric argument. The writer and keen reader of ancient history Robert Graves claimed that the Odyssey was written at least 150 years after the Iliad and that the author was a woman (from this observation he made a novel). All we can do is to read the various arguments and draw conclusions from them in the light of our doctrine. We therefore assume that the supporters of the ‘separatist’ thesis are right about the Odyssey mainly for three reasons:

1) the production context is more mature than in the Iliad;

2) the language is more subjective, introspective;

3) the female figure loses her tragic grandeur and becomes more human, while the setting becomes more magical than divine.

Jaynes bases his theory on four variations in the meaning of the recurring terms we have mentioned, referring them to different phases:

1) meaning in the objective phase in which man, in symbiosis with nature and the (very humanised) gods, does not yet have the ability to refer phenomena and events to himself;

2) meaning in the phase in which man expresses phenomena and events through reactions of organs in his body;

3) meaning in the phase called subjective, in which man is capable of introspection with respect to phenomena and events, creates metaphors and is aware of having a 'mind';

4) meaning in the so-called synthetic phase, in which man completes the conception of the conscious 'self' and perceives the external world as separate from his body (and, we add, can thus theorise free will).

The Iliad and Odyssey would thus represent two moments, a before and an after in relation to the advent of consciousness. The heroes who landed before Troy, exponents of a society based on the gens, austere and somewhat incomprehensible to our mentality, move in a completely objective world, are identified by qualities placed next to their names, list actions, objects and people in a neutral way. The Odyssey is instead a 'hallucinatory journey', dreamlike, magical, a continuous discovery of the ego. Of course, it is impossible for such a change, if it is recognised as plausible, to have occurred in half a century as philologists claim by dating the two written texts, or even in a century and a half as Graves hypothesises. The oral compositions must date from much more distant times. Jaynes writes that archaeological finds have been unearthed that attest to consecrations to Odysseus dating to shortly after 1,000 BC. and agonistic competitions in honour of Odysseus allegedly took place in the 9th century BC. If there really is such archaeological evidence, the Iliad must tell of a more ancient time, dating back to the time of the last palaces of Mycenae, Pylos, Tiryns, i.e. around the 12th century BC.

Let us add, on the subject of archaeological evidence, that the cities of the basileis of the Iliad have been found: Mycenae for Agamemnon, Pylos for Nestor, Sparta for Menelaus and Troy for Priam, but nothing on the small island of Odysseus, basileus of Ithaca, the only place instead described in great detail. This suggests a shift from mythologised reality in the tale, to pure and simple narrative, to literary invention. Whatever the exact version of the advent of consciousness, and bearing in mind that the psycho-evolutionary version à la Jaynes is not satisfactory, we are nevertheless faced with a period of drastic change. The emergence and development of a new written language is a sure indication of this, given that language is a means of production; just as the collapse of the world that preceded ancient-classical society is significant.

The Lost Paradise

Bourgeois ideology has a main trunk but also shows a series of lateral branches that represent robust ramifications. Subservience to capital dominates,

although this manifests itself with diversified facets. For example, everything from the past that can be turned into a commodity survives in mystified form. This nostalgic branch even finds its own self-justifications in an apparent rejection of capitalist categories. It is well known that the consumer practices linked to the New Age current produce a turnover greater than that of the major multinationals, and on the other hand the whole esoteric, dietrological, mystery-focused milieu, which is not directly linked to profit but which represents a robust collateral branch of ideology, is very successful. The same applies to the primitivist ramification, which at least has the dignity of radical rejection, i.e. subjective negation of capitalist categories. One should ask oneself why this proliferation of the esoteric irrational. We are all a product of evolution even if, as far as social feeling is concerned, we are above all a product of the environment in which we are immersed. Today's irrationality and forms of nostalgia for a time gone by may be remnants of a distant past, proven indirectly by studies such as those of Leroi-Gourhan, Desmond Morris and Julian Jaynes himself, who deals with it directly. Neuroscience already offers answers to such questions, which are more convincing than psychologically based ones. Daniel Dennett and Steven Pinker's computational model or Noam Chomsky's innatist theory of language, although under fire for some slips into vulgar materialism, may offer a partial answer. Future neurosciences will be better suited to give us an answer than psychology, sociology or mysticism.

We have dealt with the subject of primitivism several times, and we will have to take up the various semi-finished products in order to publish them in complete form. It will be an interesting overview of the bourgeois ideology that rebels against itself by wishing for an ancient splendour of humanity, lost with the advent of the machinised society. This conception is at home among very different social components, to which one can attach both right-wing and left-wing labels. Just to give some well known examples, the works of Julius Evola, John Zerzan, Massimo Fini, the Green Anarchy Collective or Theodore Kaczynski are undoubtedly a product of capitalist inhumanity, and a reaction to it is rightly unlabelled. We could without too much effort make a targeted selection of phrases found in the writings of these people in order to construct a critique of capitalism with the right credentials even from a Marxian point of view. But these would be mere phrases. For the actual negation of this inhuman society, it is not enough to perceive an unease and list the conditions in which this unease is formed by comparing them with what has been (or is imagined to have been). What is needed is a theory that allows a comparison to be made between the present and a future that is as possible as it is necessary, in the sense of deterministically certain.

If, as we have seen, the brain functions on the basis of external stimuli, internal processes of elaboration in unity with the body, genetic storage that fixes mutations, etc., the need for ‘paradise lost’ can be linked to some residue of the past imprinted in our mental structure. The mysticism that goes by the

name of the New Age is basically nothing more than an extreme defence against a hostile environment: an escape into the communism of the past that has its symmetry in an escape into the communism of the future, the one 'wanted' by the activist who does not see the need to tune in to the Marxian 'real movement that abolishes the present state of affairs'. The naive (perhaps) current that has given itself a name that harkens back to the Age of Aquarius (New Age = New Age) is a splash of rejection of deadly capitalism, could be a current Luddism, and in fact already transcends into Degrowth, Citizenship Income, Fight Against Seigniorage, Neo-Simple Movement Against Consumerism, etc. All ramifications closely grafted into the capitalist trunk, but certainly indicative at least of that 'problematic reality' that we studied with Marx.

Is it plausible to argue that the distortions we are subjected to due to perception-related phenomena are the product of a reality such as the one we are studying from the point of view of a theory of knowledge? And if so, are these distortions not also the product of processes that were once innate and have now been lost or at least set aside in areas of the brain that we no longer use? Those who, due to illness or the intake of psychotropic substances, step outside the 'normal' dimension of everyday life see, hear and feel things that others do not perceive. Is this a creation of the mind or deep deposits from which the brain draws on special occasions or in cases of illness? If so, even Jung's archetypes would find a less psycho-idealistic and more physical explanation.

If we have a ridiculous sense of smell compared to that of a dog, a sight that betrays us even as children, a hearing that cuts off most of the frequencies at the extremes of the sound scale, it is because we have neutralised the receptor organs that perform those functions. It may be that under special conditions this neutralisation is skipped and that some people recover the ability to receive much more information than normal. But of course in this case, normality is somewhat relativised, so it is very easy for those who hear voices, see presences or feel threatened even though they are at home and not on the savannah, to end up in a clinic with a compulsory measure. This solution, which in capitalist society is normal, is certainly not the only one. In a-class societies the 'madman' either did not exist or was treated quite differently. Representing merely one 'type' among others, he fitted in as a particular tile in the social mosaic. Nowadays, the 'madman' is a person who cannot cope with the mass of information and sensations that chaotically pour in on him, so he goes into crisis; but prehistoric man and perhaps proto-antique man managed this very well. The Neanderthal had a more voluminous brain than ours, probably in order to be able to handle an enormous amount of information from highly developed senses in a hostile environment.

In Jaynes's book there is a chapter on schizophrenia, related to the formation of consciousness. Schizophrenia has some very interesting features

that are difficult to explain. The causes are still a matter of debate, although the hypothesis of multiple causes (genetic, environmental, traumatic, etc.) is mostly accepted. Jaynes rejects the hypothesis of a 'cause' and, in support of his theory of the breakdown of the bicameral mind, argues that schizophrenic behaviour is nothing more than the decomposed emergence of an ancient residue. The schizophrenic, contrary to popular belief, does not have a split personality, although he or she does present symptoms that lead one to think so. In the most severe cases, the patient hears voices coming from inside his body, has the impression that they read his mind, or that someone is plotting to harm him. In these conditions he is inclined to be tense, alert, wary. The case of voices is frequent: they can be descriptive, conversational, alarming, imperative. Sometimes they are accompanied by visual hallucinations, so that some situations, if shifted from today's context, could actually be part of some ancient myth, where divine entities communicate directly, speak, appear, facilitate or prevent events. Now, if schizophrenia were a disease related to the psychic sphere alone, or were even hereditary in character, it would manifest itself with a conspicuous differentiation of symptoms, an infinite casuistry, whereas all schizophrenics present very few differentiated features, so much so that the tests to detect it consist of a dozen or so elementary questions.

Schizophrenia is obviously a very serious pathology, which affects about 1% of Western populations to varying degrees. But precisely at 'different levels' traces of the same symptomatology are everywhere. Some neuroscientists (Palo Alto school) claim that a schizophrenic relationship occurs whenever there is a breakdown in normal communication between subjects, especially in the family. This means that triggers bring out something that is already there. It seems reasonable, and in fact the schizophrenic always has a language problem. He does not have a simple communication difficulty: his problem is upstream, where that something resides, which he is unable, or no longer able, to express. Perhaps the schizophrenic too, rejecting the world in which he lives, seeks his lost paradise, only he no longer has the tools to say it.

The Memory Revolution

In the world of infinite relations, language is obviously essential for all living beings. We have seen that for Marx and Engels, language and consciousness arise together. It is language that, being shared by men who need it in their material life, reduces consciousness from an idea to a practical reality. Language is a quality of the social brain. The animal is in a simply biological relationship with the other animal, so its language is reduced to elementary signs, it does not need much 'consciousness' (for some it does not possess it at all). It follows that the latter, if we want to continue to call it that, is an exquisitely social product, it did not exist before man needed it, it is not a soul that, from Genesis onwards, sticks to men. Moreover, it seems that this

infamous entity did not appear in the philosophical works of early classical antiquity.

If language is consciousness, in the sense of Marx and Engels, once the latter adheres to a mode of production with a dominant class, state and class ideology, it autonomises itself, just as Capital does today, and uses language (i.e. itself able to communicate) to convey its demands. Language is relation, but it is also transmission. It is born, let us lean on Engels, when production becomes social, whereby men, having shared problems, 'have something to say to each other'. With language, it is possible to pass on instructions on complex operations to those who do not know them. It is not just a matter of interrelation between two individuals but of teaching a third, a fourth, an umpteenth. More than just information is transmitted in the same direction: ideology also flows. The ideas of the ruling class are favoured in becoming the dominant ideas, it is a vicious circle that feeds on itself. As we progress from prehistory to later socio-economic forms and with the advent of written language, this flow becomes school. Individuals find it increasingly difficult to break away from perceptual knowledge after the material determinations due to our biological constitution (see previous article) are joined by the boulder of teaching that perpetuates the existing. Yet teaching has been one of the driving forces behind the development of civilisations, and before that it allowed a leap forward in the course of evolution. In so-called primitive societies, knowledge is passed on from elders to children, while the other members of the community are engaged in hunting, gathering, or performing daily tasks. But in the Palaeolithic period, at least up to 30,000 years ago, life expectancy was so short, around 30 years, that it did not allow three generations to coexist in life.

According to the author of an article in Scientific American (Rachel Caspari), the increase in average lifespan allowed grandparents and grandchildren to coexist for the first time, with important consequences for evolution. The elder, in fact, is the repository of transmissible knowledge, hunting techniques, plant recognition, tool making, tribal genealogy and relations with other human groups, etc.

Thus, even through a kind of 'grandfather theory' we have arrived at a contradictory unity between conservation and reaction: elders transmit knowledge of the past, and in this they represent conservation, but they also encode and transmit a quantity of information that was not previously accumulated, so that a qualitative, revolutionary leap becomes inevitable. The author's hypothesis in question has consequences that are strangely not developed: with a direct relationship between grandparents and grandchildren, it is clear that the transmission of information must sooner or later take on a different structure from the time when grandparents were not around and children learned by means of randomly disseminated, or at least unstructured, information. With the unambiguous transmission of the elderly, speech becomes

more organic, flows from one topic to another probably in the form of stories, trains a robust memory to recall them and produces musical diction to facilitate memorisation.

Homer and what he represents are rooted in the primordial oral storage and transmission of knowledge, a huge task. What we have left of the Iliad, which translated and printed in prose is a book of some 400 pages, recounts in sung verse only 50 days - seven weeks, the wrath of Achilles - of the Trojan War, which lasted ten years. We can assume that the Odyssey is a similar fragment. Both poems were therefore much more extensive than an individual could easily remember, and each itinerant aedo sang a portion of them accompanied by the zither. What did the sung Iliad convey, then, with voice inflections on key words that varied in meaning according to context? We cannot know, but certainly more than it can convey to us today. Each aedi went from town to town reciting the memorised portion, and so the entire poem became the heritage of all through a collective brain of aedi. So did the thespians (a play could last a whole day with competition between authors) and probably, much later, the first philosophers. As part of everyday life, statues, bas-reliefs, frescos and painted ceramics were everywhere transmitting knowledge (art as we understand it today did not exist at all). Three centuries after Homer's time, a new mode of production was being consolidated by superimposing ancient and new aspects of the social brain. Consciousness had not yet imposed itself, and therefore there was no soul either, hitherto conceived of as a simple life-breath that left the body at the moment of death. But here it appeared a century later, with the generalisation of property, slavery, money and philosophy. The soul is introduced by Socrates and since then we have also been split philosophically.

Decartes’ Error?

We come full circle where we began. Two thousand years after Socrates, Descartes is considered one of the founders of modern philosophy. He keeps the soul separate from the body and nature. He does this in a strange way: he calls the soul (or consciousness, or mind) an ‘intelligent nature distinct from corporeal nature’, but considers this dualism a flaw, so he calls in the power of God to guarantee non-contradiction. God whose existence he has, of course, first ‘ontologically’ proven, like Anselm of Aosta, adding a comparison with the completeness of geometry. Leibniz criticises Descartes for his nonchalant use of a god who only serves to make ends meet: ‘As if God does not propose any purpose or any good when he acts’. It is a veiled accusation of atheism; and indeed the Cartesian god does not affect nature, from which the philosopher has removed all purpose. Despite all professions of faith, the Cartesian god is like Laplace's: the science of nature does not need that hypothesis. Leibniz would not be the only one to suggest Descartes' atheism, and indeed even on the subject of the soul-consciousness the latter verges on heresy:

'The rational soul can in no way be drawn from the power of matter, but must be specially created, and it is not enough that it be placed in the human body like the pilot in the ship, but it is necessary that it be joined to it and united more closely so that a true man may thus result' (Discourse on Method).

Implicit here is a criticism of St Augustine, who calls the soul the 'helmsman of the body', but not in defence of St Paul, for whom soul and body are inseparable (even today this formula is in the official catechism). The conjunction invoked by Descartes is not the union of Paul, otherwise one would not understand the expedient of the pineal gland, conceived as a kind of transceiver that allows communication between separate entities. In Descartes' theory of knowledge, the material world is decidedly deterministic. All living organisms are governed by physics, no more and no less than inanimate matter, with the difference that the human body corresponds to a soul, or consciousness, or mind, but inexorably located elsewhere than the body. If we remove the perfect god that dissolves the contradiction from the Cartesian system, we are left with a bodiless knowledge that 'needs no place to exist, nor does it depend on any material thing'. The elsewhere of consciousness can only be the social brain, but this could not yet be discovered, it could only be intuited. Descartes was a practising Catholic, he had for instance participated in the siege of La Rochelle in the war against the Huguenots; but he shared Galileo's heresies. Since his highest aspiration was to work quietly to pass on the results of his research, as soon as he felt the breath of the Inquisition on his neck (he had heard of the first trial of Galileo, the one in 1916, which ended with a reprimand) he left for Holland (1629) where the air was more breathable for philosophers, but where he was nonetheless annoyed by the Protestant priests. He finally moved to Stockholm, a guest of the Queen of Sweden. He died of pneumonia. The suspicion that his Catholic orthodoxy was only a cover for substantial heresies is more vivid than ever. Reading him, he seems sincere, but that does not detract from the fact that his rationalistic philosophy was a powerful mine to blow up medieval and Renaissance scholasticism.

It almost seems as if Descartes' soul/consciousness is not a specific entity of the individual but something more, as if we are not dealing with a simple dualism between soul and body. Why does he need to specify that '*even if the body did not exist at all, the soul would not cease to be all that it is*'? His language, direct, simple, claims to be taken literally. So what can this entity be, this soul that is so special that it remains itself even when dispensing with the individual body? It is clear that we have a hypothesis in mind, and the key to its plausibility is perhaps found in the sixth chapter of the Method. In which Descartes argues that the speculative philosophy taught in his time (scholasticism) could be replaced by another that was practical science, capable of improving human life. Examples follow. This is consistent with another assertion: scientists must work together according to their knowledge and inclinations for the common progress, in a continuous cycle in which each one

begins where the other has ended; whereby, by bringing together the lives of many, a greater result is achieved than would be achieved by each. Ludovico Geymonat warns against the current interpretation of Cartesian rationalism: the theoretical truths reached by this method are for Descartes practical tools for action that transforms the world. Cartesianism would then be a theory of knowledge that tends to rationalise learning, but only for the purpose of laying the foundations of a 'higher voluntarism'. We do not believe that voluntarism is the appropriate term. Design would be better and our reversal of praxis would be perfect.

At this point soul, mind, consciousness is (are) all that represents accumulation of collective knowledge (the continuous cycle of science) that can be transmitted to the body as a performing instrument. The dualism, the contradiction, persists, but it is no longer between soul and body, an accessory discourse, but between individual and species, subjective perception and knowable reality. It is obvious that we say this; at the dawn of the bourgeois revolution, Descartes could not say this. But it is not Descartes who makes an 'error', it is Damasio who analyses as a neurologist an expression of the clash between two social forms, one dying and the other emerging.

Recommended Readings

- Anonymous, *The Epic of Gilgamesh* , Adelphi 1986.
- Anonymous, *The Bible* , translation by G. Deodati (1607), Deposits of sacred writings 1903.
- Bateson Gregory, *Mind and Nature* , Adelphi 1984.
- Bailey James, *Il postpensiero* , Garzanti 1998.
- Codino Fausto, *The Homeric question* , Editori Riuniti 1976.
- Damasio Antonio, *Descartes' Error* , Adelphi 1995.
- Dennet Daniel, *The mind, what it is* , Laterza 2009.
- Descartes René, *Discourse on the method* , Editori Riuniti 1978.
- Gardner Howard, *The new science of the mind* , Feltrinelli 1985.
- Geymonat Ludovico, *Descartes* , History of philosophical thought. and scient. II, Garzanti 1977.
- Jaynes Julian, *The collapse of the bicameral mind and the orig. of the cosc.,* Adelphi 1984.
- Lenin, *Materialism and empiriocriticism* , Op. compl. vol. 14 Publishers reunited, 1963.
- Leroi-Gourhan André, *The gesture and the word* , Einaudi 1977; The *religions of prehistory* , Adelphi 1993.
- Licata Ignazio, *The open logic of the mind* , Codice 2008.
- Maturana Humberto, Varela Francisco, *The Tree of Knowledge* , Garzanti 1999.
- Morris Desmond, *The naked monkey* , Bompiani 2003.
- Homer, *Iliad, ed. in prose* , Garzanti 2007; *Odyssey, ed. in prose* , Garzanti 2008.

- Pinker Steven, *How the mind works* , Mondadori 2000.
- Rose Steven, *The memory factory* , Garzanti 1994.
- Scott Alwyn, *Stairs to the Mind* , Boringhieri, 1998.
- Searle John, *The mind* , Raffaello Cortina, 2005.