

## Listening to death. From resistant thought to confidant thought

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### Abstract

The article underlines how some contributions of the neuroscientific research can help human kind to reach a higher consciousness about the theme of death, considering it from the perspective of phylogenetic evolution, which helps to attribute a meaning to death.

**Keywords:** death, brain, emotions, reason.

### The brain, death: beyond the conflict of emotions and reason

The human brain is the point of arrival of a very long path of phylogenetic evolution which began with the reptilian complex and ended with the neocortex: this is the opinion of Paul David MacLean, US neuroscientist who, in the late Sixties, developed the theory of the “triune brain”. According to this theory, our brain is the site of an evolutionary conflict that is tendentially still to be resolved: on top of the reptilian attitudes, which identify mind and instinct, lie those of the limbic brain, which add increasing weight to emotional experience, and those of the neocortex, with its undoubted capacities of association, imagination, abstraction, generalisation and symbolisation<sup>2</sup>.

It took millions of years for these three different steps in the evolutionary path to take place, and it was far from simple to transform the brain of the “pack” and the “doing like all the others” into a creative brain able to create new balances and different forms of cohabitation embracing both collective and social dimensions and individual needs. The inherent divergences of this process and the difficulties these create can still clearly be seen, and profoundly mark the life of our species, making it capable of sudden, brilliant strides in evolution as well as profoundly regressive, if not stupid and fierce, actions.

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<sup>2</sup> Cf. P.D. MacLean, *Evoluzione del cervello e comportamento umano*, Einaudi, Turin 1984; cf. also M. Contini, *Per una pedagogia delle emozioni*, La Nuova Italia, Florence 1992.

Precisely because, along the way, the curve followed reduces the margins of fixed rigidity of the species, and enhances those of diversification and unpredictability, the result is the difficulty of thinking about change in necessarily, or even only mainly, positive terms: evolution itself and civilisation may indeed be harbingers of a hardship which, if in some aspects increases the quality of existence, in others fuels the pain of living, creating an underlying anxiety and dissatisfaction, which would make humanity tendentially unable to find appropriate answers to its fundamental needs, in line with the famous analysis offered by Freud<sup>3</sup>.

In particular, according to MacLean, the most evident conflict is that between emotions and reason, because, as mentioned above, the former lie in the limbic brain while the latter refer to the neocortex, and according to the neuro-anatomical knowledge of the time, these two parts of the brain were mutually uncommunicating: the consequence is the creation of an evolutionary blockage of emotions, which, not benefiting from the cognitive dimensions of the mind, have been stuck at primordial levels of development; and makes knowledge increasingly colder, inhumane and self-referential, because it is not in connection with emotional experience. This original and unresolvable conflict is deemed to be innate in the very life of the human species which does not seem to be able to find appropriate and credible ways of overcoming this. Indeed, the belief that our species is phylogenetically superior to those which came before gives a tone of ultimacy to MacLean's thoughts on the neocortex, perceived not as a phase in the brain's process of adaptation to the environment but rather as a point of arrival implicated in the very destiny of civilisation.

MacLean's theory immediately won huge acclaim, to the point in which in the early Seventies a Hungarian philosopher of Jewish origins, Arthur Koestler, following on from these studies, formulated the hypothesis that the neocortex was an "unwanted gift": to some extent imposed by evolution, but generally not appreciated by humanity which, more than any other animal species, would indeed have "benefited" from it, becoming 70% of its cerebral matter. The evolutionary targets of the neocortex are too ambitious and too distant from the simplicity of our emotional repertory to not force the human species to dialogue with a quotient of difficulty which is often perceived as excessive. Physiologically split, the human brain is unable to resolve this underlying problem and is therefore condemned to a fate of "schizophysiology"<sup>4</sup>.

To prove this hypothesis, Koestler used two examples for his reasoning. In the first, he underlined how the neocortex has made it possible to invent

<sup>3</sup> Cf. S. Freud, *Il disagio della civiltà*, Einaudi, Turin 2010.

<sup>4</sup> Cf. A. Koestler, *Il fantasma nell'armadio*, SEI, Florence 1971.

weapons: a potentially positive invention, which would have allowed our species to implement its own capacities of defence and self-defence and place them at the service of the survival instinct. Yet, the often distorted use that has been made of them has led humans to use weapons as an instrument for solving their own internal conflicts, which have been seen as a traumatic and destabilising invention that has made a negative mark on history<sup>5</sup>.

In his second reasoning, Koestler stated that the neocortex has fuelled the awareness of the inevitability of death and has therefore recoded the corresponding experience, mainly in the form of anticipation: this is also an important acquisition, potentially able to protect the human species from the risk of limiting itself to wasting its own lifetime, which the emotional mind however rejects, as it is not suitably prepared to face up to the idea of the end and the concept of existence, as an experience with an expiry date. These emotions, which for MacLean lie in the limbic system, would place our species in a position of substantial proximity to that of other mammals, despite the huge diversity in the respective life conditions, and other mammals, as is well known, which far from cultivating everyday thought of death, tend to circumscribe it to moments and contexts in which such experience arises and becomes inevitable<sup>6</sup>.

In this perspective, what makes humans able to travel in space and transform the natural environment, through technological development, does not help to make them progressively more trusting and confident with the phenomenon of death, as scientific progress makes headway despite, or indeed to the detriment of, emotions. And, faced with the idea of dying, emotions maintain that sense of inadequacy that has accompanied humanity throughout its evolution and which is common to the animal world. The atavistic fear of the night of life and the dimensions of darkness and silence that cross it did not die out with technological development, which on the contrary seems to fuel the vain hope of prolonging life itself indefinitely, beyond all realistic expectations. And that, waiting to be able to do so, it limits itself to cancelling out the worries of the night, filling it with light and sounds that are increasingly similar to those of the day<sup>7</sup>.

We must ask ourselves: are we really so close to that apex of evolution that makes the thought of new, further evolutionary surges unrealistic, and more specifically, the overcoming of that schizophychological dynamic between limbic and neocortex, which seems to be the main cause of our “mal de vivre”? Millions of years of phylogenetic evolution and thousands of years of historical

<sup>5</sup> Cf. *Ibidem*.

<sup>6</sup> Cf. *Ibidem*.

<sup>7</sup> Cf. M. Fabbri, *Sponde*, CLUEB, Bologna 2003.

development have not helped to familiarise humanity with the very pillars of life, and the path towards civilisation seems to have taken on the features of a blurred escape, which demands increasingly more commitment and, in the end, accepts no excuses.

Within this framework, faced with the issue of death, the removal enacted is no less than that of other animal species: while the latter concentrate on the present of life, in which death is the point of interruption, humans live in the thought of death yet transform it into worry and the desire to escape from an event, the inevitability of which they refuse to accept. The refusal of necessary death means that humanity often reaches the experience of death unprepared, as much as if not more so than other species: this result is paradoxical, given the human capacity for anticipation, if not prediction. Is it perhaps an inherent element of the schizophysiology of the species, to which we must be resigned?

Not exactly, states among many Joseph LeDoux, a neuroscientist of the generation that came after MacLean. With more refined methods of observation, it was demonstrated that the hypothalamus, an integral part of the limbic system, “is linked with all levels of the nervous system, including the neocortex”<sup>8</sup>. Starting from these results, the traditional boundaries between the limbic and the neocortex, which allowed emotional and cognitive experience to be attributed to two different areas of the brain, are dissolved, undermining the neuroanatomical foundations of the theory of schizophysiology. More than a split brain, like that described by MacLean, we can theorise on the existence of a globally limbic brain, in which the emotional and cognitive functions are required to contaminate each other and/or dialogue over time.

LeDoux’s analysis did not focus on the issue of death: it is however clear that the fact of having dissolved the disunion between emotions and reason delegitimises a representation of the former as poorly evolved and even closer to the experience of primordial man, and of the latter as a form of cold, impersonal intelligence with a high risk of dehumanisation. And it creates the conditions for allowing the continuous dialogue between the former and the latter to offer humanity access to more mature and aware representations that those we have today.

It may seem strange that, without schizophysiology, humanity has a problem of emotional inadequacy towards death, equal to that denounced by schizophysiology itself. In this regard, however, it is useful to observe how the groundlessness of this diagnosis does not invalidate all of MacLean’s thought: the concept of a brain that synthesises an evolutionary path which begins with the reptilian complex and which is a battleground for conflicts that cannot always be easily solved remains valid, as does the statement that

<sup>8</sup> Cf. J. LeDoux, *Il cervello emotivo*, Baldini & Castoldi, Milan 1998.

emotional changes take more time to impose themselves than strictly cognitive changes. It is more frequent that activities relating to imagination, association or abstraction, which are specific to the neocortex, come up against an obstacle in their resistances of emotional experience, than vice versa, as the imagination alone has no immediate consequences on the life of individuals and the species, while emotional transformation affects the processes of adaptation which are in progress and produces effects of evolutionary diversification<sup>9</sup>. We should therefore not be surprised if, even without schizophychology, emotional experiences of the phenomenon of death are still far from the representations that the neocortex is able to envisage.

At the same time, however, the theory of a globally limbic brain helps us to reflect on the centrality of the emotional experience in the life of the human species and the deriving evolutionary opportunities; if in the light of this statement, it is incorrect to state that emotions become so important as to take the place of instinct, it is however plausible to think that they are an integral part of these experiences of instinct modification, which are required to support the evolutionary process. It is thanks to emotions that the instincts of our species can become more flexible and learn to live together with radically different worlds, like those conceived by the neocortex. And learning to look at death with different eyes to those that have mostly been limited to merely seeing it. In this perspective, if instincts can perhaps be branded as primordial, that is not the case for emotions, which to some extent bar the evolutionary route of humanity.

### **Towards new areas of emotional experience: thought on death among narrations and deeds of care**

It is therefore also thanks to emotions and their capacity for dialogue with the neocortex that we can learn to conceive death in different terms, not only as a negative experience of loss, but also as a positive experience of achievement. Achievement of what? For thousands of years, in its traditional pathways of education and literacy, humanity has simply limited its actions to suggesting that death should not be feared, in view of an immeasurably greater reward, identifiable with immortality. This intrinsically contradictory thought has the limit of neutralising the impact of the emotional experience with the very idea of the end: in other words, while we expect to educate humans to not fear the phenomenon of death, in doing so we prevent them

<sup>9</sup> Cf. M. Fabbri, *I giorni del cambiamento*, in M. Contini, M. Fabbri, P. Manuzzi (edited by), *Non di solo cervello*, Cortina, Milan 2006.

from developing corresponding emotions, as the mind is catalysed around the thought of immortality. Doing so, in evolutionary terms the acquired awareness of the certainty of worldly death is wasted through the outlining of a hope which nips it in the bud<sup>10</sup>.

Therefore we must learn to *think of death* in its autonomy, as a phenomenon which eludes strictly human experience, and do it in a way that allows our mind to understand the meaning and specificity, if not the binding logic, in terms of universal experience<sup>11</sup>. Studies carried out in the field of physics, astrophysics and cellular microbiology describe a plural, stratified reality, composed of different worlds which, totally unawares, live together side by side, according to relations of proximity and distance which are wholly imperceptible using our sensory experience. The immensely huge and infinitely small cross our gazes, and remain substantially ignored, recalling the existence of a universe thick with boundaries in which everything that happens is intimately connected, without us being able to understand the connecting relationships in any way.

It is thanks to this structuring of the real on many different levels of reality, each of which works according to its own space-time dynamic, that it becomes possible to think of the world and the universe as open systems, rather than a closed system, and death – studies on entropy teach us – has to do with closed systems: the death of a system occurs when the quantity of energy which can still be transformed inside it is less than the quantity of dissipated energy that can no longer be transformed, in other words on reaching the so-called “state of rest”. Death is incompatible with open systems, as these are subject to processes of energy exchange which reduce the degree of entropy. Therefore, there is acceleration of the experience of death in the lives of those who choose to withdraw from communication with the world and the environment and which imprison it behind walls and fences that are hard to remove: there, vital energy is destined to be impoverished and existence goes on, poor, monotonous and repetitive.

Biology and cellular microbiology also confirm the agreement on this principle. Life imposes itself and expands in the form of cellular diversification: there is no evolution in the mere repetition of the identical, but rather in the pluralisation of life forms which contribute to making the structure of the whole progressively more complex. It is thanks to the process of diversification that matter is prevented from imploding on itself and can continue to evolve and be transformed, in a practically infinite process. The price to pay for the evolution of the whole is obviously the death of those parts of the cellular

<sup>10</sup> Cf. M. Fabbri, *Sponde*, CLUEB, Bologna 2003.

<sup>11</sup> Cf. *Ibidem*.

population which have completed their task, but their death is so natural that they themselves activate the chemical substances needed to make them die: from here, the definition of their “behaviour” in terms of cellular suicide, which leads us to think of death no longer as the enemy of life, but rather and the very sculptor of life.

A similar death to that of cells is the death of “dwarf” stars (including our sun), which progressively reduce their baggage of energy until they cool down completely and become invisible. This process occurs when they have reached the end of their evolution and are no longer able to contribute to the reproduction and diversification of life in the universe. Much larger stars on the other hand have difficulty in getting smaller and becoming dwarves, thus leading to implosion and explosion which risk dragging behind them all other forms of matter and energy present in their gravitational field: the so-called black holes.

We can understand from these studies how there are sweet, gradual experiences of death, which occur almost imperceptibly, and other more violent and traumatic deaths which threaten the life of all those which, although within that gravitational field, are not yet close to completion. Completed is the life of cells which have accepted to die; completed is the life of the stars that have reached the end of their journey; completed is the life of closed systems near to the state of rest. Death is easy to accept when we are dealing with completion. It is traumatic and painful when it marks the waste of existences and life forms which have *had to* interrupt their own journey, in the name of a higher reason or different evolutionary path. Here death takes on the worrying connotations of sacrifice, it appears unjust, even if inevitable, it holds life hostage.

We said that the neocortex makes humans able to represent the experience of death in the form of anticipation, even before that of an event or occurrence: how much of this representation refers to death as a trauma, rather than death as completion? Martin Heidegger describes *being toward death* as the horizon which saves humans from an experience of thrownness and shedding, in which we limit ourselves to being the expression of received conditions, guiding the experience towards a condition of authenticity: Heidegger in fact states that death corresponds to the “most original possibility”, i.e. the possibility that saves us from the action of impersonal knowledge, opinions and prejudices which fill the collective imagination, of the dominant morality<sup>12</sup>. “Original” is that possibility which is not easily interchangeable with many other possibilities of existence, as it corresponds to a path of realisation and self-realisation which is particularly dear to us. And yet, how can we move in the direction of our own most original authenticity if not within a horizon, like that of

<sup>12</sup> Cf. M. Heidegger, *Essere e Tempo*, Longanesi, Milan 1976, p. 320.

“being toward death” which makes us aware of being constitutively incomplete? Incomplete because we are at the end; incomplete, because we are limited and forced to choose. And faced with incompleteness, death is precisely the only possible completion.

In becoming completion, death can even rise up to the dimensions of the *festival*. Nietzsche says so in a famous aphorism, in which Zarathustra demands that man learn to die: “Die at the right time: thus teacheth Zarathustra. / To be sure, he who never liveth at the right time, how could he ever die at the right time? / Every one regardeth dying as a great matter: but as yet death is not a festival”<sup>13</sup>. For it to become so, death must be assumed as the horizon and boundary of transit zones, in which the experiences from this side of the boundary are more interesting than those imagined beyond it. And it is the great “noontide”, says Nietzsche, in which man “celebrates his advance to the evening as his highest hope”<sup>14</sup>, as, in leaving behind him a path of full existential realisation, it is easy and indeed joyful to say farewell to life.

How can we educate children to such wealth and complexity? Before they develop their own faculties of abstraction and generalisation, the age of “magical thought” and, even before this, that “animistic” thought which allows them to tackle the small and great narrations of the human story: inside these narrations, they can fish, with their tiny hands, for the primordial energies of life, like from a sea, in which all events and occurrences are worthy of attention and perceived with curiosity, as they have not yet been made hostile by the ferocity of negative thought. Oscar Wilde’s stories, for example, are able to draw children’s minds to demonic concepts of death, which underline the elements of existential power<sup>15</sup>. Other more recent narrations teach us not to lie, to educate children in the direction of realistic thought, facilitating subsequent acknowledgements of the reality of dying, having developed the corresponding cognitive skills<sup>16</sup>.

In one case and the other, what children’s literature, equal to any other narration, cannot do is replace the mind of the narrating adult, whether parent or educator: for the words of those narrations to open the children’s minds to the issue of death and dying, they must already have opened, or at least must be opening, that of the adult, so that he/she can pronounce them, without interruption and without running the risk of that coldness and ill-concealed discomfort of those who would rather read something else. Developing a

<sup>13</sup> F. Nietzsche, *Così parlò Zarathustra*, Adelphi, Milan 1984, vol. I, p. 93.

<sup>14</sup> *Ibidem*.

<sup>15</sup> Cf. M. Fabbri, *Sponde*, p. 100 and following.

<sup>16</sup> Cf. M. Fabbri, *Il transfert, il dono la cura*, FrancoAngeli, Milan 2012, p. 211 and following.



confidant thought of death, which makes it possible to stay within the liminal zones in which the experience of the boundary is not yet and cannot become a promise of eternity: this is the key for talking about death without suffering and without lying or suffering as much as is needed to not detract from life its worthy value and from living its fair amount of pain.

That worthy of being told is the right pain: not traumatised, not mystified, not absolving of those who refuse to experience it. The other pain, that which springs from the negation of reality, chases improbable and, almost always, violent compensations, which open rather than heal wounds, and are the foundations of a distorted education, which sees educators as more novice and incompetent than the children they are required to care for. Against the acritical exaltation of light, life and immortality, the educational attitude needed is one that is able to make children confidant also with the dimensions of darkness and silence: much of the ensuing pedagogy cultivates acts of care which are able to impose themselves beyond the words which may be pronounced to represent them. Because those words, however adequate, with the very act of breaking the silence, risk amplifying those gaps between emotions and language which often hinder experiences of authentic sharing of emotions.

## References

- Contini M. (1992), *Per una pedagogia delle emozioni*, La Nuova Italia, Florence 1992.
- Contini M., Fabbri M., Manuzzi P. (edited by) (2006), *Non di solo cervello*, Cortina, Milan.
- Fabbri M. (2003), *Sponde*, CLUEB, Bologna.
- Fabbri M. (2012), *Il transfert, il dono la cura*, FrancoAngeli, Milan.
- Freud S. (2010), *Il disagio della civiltà*, Einaudi, Turin.
- Heidegger M. (1976), *Essere e Tempo*, Longanesi, Milan.
- Koestler A. (1971), *Il fantasma nell'armadio*, SEI, Florence 1971.
- LeDoux J. (1998), *Il cervello emotivo*, Baldini & Castoldi, Milano 1998.
- MacLean P. D. (1984), *Evoluzione del cervello e comportamento umano*, Einaudi, Turin.
- Nietzsche F. (1984), *Così parlò Zarathustra*, Adelphi, Milan 1984.