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The Origin of the Universe and Event of Birth: Phenomenological Parallels

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We argue that a) the idea of the Big Bang in its philosophical essence represents a sophisticated disguise of the problem of the historically contingent present of the universe's display, and hence, b) the idea of the Big Bang represents an intellectual incarnation of the intuition about the historical boundaries of human transcendental consciousness as related to the whole of humanity as well as to any particular human being in the universe. Compared, a) and b) exhibit similarity in tackling a problem of a phenomenologically concealed origin of the universe and that of any particular human life. This analogy comes from an observation that in both cases the sense of comprehension of the given presence unfolds as a process of constitution of its antecedents: to understand the present and disclose its sense one must enquire into the events preceding it. However, the very process of this constitution as part of the embodied humanity subjected to the temporal irreversibility of macroscopic nature is directed to the future thus characterising in both cases the sought origin of the contingent state of the universe or of any particular human life as their telos. It is easy to understand that this counter-intuitive conclusion is based on a certain understanding of temporality of human acts of consciousness and that the very history of the universe, as well as that of a human being, is unfolded from within this internal time-consciousness which characterises the developed, that is the adult state of mind.

Keywords: cosmology, universe, origin, birth, concealment, phenomenology, telos.

> *I cannot really stand aside from the universe, even in thought. Only by a meaningless pretence can I place myself at some vague point outside it, and from thence reproduce on a small scale the successive stages of its genesis. Nor can I place myself outside myself... and question myself upon my own genesis. I mean of course the genesis of my non-empirical, or metaphysical reality. The problem of the genesis of the I and of the genesis of the universe are just one and the same problem, or, more exactly, one and the same insoluble, the insolubility being bound up with my very position, my existence, and the radical metaphysical fact of that existence.*
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> --- G. Marcel, *Being and Having*, p. 24

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What is the reason for the genesis of the world, matter and life?... Why the fact of our birth, our inherited characteristics, our gender? Every attempt at definition is a fissure in the unapproachable void, a shudder of panic.

--- C. Yannaras, *Variations on the Song of Songs*, p. 90-91

Introduction: Modern Cosmology on the Origin of the Universe

It is a matter of common understanding nowadays that with all respect to the grandiose achievements of modern science and cosmology in particular, scientific discourse in general, being efficient in interpreting the most non-human aspects of reality, feels itself helpless and unable to advance in the face of the mystery in understanding of human persons who are creators of science and who are those agencies which make the universe palpable and act as its voice. This hidden predicament lies in the fact that cosmology, which is usually considered as a natural science[1], is being constructed from within the *natural attitude* of the human mind which alienates its subject matter, by making its object devoid of any inherent references to human subjectivity thus removing insights into the conditions of that phenomenality which it deals with. The aim of this paper is to attempt to overcome the abovementioned predicament by placing the subject matter of cosmology and in particular the problem of the origin of the universe in the context of the interior life of subjectivity.

It is known that the so called anthropic inference in cosmology attempts to link the natural conditions of human embodiment with the fundamental physical parameters which are responsible for the stability and actual display of the physical universe and which make it possible for conscious life to exist. However, what is articulated in the anthropic inference is physico-biological conditions of human existence: it makes a nearly trivial observation that, indeed, there is an underlying consubstantiality between human observers and the universe expressed in some technical terms, such as, for example, the so called fine-tuning of physical constants (such numerical values of these constants whose precision is crucial for sustenance of earthly-based life-forms).[2] However, even in this case, the very facticity of this consubstantiality, its particular contingent noetico-noematic givenness, is not accounted for from within scientific method and, probably, cannot be accounted for at all. But it is this very facticity (that is the facticity of the universe suitable for life as well as the facticity of life itself) which is ontologically responsible for the necessary conditions for multihypostatic embodiments of humanity, that is the plurality of conscious subjects, the *plurality* which cannot be simply explained in terms of the natural. Embodied persons, as particular contingent realisations of anonymous and impersonal physical laws disconcert cosmologists, who are eager to dismiss any trace of them as not falling into the rubrics of scientific objectivity and explanation: scientific objectivity does not deal with contingencies in spite of the fact that it is itself a mental creation of a contingent formation in the universe. Scientific objectivity cannot come to terms with the fact that the world, disclosed and constituted, is contingent in its immanence with this contingent formation – human consciousness.[3] The whole edifice of cosmology manifests the universe but conceals intelligence as its noetic pole. *The universe possesses in physical cosmology such an object-like phenomenality which shows that the author of the scientific art-work of cosmology cannot be shown*. This view points to a philosophical

link between the problem of the facticity of multihypostatic human consciousness and facticity of the universe. Indeed, since all consciousness is intentional, the primary object of this intention in cosmology is the universe in which this consciousness embodies. Consciousness gazes at the universe as that premise which sustains the very possibility of consciousness. Hence, in the same way that scientific anthropology and psychology cannot tackle the problem of any singular hypostatic existence[4], cosmology cannot adequately approach the problem of the contingent facticity of the observed universe, that is its particular phenomenality linked to human agents. The constructive and nontrivial content of the anthropic inference is exactly the demonstration, by using physical propositions, of the interplay between a fundamental contingency of the universe (*noematic* pole) as well as that embodied consciousness (*noetic* pole) which grasps the universe. However, this contingency as such remains an ultimate unexplainable mystery.

In spite of the inevitability of the just stated conclusion made with "negative certitude" pertaining to a philosophical mode of thinking, physical cosmology persistently attempts to escape a philosophical verdict on the unknowability of the facticity of the universe and to *explain it away* by referring to the initial conditions in the universe as if they would contain all "information" about the present and future of the universe. Let us reflect upon this motivation. The objective of physical cosmology is to "explain" the specificity of the state of affairs in the empirical, observable cosmos. We have a display of different objects in the sky, different structural and physical phenomena, observed by various physical means starting with optical astronomy and finishing by detecting high-energy particles bombarding our planet from the outer space. There are two aspects in this variety of the natural phenomena: on the one hand we have some species of similar objects (let say galaxies or their clusters) which can be classified into groups; on the other hand there is a particular givenness of objects from these groups which display themselves in the cosmos in an absolutely contingent way (for example there are some particular famous galaxies which are associated with special directions in the sky: an obvious example is the Andromeda nebula which is seen by us through the constellation of Andromeda). On a smaller scale there are particular patterns of stars in our galaxy, which since ancient times have been grouped into constellations, whose display in the sky is contingent and given to us as it is. Another example of astronomical contingency is our planetary system which contains nine planets of particular sizes and parameters of their orbits. Since Kepler and later Newton the movement of planets is explained in terms of periods of revolution around their orbits in dependence on their spatial distance from the sun using known physical laws, but astronomy cannot explain the fact as to why there are nine planets (instead of twenty nine, for example) and why the concrete parameters of their revolution around the sun were set in an order which is observable now. In other words, neither astronomy nor physics can account for the initial conditions of the movements of various contingent objects in the universe in order to explain the specificity of their display in the sky (certainly an anthropic explanation from the fact of life can always be invoked: there must be necessary conditions in the very beginning of the universe which would allow life to develop). Said philosophically, the universe displays the contingent state of affairs on a huge spatial scale whose facticity and origin cosmology attempts to interpret, including the very physical laws which are employed in it. In pre-scientific eras "explanations" of the variety in the cosmos were given in mythological terms.[5] In modern terms, the idea of mythological

explanations amounts to an attempt to reduce the variety of contingent objects in the sky and peculiarities in their motions to a minimum, by representing the universal qualities of the cosmic display through symmetries and harmonies and by making all contingent happenings as derivatives and spontaneous outcomes from the rule.[6] A characteristic feature of such an attempt is a conviction that the underlying "world" of highly symmetric (platonic) forms is actually co-existing with the empirical display, but is not perceived through the senses. This underlying world was treated as ever-existing reality, with no change and hence with some stable universal patterns so that the stability of the universe as its identity in the background of the flux of mundane things is secured in the mythological view through the reference to these intelligible patterns (platonic forms).

What makes contemporary scientific cosmology similar to and at the same time different from mythological cosmologies is that, as a scientific discipline, cosmology can function only in the condition if its "object" (the universe as a whole) sustains *identity* in time. Indeed, according to Kant experience is possible only if time is involved as an element of unity and synthesis. However, in cosmology, this is not an innocent requirement: for example, in the case of a static and infinite universe (that is, by assumption, existing forever) the identity of the universe in time, is a tautology for, *de facto*, there is no objective physical time in such a universe – it is static. Correspondingly the observable universe (because of the postulated finitude of the speed of light) would be an infinitesimal part of an incommensurably bigger whole which is principally beyond of any empirical grasp.

In this case only could one legitimately talk about the identity of the visible part of the universe and infer (in a leap of faith) to the identity of the whole static and infinite universe. This in turn entails that the facticity of the observable universe would be the first and the last principle of its explanation, for there would not be possible to refer to any other state of the universe considered as an originary cause or an origin of the universe as we see it.

The situation changes drastically in a standard cosmological model accepted nowadays based on the idea of universal becoming. The universe is expanding and the idea of the evolution of the universe is taken exactly as that time-synthesis which is needed in order to preserve the unity of the universe as a whole. It provides us with images of the universe at different moments of time (a consequence of the finitude of the speed of light). The fact that the term "past" can be assigned to the universe as different from the ever-lasting present of the static universe (in a static universe the past is associated with ageing of the light signals but not with the evolving nature of its space related to the material stuff) is exactly related to the principle that there was an ultimate *temporal* beginning of the universe from which all its stages emerged and because of which one can observe the universe backward in time and in the entirety of its temporal span.

The ancient idea of the underlying eternal world becomes replaced here by another, but similar idea. This time cosmology finds refuge in saying that the present state of the observable universe (with its annoying contingent facticity) is the frozen instantaneous display of the temporal evolution of this universe from some remote initial state which in its seeds (through the laws of physics implanted there) contained the potentiality of all various features in the cosmic display. This kind of thinking naturally invokes the idea of the originary "past" of the universe whose partial consequences are displayed, a "past" as such which is not observable but "existed" physically long before that display which humanity looks at and speculates about.

What is also believed (and this is in some way supported by theory) is that this initial (early) state of the universe, in terms of physics and its logical presentation to human mind, is much "simpler" than the grandiose variety of different spatially and temporally disjoint objects displayed in the present universe because the initial condition is an idiosyncratic state of matter with either infinite or uncertain parameters. In spite of this uncertainty the motivation of cosmology remains the same: to explain away the contingent variety of objects and their species in the universe (as seen in the perspective of their "present") by "sweeping these contingencies under the rug" of their undifferentiated unity in the "past" of the universe.

The hope that such an attempt will be successful suffers from two logical flaws which can be elucidated through philosophical analogies. First of all, a theoretical attempt to reduce all variety of forms and structures in the universe to rubrics of the allegedly existing undifferentiated unity (which could play a role of a fundamental *substance*) does not make this unity visible. One infers to this unity from a premise that it is accessible to us only remotely through its differentiation and particularization in the course of time. It is not difficult to see that such an attempt to pronounce on the underlying unity of the universe is reminiscent of the ancient ambitions to claim that the substance of the world, i.e. the universals of the world, are in *water*, *fire*, *apeiron* etc.[7] Cosmology silently follows the same route of thought by postulating such a primordial substance at the beginning of the universe which is ultimately responsible for the variety of objects available in the cosmic display. However, here, there is a seeming difference with an ancient view: *water* of Thales or *apeiron* of Heraclitus were abstract notions but allegedly co-existing with the empirical display of the world. In this sense one could say that there were no temporal extensions within these substances. In a rather contemporary way of saying *water* and *apeiron* could correspond to a microscopic level of reality, but here and now so that there is no evolutional extension between universals and their empirical incarnations. Unlike this physical cosmology places the undifferentiated substance of the Big Bang in the past universe, assuming that there is a time-like extension in this substance which ultimately leads to the present display of the universe (there is a more radical assertion: whatever direction we observe deeper and deeper in the sky, we ultimately observe the Big Bang). Thus the difference between mythological and contemporary view of the world in terms of universals is related to the treatment of extension inherent in the underlying substance: spatial (in ancient cosmology) versus temporal (in a modern one). However, such a perception of the difference comes from a scientifically based conviction that when one looks at the sky of the universe one looks at its remote spatially and temporally extended past. This is simply implied by causality based in the finitude of the speed of propagation of light in the universe. But, and this is important, since the size of the visible universe is decreasing if one looks backward in time (due to its reversed expansion), one can also say that by "looking" (not optically, for light could not travel before the universe cooled down and split from matter) at the Big Bang we are "looking" (that is, are making insights) deeply in space (that is into the microscopic scales of space as we do through microscopes or in experiments in nuclear physics). In other words, one can say that a frozen display of the universe represents a geometrized passage of time. In this sense one can further conjecture that what is called the evolution of the universe in time from the initial Big Bang is effectively the unrolling of the universe through different scales in space (one must pay attention to the fact that this unrolling is driven by dynamical laws which

do not contain any intrinsic historicity, so that this unrolling is rather to be called not evolution but dynamic development determined by the initial conditions).

If the idea of the undifferentiated substance is laid in the foundation of the visible universe, then the problem becomes of how to explain in general the process of differentiation in the universe, that is generation of basic elements and structural units which form varieties of things in the universe. Still this would not help too much in terms of individual contingent things. By understanding that individual things are not subject to scientific descriptions cosmology intends to get rid of this individuality at all by saying that what is really interesting is to understand how a class of impersonal objects emerged from *something* undifferentiated and homogeneous. One speaks here not of contingent individual exemplar objects/beings, but of species of objects unified through realised physical forces (for example not of this or that galaxy, but of galaxy in general; not of this or that planet, but planets in general; not of this or that human person, but of human beings in general).

Cosmology uses the language of evolution in time in order to put the question about the origins of the variety of the astronomical display in the shadow of the non-observable, but imaginable and well believed "past", so that the primordial substance plays a role of the sought "mother"[8] of all differentiated things in the empirical world evolved through the series of cosmic transitions to its present state where we have this world amazing in colours and shapes. The idea of the Big Bang, as the idiosyncratic state of the universe in its asymptotically distinct past in which nothing was similar to that with which we deal in physics, is considered as the prototype, as the seed of all possible things in the universe which develop from this Big Bang. The problem, however, is that even if we describe the Big Bang in terms of a physical state which has been mathematically constructed as a backward in time extrapolation of what we have in the universe now, the Big Bang turns out to be merely a very clever *disguise* of that which we experience as the now of the universe.

Indeed, in the hypothesis of the Big Bang, the contingent facticity of the universe as it is observed here and now is reinterpreted in terms of a certain temporal origin in which the undifferentiated "substance" was "set up" in such a state as to evolve into the visible universe. The procedure of "naming" this initial state is supposed to play the role of disclosing the universe's identity and hence acts in thought as a disguised name of its present day displayed facticity. It is not difficult to comprehend, however, that the problem of contingent facticity of the universe can only be *explained away* by this type of reasoning through referring to the initial conditions, because there is no way to *explain* the contingent facticity of these initial conditions themselves.

Indeed, since every cosmologist works under the assumption that there is continuous physical causation in the universe, so that there is a chain of causal explanations of what happened in the universe if we extrapolate its behaviour backward in time, it is not difficult to realise that the equations which drive the universe backward in time, in fact, effectively encode the variety of existing objects in the spatial display in the astronomical universe into the same variety extrapolated backward in time, which is now treated as the "initial" condition for those physical states from which it has been backwardly constructed. However any hypotheses of the facticity of these initial conditions in the universe remain no more than hypotheses with no chance of their instatement to the status of laws of these conditions, because one cannot transcend the universe and these very initial conditions. Being hypothetical these initial physical conditions of

the universe acquire some particular imagery in different models.

Let us discuss an example of such an imagery presented in a famous idea of S. Hawking that the universe in the so called past was in a quantum state and did not have any point of origination. The universe was in a space-like state where all temporality, associated with the flux of time and irreversibility, was suspended.[9] This idea was a counter-reaction to the representation of the space-time structure of the early universe as a curvilinear cone, with an apex which is usually associated with the Big Bang.[10] In this representation the universe has a boundary as its temporal origin whose nature cannot be accounted by the physics which is suitable for the interior of the cone. In other words, the initial conditions at the Big Bang are not subject to the laws of physics within the universe and therefore some meta-physical assumptions must be made on the nature of their contingent facticity. This "incompleteness" of physics which requires philosophical inputs has been recognised by physicists themselves and was the leading motif for Hawking to remove it by suggesting sophisticated theories of how to avoid temporal origin in cosmology at all. This has been done by Hawking through a mathematical trick of replacing the temporal variable in equation for the wave function of the universe (which is usually associated with the empirical flowing time), by an abstract imaginary quantity which behaves like space ("imaginary" refers here to a special type of complex numbers)."[11] The aim of this quantum cosmology is to deconstruct temporality and to announce that there was no time in the early universe; the universe did not have a point of temporal origination: it just exists endlessly, from eternity. It exists as compact four-dimensional space, which is however contemplated by human observers (time is a figment of imagination, according to Hawking) in its "remote consequences" as a three-dimensional spatial structure evolving in physical time. The universe, mathematically described as "quantum", is experienced by us as its "classical" projection. The temporal original boundary of the universe is removed: thus there is nothing beyond the universe either in terms of space or time; correspondingly there is no need to appeal to any trans-worldly factors responsible for the facticity of the universe so that the universe is fully graspable by the human intellect which in this case is just isomorphic to it.[12] Certainly this type of scenario is fundamentally untestable if this testability is understood in the manner of the principle of correspondence with empirical evidence. One could raise a question as to whether the mathematical beauty of this theory and its intrinsic coherence[13], as an explanatory device, could provide a justification for this model to reflect "truth". However, scientists (as well as philosophers and theologians) were very much influenced by this model of the universe, because, in a way, the issue of contingency of its *temporal creation* (not creation in a sense of *ex nihilo*) was "explained away" whereas the facticity of the very "initial conditions" of the universe described through the "non-boundary" definition, or in terms of pre-existing Euclidian space, was not addressed and cannot be addressed at all.[14]

Assessing the Hawking's model philosophically one can suggest only two interpretations: either his scenario is purely Platonic, reproducing an ancient model of the frozen time or eternity, and, correspondingly, ordinary time as an image of this eternity[15], so that the quantum universe and its wave function represent an intelligible "substance" with no relation to physical reality whatsoever, or alternatively, it provides us with a new incarnation of the old Greek idea of substance (the wave function of the universe is this substance) which lies in the foundation of all possible differentiations among objects. In this

latter case the appeal to the "past" of the universe corresponding to its quantum stage does not have any sense for the universe described by Hawking; as having no boundaries and no temporal flux it cannot have any "past": past arises only as a figment of imagination). The question then is not about the *temporal origin* or *origination* of the universe, but about its *originary foundation*, that is the foundation of its facticity as having nothing to do with its alleged origination in physical time. Correspondingly the evolution of the universe has an absolutely different sense: it reflects not so much physical processes as if they had taken place in the past, but as a temporal representation of the underlying structure of the observed display of the universe by means of intersubjective temporality which in turn originates in internal time-consciousness. According to Hawking this temporal representation is physically initiated by a transition from a quantum state of the universe to its present empirically contemplated condition.

Another model of the initial conditions is based on a famous conjecture of R. Penrose about the low-entropy condition at the Big Bang, which is responsible for the observed display and irreversibility of processes in the universe.[16] His scenario is Platonically oriented, for in order to interpret the specificity of the initial conditions in our universe (and hence its facticity), Penrose makes his inference from the fundamentally non-observable but conceptually existing ensemble of universes with different initial conditions. This hypothesis has some resemblance to the widely discussed concept of the multiverse as a new incarnation of the perennial issue of plurality of worlds. The choice of a particular initial condition corresponding to our universe in Penrose's model is made by a hypothetical mechanism, interpreted by him as "creator's " choice.[17] This kind of "explanation" creates a feeling of satisfaction in some scientists that the observed facticity of the universe, in its intrinsic contingency, is explained away and referred to the realm of intelligible necessity of the plurality of the universes. However this sort of multiverse, being an abstract possibility of anything, represents another version of the idea of underlying substance similar to that of ancient Greeks whose particular empirical manifestation is launched by that demiurgic-like "creator" who, according to Penrose, pinned down an infinitesimal point in the set of all possible initial conditions. According to this model the ultimate antecedent for the contingent display of the actual universe is not the initial condition as such, but the intelligible reality of the ensemble of all possible universes, which is itself beyond time and space. In this sense this ensemble is always co-present with our universe as well as with our perception of the origin of the universe. The origin is meant here not in a temporal sense, but as an ultimate cause of this universe, similar to the absolutely necessary being which was discussed by Kant in his fourth antinomy. In this sense any referral to the origin of the universe in terms of its "past" again looses its sense. This, so called past turns out to be no more than a fiction, an abstraction which was deduced in the course of a desire to explain away the contingent facticity of the present by means of the still contingent necessity of the past.

The Originary Foundation of the Universe's Temporality and Consciousness

One can make some generalisations on the meaning of the origin of temporality in the universe which is invoked in abovementioned models of the initial conditions. Cosmology makes an assumption that time can be asserted through conscious acts as an attribute of the world constructed by physics, that is as that type of reality which has been in place prior to the human embodied intelligence in the universe (the time of the universe is asserted as non-lived, abstract

time). Then the alleged "origin" (as its originary foundation) of physical time is also thought in similar naturalistic terms. However this origin is obscure not only in physical terms, for physics can deal only with the already temporal, it is also obscure in the perspective of the intersubjective temporality of consciousness itself. Indeed, if consciousness is embodied in the elements of the universe, any thinking of the origin of the universe must implicitly contain hints on how to think of the "origin" (originary foundation) of consciousness itself and *vice versa*, that is the thinking of the "origin" of consciousness must implicitly contains hints on how to think of the origin of the universe.

And here we have to face a simple phenomenological fact that consciousness (either related to the whole humanity or to an individual) cannot deal with its own "origin" for it cannot stop the flow of intentionality and thus to make an introspection upon itself from a perspective of non/pre-consciousness. The temporal flow of consciousness is characteristic of the human life so that to exit it in order to "find" its pre/a/trans-temporal origin is not possible. In phenomenological terms, one has no access to the phenomenality of one's own conception or birth, that is to one's coming into existence (as internal time-consciousness) from that "non-existent" which is one's originary foundation. Detached from our originary foundation, the characteristic feature of its partial, "a-posteriori", phenomenality is exactly that it does not show itself: it is present only as an efficacious origin of all states of life. Correspondingly any constitution of such an originary state is an act in the already existent consciousness, that is in the present, in the context of the present. Thus the phenomenology of the originary foundation can only be established through the constitution of this "origin" through acts and insights taking place in the present. This raises a question on the sense of the reality of a thus constituted "origin": is this "origin" indeed in the temporal antecedents belonging to the sphere of the already unconcealed (and thus it is indeed the origin *par excellence*), or, *vice versa*, is this "origin" the hidden name of the backwardly extrapolated present, that is the name of the "past" as an open-ended constitution of its content taking place as a process directed to the future from the present?

It is then not difficult to realise that cosmology is doomed to deal with the same difficulty of not being able of phenomenalising the originary foundation of the universe and the source of its temporality. One possible way out from this phenomenological difficulty is to commit to a form of Platonic realism. If the thus asserted "origin" of the universe is treated as no more than a construction, that is as belonging to the realm of intelligible realities, this would not pose any problem, for the "temporal" status of such an intelligible entity would take the form of the immanent temporality of conscious acts which are directed from the present to future. The past of the universe as its origin would become an *ideal* whose content would be constantly filled in through the movement to an uncertain future. In this case one could avoid the antinomy-like difficulties of a Kantian kind because the past or the origin of the universe would be regarded as a material of an indefinite development of thought, in particular cosmological theory. Correspondingly this development as an indefinite advance would be devoid of contradictions since no definite concept of the past or the originary foundation is envisaged at all at any given stage of thought's development. But this treatment of the past or the origin of the universe in a platonic-like manner would be considered by physical cosmology as unsatisfactory, since the latter attempts to build its concept of the origin in rubrics of scientific objectivity and to treat it as "object".

Correspondingly, cosmology affirms that the time of the early universe *is* not an intelligible entity, but physical time, so that there is evolution of the universe in this time and what we observe in the universe here and now is the remote result of what had been in the universe long ago when the corporeality of subjects was not possible. Indeed, that which is remotely observed by the senses extended through technology as the frozen memory of the processes in the universe, cannot be participated in, or lived through, in principle because of its incompatibility with the embodied intelligence. An observational support, so that we see a frozen temporal span of the universe, comes from the fact that we see the universe backwardly in time along the null past light cone, so that the more distant the object we see the more we see the past of the universe. However, there is a limit to this seeing predicted by cosmology and based on the empirical evidence of the microwave background radiation pointing to the fact that the universe was not transparent to light before the so called decoupling of matter from radiation took place. Whatever properties of physical matter of the universe prior to this temporal limit cosmology predicates, including the very cosmic time, they are not observable in principle so that the nature of realistic commitment with respect to its theories is rather uncertain. Temporality and the constituted reality of these so called dark ages of the universe has a very limited and formal mathematical character to which no intuition corresponds: time is introduced in equations as a fictitious parameter incapable of any direct physical verification and thus has a relation to the physical non-lived time only within a belief-based ontological commitment.

As to the "origin" of the universe, what is happening in this type of reasoning is that human consciousness projects instinctively the intuition about the finite origin of this same consciousness (as posited in the immanent time of this consciousness), onto the outer world, the universe as if this universe existed long before the human presence was possible. It is interesting that warnings on the contradictory nature of such simple parallels have been made long before by G. Marcel: "We have to give up the illusion by which we compare the world to a person whose past (so it seems) can be completely realised. … [I]f it is possible for us to "realise" a person's past, that is because in an arbitrary way we envisage a discontinuous section of the "becoming", a section in reality bound up absolutely continuously with all the becoming that went before; we realise the past in question because we are only considering a fiction. And hence we should never view the world's *past* under the aspect of datum – for under this aspect it is inevitably contradictory and unthinkable. We should only regard it as the material of an infinite rational development (a development conceived as potential and future and hence not contradictory)."[18]

Indeed, when cosmology predicates things of the universe, or the universe as a whole as an "object" being out there independently of a subjectivity which articulates the universe, it exercises itself in what phenomenology calls the *natural attitude* of consciousness. In this case the present state of the universe, as well as its theoretical past, are treated as equal on objective, but distinct, physical references of cosmological theories. If the attitude changes towards the philosophical, that is, past and present are seen from the point of view of generating consciousness, there is a certain equivalence between "the past" and "the present", but the equivalence not of an objectivistic commitment with respect to them, but such that they are both being constituted. While within the natural attitude there is a temporal evolution of the universe and hence there must be an asymmetry between the universe's past and its present, from a phenomenological point of view the situation is

not so clear, because the intuition of "the past" (as having existed prior to any consciousness) is exercised in the present of consciousness of a cosmologist. In other words, "the past" of the universe represents an intentional correlate of the multiplicity of conscious acts of cosmologists at their immediately given "present"[19]. In this case the posited causality between different states of the universe appears to be a projection of that immediately experienced temporality of internal states of consciousness or thematised historicity which enters the rubrics of consciousness. "The past" which forms a part of the event of any perception and any given present, as a pre-predicative experience of the present, enters the horizon of all meanings in all thematizations of the world and, in particular, the physical universe. But in this case as pre-predicative experience, open to an indefinite constitution the "past" ceases to function under the aspect of *datum*. The past reveals itself as an originary intuition of the hidden antecedent of that state of affairs which humanity experiences in its developed, adult stage. If the universe is still presented under the aspect of datum, it makes irrelevant and impossible any questioning on the sense of humanity in the universe. As was eloquently expressed by G. Marcel long before scientific cosmology took its turn: "[M]ore I insist on the objectivity of things, cutting off the umbilical cord which links them with my existence, that one which I call my organo-physical presence in me, more I affirm the independence of the world with respect to my I, its radical indifference to my destiny, my goals, more the world thus proclaimed as the only real, would convert into an illusion, a documentary produced for my curiosity, but which in the long run self-annihilates by a simple fact that it ignores me. I mean that the universe tends to disappear to the extent it overwhelms me. And this, I believe, is that which is forgotten every time one attempts to crush man by the weight of astronomical facts."[20] From here one can draw the conclusion that any attempt to make cosmology existential and relevant for the elucidation of the sense of humanity implies only one possible strategy: the universe must not be considered as an object. But if it is not an object, it becomes a constitutive part of an existential event. What is the meaning of this paradoxical statement that the universe is "an" event or "the" event?

Eventuality of the Universe Because of Inconceivability of its Origin

By its definition as a wholeness with nothing beyond it, the universe cannot be subjected to the relational analysis because it is unique and one cannot rerun the universe or stage it as a physical "event" in a space of possibilities: in this sense the universe as a whole is identical only to itself, so that its unfolding facticity to reflective consciousness is characterised not only by irreproducibility, but, what is more important, by logical irreversibility as a coming into the facticity of one's existence. The phenomenality of the universe is its sheer givenness, which does not arise from our initiative and does not respond to our expectations (since it cannot be reproduced). It gives itself to us from its own self to such an extent that it affects us, changes us and almost constitutes us. In this sense we cannot stage the universe: vice versa it stages us out of its own giving itself to us.

The universe seems to be already there available for our arrival, life in it and to be gazed at. In this sense the universe imposes itself on us as preceding us, being without us even as it is adjusted to accommodate us. It appears to our view in childhood as well in an adult state as an unexpected, unpredictable fact, originating allegedly in what we perceive as the uncontrollable past. Supplied by theoretical apparatus, we indeed face the entire cosmos in its past and this past is not reachable by us apart from

deductions and intuitions. The more we study the universe astronomically, the more splendour we unfold; but this splendour itself is unexpected and unpredictable, unknown before we caught its glimpse in the sky. The "beauty" of the universe as it manifests itself through picturesque galaxies and nebula formations brings one to a state of awe when this one experiences the universe as *incomparable* and *incommensurable* with any particular *event* in one's life. The universe comes to me, engulfs and imposes itself upon me without my control and anticipation: thus its coming into existence in me testifies to the *event*. Since the coming of the universe to one's life can be applied to any human being which ever existed, the personal sense of awe and splendour of the universe is gradually semantically transferred to the sphere of the intersubjective on pages of books and others' impressions.

Here, from the point of view of a physical cosmologist there is an imminent difficulty: how can one treat the universe as an event if at first glance it is "an" object – the astronomical cosmos out there and what is beyond it. What is the basis for interpreting the universe as an object of cosmological research as "an" or "the" event? In order to avoid the futility of such an interrogation based on a simple thought that all objects can be treated as events, one should reverse this question and enquire how the essential event-character of phenomena of the universe became blurred and disappeared to the extent that it appears no more than an object? In other words, what happens to the phenomenality of the universe when it is reduced to objectivity? The objectivity of the phenomenon of the universe arises from an attempted quantitative synthesis in the style of Kant: to become an object any phenomenon should be expressed in terms of *quantity* or *magnitude*. Correspondingly the totality of the phenomenon is achieved as the sum of its parts through anticipation of a quantitative synthesis (*Critique of Pure Reason*, A163; B204). This signifies that the "magnitude of the phenomenon of the universe" (achieved on the basis of "summation" of astronomical objects) is always to be modelled in finite parameters and depicted in physically real or imaginary space.[21] In this sense the universe as a whole is *foreseen* before it is actually seen. The universe is confined in its quantity, defined through its parts and brought to a conceptual halt by the already made measurements. This reduction of the universe to its foreseeable quantity turns it into an object as if there were nothing else to be seen in it, nothing other than that which can already be envisaged on the basis of its theoretical construction, which is particularly typical for theoretical cosmologists who no longer need to *see* the universe (that is commune with it personally) because they *foresee* the universe in advance. In fact, a speculative cosmology could freely avoid any living insight in the universe on the basis of its theoretical foreseeing unless the measurements were to contradict this foreseeing, that is bring the constructed object to its breakdown.[22] The phenomenon of the universe reduced to an object deprives the universe of its independent and unrestricted appearance, placing thus its event-like characteristic in the rubrics of some common laws.[23] When cosmology treats the universe as an object it is assumed that everything in it remains seen in advance and nothing unexpected can happen which disqualify the universe from the status of an object. In this sense the universe as an object of particular theoretical study remains a phenomenon which has expired: nothing new can happen to it, since in those rubrics in which it is constituted it appears as that which is devoid of the mode of becoming or happening. Metaphorically one can say that the universe as object appears as the shadow of the event which is denied in it.

The universe as event cannot be foreseen since its partial causes which are invented by

cosmology remain fundamentally insufficient: a typical example is a particular version of the multiverse theory in which the space of all possible initial conditions for universes is postulated. This ensemble of the initial conditions is a necessary condition for this universe to be actualised in existence. However the realised facticity of this universe as the pinning down of the initial conditions which lead to the formation of our universe is not described by any theory and requires *ad extra* assumptions which do not belong to the sphere of physical causality. The realisation of these conditions is detected post-factum, when the event, that is the realised facticity of the universe, happened and was accomplished. But the event of choosing the appropriate initial conditions in this case is not subject to any causation based in the foreseeing of this event. It is not amazing that the possibility of these initial conditions which are impossible to foresee, remains strictly speaking, an *impossibility* with regard to the system of previously classified causes: indeed the choice of the initial conditions for our universe is practically impossible since it must be made from the potentially infinite number of all possible conditions.

In a different language the observation that the universe as a whole, as an event, cannot be foreseen on the grounds of any causation and hence testifies to an event can be rephrased as: the universe imposes itself on perception without one being able to assign to it a *substance* in which it dwells as an accident (or, as we said above, a cause from which it results as an effect). One could refer to the invisible whole of the universe as that substance "in" which the observable part of the universe (as its accident) dwells. The universe is given to us in its pieces and moments which represent the whole which will never be accessible *per se*. The invocation of the substance in this context would just mean a conviction that there is an undifferentiated unity of "all in all" and that the visible universe represents its particular incarnation. Once again, the visible universe, as an accident, "indwells in substance" which, in this case, is a mere mental abstraction. This mental split in representation of the universe as substance and accident does not correspond however to the immediate experience of the universe in the event of one's life, for it is in this event that it is exactly impossible to make a distinction between "substance" of life and life as an "accident". Correspondingly it is problematic to look for the cause of the universe (as effect) if it is perceived as *coaevus universum*, that is as "simultaneous" with one's life. In other words, the question of the facticity of the universe (as an effect of some cause) cannot be even addressed if the universe is seen as the totality of all. All rhetoric about the origination of the universe in the Big Bang, as the "cause" of the universe, has no philosophical significance, because it does not address the issue of the "cause" of the Big Bang itself. Even the appeal to the "particular" Big Bang taking place, for example, in the course of inflationary generation of many bubble universes does not reach any goal, since the cause of the ensemble of those bubbles indwelling in the "substance" of the "inflaton" field does not remove the question of the facticity of this field. Indeed, in analogy with ancient Greek philosophies this field can be considered as substance of the same mental kind as "water" of Thales from Miletus from which the actual state of affairs in the world can be produced by potentially infinite ways. One particular characteristic of the universe as an event amounts to the fact that the numbers of possible explanations of its facticity is indefinite and increases in proportion to the cosmological hermeneutics that cosmologists and their interpreters produce.

The assertion of the universe as a whole as an event does not deny its temporality (understood in cosmology as the universe's evolving in

time): in fact, the temporality of the universe as a whole cannot be that of the physical flow of pre-existing time, it is a different temporality of an event which must be elucidated. In order to do this let us start from a simple question: if the phenomenon of the universe giving itself in a mode of an event carries the signs of temporality, does it testify to the fact that the universe as a whole reaffirms the Kantian position that every phenomenon is a phenomenon if it admits a representation as experience in time-form of sensibility? The response to this is that while in Kant's view temporality serves only to allow the synthesis of phenomena as object with a certain identity, that is a guarantee of its permanence in presence justified through assigning it a cause or a reason, the event-like character of the universe as a whole cannot rely on this kind of a synthesis and thus permits a corresponding phenomenality of the universe contrary to the objectivity established in physical cosmology. The objectiveness of the universe as permanence in presence through its evolution becomes a sort of projection or even an illusion of an a-temporal event. The universe as an evolving object being described by mathematical laws, which empty the notion of the universe of any intuitive content, represents in this case a shadow of an event which gives itself as that which is given to us with the very fact of life. But then there is a question of the internal sense of the temporality of life itself. Indeed temporality belongs to the sensibility of subjects articulating the universe and orienting them towards the synthesis of already given objects. However, it is this same temporality (which masters the objective) that is never applied in order to constitute and define the operator of this synthesis, that is the transcendental "I". Then, if one conjectures that phenomena temporalized as objects (the evolving universe) preserve a trace of being an event (an intuition of the universe as a whole) still the transcendental "I" does not phenomenalise itself as an event. This happens because the "I" never phenomenalises itself at all: it does not appear among other phenomena, that is it is excluded from that phenomenality which it produces. In this sense the idea that the universe as a whole is an event seems to be counter-intuitive: indeed even if the "I" experience their communion with the universe through the a-temporal, that is a non-temporalisable sense of belonging and consubstantiality, any attempt to express this linguistically and discursively again puts the event-like sense of communion under the rubrics of *eidetic* temporality. However, there is one particular aspect of temporalizing the universe according to the phenomenality of objects which breaks with the poor intuitive donation of the universe and which inevitably leads to the invocation of the sense of an event, namely the universe's "beginning", its point of origination, that which in cosmology is called the Big Bang. It is here that the universe is explicitly eidetically temporalized as an event. And this happens not accidentally, but because of a deep analogy between the Big Bang (as a shorthand notation for the boundary of the universe) and an event of birth of any particular "I" which is the ultimate beginning and end of all possible predications of life as well as the universe. It is here that the "I" phenomenalises the universe as an event on the same grounds as it phenomenalises itself as an event of birth. In other words the universe receives its eidetic event-like temporalisation because the "I" as a subject of its disclosure and manifestation phenomenalises itself only according to the unique event-like character of its birth.

When cosmology tells us that whatever we see in the sky points towards the origin of the universe, the Big Bang, it asserts the universe as a phenomenon which shows itself in the mode of the already given to us in its sheer facticity as originating from this Big Bang. Such a

phenomenon of the universe is properly event-like. The question then is how to understand the origin of the universe showing itself as a phenomenon in the conditions where human subjects have never seen it by their own eyes. Correspondingly in order to "re-constitute" it (that is to constitute) one must rely on intermediate deductions following from observations and belief laden theories. If we make a purely speculative assumption that humanity is the only intelligent agency in the universe, then though the origination of the universe definitely takes place without human presence and perhaps before it, it should not be able to show itself to anybody other than human race. Cosmologists still consider it as a phenomenon because they constantly intend it: they want to know where the universe they live in comes from and what is its distinctive identity correlating with the fact of the human presence in it. These intentions are fulfilled with indirect testimonies and quasi-intuitions which, as we will see below have a psychological origin related to the anxiety of finding an impersonal but universal foundation for the facticity of existence.

The origin of the universe which contains human beings appears in fact a privileged phenomenon since a significant effort of humanity is devoted to its reconstitution as restoration of the lost memory of it, to giving it sense and even in a way responding to its appeal to us (as if the universe had its distinctive self-identity). Still, humanity cannot see this undeniable and unavoidable phenomenon directly: Gabriel Marcel expressed this explicitly: "I cannot really stand aside from the universe, even in thought. Only by a meaningless pretence can I place myself at some vague point outside it, and from thence reproduce on a small scale the successive stages of its genesis."[24] The fact that one cannot see the origin of the universe directly and that nevertheless it reveals itself as a phenomenon which cosmology constantly intends, constitutes an aporia which can be formally formulated in the following way: *the origin of the universe shows to humanity precisely that its origin cannot be shown*. This aporia urges a philosophical cosmologist to understand how a phenomenon that does not show itself directly (for indirectly the beginning of the universe is shown in its present facticity) not only affects humanity as if it did show itself, but, in fact, affects humanity in a more radical way that any other phenomena, since the beginning of the universe forms the necessary conditions for humanity's emergence in the universe, defines this humanity physically and biologically and even as conscious subjects. Such a cosmologist has to admit that since this indemonstrable origin of the universe reveals itself to him, it "happens" to him in that it endows the universe and hence human beings with a future. The origin of the universe cannot be qualified as a phenomenon in an ordinary sense because of its presence in absence, that is inability of any demonstration. However, it phenomenalises itself, that is, comes to pass in human life as an *event*, which was never present in presence, and is always already gone past, whereas never surpasses the present and, in fact, is always to come.

Thus one can say that the origin of the universe phenomenalises itself but as a pure event, that is, as unpredictable (there is no sense of temporality before the universe), irreproducible (one cannot rerun the universe), exceeding all cause (there is no physical causation beyond the universe) and making the impossible possible (the probability of origination of our universe in multiverse scenarios is always infinitely small, that is the universe is a-priori impossible), surpassing all expectations and predictions (the constant advance of knowledge of the universe does not make it possible to assign to the universe some definitive and stable features which could sustain indefinitely the observational tests[25]). Speaking of the origin of the universe we speak

of its donation: it is given to us in the measure it gives of itself and its givenness to us is an apodictic fact-event which alone is responsible for that which we call the phenomenon of the origin of the universe, or the universe as a whole. It is this givenness that initiates the encapsulated temporality of an event, which being projected onto the object-like temporality acquires the features of a shadow of the universe's wholeness and its non-originary origin.

Identity of the Universe: That Which Gives Itself and That Which is Being Given

Since the universe gives itself, one can legitimately asks for the elucidation of the sense of "who" or "what" is that which gives itself, or whether one can assign some identity to it. Theoretical cosmology has to work in conditions where its subject matter, i.e. the *universe as a whole* (as a name of this identity) is not available to a scientist in a way similar to identities of other empirical things. For an ordinary object its identity is formed through the object's presence and absence to a particular consciousness, so that the object appears in its identity as the unity of its profiles and impressions available to the public mind. One particular feature of constituting identity is that it can be formed through consciousness of its sheer absence, that is, its non-existence. For example, while experiencing the beauty of a flower one appreciates it without clear understanding as to why it was created and who could appreciate it if anyone would not be there. Thus the very identity of this flower enters our consciousness either from the perspective of its possible non-existence or in terms of our non-existence. The same is true with respect to another human being. The anticipation of the identity of the other constitutes one's own identity as radically distinct and different from this other. The disappearance of the other from the horizon of one's life thus affects one's own identity as being linked to that one which has disappeared. However, unlike physical objects, it is extremely difficult to achieve a clear consciousness of one's own absence for itself, that is, non-existence of oneself for itself. In spite of the fact that the very intending of this strange condition is intrinsically contradictory it cannot be entirely empty since it is still exercised from within the presence of one's subjectivity. A similar thing happens in cosmological thought, where any attempt to think of the universe as non-existent is contradictory, for it eliminates that same incarnate consciousness which thinks of the universe. Thus the sheer impossibility of non-existence of the universe and the impossibility of non-existence of that thinking self which thinks the universe at this very moment, invokes the sense of the universe's identity as that which is unavoidably *given*. Correspondingly the status of this identity as indemonstrable follows from the fact that the very existence of *ego*, its uniqueness as a hypostatic incarnation (birth) cannot be phenomenalised in the manner of ordinary objects. The identity of the universe as that which gives itself, cannot be phenomenalised in the manner of ordinary objects because the existential impossibility of its non-existence precludes its apprehension as an object. Thus the identity of the universe originates from the universe which gives itself in such a way that it does not show itself, but affects the thinking self to the extent that the whole content of its life is determined and produced by the universe.

One can reverse the latter thought and assert that from a human perspective it is the sense of identity of the *ego*, resulting from its hypostatic (that is personal) propensity, which determines the sense of identity of the universe. This reversal has not only an eidetic character: it is based in the fact that subjectivity attempts to constitute its own identity by constant appealing to its special origin in that unique event of human coming-

into-being, that is its birth. But birth as an event which precedes the *ego* (since the *ego* cannot have access to its own birth because it could not have existed yet) can be considered either as having no origin at all, that is its facticity has an existential absoluteness and one cannot establish any reference to anything in the world as its antecedent, or it can be considered as being a step in a chain of transformations in the universe so that its ultimate physical antecedent can be traced back to the very "origin" (whatever this may mean) of the universe. In the latter case the anxiety of birth is extrapolated heroically into the indemonstrable mystery of origination of all in an event similar to that of an individual birth, but at the scale of the whole universe. In this vision the quest for the identity of the universe reveals itself not so much as a cosmological category, but rather an existential one, proceeding from the sheer sense of personal, self-identical existence which naturally personalises all of that being which gives itself in the fact of this particular existence.

Thus the very sense of the identity of the universe originates in human beings contemplating it through communion and participation, as an immediate and direct experience of belonging *to* and unity *with* the universe. This communion is drastically different in comparison with the rational cognition of the universe in scientific cosmology which considers the universe as a composite of different eras, domains and ingredients, that is as a structured and complex system which in its spatial and temporal vastness dominates with the realms of the non-human.[26] One can characterise the identity of the universe, that is of that which gives itself, as an eidetic expression of our communion with the universe, that is a personal response to the gift of the universe in the gift of life. The identity of the universe emerges as a mental projection of that experienced permanence-in-presence of the field of the living consciousness in the background of which all moments and pieces of the universe are articulated. Expressed in the natural attitude the presence of the identity of the universe in human consciousness reflects the incarnate consubstantiality of all multi-personal humanity to the universe. It is this multi-personality as unique events of birth that represents the difficulty for science: it cannot deal with individual histories and temporalities related to personal birth and corresponding image of this birth, implanted in the personalised sense of identity of the universe. Therefore cosmology avoids this multihypostatic identity of the universe originating in different birth-events by reducing their varieties to a kind of objective although inter-personal, representation. This is what is exactly attempted in Big Bang cosmology which represents a form of impersonal appropriation of the universe by an anonymous transcendental consciousness stripped of any trace of its originality in events of birth.

For example, the "cosmological principle" is the central stance of the Big Bang cosmology, which postulates the uniformity of the universe in space. It asserts the universe from a pluralistic perspective as if one could reposition oneself from one location to another and see the universe in the same pattern as we see it from the earth. The *ego* exercises its ability to displace itself in an intelligible space in order to stretch its consciousness across the whole universe, which is "seen" not only as an *intelligible* entity but also as the *intelligent* entity (for example, as a multiplicity of potentially possible but undifferentiated observers). However, this displacement implies the loss of personality linked to events of unique birth, because this extended cosmic intelligence functions as disembodied and anonymous. The sought identity of the universe in this case is "present" as a banal intuition of the uniformity of all spatial pieces and ages of the universe, as the sameness of the hypothetical cosmic view of the

universe by all possible observers. Under these assumptions, some cosmological theories pretend to model and give an "image" to this identity. For example, if the universe is thought to be closed and finite in space and time, it is depicted as a curvilinear cylinder with two apexes symbolising Big Bang and Big Crunch.[27] It is in this act of creative imagination that the universe acquires a kind of non-person-related identity associated with that anonymous cosmological consciousness which has "created" it: the identity of an image is supposed to originate in the identity of "an artist" who produced this image.

The universe thought by cosmologists as something out there does not have its own hypostasis, hence it seems inconceivable that the identity of the universe can be disclosed solely as a movement of donation of the universe. The spelling out of this identity originates in humanity as a response to this movement in form of appropriation of this gift. It is because of this that sometimes humanity is treated as the *hypostasis* of the universe and its *voice*[28] (or, as Heidegger would say, the shepherd of being), that is as those agencies who in response to the universe's donation explore and articulate it, give names to it by attempting to bring to presence the hidden identity of the universe. To bring to presence does not mean that the sought identity acquires any hypostatic features. However, one cannot exclude that cosmological research, as human activity, forms the idea of the identity of the universe in a "quasi-hypostatic" sense, when the urge for research becomes an interaction with a yet unknown and fundamentally open-ended "being", which while giving itself to a cosmologist through a multitude of appearances, withdraws itself from any possibility of demonstration (unpredictable, unexpected ultimately unknowable). Here an analogy with a philosophical approach to personhood will be appropriate: in the same way as any other human person (as a modus of unique and incommunicable being) cannot be known by using syllogistic faculties of the thinking self[29], the universe cannot be known by means of simple observation, analysis and theorising. Then, seen from a philosophical perspective, a theoretical exploration of the universe (articulation as an object) can be interpreted as a vain attempt to investigate by means of discursive thinking another para-hypostatic being. In this case the fundamental irreducibility of a para-hypostatic being to its "pieces" and "moments" makes the cosmological enterprise a fundamentally open-ended, that is apophatic enterprise, similar to that aspiration of humanity to establish the sense of its own identity through grasping the sense of an event of physical birth whose phenomenality endows humanity with a future.

Phenomenology of Birth

The problem is that in analogy with the Big Bang which cannot be seen but only experienced in its delayed consequences, I have not seen my birth and I must rely on the account of my parents or other witnesses in order to attempt to grasp my birth as that occurrence which affects me through all my life, but I will never be able to reconstitute this event as a phenomenon. The phenomenon of birth gives itself without showing itself because it comes to pass as an event, that is something without foundation, ground, as origin but which is non-originary.[30] The exceptional and unique status of this event follows from the fact that birth gives itself together with that, that it gives *me to myself*. This is a mechanism how my birth phenomenalises itself, for without this giving me to myself I would not be able to realise that it is me who is affected by birth. The phenomenon of birth thus exemplifies the condition for any phenomenon: the possibility of phenomenalisation of something lies in the extent by which it gives itself. In this sense the phenomenon of birth is the first phenomenon which initiates the possibility of

receiving all other phenomena. The phenomenon of birth as a phenomenon par excellence, not being reducible to any preceding causes and being incommunicable and indemonstrable, forms that excess in human perception of life which is always allows for unpredictable and undescribable future, for an indefinite series of commentaries and insights on sense of this birth which extends forward in time while being treated retrospectively. Not being a phenomenon given to myself, I always experience an intention to look at birth as a phenomenon which initiated me, my identity, my spiritual growth, ultimately my hypostatic uniqueness. Birth as an existential premise is always silently encoded in all my actions, which attempt to reconstitute it in order to come to terms with the fact that I was born without my consent and can do nothing about it. In a way, my birth can be seen as the never-ending continuation of my experience of life, but it is still inaccessible as a phenomenon to my direct gaze. My appropriation of birth is an unceasing endeavour, which is always delayed. It is delayed because any retrospective reflection contains as its basic element a condition of a delay: delay between the occurrence of my birth and innumerable intuitions of its meaning. This inability to comprehend my own birth can be presented as a paradox: birth shows me exactly that my own origin cannot be *shown*. In this sense me as an original being, does not have an *originary origin*, that is a ground to which I can refer in order to deduce the occurrence of my birth from a chain of worldly events. In fact the very idea of the possibility of grounding my birth in the chain of worldly events signifies a fundamental reduction or deprivation of the phenomenality of birth of its excessive primordiality (not deficiency but excess). It is exactly because my birth is in the foundation of all derivative intentions to construct a chain of historical or cosmological transformations, which as antecedents would conclude in my birth, that all articulations are overwhelmed initially and irreducibly by the intuition of this incomprehensible and indemonstrable event of birth.

How then can my birth as a phenomenon, while not showing itself, affect me radically in the sense that it produces my unique existence in a particular, contingent, hypostatic incarnation? How can the origin of myself, which is present in all following events of my life show itself in such a way that, effectively, it is indemonstrable? The answer to these questions comes from the realisation that this showing has an eschatological character because the past of my birth is being shown to me only through its *anticipation* (as the intention to understand "who I am") as directed to the future. My birth has sense only as an "event" which phenomenalises itself by endowing me with my indefinite, potential future. Being an indemonstrable phenomenon birth reveals itself as an "event" that was never present to me in orders of "presence in presence" and always already imbued with the qualities of the having passed, but never irrelevant for the present and outdated. But even in this "eschatological phenomenalisation" my birth does not allow any demonstrability in a sense of communication: my birth for me is an event which cannot be grasped as a fact and correspondingly described in rubrics of thought and demonstrated, being irreproducible and surpassing any expectation and prediction. By rephrasing a passage from G. Marcel's *Metaphysical Journal*: I am my birth; I am the more my birth the less I treat it simply as a collection of events jotted in a notebook as possible answers to eventual questions. Does not that mean that between my birth and my actual experience there is a relation of sympathy, but that this relation is closely bound up with the function of my body? "Is not this global experience which is me, but which far from being capable of being objectified is the condition of any possible

objectification, the *mediating element* which alone allows the attention to bear on itself, that is to say, allows it to be? And the impossibility of defining this *past-subject* [*birth-subject*, AN] which makes memory possible is only another way of expressing the impossibility of treating the *mediating element* as an object and of forming an idea of it".[31] Here Marcel establishes a link between the event of birth and that which he calls incarnation, or in a mundane usage, embodiment. This link is important because apart from a teleological sense of an event of birth it entails a purely material, physical sense related to the very conditions, that is a possibility of this birth.

Indeed the event of birth (if we regard it to coming-into-being of unique persons) as an event is not accountable on the level of *sufficient* conditions of its happening: its outcome is unpredictable and unforeseeable: given the normal physical conditions birth (conception) might not happen at all. However the necessary conditions for this event to happen lie in the sphere of what preceded it, the physical plan. In this sense in spite of its sporadic and unique character an event of birth as physical incarnation contains in itself that something which made the happening of this event possible. And when we say that birth gives itself in an unmediated and indemonstrable way that is not to say it does not contain in itself and thus manifests the hidden conditions for it to take place. These conditions come with birth and follow birth in the same unmediated and indemonstrable way. This means that in no way can I treat myself as an absolute beginning. I can oversee the limits of my origin and look objectively at it, that is to formulate for myself the necessary conditions which made it possible. In a simple case of a personal family history I must admit that my parents were that necessary condition which made my appearance possible. I did not chose my parents and they are mine in an absolute sense. My embodiment links me ontologically to them and any refusal of this fact could imply an existential suicide. In this sense it is me who is ontologically responsible for what they have been or what they are. My parents are such existents who participate in the very possibility of my existence. Thus, with regard to all possible outcomes of my relations with them what always remains between me and them is piety, irreducible unity and unbreakable communion of being. But my personal story can easily be extended to that "before" which lies in the foundation of my incarnation not only on the level of my parents as a biological species, but that "before and out there" which make it possible for life to exist at all. One means the universe. Thus my act of birth entails not only an unbreakable communion with my parents but an unbreakable communion with the universe where I was born and which is an implicit premise of my articulations with regard to both my birth and the universe as a whole. Repeating a previous thought, I did not choose the universe where to be born. The universe then is mine in an absolute sense. I cannot disregard the universe because its presence is implanted in my birth: I am in communion with the universe. In an incomprehensible way, by being incarnate in the universe through my birth, I am personally responsible for the universe as it was, it is and it will be. The conditions of my birth point to that fact that the universe is not entirely alien to me and that it sustained the fact of my coming into being and in this very fact the universe manifests itself as a gift, as that which we receive together with a gift of life.

To summarise, on the one hand the event of birth endows us with a future, so that its explication goes on continuously as a process directed to the future: I am becoming more and more my birth through the articulations of its efficacious *telos*; on the one hand the event of birth manifests to myself the hidden conditions of its very possibility as related to the physical

incarnation and these are the physical conditions themselves of my birth that receive an articulation from within the same efficacious *telos* related to the sufficient conditions of existence of life in general which indeed remain a hidden and indemonstrable mystery.

An Example from Christian Literature

In order to give a literary illustration of some counter-intuitive observations made in the phenomenological analysis of birth, let us analyse the sense of birth assigned in the history of Christian thought and its theology to Jesus Christ, considered as an ultimate archetype of all humanity and whose incarnation in flesh recapitulated all creation. The very fact that we still remember the birth-nativity of Christ and that this event has ongoing efficaciousness in present history of humanity, amounts to its unmediated and indemonstrable character accompanied by hermeneutics reflected not only in exegetical literature, but also in visual art, fiction and poetry. In this sense the event of the birth of Christ remains a mystery, phenomenologically concealed from us, but endowing Christians with the future from the movement to which the sense of the nativity is unfolded.

Indeed the apostles and the Church affirmed that the Nativity of Christ, apart from its occurrence in the earthly history, contained the hidden message about the everlasting Kingdom which Christ opens to humanity and which nobody can close after him (Mt. 2:2, Lk 1:32-33; 2:11-12). The incarnation of the Logos of God in flesh was a manifestation of the end of the one old age, and the beginning of the new, the age which is driven by the "logic" of the Kingdom of God, the age which is eschatological *per se*.

There is a hidden dualism in the Christ-event. On the one hand, in its outward appearance as *an* event in the conditions of created nature, it begins with the Nativity of Christ, the birth of a human baby Jesus (as many other babies), and extends through his life and teaching towards his (human) death on the Cross. On the other hand, in the Christ-event understood by Christians as the Incarnation of God in human flesh, Christ recapitulates the long history of mankind and in that it rearticulates the hope of salvation, the promise of God to man and his Kingdom.[32] The hidden message of the Nativity, which later was set forth by Christ through his parable of the Kingdom, was a mystery, not accessible to everyone, but opened by Christ Himself to his followers. And when his disciples asked him what this parable meant, he said, "To you it has been given to know the secrets of the Kingdom of God; but for others they are in parables, so that seeing they may not see, and hearing they may not understand" (Lk. 8:9,10). The message of the Kingdom, which is manifested through the birth of Christ in Bethlehem, points toward a mystery of the union of man and God in Christ, man who was born in Palestine and God who, being in flesh, did not cease to be present hypostatically in the entire universe, being its ruler and provider of its order and harmony. Being in Palestine, he still was in the Kingdom, about which he taught his disciples. It is because of this that when theology asserts that the incarnation recapitulates the whole creation, it also asserts that the whole creation (from its beginning to the very end) is recapitulated from the perspective of the Kingdom of God. It is in Christ's incarnation that the sense of the temporal span of the universe as having already passed but not outdated is revealed so that the universe was created and fashioned to receive God in flesh in order for the inauguration of the future of the Kingdom to take place.

By pointing towards the age to come in his parables Christ encourages his disciples not to be preoccupied with questions about the facticity of his birth (and correspondingly to their own birth

and familial attachments), not to pose questions as "Why?" and "How?" Since the whole span of history is recapitulated by him, the contingent facticity of his arrival in the world in terms of space and time had no importance, whereas it had importance as the inauguration of the Kingdom whose realised presence endows with the future that which is here and now, in the past and present. This fragment of Christian literature can be considered as typology of anyone's birth: the preoccupation with the contingent facticity of one's embodiment, that is birth, is in vain since it is phenomenologically concealed from same one's grasp. One cannot understand the meaning of the birth of a new person apart from formulating some necessary conditions for its happening. However the event of birth endows a person with freedom and a future; correspondingly the process of disclosure of the sense of birth as well as the necessary conditions related to its embodiment aspects is directed to their future and endowed with a certain *telos* (closely related to the sufficient conditions of one's birth). Thus, in a Christian perspective, the sense of the event of one's birth comes not only from some familial or historically contingent circumstances, but from an existential fact that a new-born person is endowed with a future and a potentiality of salvation and that this endowment cannot be traced back as having antecedents. At the same time the hope for salvation makes it still possible not to forget of birth as a God-given event: the acceptance of birth is thus based not in memory (which is not possible) but in faith.

The question which naturally arises is whether, in its insistence on the unimportance of the historically contingent conditions of one's birth in terms of potential salvation of a person, Christian teaching neglects cosmological aspects of the possibility of life and, in particular, the very possibility of the incarnation of God in flesh of Jesus Christ? The answer is obviously "not". For the incarnation to take place on the earth, this universe must possess some features such that the generation of a human body capable of receiving God would be possible. This links the creation of the universe, its evolution and structure, to the phenomenon of man, its natural origin. The teaching on incarnation in theology articulates this link, making the sense of human presence in the universe as grounded in the will and love of the personal God, who transfers the image of his personality to human beings. This observation allows us to conjecture that the development of the universe before the incarnation of the Son of God in flesh on the earth, and after has, theologically speaking, a drastically different meaning. It was necessary for the universe to have such an origin and to be in a constructive development in order to sustain life on the earth and to allow God to condescend to us and to assume human flesh in order to initiate the new stage of salvation history. What will happen in the universe afterward, that is whether the universe as such possesses "a *telos*" (which may be related to the salvation history of humanity), is difficult to say, for according to the cosmological predictions, there is a natural limit to the extension of human life in the cosmos, so that the transferral of the saving *telos* to the universe will have a limited temporal span.

Apart from this trivial link between the natural conditions for persons' appearance in the universe and thus its physical structure and the possibility of the incarnation as the birth of Jesus, there is another more subtle connection between the incarnation and the origin of the universe as its creation. According to the Christian Creed the incarnation of the Son of God was present in God's plan of salvation before the world was created. This implies that the actual event of the incarnation in rubrics of space and time took place having in its remote antecedents the creation of the world which at least provides the necessary condition

for the possibility of the incarnation. This implies in turn that since it was the incarnation of the Logos of God, by whom in turn and through whom the world was created, the incarnation as a contingent happening in human history carries in itself some traces of the purposiveness of the universe towards this incarnation, and the explication of this purposiveness initiated in the event of the incarnation is exactly the ongoing articulation of the Kingdom of God which was announced in Christ's coming in this world. Thus the very articulation of this Kingdom in this universe presupposes its actual existence, that is its history initiated in its creation. Thus the eschatological aspiration for the Kingdom of God implies the elucidation of the meaning of creation of the universe: to understand the sense of creation one must proceed along the lines of the saving *telos* in humanity of Christ. In this sense the understanding of the incarnation of God cannot be detached from the disclosure of the sense of creation. Humanity, being endowed with the Divine image thus contains a hidden "memory"[33] of that creation when "all was in all"; correspondingly every particular birth of persons brings into the realm of phenomenological experience the presence of that ill-articulated otherness (with respect this particular creation) that is being attempted to be disclosed through the free movement into one's future by which one was endowed at birth.

The final theological analogy which somehow unites archetypically human birth and the origin of the universe proceeds from a non-trivial spatial paradox which inheres in the doctrine of the incarnation. Its essence, briefly, is: on the one hand, Jesus Christ, being in his nature fully human, lived being located in body in a particular place and time of earthly history; on the other hand, Jesus Christ was fully God, who did not leave his "divine place" and who, being God, not only was present in Palestine two thousand years ago but was always present in all places and times of the universe created by him and through him. One observes here a nontrivial, historic-topological relation between the finite track of Jesus in empirical space and time and its extraordinary link to the whole history of the visible universe.[34] The human nature in Christ was operating within the reality of empirical space and historical time, whereas Christ's divine nature was always beyond the empirical and intelligible aeons, in the uncreated realm of the kingdom of God, which can be expressed symbolically in terms of the "boundaries" of the created if these "boundaries" are seen from the divine dimension. It is from this "outside" that Christ the Logos of God coordinated the empirical space where he indwelled in the body with the rest of the created universe, including its *temporal origination* which is detected by cosmology. In this sense the incarnate Christ, being fully human, knew everything about the beginning of the universe, because remaining God, he "saw" this beginning from the "other" side of it. He was present in all locations and eras in the universe hypostatically and hence through knowledge of it. Thus he looked at the spatial and temporal span of the universe from a perspective of an act of creation, which as such could not have any spatial and temporal distinctions. Thus the whole universe was "seen" to Christ-Son of God as a single point, as a flash of the unconditional love of God with respect to the world. Here the human archetypical "memory" of the "all in all" receives its origin from an observation that for Christ the spatial and temporal extension in the world did not exist because he, while being fully man, still saw the world by the eyes of the Son of God. In this seeing the origin of the world was a particular human projection of the history of the universe as having a temporal beginning. Correspondingly, humanity, by being endowed

with the divine image, incessantly searches for this origin as the lost communion with "all in all".

From Phenomenology of Birth to the Big Bang as a *Telos* of Cosmological Explanation

Now we are in a position to summarise our discussion by bringing together all observations concerned with both the idea of the origin of the universe and inexplicable nature of one's birth. From what we have already said one can easily grasp that the search for the origin of the universe is rooted in a psychological desire to understand one's own origin[35], that is, the sense of one's own biological birth, understood in a philosophical sense as the mystery of hypostatic incarnation. In the same way as an event of a human being's birth is unavailable to phenomenalisation in consciousness, whereas its phenomenality unfolds while this being constitutes itself in its progression to the future, one can say that in cosmology the origin of the universe is present only in its actual absence, so that all attempts to articulate this origin (as intentionality of consciousness directed to the future) are doomed to deal with the unfolding facticity of the universe without any hope to achieve the "presence of the past in presence"[36]. It is in this sense that the very advance of cosmology towards understanding the past of the universe constantly deals not only with its unknowable *essence* but also with an unavoidable *absence*. In spite of the metaphysical fact that the origin of the universe, as its foundation, as the originary, as well as the origin of ones' person are radically unavailable to humanity because of the contingency of their facticity[37], cosmology still intends towards the principally unknowable and absent past as if it would become knowable and present at some distant future. Here cosmology exercises not so much its intrinsic creativity of constructing a variety of mathematical cosmological models, but rather that intrinsic *teleology*, that is purposiveness of enquiry into the sense of nature which is implanted in the very essence of the human condition. This condition, if one affords a theological terminology, can be expressed as man's desire not to be circumscribed by the necessities of the given nature and inevitability of the universe's facticity, and to see the universe (and hence articulate it) according to man's will and in its own image[38]. To know thyself means to know the universe. To know thyself means to understand the indestructable presence of the immanent self-consciousness which is always intending its own origin but, failing to fulfil its intentions, this self-consciousness appeals to the indefinite context of totality to which it desires to refer itself. Consciousness functions in the conditions of its intentional immanence to the universe; thus the searched foundation of consciousness as such, that is the ground of its facticity, implies the ground for the universe to which the immanent intentionality is directed. Then, if in the natural attitude consciousness thinks of its own origin in temporal terms (as birth), the origin of the universe also acquires some features of temporality and this leads to varieties of the Big Bang models. In a complete incapacity to establish the origin of the incarnate transcendental subjectivity in rubrics of ground-grounded relation, the understanding falls back into the natural attitude and physicalises its own origin by displacing it to the beginning of the universe where the idea of the beginning of the universe appears as a result of the human will (psychologically, because of the fear of contingency of birth which implies death, one wishes to establish a reference to a sort of stability which attaches some sense of existence forever) and its particular teleological mode. One argues then that the tendency to search for the origin of the universe is deeply embedded in the human

condition, being a kind of an *innate* idea, donated to every human being at the event of birth.[39] Theologically, this is an idea of the Divine image in man and an archetype of its lost likeness when man, like God, knew all because he was "all in all."[40]

We have already analysed in detail the dynamics according to which this *innate* idea realises itself in cosmology. Let us discuss here briefly the nature of that hidden *aporia* in attempting to think the Big Bang, which G. Marcel called a "meaningless pretence."[41] When cosmology predicates the idiosyncratic past of the universe, a characteristic displacement of the self of cosmologists takes place when they invoke (and thus consciously descend into) such a condition of the universe in which no incarnate conscious life was possible. The more a cosmologist's mind, in its eidetic reduction of the empirical, advances towards the Big Bang, the more it intends something which is fundamentally *non-human*. By circumscribing conceptually the allegedly physical content of the early universe, the self, its consciousness, works in a such mode of intentionality, in which intentions will never be filled and fulfilled because they are contradictory to the conditions of the life-world as a necessary condition for this consciousness to function. From a philosophical point of view one finds here not only an urge of the human psyche to find the impersonal "foundation" of the facticity of the world at the expense of losing the sense of uniqueness and identity of every particular human person, but also the loss of the sense of humanness. Characteristically those philosophising cosmologists who believe that through studying the alleged origin of the physical universe they touch upon sacred truth (for some pointing towards God) related to the mystery of one's birth, in fact, dissolve themselves in the abyss of non-human physics, which, although being a very interesting eidetic exercise, turns out to be devoid of any spiritual and soteriological meaning. (In fact this is a sort of triviality: all physics *per se* is devoid of ethics, spirituality and teleology. However physics, which grounds its foundation in something which excludes life becomes, an intrinsically contradictory, inhuman enterprise.) A corresponding cosmology begins to predicate the universe in esoteric (mathematical) and non-existential (not having immediate references to the realities of the life-world) language which is accessible only to those who follow this cosmological gnosis (in this it recalls all mystical philosophical systems of antiquity). Such a cosmological gnosis ignores obvious philosophical doubts about the ontological universality of its claims and objectivity based in the natural attitude. That is why from the critical stance of a phenomenological stream of thought it seems paradoxical to claim the object-like status of the Big Bang models (or different pre-existing universes – multiverse) which, in spite of being mental creations in the life-world exclude any incarnate consciousness.[42] Gnostic cosmologists sometimes believe that the asserted ultimate reality of the past universe, where all forms of matter were present in a kind of undifferentiated soup, has more relevance to the truth of existence than the variety of mundane and contingent experiences and that it is the meditation of this primaveral "reality" that fills one's life with content and meaning. In spite of the implicit teleological intentionality hidden behind such cosmological constructions there is one element in them which remains disturbing and existentially irrelevant, namely, the so called "lure of cosmos"[43] driving the cosmological mind in the search for the cradle of life in the "cosmic heaven" and which is deeply interwoven with the discomfort and anxiety arising from the inevitability of the transience and mutability of objects and lives of this earthly

world, which tragically contradicts the human longing for all-encompassing knowledge and a certain immortal sense of that which happens here and now. This anxiety inheres in the event of birth so that it comprises the innate *idea* presupposing a hidden *teleology* of the human spirit in explicating this event. In this sense all speculations on the origin of the universe are unavoidable as pertaining to the very essence of humanity in articulating its own purposiveness in the universe.

It is phenomenology which makes it possible to change the overall attitude to cosmology and its theories of the beginning of the universe because, by realising its *telos* hidden in the event of birth, phenomenology acts as that mode of thinking which unfolds the hidden *teleology of scientific research* and *teleological meaning of some particular scientific ideas*.[44] This teleology appears as an endless commitment to a theoretical task (understood philosophically) so that each particular scientific result or theory is considered as temporary and provisional and must be put aside while looking for the successive developments. Cosmology in this sense is not an exception and represents no more than a very sophisticated set of eidetic reductions from the empirical. The existential meaning of cosmology, its own ground and its sheer possibility, can only be understood if cosmology is referred to its roots in human subjectivity and to the cultural dimensions of the life-world, and thus to the hidden teleology of reason. Correspondingly the persistent exercise by cosmology of that intentionality which is directed towards the removal of the contingent facticity of everything and searching for the foundation of the universe (its originary origin as if "all was in all")[45], reveals the meaning of the notion of the Big Bang as the *telos of cosmological explanation* (as well as a *telos* of the human reason enquiring about the foundation of its facticity in the life-world in general).

In the natural attitude the meaning of the Big Bang was to describe the temporal origin of the universe as if it took place in the physical past: this was the ideal and *telos* of cosmology, that is to find such an expression of the original state of the universe which would allow one to describe in terms of species the variety of cosmic objects observed in the sky. The Big Bang, being the *telos* of cosmological research which advances and unfolds the sense of the universe forward in time, is allegedly placed within the natural attitude of the human mind in the physical past. Here we see the competing tendencies of human subjectivity which cannot function properly if this subjectivity is not "purified" by being placed within the phenomenological attitude. For that one who is in the natural frame of mind there is a paradox: how can we talk about the Big Bang as a *telos*, that is something which is supposed to be in the future, if this Big Bang is, by definition, supposed to be in the past?

As we argued above, the natural attitude to the Big Bang, that is putting the origin of the universe and time under the rubrics of datum, must be abandoned on simple grounds that its construct is achieved by means of a series of eidetic reductions, so that its physical characteristics, even if one admits the high degree of coherence in its theoretical description, make no sense in the context of what it is supposed to describe, namely, the present-day universe and the life-world. Then, by being a fundamentally unfinished and unfinishable construct, all existing and future theories of the Big Bang have equal weight and importance if they are treated from within a strictly scientific discourse: the idea of the Big Bang can only be a "normative form situated at infinity".[46] Thus each historical realisation of cosmology in its theories still has the idea of the Big Bang (as the hidden totality of all) within its historically contingent scope. The philosophical importance of cosmology becomes evident if it

is appropriated phenomenologically, when the reduction of all historical facticity of its theories is performed and the essence of cosmology as a search for the foundation of contingent facticity of all is realised. In this case the presence of the Big Bang theories in cosmology reflects the deep and inherent propensity of humanity to enquiry into its own origin and facticity, and then in the facticity of all that is given to humanity in the event of birth. This is what Husserl called *entelechy* of the reason, the reason which attempts to disclose the meaning of the universe in the perspective of its *telos*, when it will be united to the entire universe, that is, when for this reason "all will be in all".

But cosmological thinking does not anticipate its own intention for the Big Bang as a "teleological principle" of the working of the mind itself. The natural attitude of a cosmologist treats the Big Bang in terms of objectivity pertaining to a remote hypothetical past, its consciousness does not realise that, in fact, in allocating the Big Bang to the past, it acts from the present and its actions are initiated by the *telos* (of cosmological explanation) with which humanity is endowed at the event of birth, that is the *telos* which is always in the future with respect to both the event of birth and the origin of the universe. The philosophical sense of this oblivion of the human presence behind all theories is that cosmology as well as any science is incapable of contemplating the purposes and ends of nature which are accessible to humanity through its ability to feel the anxiety of being born and the teleology it is endowed with.

One can clarify the meaning of the Big Bang as a *telos* of scientific explanation by reminding oneself that the observable universe is always turned to us by its past: because of the finitude of speed of light, signals travel from the space to reach us, so that we detect the information from the sky not as it is here and now, but as it was at the time of its emission in the past. In the language of theory of relativity, the universe is observed along the past light cone, where the human observer, being at its apex, while progressing into the future still faces the universe only in its past and the realm of the unconcealed past expands together with the progression of the observer to the future. In spite of the fact that our capacity to observe the universe is restricted by the era when matter decoupled from radiation and the universe effectively became transparent for propagation of light, in its exploration of the early stages of the universe theoretical cosmology goes beyond this limit in the past (as was mentioned before some cosmologists believe that their theories are physically verifiable up to one second after the Big Bang) and attempts to model the processes in the universe up to the point of its temporal origination approximately 14 billions years ago. The advance of cosmological research, as the process directed to the future (the future which is also phenomenologically concealed) explores in more and more detail the allegedly existent past. Thus our knowledge of the past expands in the future. It is in this sense that one can claim that the future of the cosmological research results in expanding of our knowledge of the past. The "past of the universe" becomes the "future of cosmological explanation", so that the Big Bang as the ultimate goal of explanation, becomes the *telos* of this explanation.

In different words, the human observer progresses in its knowledge of the universe by moving into the so called future by its back, that is by always turning by its eyes towards the past. The Big Bang then appears as the *Ideal* of cosmological explanation at which the human gaze is always turned. The content of its knowledge is represented by the ever expanding base of the "cone of knowledge" so that future knowledge will acquire more and more content of the past. Thus the *telos* of cosmological explanation, its

ongoing goal and anticipation, is the past of the universe – the Big Bang.

Conclusion: Phenomenological Parallelism Between Birth and Origin of the Universe *Versus* Genetic Similarity

In conclusion we would like to rearticulate major points discussed in this paper by making a certain contrast with another line of thought, introduced in the philosophical treatment of cosmology under the title of "genetic similarity" between the development of the universe and development of a particular human being.[47] This idea appears as a natural inclination of the human mind to understand the universe along a certain teleology related to the fact of existence of human being and thus to the fact that the universe is observable and knowable. Correspondingly a hidden teleology implied in formation of an individual human organism is arbitrary transferred to a sort of similar "teleology" in formation of the universe. The idea is simple: according to a particular view at cosmology there were two major stages in the development of the universe. The first one is the famous "inflation", or the exponential expansion of the universe near its very beginning, which took place in the region of 10^{-36} – 10^{-34} sec after the "origin" at the cosmological singularity corresponding to the absolute zero of time.[48] The remarkable feature of this stage of expansion is that the universe, depending on different scenarios inflates in size at least by a factor 10^{27}, thus expanding the universe approximately from a size of 10^{-27} cm to 1cm. This remarkable figure shows that the matter in such a universe is subjected to an incredible transformation in terms of space: being initially in a grain of space it experienced a change in size which is "astronomically" huge in comparison with what it had started. Then within the next 300,000 years the universe expanded by approximately the same factor to the size of 10^{25} cm when matter decoupled from radiation and became transparent, that is that visible universe we face as sky. In other words within $3x10^6$ years (which constitutes approximately a grain of time of 1 out of $2x10^5$ corresponding to about 14 billion years of the predicted age of the universe), the universe expanded by a factor of 10^{52} whereas for effectively the same last 14 billion years it has only expanded by a factor of 10^3 to its estimated present size of 10^{28} cm. What stuns imagination is a strange non-uniformity in the rate of change of the universe's scale (at least 27 orders of ten) during an infinitesimal transition from 10^{-36} to 10^{-34} sec on the one hand, and the long 14 billion years for nearly the same order of scale growth up to the present state of the universe.

This incommensurability of rates of change in the development of the universe which, from the point of view of physics, is a contingent fact, is brought, quite arbitrarily, into correlation with the fact of biological development of a human being, namely that it develops in its prenatal stage from the size of a chromosome or the order of 10^{-7} cm to the size of the new-born baby of, let say, 50 cm and then during the whole span of life its size grows only 3-4 times. In other words, there was an "inflation" in the prenatal development of a human being, that is a growth in size of 10 million times within 9 months, and then a very slow development to the adult state, let's say within 20 years, when the size of a human being reached, let's say, 2 m. This contingent analogy was proclaimed as a "principle of genetic similarity between anthropogenesis and cosmogenesis."[49] The author of this "principle" recognises that it probably does not advance either cosmology or anthropology since it has a heuristic character. Indeed this principle functions only on the level of consubstantiality

between human being and the universe by making some particular suggestions on how this consubstantiality develops through the prism of either the universe's evolution or an individual human development. The analogy is developed in the natural attitude assuming in advance the presence of developed intentionality grasping this analogy. This implies that "the principle of genetic similarity" does not establish any phenomenological insight in the event of birth and the endowment of a human being with personhood, that is the future and freedom of its creative acts, which transcend nature, including the universe itself. Indeed the hypothesis of genetic similarity does not venture to make any speculation on the origin of *personhood*, that is on the act of birth as coming into existence of otherness and freedom from bonds of nature which tends to subordinate personhood to its uniform conditions. Whereas our analysis of the phenomenology of birth was mostly concerned with the formulation of its phenomenality as not related directly to the natural conditions of birth. It does not mean that birth is a singular and unrelated event: on the contrary birth itself is a response to "a pre-existing invitation-to-relationship".[50] In this sense birth is an event in the mode of nature, where its potentiality for freedom and future points to a pre-natural factor, a hidden personal centre which transcends all datum and meaning, an existential factor of referential reciprocity or relationality. A relation that is implied here is a relation to that transcendent other with respect to which the very event of birth affirms itself as an existential response of generating a new other. On the one hand the event of birth of a person is free from any antecedent definition in the realm of the natural conditions (the necessary conditions for sentient life do not provide the sufficient conditions for creation of persons), on the other hand the birth of a person is a response to invitation which as such is not naturally conditioned but is related to that non-originary origin which man attempts to constitute through its movement to the future granted at birth. And it is here that the unique and incommunicable mode of personal existence manifests itself as a unique way of constituting the sense of birth. The uniqueness of personhood of a new-born lies exactly in the fact that it is not a dualistic reflection of parents and has an independence from the constitutive principle of life in general. And here the implicit teleology in explicating one's birth, which cascades up towards a teleological way of explicating of the origin of the universe, comes in contrast with a naturalistic teleology implied in the hypothesis of genetic similarity. But the latter, having got an arbitrary character is subject to that critique of purposiveness of nature which has been done by Kant in this *Critique of Judgement*.

And finally, in spite of these obvious differences between the phenomenological parallelism between an event of birth and the Big Bang, developed by us, an interesting observation can be made related to a hypothesis of genetic similarity that the prenatal stage in the development of human beings, that is that stage which immediately precedes physical birth is very rich in term of communion of an embryo, that is future full-bodied human being, with physical reality on those spatial scales which are not accessible to our empirical contact in the state of adulthood. In other words, if one suggests that there is a sort of memory of prenatal states of consciousness (even undeveloped) at the microscopic scales of communion with the physical universe, this memory can act as the overwhelming and bedazzling experience of coming into being from something "other" than that from which the developed adult realises itself. This other can be the universe, and communion with that other is the communion with the

universe. In this sense the phenomenology of birth, as the constant inerasable presence of the non-originary origin of personhood can point towards the phenomenality of the universe and its non-originary origin.

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1 I argued elsewhere that cosmology, because of its peculiar "subject matter" – the universe as a whole, exhibits some features of the human sciences (Nesteruk , 2011).

2 See a now classical book of (Barrow, Tipler, 1988) as well as a recent collection of articles on fine-tuning: (Barrow et al., 2008).

3 Here one can observe the presence of two tendencies, contradictory, from a phenomenological point of view: on the one hand, physics and cosmology represent an example of eidetic reduction of the historical plurality to a-historical physical laws (driven by differential equations with no intrinsic time); on the other hand, the internal temporality of consciousness realised uniquely in different persons and thus implicitly making an ontological difference between them, as well as subjective time, are "contra-reduced", so that the cosmological time is considered as existing objectively and independently of the human subjectivity, as if it could be grasped in the natural attitude. In the former case we effectively deal with the eidetic reduction, whereas in the latter case we deal with the procedure which is opposite to the transcendental reduction.

4 C.f. (Clément, 2000, p. 30).

5 A concise expression of what it meant (relevant to our discussion) can be found in (Ladriere, 1972, p. 153): "The cosmological myth is an account of cosmogenesis. It tells how the world was made, how the contemporary world that stands before our eyes developed from what went before, from the non-world, the formless... The schema of the representation is a successive unfolding in which there is a movement from homogeneous unity to a qualitatively differentiated multiplicity…"

6 An example of such a symmetry is postulated in the cosmological principle (the uniformity and isotropy of the universe on the level of clusters of galaxies) as the principle of non-observability of contingent deviations from uniformity. All observable non-uniformity such as our solar system of the Milky Way exhibit the breakdown of that symmetry on a much lesser scale than clusters of galaxies.

7 On the analogy of the ancient Greek quest for the underlying matter and contemporary physics see (Feinberg, 1966).

8 Jean Charon compares a relationship between man and the universe as that one of an enfant to his/her mother, the relationship which is based on love and reminiscent to that of the love of ancient Greek philosophers to the cosmos (Charon, 1974, p. 14). Contemporary cosmology, according to him, making a grandiose picture of the physical universe "disincarnates" this universe in the sense that the relation of love and communion is broken, so that, using the words of G. Marcel, cosmological theory attempts to "crash man by the weight of astronomical facts" (Marcel, 1940, p. 32).

9 According to Hawking, temporal flux is a "figment of imagination", so that the "real" underlying world is a-temporal, that is either trans-temporal or simply ever-existing. (Hawking, 1988, p. 139.) Here we have an example of dismissal not only of the internal time-consciousness, subjective time, historical time, but also the objective physical time. Temporality as a basic category of the world of living beings is eliminated.

10 The detailed explanation of this can be found in a paper of (Isham, 1988). See also (Nesteruk, 2006, pp. 169-191).

11 (Hawking, 1988, p. 139). Its physical meaning (saying nothing at all about it existential meaning) is completely unclear. For Hawking, however it was not a problem at all, for according to his suggestion "the so called imaginary time is really the real time, and that what we call real time is just a figment of our imaginations.

12 The apology for such a cosmology led Hawking to the dismissal of the idea of God as creator, in his famous phrase "What place, then, for a creator?" (Hawking, 1988, p. 141). This is in amazing correspondence with that which was predicted, and criticised, by E. Husserl in his *Crisis of the European Sciences*, namely that extreme mathematization of nature makes human beings to believe that they rule their own affairs in the universe by believing that the universe as it is described mathematically is ultimately true, so that they replace God (Husserl, 1970, p. 66).

13 Some arguments that theoretical cosmology implicitly uses as its methodology coherence of justification instead of the principle of correspondence were put forward in my papers (Nesteruk, 2009, 2011).

14 See a detailed philosophical and theological analysis of Hawking's ideas in (Nesteruk, 2003, pp. 141-159). (In Russian, see (Nesteruk, 2006, pp. 191-218)).

15 On a neo-platonic interpretation of Hawking's model see (Nesteruk, 2003, pp. 145-152) or in (Nesteruk, 2006, pp. 198-208).

16 See a popularised version of his ideas in (Penrose, 1989, pp. 435-447), as well as in (Penrose, 2005, pp. 686-734).

17 In the language of mathematics this choice corresponds to such a setting of the initial conditions in which the high degree of order was present and is mathematically described by the so called Weyl Curvature Hypothesis. The explicit pictorial representation of this choice is given in (Penrose, 1989, p. 444) and (Penrose, 2005, p. 730).

18 (Marcel, 1952, p. 8, emphasis added).

19 As was formulated by J. A. Wheeler, "The past is theory. The past has no existence except as it is recorded in the present….Is the term 'big bang' merely a shorthand way to describe the cumulative consequence of billions upon billions of elementary acts of observer-participancy reaching back into the past?" (Wheeler, 1985, pp. 366-7.) See more on his ideas in (Wheeler, 1996, in particular pp. 299-302).

[20] (Marcel, 1940, p. 32).

[21] Indeed in textbooks on cosmology as well as in popular books their authors sometimes give the graphical representation of the whole universe which manifests a typical representation of the universe as an "object" constructed in terms of quantity and magnitude.

[22] Kant famously described this situation in terms of expunging of teleology from the natural science in his *Critique of Judgement*, $ 68 (5:833): "this is done in order to restrict the study of nature, mechanically considered, to that which we can so subject to observation or experiment that we are able to produce it ourselves as nature does, or at least by similar laws. For we see into a thing completely only so far as we can make it in accordance with our concepts and bringing it to completion.". This translation is from (Kant, 1972, p. 172).

[23] This is what Heidegger called in his analysis of a technological acquisition of the world "enframing". "Enframing" in cosmology means that the universe shows itself to the extent of a particular human demand where it cannot manifest on its own terms. This "enframing" comes not only from the limits of technology used in observational cosmology, but from the very special and incomplete nature of the human cognitive faculties related to the understanding. As was suggested in a paper of (McLaughlin, 1985), the very quantity of distinguishable objects in the universe, that is its material content, is limited because of the limits imposed by the categories of understanding.

[24] (Marcel, 1965, p. 24).

[25] Rephrasing a famous thought of Heidegger on the essence of technology, if the essence, the coming to presence of technology of cosmological research, "enfraiming" as the danger of leaving behind all other aspects of the universe, is the universe itself, then cosmological research, that is interaction with the universe, will never allow itself to be mastered, either positively or negatively, by a human doing founded merely on itself. Cosmology understood widely, whose essence is the universe itself, will never allow itself to be overcome by man. In a different context this correspond to that which is called the apophaticism in knowledge as inability to exhaust by means of signifiers of that which is studied.

[26] One means here that given the large-scale structure of the universe it is empty of any possibility of life at least in what concerns the visible universe. Correspondingly only these scales can be described by cosmology with a great efficiency.

[27] One could list a variety of such diagrams and graphical presentation scattered in popular scientific books. What is typical to all of them is that the universe presented as a thing in the form of consciousness as if this consciousness is positioned somewhere outside the universe. The main philosophical flaw encoded in these diagrams is that the universe as a whole is apprehended in the natural attitude which is impossible because of the immanence of the universe to the field of consciousness.

[28] The stance on humanity as hypostasis of the universe is developed in chapter 7 of (Nesteruk, 2003) as well as in some other papers quoted therein.

[29] This situation with respect to the person of the other was characteristically formulated long ago by Gabriel Marcel: "The other as other exists for me only in so far as I am open to him (insofar as he is a thou), but I am only open to him insofar as I cease to form a circle with myself within which I somehow place the other, or rather, the idea of the other; for in so doing, the other becomes the idea of the other, and the idea of the other is no longer the other as such, but the other qua related to me, as dismantled, as dismembered or in the process of being dismembered" (Marcel, 1991, p. 75). Here is another quote from Olivier Clément elucidating this point: "To know something of the mystery of the person, we must go right beyond its natural context, beyond its cosmic, collective, and individual environment, beyond all the ways in which it can be grasped by the mind. Whatever the mind can grasp can only be the nature, never the person. The mind can grasp only objects, whatever is open to inspection. But the person is not an object open to inspection, any more than God is. Like God it is incompatible, inextinguishable, fathomless." (Clément, 2000, pp. 30-31). (See a vast discussion of this issue in (Yannaras, 2005), (Levinas, 1987).

[30] See on phenomenology of birth (Marion, 2003) as well as (Marion, 2002, pp. 41-44). See also (Romano, 1998, pp. 95-112) and (Henry, 2003, pp. 123-142).

[31] (Marcel, 1935, p. 243). English translation from (Marcel,1952, p. 249) is corrected.

[32] See, for example, Irenaeus of Lyons, *Against the Heresies*, III 13, 1.

[33] The word "memory" is used here metaphorically as a constituting aspect of the human soul or its divine image. Correspondingly the "remembrance" of "all in all" of the creation comes through faith in God. In similarity with what wrote Augustine, that human soul remembers God "not because it knew him in Adam, or anywhere else before the life of this body, or when it was first made in order to be inserted into this body" for everything "has been erased by oblivion" (Augustine, *The Trinity*, XIV, xiv (21)), the "memory" of "all in all" originates in God himself. In his *Confessions*, X, xxvi (37) he asks and responds: "Where did I find you [God] to be able to learn of you…if not in the fact that you transcend me [above me]?" Indeed to have a memory of "all in all" one is to be in communion with God either in faith or in unbelief.

[34] On the problem of paradoxes linked to the dogma of the incarnation and spatial structure of the universe see (Torrance, 1997), as well as the paper with reference to Patristic resources (Torrance, 1974).

[35] The similarity between both is formulated in the quotation from G. Marcel as a prologue to this paper.

[36] Martin Rees, the Astronomer Royal, assessing the reliability of cosmological theory with respect to the early universe, wrote in one of his papers that "I would now place 99% confidence in the extrapolation back to *one second* [from the ultimate beginning of the universe, AN]". (Rees, 2003, p. 24). Whatever is beyond of this 1 sec. towards the Big Bang is not subject to a strict verification even by theory itself and as Rees expressed himself, he leaves a 1% chance of being deluded by theory of what was before 1 sec. In this sense the ultimate "originary" origin of the universe, as its pre-existent past cannot be brought to presence in presence even by means of theory, thus leaving us with its unavoidable absence.

[37] (Marcel, 1965, p. 24).

[38] This is a theological conviction, supported in particular by a 7th century Byzantine Saint Maximus the Confessor who taught that God knows things not according to their nature, but according to his will (See *Ambigua*, 7. PG 91, 1085B.) Correspondingly human beings, because of the divine image in them, imitate this desire to know according to their will.

[39] Jean-Louis Chrétien, discussing the sense of the unforgettable (immemorial) in human life, and referencing to Malebranche, invokes an idea of being as something similar to that innate idea which we put under the rubrics of the "originary" origin of the universe: "The mind breathes only through being which is more original to us than ourselves. We are of being more than of ourselves. This unforgettable and incessant presence of being to mind is not an object for the mind, but the mind's very opening, its only light, and its condition of possibility." (Chrétien, 2002, p. 86.)

[40] C.f. (1 Cor. 15:28).

[41] (Marcel, 1965, p. 24).

[42] One could suggest along the lines of the anthropic inference in cosmology that the non-human past of the universe was a necessary condition for the later appearance of life, so that there is no contradiction between what the Big Bang cosmology affirms as the non-human physical state and what emerged from this states afterwards. The naivety of this argument is based in the belief in the continuity of cosmological as well as biological evolution which led to emergence of consciousness which articulates this same evolution as well as its origin. The difficulty lies in the part of this argument which supposed to deal with the sufficient conditions of emergence of consciousness. These conditions are not part of physics and rather belong to the realm of human will and destiny. It is in this sense, that when F. Dyson in his book (Dyson, 1979, p. 250) argues, along the lines of the anthropic argument, against J. Monod's apology for the accidental coming of intelligent humanity in the universe, by saying that "I do not feel like an alien in this universe. The more I examine the universe and study the details of its architecture, the more evidence I find that the universe in some sense must have known that we are coming" he effectively invokes a *teleological* argument by reference to the existence of another, parallel sense of the universe's future as the unfolding of transcendental history through which the physical history is articulated. But this "knowledge" by the universe that we were coming cannot be consistently placed in the framework of scientific explanation. It is rather an axiological and soteriological argument which refers to the *teleology* of human reason.

[43] This term was used by N. Berdyaev, who discussed the theme of "cosmic temptation" in (Berdyaev, 1944, pp. 93-102).

[44] The ideas about teleology of scientific research were developed by E. Husserl in his last work *The Crisis of the European Sciences*. See also a paper (Rizzacasa, 1976).

[45] C.f. (1 Cor. 15:28).

[46] To understand this means to avoid mythology in questions of the beginning of the universe. As it was expressed long ago by Hannes Alfvén: "It must be absolutely clear that if a scientist makes a guess about the state of the universe some billion years ago, the chance that this guess is realistic is negligible. If he takes this guess as the starting point for a theory, this is unlikely to be a scientific theory but very likely will be a myth." (Alfvén, 1977, p. 13).

[47] See (Pavlenko, 2003; 2004; 2008).

[48] The absolute numerical values of the beginning and of the inflationary phase of expansion vary in different books on cosmology. See, for example, (Liddle, 1999, pp. 102-3).

[49] See (Pavlenko, 2003, p. 48).

[50] (Yannaras, 2004, pp. 171-182).

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Происхождение вселенной и событие рождения: феноменологические параллели

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В статье проводится феноменологический анализ проблемы происхождения вселенной. Мы проводим точку зрения, что идея так называемого Большого Взрыва представляет собой завуалированную проблему случайной фактичности наблюдаемой вселенной. В ней воплощена интуиция об ограниченности трансцендентального сознания, отнесенного как ко всему человечеству, так и каждой индивидуальной личности. Представление о Большом Взрыве аналогично интуиции о сокрытом начале человеческой жизни, которое человек пытается эксплицировать в процессе своего развития. Тот факт, что как начало вселенной, так и начало человеческой жизни феноменологически сокрыты от сознания, указывает на то, что любое вопрошание о них составляет базовую тревогу существования, его «космической бездомности», которую человечество пытается преодолеть. Интересным является то, что начало жизни и вселенной эксплицируется посредством движения в будущее, так что и то и другое становится телосом либо антропологического, либо космологического объяснения. Этот контринтуитивный результат напрямую обязан феноменологическому исследованию космологии как представляющей структуру человеческой субъективности.

Ключевые слова: космология, вселенная, происхождение, рождение, сокрытость, феноменология, телос.