

Prince John Loewenstein

GOSSIP ABOUT GENESIS

In many primitive societies there is no deep concern about the origin of the world. The Eskimos, when asked who had made the heavens and the earth, always replied: "We do not know". A Zulu was asked: "When you see the sun rising and setting, and the trees growing, do you wonder who has made them?" He replied simply: "No, we see them, but we cannot tell how they came; we suppose they came by themselves".¹ While the Australian aborigines believe the world never came into existence, but has always been exactly as it is now, the Polynesians, the North American Indians and other primitives developed a complex cosmology, accounting in great detail for many phenomena of nature.²

Each myth, each hypothesis explaining the ultimate origin of the world, has been outgrown, and the belief in supernatural powers was gradually replaced by the self-correcting, ever-changing quest for objective truth, when astronomy ceased to be the handmaid of theology and became the first science in Western thought. Before the invention of the telescope, the unaided human eye could see between 5,000 and 10,000 stars, counting all those visible in different seasons. In 1960 the astronomer Harlow Shapley wrote: "There are at least 10^{20} stars within the distance we can reach with our telescopes. That means one hundred thousand million billion stars".³ In short, man knows today that the earth has no preferred position in time and space and that it is the centre of nothing; he discovered that our sun and its ten planets (including the recently predicted planet X) float near the rim of a vast wheel of stars more numerous than the sands of the seashore—that our home galaxy—the 'Milky Way'—is not the centre of the Cosmos, but a member of the 'local group' (an association of some 20 galaxies, about three million lightyears in

diameter). . . . There are countless billions of galaxies.⁴

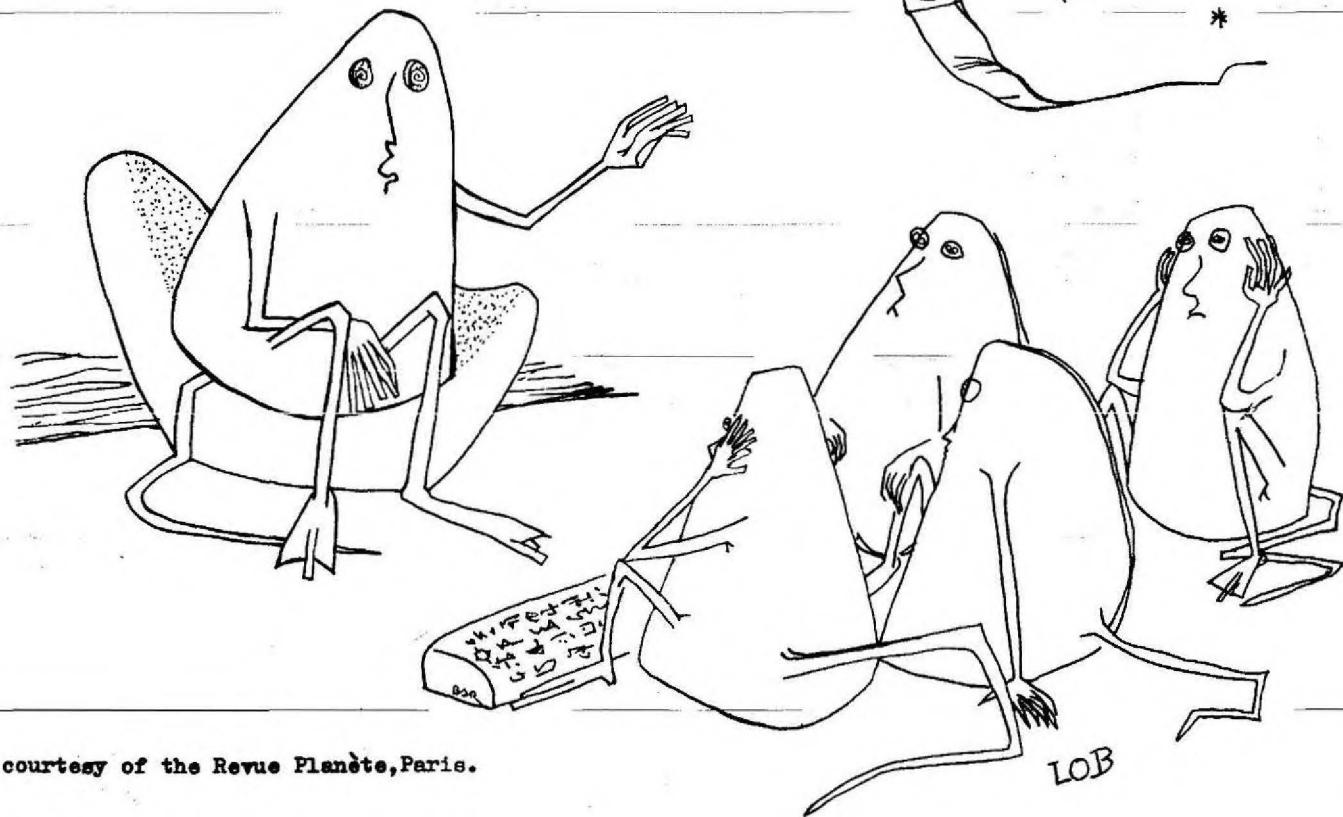
Man's existence in the midst of an infinite Universe seems truly absurd. As Pascal expressed it so beautifully:

When I consider the short duration of my life, swallowed up in the eternity before and after, the little space which I fill, and even can see, engulfed in the infinite immensity of space of which I am ignorant, and which knows me not, I am frightened and am astonished being here rather than there, why now rather than then.

Since the authors of Genesis had no notion of space and therefore no special term for 'World' or 'Universe', they began their story with the creation of the Earth and of Man.⁵ In a like manner the Martians might have started their story with the creation of Mars and the Martians. Anyway, as the artist Lob sees it:

(See 626B for illustration)

'In the beginning God created heaven and mars ...
then he created the Martians in his own image.'



626B

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By courtesy of the Revue Planète, Paris.

LOB

True, man's old dream about life on Mars seemed to fade for good in 1965 when the first photographs of the planet, taken by U.S. spacecraft Mariner 4, were received. These pictures revealed a barren world without atmosphere and water. Lately, however, our view of Mars has been radically revised owing to the findings of Mariner 9. The remarkable photographs radioed back by this robot raise the hope that some primitive life does exist on this planet (*Time Magazine*, May 22, 1972). Anyhow, in the enormous distances of our own galaxy there may be hundreds of thousands of planets with conditions suitable for living organisms. As Shapley put it: "I do not see why we, who live out on the edge of this galaxy, should think our planet the only blessed place. . . . That certainly is relevant to philosophy, and it does and can bear on religion. . . ." ⁶ If we reckon with the possibility that other planets too are inhabited by human beings, theologians are faced with serious problems, for obviously they will have to reinterpret the Scriptures in the light of this new knowledge. I ignore how that can be done, for all the events narrated in the Old and the New Testament are bound up with the geography and history of our globe. Hardest hit will be Christianity, for, as Schopenhauer pointed out:

Christianity possesses the peculiar disadvantage that, unlike the other religions, it is not a pure *doctrine*, but essentially and above all a *history*, a succession of events, a complex of facts and the actions and sufferings of individuals. . . . ⁷

Will Christians be invited to believe that history repeated itself under identical geographical conditions on other planets?

Cosmologists estimate that the Universe originated some ten billion years ago and that it may be about midway in its life cycle. Twenty billion years is an impressive figure for such a shortlived creature as man, but can it mean much to a Creator, who is eternal? Can the origin of the Universe be explained 'naturally' as does Jacques Monod in his celebrated book: *Le Hasard et la Nécessité* (Paris, 1970), or is a Creator to be assumed? The French mathematician and astronomer Laplace in formulating his famous 'nebular hypothesis' on the origin of our solar system thought he could dispense with a Creator. When Napoleon observed that his *Exposition du système du monde* contained no mention of God, Laplace replied: 'Sire, I have no need of that hypothesis'. And yet, as we know, Laplace was a humble scientist and perfectly conscious of the limits of human knowledge; his last words were: 'We know so very little, we ignore so much'.

One and a half centuries after Laplace's death his final statement still holds good, in spite of our tremendous intellectual advances. To quote the

astronomers Martin J. Rees and Joseph Silk: "We are plainly still far from understanding even the broad outlines of the processes whereby the observed aggregations of matter in the Universe came into being. We are even further from understanding the detailed morphology of the bewildering variety of different types of galaxies. . . ."⁸ And yet, Oppenheimer says: ". . . the increase in our knowledge is such today that every ten years we know twice as much as we knew ten years earlier". As a result, the belief in the supernatural is waning steadily, though it would certainly be hasty to conclude that 'God is dead'. For millions of people God is by no means dead, but He may well die the moment science can explain the mystery of creation. This possibility seems to be as remote as ever, though we do know today that the universe, as it presents itself to us, was not created, but evolved; the same applies to man, who has a common ancestor with the apes.⁹

There are numerous cosmological hypothesis. According to one, new matter is constantly being formed and new galaxies are coming into existence to replace those that disintegrate. According to another theory, based on the observation that distant galaxies are receding from us, all the matter in the Universe was once packed densely together and unified in an atomic nucleus. The Universe began with a big bang—the explosion of the Primeval Atom. Yet, whatever hypothesis we favour, we failed to explain how Matter originated. One may thus either share the Platonic notion of the eternity of matter, or believe in a Supreme Being, who created matter out of nothing. Yet, how do we define MATTER (unformed, primeval matter)? Bishop George Berkeley (1684-1753) taught that *matter* does actually not exist; it is but a bundle of sensations, or memories—a condition of the mind. David Hume (1711-1776), on the other hand, argued that we know the mind only as we know matter; we cannot perceive the 'mind'—we merely perceive specific ideas, memories, feelings, etc.

In short, Hume had as effectually destroyed 'mind' as Berkeley had destroyed 'matter' and there was no point in arguing any further. 'No matter, never mind'—as a wit put it.¹⁰

But we are not concerned here with philosophical subtleties. According to the Buddha's teaching the origin of the world and of life is unthinkable. The believer in creation by God may be astonished by this statement, but if you were to ask him 'What is the beginning of God?' he would answer without hesitation 'God has no beginning', and he is not astonished at his own reply.¹¹ Belief in God implies divine revelation, which for Christians and Jews is crystallized in the *Scriptures*. In Hinduism the famous *Purusha-hymn* (R.V.X.

90) already claimed a divine origin for the three Vedas, the *Rik*, the *Saman* and the *Yajush*. The Veda is thought to have existed in the divine mind before it was made known to men. The idea of pre-existent spiritual 'originals' of holy scriptures is also found with the Hebrews and in Islam. The former believed that the sacred law (Torah) was the earthly copy of a heavenly Torah which had no origin in time, and constituted the sum of ideal wisdom into which God looked when he would create the world. In Islam the idea of revelation was expressed by 'sending down'; that which passed from heaven to earth was a pre-existent word, eternal as Allah Himself. Allusions in certain passages of the Koran to the 'mother of the scripture', the heavenly original of the prophet's utterings, led to the doctrine of a non-material (uncreated) holy book.¹² One wonders, of course, whether all of Mohammed's pronouncements had previously been approved by Allah. For instance, when he decided to use force in order to subjugate the whole of Arabia and ultimately the world, the prophet declared he had a revelation of the solemn duty of *Jihad*—holy war. On another occasion, he announced he had had a revelation permitting him the privilege of more than nine wives (Sura XXXIII). Neither Judaism nor Islam ever explained *how* the 'sending down' of scriptures was accomplished. Only the Elkesaites (Elcesaites) appear to have known the secret. This Judeo-Christian sect of Gnostic tendencies (whose period of influence extended from 100 to 400 A.D.) simply claimed that the holy books 'fell complete from heaven'.

However that may have been, Christians, Jews and others believe that God revealed himself to man in various ways. Theologians talk about 'a personal encounter with God' (?) and 'revealed truth of creation', obviously referring to Thomas Aquinas' contention that the existence of God is demonstrated by his works—by the world itself. (Similarly Voltaire argued: 'When I see a watch, I think of a watchmaker').¹³

We have innumerable stories *how* the earth and mankind originated, but all these stories never speculate about the *purpose* of creation. And yet, this is perhaps the most intriguing question of all, for everything must have a purpose. What is the Cosmic purpose? What may have prompted the 'Unmoved Mover' to make this ephemeral multitude of star-clusters, which can neither be of particular use to himself, nor to man (poets, navigators and astronomers excepted)? The famous question: What did the Creator do *before* he created the world, does not really make sense, seeing that 'before' relates to time and time starts with creation. See Note No. 5! Yet, there are other questions. Why did life originate on our globe? Finally, why did

man emerge on earth after some four billion years of organic evolution? The prophets, knowing nothing about cosmic and organic evolution, came up with the oddest guesses. Thus we read that the world was simply God's plaything . . . that God created the world and man solely for his glory . . . or, better still 'for the sake of his holy church' (an early example of Parkinson's Law!) . . . finally, that God made the world out of sheer love for *mankind* (as yet un-created!) because he wished to share the marvels of his creation with man.¹⁴ However, let us say it at once, there is nothing in Scripture to support this claim. On the contrary, we read that:

. . . the Lord's love is almost exclusively love for Israel, the elect people. Even the prophets never say that the Lord 'loves' other people, or that *mankind* is an object of his love. . . . (Quotation from the *Encyclopaedia Judaica*, Jerusalem, 1971/72. vol. II p. 526).

"Love is a many splendoured thing". Yet, as we know, Love cannot be commanded ("Thou shalt love the Lord thy God with all thy heart and soul and mind!"). Moreover, Love is subject to certain limitations. For instance: Love is impossible between stones, or between man and some unknown phenomenon such as 'God', for 'God' is obviously not a space-man, as Michelangelo imagined, or a benevolent "Father Christmas", as other artists represented him, but a mere concept, a mere name for something no theologian has yet been able to define.

If man finds it often difficult, nay impossible, to love his fellowman, how can he 'love' an electric power station, an atomic plant or 'kinetic energy'? How can he love 'God'??? Not before God became Man, as in Christianity, did the concept of 'divine love' begin to make any sense at all: 'God so loved the world that He gave His only begotten Son' (John 3-16). However, even the dullest individual must have asked himself at one time or another: If God truly loves me, why then did he create pain, anguish and death? Why did he create this world of want and misery in which the righteous suffer and the wicked prosper?¹⁵ Already the Bible stresses the plight of man:

Man that is born of woman is of few days, and full of trouble. He cometh forth like a flower, and is cut down: he fleeth also as a shadow, and continueth not.

And the deeply religious Pascal says:

The natural misfortune of our mortal and feeble condition is so wretched that when we consider it closely, nothing can console us.

No wonder, therefore, that the Jewish-Christian concept of a benevolent

Creator, who cares for the well-being of his subjects, is by no means a universal one. The dwarfs of the Comeroon, for instance, only recognize malevolent deities and do nothing to placate them, on the ground that it is useless to try.¹⁶

In the list of deities believed in by the Ifugao of the Philippines, R. F. Barton gives the names of 31 gods who send dysentery, 21 'boil and abscess producers', 20 'liver-attacking deities', 4 'headache deities', 14 which cause wounds, 5 which send arthritis, 50 'harpies' and 10 'spitters'.¹⁷

No doubt, this 'negative' attitude towards their gods has much to do with the hellish environment in which these wretched tribes live. Yet, should they not count their blessings and be grateful for many good things in life? Should they not thank their gods for those miraculous narcotic plants that grow everywhere—plants that help them to forget reality, at least for short moments? Could it not be that the gods created these divine elixirs out of sheer pity at their plight—the *coca* shrub, the *peyotl* cactus, the *pituri*, to mention only a few? Can we imagine Civilization without Alcohol, Tobacco and other narcotics? 'The number of heroin and morphine addicts in the U.S. is variously estimated, but nearly half of them are Negroes in slum areas of the large cities', writes Norman Taylor.¹⁸ Is it the city, is it Civilization *tout court* that corrupted man, as Jean Jacques Rousseau believed? Rousseau blissfully ignored that his 'noble savage' was probably as 'corrupt', or let us say as miserable as the modern city dweller. Take for instance the horrible custom of urine-drinking, current among the Chukchee, Koryaks, Yugakirs, Tungus and other tribes, which live in the bleak, cheerless Siberian wastes. The phenomenon—I quote from Taylor's book—has been described by several anthropologists, notably by Bogoras. In 1909, he says, it was observed that the Chukchee found that drinking the urine of one who has recently eaten *fly agaric* produces the same effect as eating the mushroom. Later he writes: 'Apparently without aversion they will even pass this liquor around in their ordinary teacups. The poison is dangerous, and, consumed in large doses, leads to berserk orgies. The end is always a deep narcotic sleep!'¹⁹

Would man seek oblivion in drugs if *reality* were so beautiful? Would religions hold out hope for a second and better life? And to think that everything could have been different with us if only Adam had not eaten the apple! What an irresponsible, damned fool he was, our first ancestor!

Having at long last accepted Evolution, theology now equates it with something like continuous creation. 'Everything reveals itself to us in a state of genesis, in a state of *becoming*', as Teilhard de Chardin put it. The opening affirmation in Genesis: 'In the beginning God created . . .' has thus been

modified in the Jerusalem Bible to: 'When God *began* to create. . . .' There is consequently no conflict between science and religion. Or is there? . . .

Maintaining that divine providence manifests itself everywhere in nature, theologians say, what evolution produces is what it is destined to produce, just as a flower-bud is destined to produce a flower. In other words, evolution strives to reach a predetermined goal or end—the production of MAN. Having produced man the evolution of life has done its job and has come to a natural end. The multitude of lower living organisms are but 'by-products, slags, left overs after the production of man'. This apparently directed tendency towards perfection in evolution, variously termed: *aristogenesis*, *nomogenesis*, *hologenesis*, *autogenesis*, *orthogenesis*, *finalism*, has been expounded by a number of writers during the last 50 years.²⁰

However, the great geneticist Theodosius Dobzhansky says (*op. cit.*, p. 314): 'Biology gives no warrant for the belief . . . that the evolution of life as a whole had as its purpose the production of man. Evolution does not strive to accomplish any particular purpose or to teach any specific goal except the preservation of life itself.'²¹ Evolution did not happen according to a predetermined plan'. Later on he says: ' . . . in a sense, the origin of man was a lucky accident'. Jacques Monod reaches the same conclusion.

Teilhard de Chardin, on the other hand, believes that man was created by God and that the whole Universe was made for man. He also assumes that divine providence is guiding man on his road of spiritual evolution, leading him to ultimate salvation. (cf. *The Phenomenon of Man*). Does human history, which, broadly viewed, is but a never changing record of man's cruelty to man, support the belief that humanity is morally evolving²² and on the way to what Teilhard calls the OMEGA POINT? (This term stands for: Man's ultimate salvation, the end of mankind, the end of the Cosmos, the second coming of Christ, or just for GOD). Can we equate the end of the Cosmos with the end of mankind? Is there anything to suggest that man, who only appeared 'yesterday', will survive billions of years? No doubt, aeons after we terrestrials have gone for ever, the Cosmos will still be there! And . . . who knows? . . . life may continue somewhere in space, or may start again one day in the tepid seas of some forlorn celestial body, as it happened some four billion years ago on a tiny planet called earth.²³ The learned Jesuit does not say what fate may await those who pass away before the mysterious Omega Point is finally attained. OBSCURUM PER OBSCURIUS!

NOTES

1. Will Durant: *Our Oriental Heritage*, New York, 1954, p. 57.
 2. This raises a serious problem for the believer. Did God reveal himself to some people and not to others? Or did he perhaps reveal himself to his *Chosen People* only, as orthodox Jews still teach? A rabbi, with whom I recently travelled from Chicago to New York, surprised me by his liberal views. Pointing to the story of the creation of Eve, to the tales of a Great Flood and to other early Sumerian and Babylonian myths, he confessed he did not believe the Bible was the 'word of God'. Divine revelation?—he asked—To whom? . . . to the Sumerians, to the Babylonians . . .? However, when lunch was being served, he made a big fuss, complaining to the air hostess that he had ordered a special menu before he came aboard, and that the food served to him contained several items which were not *kosher*! A priceless fellow!
 3. *Issues in Evolution*. Vol. III. The University of Chicago Centennial Discussions. Chicago, 1960. p. 58.
 4. Martin J. Rees and Joseph Silk: *The Origin of Galaxies* (Scientific American, June, 1970).
 5. In a 'Critique of Judaism' Martan Farrux, a young Zoroastrian, who flourished in the ninth century, takes exception to the Genesis statement that God created the earth on the *first* day and the sun on the *fourth* day only. 'If the order of the days is known from the sun, then before the creation of the sun, how did Yahweh know the number of the days, and their names?' he asks. (Jacob Neusner: *A Zoroastrian Critique of Judaism*. Journal of the American Oriental Society. vol. 83. No. 3. Aug.-Sept., 1963). It is interesting to note that Michelangelo (1475-1564), when depicting the story of creation on the ceiling of the Sistine chapel, arranged the various scenes in the following order:
 - (1) The dividing of the light from the darkness;
 - (2) The creation of sun, moon and stars;
 - (3) The creation of the waters;
 - (4) The creation of man;
 etc.
- Michelangelo thus assumed that the heavenly bodies were created first and that man came later. In primitive mythology it is frequently the other way round.
6. Shapley, *op. cit.*
 7. A. Schopenhauer: *Essays and Aphorisms*. Penguin: 14044227 8. p. 187.
 8. Martin J. Rees and Joseph Silk, *op. cit.*
 9. My paper: 'Gossip about Adam'. *Dalhousie Review*, vol. 51 No. 4
 10. Will Durant: *The Story of Philosophy*, London, 1948. pp. 229/30.
 11. Walpola Rahula: *What the Buddha taught*, New York, 1962. p. 27.

12. We are, of course, reminded of Plato's teachings that the world is but a copy of immutable and eternal 'Ideas' (stored in some philosophical heaven). What we see and touch are not 'originals' but only 'imitations'. In other words: everything that exists on earth pre-existed in the mind of the creator (Michelangelo's Moses, for instance, is but the materialization of a vision in the sculptor's mind).
13. The question as to whether there is a God (or whether free-will exists) is, of course, strictly meaningless, for it is neither a tautological statement nor can it be tested by sense-experience. What puzzles the thinking believer is the time-lag between the emergence of man and God's revelation in Scripture, for, as we know today, man probably emerged more than five millions years ago, while the earliest Bible text only dates back to about 1000 B.C. Why should God have waited five million years before he revealed himself to man? The question: *Why only now?* already worried St. Paul, who wrote to the Galatians (4:4-5): 'When *the fullness of time* had come, God sent forth his Son . . .' the fullness of time? . . .
14. For what purpose and end did God create Adam and Eve? asked Martan Farrux ten centuries ago in his 'Critique of Judaism' (our note No. 5). If even before creating the first couple God had foreknowledge of their disobedience and subsequent plight, why did he not do something about it? And when the two wretched people broke his law, why was he angry with them and even said he regretted he had created them? (Gen. 6). Why, indeed, did Yahweh prepare the Garden of Eden and plant the Tree of Knowledge if he did not want Man to eat from that tree? And why were Adam and Eve expelled from the Garden? As both were ignorant before they ate from the Tree of Knowledge how could they have committed a sin? Moreover, if all things were made for man, the Tree too was made for man (in order to deceive man!) The same may be said of the serpent, which Yahweh expressly created as an enemy of man and placed in the Garden! Why, indeed, did Yahweh not make a wall around the Garden so that the serpent and other enemies might be kept out?—asks our cynical glossator.
15. There is, first of all, the mystery of death. That both the wicked and the righteous die is explained as follows in Jewish Theology: The wicked perish so that they should cease angering God, while the righteous die so that they may have rest from their continual struggle against the evil inclination which has no power over them after death (Sic!) cf. Gen. R. 9:5 (Enc. Jud. vol. 5, p. 1426). The existence of Evil in a world governed by a benevolent God has always preoccupied the faithful. Jeremiah asks the perennial question concerning the prosperity of the wicked and the adversity of the righteous. The problem appears also in the Books of Isaiah, Job, and in the Psalms. Various solutions were proposed, but it was left to the Talmudists to find the answer. They say: The righteous who suffer in this world are not wholly righteous, and

the wicked who prosper are not wholly wicked. What the righteous undergo is punishment for every small sin they may have committed so that they will enjoy their full reward in paradise, while the wicked are rewarded in this world for any small amount of good they have to their credit that in the world to come they will reap the full measure of the punishment they deserve (Ber. 4a; Eruv. 19a; Ta'an. 11a; Kid. 39b; Avot 2:16; Gen. R. 33:1; Yal., Eccles. 978.) Well, the Talmudists should know!

16. Will Durant: *Our Oriental Heritage*, New York, 1954. p. 56.
17. R. F. Barton: *The Religion of the Ifugao*. American Anthropological Association Memoir, No. 65 (1946), pp. 62-74.
18. Norman Taylor: *Narcotics*, New York, 1963. p. 37.
It is less clear why drug taking has reached such alarming proportions during recent years among teenagers of all classes, particularly in the U.S.
19. Does discontent with life only begin at the human level? Everything seems to indicate that even animals suffer from spells of depression—and can become drug addicts. Robert Le Breton says in his book: *Eléphants et Pygmées*. Paris, 1958, p. 32: The *Wabila* of the Congo smoke an extremely poisonous creeper, called 'medeaka', that makes them drunk, sometimes even mad. Numerous animals know and seek this plant because of its intoxicating qualities. As a matter of fact, one frequently encounters antelopes in the woods, and even more often monkeys, that are intoxicated to such a degree that hunters can easily catch them.
20. Comp. Naef (1919) and Dacqué (1931, 1940) in Germany, Cuénot (1941), Vandel (1949) and Teilhard de Chardin in France, as well as their popularizer Lecomte du Noüy (1947) in the U.S. (his bestseller: *Human Destiny*. Mentor MP 410, New York, 1962). Like Teilhard de Chardin, du Noüy tried to show that divine intelligence has given purpose and direction to evolution and that man is the goal and the end-product of biological evolution. 'The book contains numerous and important factual errors in its presentation of biological and geological information' says Theodosius Dobzhansky in his: *Evolution, Genetics, and Man*, New York, London, 1966, p. 379.
21. As August Strindberg put it:
'The secret of life is the preservation of life'.
22. The ever mounting crime rate does not support Teilhard's optimistic view. Thomas Aquinas and certain philosophers believed in a *moral sense* God had implanted in the heart of man. Alas, one has only to listen to the News, or to open a daily paper to realize that this is just wishful thinking! Here are two recent examples:
At the time of writing (in France) the press carries long articles describing the savage premeditated murder of M. Jean-Paul Ray, 25, married, with one child, by two young girls, Micheline Brique, 18, and Jocelyne, 17, whom he had given a lift in his car on the Route Nationale No. 6, near Villefranche-Sur-

Saone. The two girls had stabbed him to death with kitchen knives, bought a few hours earlier for the express purpose of killing 'someone'. They had never met M. Jean-Paul Ray before. (See: *Le Monde*, Paris, 13th July; *France-Soir*, Paris, 14th July; *Elle*-weekly magazine, No. 1389, Paris, 31st July, 72.).

The second example is perhaps even more revealing: 'We ignored that it was prohibited to kill these aborigines'—plead the Colombian defendants. This is the caption of an article in *France-Soir* (June 23, 1972). The astonishing words were uttered by two women and six men on trial at Villavicencio, a small town situated some 120 Km off Bogota, the capital of Colombia. The defendants are charged with the murder of 16 Indians of the *Cuiba* tribe, among them three women and two children. The massacre took place at Christmas, 1967. After inviting the hungry Indians to a Christmas dinner the settlers shot and beat them to death. 'Vermin! Others have done it before!' they declare at the trial. Then they recount calmly how they organized hunting parties from time to time to kill Indians 'just for fun'. The skins of the victims, they state, were dried and tanned and sold for good money in Venezuela. A Government official of the Colombian Ministry of the Interior for Indian Affairs declared at the trial that it was about time the Government ruled whether the Aborigines are human beings or animals (Sic!)

23. The first true evidence of extra-terrestrial life was furnished by a meteorite, which fell near Murchison, Victoria, Australia, in September 1969. This visitor from outer space, believed to have originated in the asteroid belt and to be around 4,500 million years old, contains amino acids, the basic materials of proteins and life. The finding of amino acids on it suggests that complex chemicals may have been present on the Earth from its formation, ready for evolution into life. They could likewise be present on other planets in our own and other solar systems, to evolve in a similar way where suitable conditions exist. (Whitaker's Almanack, 1972, p. 1033).