Meaning and Meaningfulness of Life: Beyond the Boundaries of Biosciences

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Abstract

Life - a complex phenomenon. It has been studied, down the centuries, by various disciplines, from several aspects. On the one hand life sounds very simple as we all live and see it as the platform for any achievement and so it automatically becomes meaningful. On the other hand, especially with the arrival of advanced technologies and possibilities in Biosciences, like cloned humans and artificial intelligence, we are forced to redefine the very notion of life and revisit the understanding of its dignity and meaning, which have been preserved and adored in the past. As the phenomenon of life is under scanner, the demarcation between life and death is also questioned. It is in this scenario this short paper attempts to, with a brief analysis of the notion of life and death from the perspectives of Biosciences, show that the very domains of sanctity and dignity, meaning and meaningfulness of life, lie beyond the purview of Biosciences, while gladly and gratefully acknowledging the great services rendered by the Biosciences.

Keywords

Biosciences, Life, Death, Meaning and Meaningfulness

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Life is an all-embracing phenomenon. Anything and everything can be somehow connected to life. It is generally understood that life is a mystery to be lived and not a problem to be solved. Life is the most fundamental and beautiful phenomenon as it provides a chance to experience goodness and beauty in the world, but at the same time, the same life becomes challenging and disturbing when it loses not only all its glamour but even its very purpose; this sad situation, at its extremes, pushes one even to end her life. If life, for some reason or the other, loses its meaning and purpose, it becomes a pain to be alive. In the modern times, more than ever before, there is a serious discussion to see whether life in general, and human life in particular, is sacred and valuable, if at all. The unimaginable advances in the modern science and technology, especially in the fields of Biosciences, genetic engineering and reproductive treatments, seriously challenge the age-old notion of life. The sanctity and dignity of life, which has been preserved and adored by all almost all philosophical schools, cultural traditions and religious ideologies in the past, seem now to be weakened. In the wake of serious possibilities of cloned humans and artificial intelligence one is forced to redefine the very understanding of life, and along with it, its meaning, purpose, dignity and sanctity. Any reflective person will be alarmed to imagine a situation where human babies can be "made" in the laboratories, with desired traits, say, with hair and eyeballs in a particular colour, with high level of IQ, with ears and nose in a particular shape, at a preferred spot on the face and so on. In the context of biosciences making breakthroughs and redefining life, will the sanctity and dignity of life also be redefined or rejected?

This short essay attempts to show that the sanctity and dignity, meaning and meaningfulness of life will not be affected by the modern Biosciences. Though these sciences may certainly help us in understanding the intricacies of life-phenomenon but, no matter how advanced they may become in future, they will not shake the claims of the value and sacredness of life. I begin with a brief presentation as to how life is understood in today's Biosciences. Then, I reflect upon life-and-death, as both are interrelated and today's sciences seem relocate the demarcating line between life and death. Finally I analyze the notions of 'meaning

and meaningfulness' of life, in order to conclude that they both lie beyond the purview of Biosciences, or any natural science for that matter.

PARTI

UNDERSTANDING AND DEFINING LIFE

What is life? – a million dollar question! Humanity has always been struggling to figure out what exactly life means. While reflecting on life one has to grapple with several fundamental questions, like: What is life? What is its meaning, if any? What is its purpose? Is it valuable? If so, is it intrinsic or extrinsic? Is life Sacred? Several disciplines like, Theology, Philosophy, Psychology, Cognitive Sciences, Biosciences, Religion, Humanities and so on take up these issues for serious reflections. Since the emergence of Philosophy of Science in the 20th century, one of its components, Philosophy of Biology, has gained more momentum in the past two decades. It struggles to find out what, if anything, is special about living things?... Are the concepts, models of explanation, theories and research methods used in Biology fundamentally different from the Physical Sciences? If not, will they merge with Chemistry and Particle Physics?

A very good and comprehensive volume on human nature edited by Malcolm Jeeves raises several pertinent questions, like: C. Michael Steel (a clinical medical geneticist) asks, "Would a cloned individual have his or her own distinct identity? D. Gareth Jone (a Medical Neurobiologist) asks, "When do we become persons? And when do we cease to be persons?" ... Warren S. Brown (a Neuropsychologist) asks, "If strong religion experiences can be linked to certain forms of brain activity, how do we understand other spiritual experiences? Do we interpret our spiritual experiences as a way the brain can function (normally or abnormally), or as manifestations of an immaterial soul?"... Lindon Evaes (a Behavioral Genetist) asks, "Do genes play a role in areas traditionally thought to be purely social in origin, including our religion and values?" Gaius Davies (a Psychiatrist) asks, "Is spiritual awareness confined to an elite or common to all?" Diogenes Allen (a philosopher) asks, "What can we learn from the long history in philosophy and theology of evaluating religious experiences, including visions and mystical experiences?" Joel Green (a Biblical scholar) asks, "What have biblical studies contributed to a unified portrait of the human person?"

Paradoxically we all know what life is, but we cannot define it. Like any other experiential reality, like love or time, we know what it is, but once we try to define it we are helpless. As Augustine said about time, we also can say for life - we know what life is, if no one asks us, but we don't know if someone asks us about it. On the one hand, we can easily see the value and the meaning of life, due to its utility, achievements and potentialities etc. On the other hand, the meaning and value of life are challenged in the modern times due to the steady increase in the stress and frustration, disappointments and anxieties, leading to a sort of meaningless void! That is why, we unfortunately see an increase in the rate of suicide and in the number of people with psychological and physical illness.

Life has always been seen to have absolute value and so one has to save life by all means. Today the emphasis is on the 'quality' of life, not on 'life' as such. Modern biosciences challenge the very idea of life due to its recent reproductive and genetic technologies. Earlier life (birth) and death were seen as two separate and distinct moments (or events); life always meant joy, whereas death implied sorrow. But today the dividing line between life and death becomes increasingly blurred; for instance, the distinction between 'biological life' and 'personal life' - A person is said to have biological life if he or she is on the ventilator, whereby various parts of the body perform their normal biological process. But his or her 'personal life' has stopped if that person has no brain functions. In considering the brain-dead person, there is a further distinction between the whole-brain death (cases where cerebral hemispheres and brain stem are dead) and higher-brain death (cases where only the cerebral hemispheres are destroyed, but the brain stem may be intact). The whole-brain death refers to the 'biological concept of death'; biological life comes to an end. At this level there is no difference between the life of a human being, or an ant or an elephant. But higher-brain death refers to the loss of 'personal life'. Personhood comes to an end with the loss of the cerebral hemispheres, for all that significantly defines human

existence, namely, our individual personalities, consciousness, uniqueness, memory, ability to judge, acting with a purpose, enjoying and worrying—all disappear.

However at this level the biological life may still linger on. Those with the higher-brain death are clinically referred to as 'persistent vegetative state' (PVS). Their mental activity will be totally absent, while some bodily functions like some reflexes and gastrointestinal functions may be present.³

Further, life is valued not just for the sake of life, but its quality.⁴ The notion of life, its origins and endings, forms of life, creation and destruction of life and the very nature of life – all these issues, which were taken for granted even a few decades ago, now pose serious challenges to moral, legal, theological, philosophical and scientific disciplines. Today Genetic Engineering has a decisive role in producing, extending, redesigning of life-forms, not only for humans, but also for animals and, plants and microorganisms. Difficult questions are now put to the medical professionals, philosophers, theologians, psychologists and to the general public, like how long should we prolong one's life, when a patient is the permanent vegetative state (PVS), and at what cost? and so on. Genetic essentialists (genetic reductionists) see life as possession of a genetic blueprint. Life itself is consequently based on the selfish desire to reproduce itself and, therefore, humans are mere epiphenomena of a primordial genetic drive to selfreplicate, and human moral or ethical systems are a complex admixture of altruism motivated by strategic sacrifice, which benefits one genetic trajectory or another. 5 Critical biologists critique against the genetic essentialist approach.6

In fact, only the contemporary Biosciences take up the discussion on life as an entity in itself, whereas so far only the manifestations of life were taken for consideration. According to sciences, a being is taken to be living if the following signs are seen: movement, reproduction, evolution, growth and development, intake of food, metabolism of cells, DNA and the genetic code and so on. It was taken for granted that there is a clear and distinct separation between living organisms and inorganic matter. But today Molecular Biology and Particle Physics reveal that even matter is mysterious; it is not "material" at the final analysis.

The sub-atomic particles seem to be energy-states floating around, and thereby mater is ceasingbe 'material', so to say! The borderlines between life and non-life, between life and human life, death and life, are increasingly becoming thin. What is life exactly? Where does it lie exactly? It is in the blood cells or DNA or chromosomes or genes? What is the exact difference between living and non-living bodies? For instance, the body and the neural structure of a person, died just a fraction of seconds before will more or less look like a body that is living – if so, what exactly distinguishes the living and the non-living bodies? - such question don't seem to get settled! Moreover, though thousands and thousands of species have been studied today and the scientific community has more convincing knowledge about various life-forms, their inner structure and the growth and development over the millennia, but still, as Carl Sagan is convinced, "There is no generally accepted definition of life".7

PARTII

DEATH IN LIFE AND LIFE IN DEATH!

Serious reflections on life, as noted above, naturally force us to think of death as well. Fom the time immemorial death has been a subject of serious reflection. For some death makes life absurd and meaningless, as everything is going to be ended with death, while for others it is death which, in a way, makes life meaningful. Death gives me the urgency to achieve something as I am not going to live forever. Jean Paul Sartre (1905-1980) would say that our freedom, though we are condemned to be free, enables us to find meaning in this life. For him death lies outside of one's existence. For when I am dead I cannot see my dead body, I cannot have any experience and all that happens since then is decided by others; this makes meaningless to refer to 'my' death. Martin Heidegger (1889-1976) sees human existence as 'being unto death'. Though he derives the insight from the Pre-Socratic tradition, he elaborates on this to show that death is not something that faces us at the end of our lives, rather my very being is pervaded by death. The moment I am born I begin to die and that is only the way I can live my life in this world. Generally death, especially when it unexpectedly occurs, and to young people at that, has been treated as something undesirable, painful and

dreadful, by almost all cultures at all times. We see death as something negative, but, according to *Lucretius*, an ancient Roman philosopher and a poet (99 B.C.–55 B.C) death can never be painful or negative, because the person who dies is no more there to experience its negativity. We are never worried about the l...o...n...g period that has gone before we are born, say about the fourteen billion years of the evolution since the Big Bang! Similarly the time after my death also I need not worry, because I will not be able to do anything about it; so death is not a negative thing in itself, so argues Lucretius.

Unfortunately we don't know much (even anything!) about death for certainty except that one day we all will die. Death appears dreadful because we don't exactly know what it means to die and what happens after that (may be, apart from faith perspectives). We have seen people dying, we have seen what happens to their bodies after their death, and how it affects others, especially their loved ones and so on... but we have not actually, physically died. Like any other experiential reality, death also escapes our full and final definition. Death becomes a bit more mysterious, because when I experience that, I am not there to share it with others, because with death I also disappear. Because death is certain, every living being naturally longs to perpetuate its progeny, it dearly longs that its generations to live after its death. This progeny is in a way a tool to meet the challenge of my death and that is possible in and through sexuality, and that is why, the sexuality is also equally certain and strong.

Every day that we live takes us one step closer to death. Sometime back I came across a computer game; it will ask you to enter your date of birth and the number of years that you want to live. Let us say, you type '85 years'; at the next click of the button, the computer will provide how many years, months, days, hours, minutes and seconds remain in your life; it is about 2, 64 3,840,000 seconds are remaining. At the next instant a clock will start ticking away; every moment a second will be reduced; and if you keep watching it is thrilling and frightening as well...you watch the number slowly and steadily reducing... sooner or later it will reach zero... and at that moment you will cease to live and there you are... yes, you ARE NO MORE! Thus, both life and death are inter-twined and that is why discussions and debates on death equally abound as many as on life.

Thus both life and death are, so to say, two sides of the same coin. One cannot live without 'dying' and cannot die without 'living'. We cannot exactly make out whether we die as we live, or die as we live! As a traditional Christian prayer in Tamil puts it: "A candle burns as it melts, and it melts as it burns; similarly, you oh human being, you are living as you are dying, and dying as you are living!" In other words, every breath that I inhale is the sign of life, and every breath that I exhale is the sign of death; when I exhale for the last time in my life, and that is it... I am not there to take it again! In fact, I must 'die' to every moment, and move on to the next, if I don't want to die to this moment, I will not be able to move on to the next moment, and thus I cannot live! Our death, in a way, makes our life meaningful.⁸

PART III MEANING AND MEANING FULNESS

There, unfortunately, is no set of necessary or sufficient conditions to hold life to be meaningful. The discussion about the meaning of life has been there from the ancient times. Some argue that life has no meaning. For instance, Schopenhauer argues that various types of suffering, physical and psychological, different types of struggles to achieve their livelihood or to achieve certain goals, disappointments and anxieties... all lead one to be negative towards life and decide that life has no meaning. When the goals are not achieved, even after repeated efforts, one can easily grow tired of life and turn to be totally pessimistic about life. On the other hand, even after one's goals are achieved, in due course of time, one ends up with boredom, and looks for some other goals to be achieved. Thus there is no point in living as one is being kicked back and forth between boredom and suffering.9 Of course one must realize that not all people see life as meaningless because of suffering and unrealized goals in life. They do see the joy and satisfaction of achieving some ends lasting longer in their lives and they have contentment. They also see some sufferings to be valuable in teaching them great lessons or at least help them to enjoy pleasures better.

Some quote Darwinian model of evolution¹⁰ to claim that life is full of random process, based on mere chances, where one cannot

find any meaningful role for 'any purpose or meaning'. They claim that in the process of evolution there is no role for purpose, and this in turn might imply that life is pointless and directionless. In the whole process of evolution they argue that everything is random. They'll argue that Darwin has 'purified' biology of teleology. But not exactly! Natural selection is not merely a random process; and it does not deny teleology; for, when in a review of Darwin's work in Nature, the distinguished American naturalist Asa Gray claimed that Darwin had brought back teleology to natural science, Darwin immediately sent a note to Gray, saying, "What you say about Teleology pleases me especially, and I do not think anyone else has ever noticed the point. I have always said you were the man to hit the nail on the head'. This ringing endorsement of Gray's point is underscored by Darwin's rich use of teleological explanation throughout his career."12 Thus we understand that the Darwinian theory of evolution has place for purpose.

Another argument proposed to show life to be meaningless is the very fact of death. Without any clear assurance, perhaps apart from religious perspectives, for life after death, one sees death to be the end of everything and with death all the joys and sorrows, feats and failures, achievements and disappointments of one's life face a sudden and abrupt end, making the whole life a meaningless void. 13 But limitedness in time and the fact of death need not necessarily make our lives meaningless. As noted above this limitedness gives us the urgency and the motivation to achieve something worthwhile before we meet death. Therefore it is perhaps meaningful to say that it is death that makes life interesting, as infinite life will be boring. Death also helps us to prioritize things in life. Life would be perhaps prosaic and be lacking motivations totally if there is no death waiting at the end.¹⁴ Some like to hold a via media: life in itself may be meaningless, but one can find its meaning, if one wants. Due to the fact of death and misery, life is indeed absurd but it is not all that negative as there is a possibility of making it meaningful. For instance, Albert Camus is of the opinion that life is absurd due to the inevitable process of aging and eventually leading to death. But he is convinced that life can still have meaning, though he is not clear about what that meaning is. 15 Thinkers like Thomas Nagel would make a distinction between life that is subjectively meaningful and objectively meaningless.16

But there is a danger in leaving the meaning of life to the individuals. Total subjectivist approach might lead some unhealthy and awkward conclusions, like, say, one may just decide to eat, drink and always make merry, and that sort of life may be completely meaningful to him or her. But can we really leave it at that? To tackle this issue Susan Wolf proposed two criteria to make life subjectively meaningful: namely, there must be an active engagement in life and that engagement must be in some projects of worth.¹⁷ Though this proposal addresses the issue, yet it does not really solve the issue, because of the possible ambiguity in the concept of 'worth'.

Victor Frankl defines humans as seekers of meaning (or meaningseeking animals). He suffered untold brutality and all sorts of humiliation and tortures at the Nazi concentration camp. He lost all his relatives except one sister. Though he lost everything, fortunately he did not lose meaning in life. In spite of his own suffering he was trying to keep the hopes of his fellow prisoners alive. They just hung onto his lips, when he spoke to them. He was convinced that "human life, under any circumstance, never ceases to have a meaning, and that this infinite meaning of life included suffering and dying, privation and death". 18 By giving meaning to their lives he found meaning in his own. This deep experience led him to develop Logotherapy, which helps those who face 'existential frustration' to find meaning and responsibility; one is forced to answer the questions posed by life and that makes one to responsible in fulfilling that answer. Therefore the essence of existence is this responsibleness, and it is this responsibleness is that which gives meaning to one's life. If these are not found, one is led to a kind of neurosis and life becomes all the more burdensome for the individual and the others as well. When one loses meaning in life one is led to a sort of 'existential vacuum', facing boredom. This affects them very badly, causing void within them, even provoking them to the extremes of committing suicide. When 'the will to meaning' is not met with one is easily led to alcoholism, drug abuse, juvenile delinquency, which can be seen as the manifestations of vacuum. So Logotherapy goes beyond logical reasoning and moral exhortation but to enable them to find meaning in life. Meaning in life differs from person to person, depending on the life circumstances, which are unique to

the individuals. Even for a person it changes day to day, or even hour to hour. To look for meaning in life in general terms is like, according to Frankl, asking 'what is the best move in chess?' As the ingenuity of any move in chess depends on the opponent's move, the meaning in one's life depends on one's own challenges and opportunities. As our deeds change and experiences change, naturally "Meaning in life is always changing, but never ceases to be". 19

I like to see Frankl's analysis of meaning as 'meaningfulness'. Nietzsche's oft-quoted words, he who has a 'why' to live, can bear with any 'how' are the real motivation in the life of Frankl, who is convinced that humans have the ability and freedom to transcend the immediate conditions, no matter how delightful or distressful it may be, to have high hopes in life. Every moment one is invited to make a choice and obviously this choice cannot be made on reason alone. Human being, therefore, in my opinion, is a seeker of meaningfulness. Though meaning and meaningfulness are not unrelated, there is a distinction between them; while meaning is fairly available to all, meaningfulness is personal and available only to the individuals concerned; while the former is fairly objective, mutable and explicable; the latter is rather subjective, immutable and inexplicable. For example, if someone reads a letter sent to me by my friend, she will get the meaning of it, provided the language is known to her. But when I read the same letter, I obviously get more than mere meaning, because I know the person who has written to me; I get the vivid memories of the past, say, the time that we spent together, and this I call 'the meaningfulness' of the letter. This aspect is unavailable to other readers, who don't know my friend who wrote it.

More than meaning, it is the meaningfulness is that which empowers one to face difficulties in life. If one is not convinced of this meaningfulness life becomes all the more arduous. One can make a distinction between *suffering and pain*, where the former is explainable with adequate reasons, while the latter is not. For instance, two students fail in the exam. One knows well that the preparation was not good, and the performance in the exam was also quite bad, and so it was quite understandable that he has failed. Whereas, the other one is fully convinced that the

preparation for the exam was very good and the performance too was excellent, but still (s)he failed, and now wonders why and how (s)he failed. Though objectively speaking the 'failure in the exam' is the same, tolerable for the former, and unbearable for the latter, precisely because the latter does not know the reasons for the failure.

Further, love enables us to see the meaningfulness, rather than just meaning. Love is the only way to understand the other fully. Without this love one cannot get into the 'skin' of the other person, nor to empathize with them. It is easier for a believer as it is divine to love and to be loving. This love enables one to see what is potential in him or her, rather than seeing only what is already actualized. Even God also does the same. He sees the possible graceful future, rather than the troublesome past, of a sinner. Humans see the past-sinner in the present saint, while God sees the future-saint in the present sinner. A saint is a probable sinner of the past and God does not bother about it, while sinner is a possible saint of the future, and this God takes it seriously, precisely because God sees the potentialities for good future of the sinner, and not his or her bad actualities of the past. Similarly, it is love that enables a woman to tolerate her drunkard husband, because she is able to see the potentialities in him to change into a good man. If she loses this aspect of meaningfulness, rooted in love, she would also lose hope in his change to betterment. That is why we can say 'love' is a magic thing; it can make or mar a person's life. When someone longs for this love, one can even kill him or her, by not showing that love, and at the same time one can change someone's life, one can make someone's life meaningful by showing the love that he or she dearly longs for.

Though humans are biologically very much part of creation and share a lot with other creatures, yet they seem to be far different from all of them, in terms of reason, will power, ability to imagine, the exercise of control over natural passion and sexuality, the expression and exercise of aesthetical appreciation and above all the ability to go beyond the immediate environment. However, we cannot easily define life, nor its meaning or purpose, as we saw above, because the "questioner" and the "questioned" are one and the same here. In a way it is better that we don't understand

our life or its meaning to their minute details, for if they can be thoroughly predicted and clearly programmed, the mysterious element of life will be lost. Our emotions like love, trust, hope, awe and wonder, anxiety, fear and the sense of aesthetics and humour—all will be obsolete, if we can completely map what life and its meaning mean. Some degrees of ambiguity and obscurity certainly add colours to life. Modern neuroscience may succeed in mapping the areas of the brain to find out what happens when one is filled with love or hatred, fear or tranquility. Psychology may come up with convincing theories about the good effects of love and the bad effects due to its absence. But none of the scientific disciplines can exactly define what love is, and since it is this love that makes one find meaning and meaningfulness in life, science can neither comprehend love nor meaning and meaningfulness in life.

CONCLUSION

Any science may help us to have a better grasp of life and its mechanisms, at its micro and macro levels. But no matter how these sciences advance, they will not assure us that life is meaning and meaningful. For instance, If we decide that the whole universe is pointless and not worthy of our serious investigation, then no science is possible. From the strenuous efforts of the scientists we learn that they are convinced of the idea of the fundamental intelligibility of the universe: "Intelligibility is what we come to know when we have insights that answer our questions. Intelligibility is what makes sense of the puzzling observations and questions that we pursue. By their ongoing questioning, therefore, scientists are seeking the intelligibility of the natural universe. In this way they are already engaging in a certain kind of faith experience".21 To struggle to obtain the intelligibility is equated with a faith experience; similarly, meaning and meaningfulness of life cannot be comprehended by Biosciences, but by love and faith.

The ability to see meaning and meaningfulness in life is so essential that it is said: lose wealth, you lose *nothing*, because wealth can be begged, borrowed or robbed; you lose health, you lose *something*, because all of the health cannot be regained; but you lose meaning in life, you lose *everything*! Believers are

perhaps able to easily find meaning in this existence, as this life is going to continue in a different 'mode' after death, but nonbelievers think that with this death everything is over. For them life is just meaningless; for them life would be, as Shakespeare says, "Life's but a walking shadow, a poor player, that struts and frets his hour upon the stage, and then is heard no more: it is a tale told by an idiot, a sad tale, told by an idiot, full of sound and fury, signifying nothing!'22 But even the non-believers also need not come to such a frustrated conclusion; for, my days are limited and counted, let me do the best before the 'end' arrives. We can decide to use the days of life in a meaningful manner. We may really show some interest to accomplish something solid before we go away, to live a life that is worthy of being a human person, to do something good for others, to make a positive impact, in whatever way we can, upon others. Because we know that we are going to die one day or the other, there is a sense of urgency to accomplish and achieve something in life; on the other hand, if we are going to live forever, we will not show interest in anything... in learning, in achieving, in developing and so on; we will easily become lethargic and complacent, we will not be motivated to do anything at all; nothing will interest us because after all we are going to live forever!

The complex phenomenon of life cannot be comprehended by one discipline. Interdisciplinary approach is the appropriate way to understand life. One-sided approach to life will be limited in its achievement. To find the meaning of human existence philosophers and scientists must work together. Scientists while exploring the meaning of humanity must not remain blind to the philosophical assumptions that underlie their investigations. So Malik points out that "Philosophers.. debate the nature of human subjectivity without considering its rootedness in biology... [while]... natural scientists consider the biological origins of humanity's special qualities without entering into discussion of human agency"; we must avoid looking at humanity from purely naturalistic viewpoint, nor as purely cultural being; and Malik concludes "each is equally one-sided and equally flawed in its attempt to understand what makes us human".²³

Biosciences, therefore, can offer good tools to fathom the mystery of life a little more but to allow them to define life or its dignity and meaning, would risk of making life a commodity; the job of these must be "...a matter of understanding the good life, rather than commanding the tools to manipulate life process". To look for meaning of life merely in Biosciences will be like looking for the right thing in a wrong place, or the wrong thing in a right place... but in both the cases, we will be the losers! Why should we, as rational beings, who are able to develop Biosciences, be the losers after all?

Notes

- 1. Malcolm Jeeves, "Introduction", in From Cells to Souls and Beyond Changing Portraits of Human Nature, Malcolm Jeeves, ed, Cambridge, UK: William B. Eerdmans Publishing Company, 2004, pp. xiii-xiv.
- 2. 'Life' can be referred to the 'process of living' or, as biologists and philosophers understand, it may be contrasted with the lifelessness of non-living objects. Some authors would see the noun 'life' as just a reification of the process of living, and it does not exist as an independent entity. Physicalists reduce 'life' to the physical functions of an organism, while vitalists deny this move to focus on several autonomous characteristics of a living being. But now, the present tendency is to remove the extremes of both the positions and to propose a paradigm known as 'organicism'. [See" Ernst Mayr, *This is Biology The Science of the Living World* (Harvard University Press, 1997) Printed in India by Universities Press (India) Ltd, Hyderabad, 1999.
- 3. D. Gareth Jones, "The Emergence of Persons,", in Malcolm Jeeves, From Cells to Souls and Beyond- Changing Portraits of Human Nature, Malcolm Jeeves, ed., (Cambridge, UK: William B. Eerdmans Publishing Company, 2004), pp. 17-18. Also see: Jeff McMahan, "The Metaphysics of Brain Death," Bioethics 9 (1995), pp. 91-106; and Multi-Society Task Force on PVS, "Medical Aspects of the Persistent Vegetative State I," New England Journal of Medicine 330(1994), pp. 1499-1508.
- 4. Sara Franklin, "Life," in *Encyclopedia of Bioethics*, Chief ed. Stephen G. Post (New York: MacMillan Reference, USA, 2004), pp.1381-1387.
- 5. Richard Dawkins, The Selfish Gene (Oxford: Oxford University

- Press, 1989).
- 6. Ruth Hubbard, *The Politics of Women's Biology* (New Brunswick NJ: Rutgers University Press, 1990).
- 7. Carl Sagan, "Life," in *Encyclopedia of Britannica*, 15th ed, Vol 4, (Chicago: Encyclopedia Britannica, 1992), p. 985.
- 8. I have elsewhere elaborated this idea; see: Stephen Jayard S, A Book That Cannot Be Titled (Trichy: Ilanthalir Publication, 2015).
- 9. Arthur Schopenhauer, *The World as Will and Representation*, Vol. 2, trans. E. F. J. Payne (New York: Dover, 1969), pp. 310-319.
- 10. According to the Darwinian model of evolution by natural selection specifies five fundamental features of organic life: a) Organic populations are parts of an ancestor-descendant history; b) The members of such populations inherit traits from their ancestor and pass them on to their descendants; c) They also vary with respect to those heritable traits; d) Owing to their tendency to increase their numbers geometrically, the members of such populations compete with each other for limited resources; e) The environment in which they live is infinitely complex and constantly changing. [See: James G. Lennox, "Philosophy of Biology", in Introduction to the Philosophy of science, ed. Merrilee H. Salmon et al., (New Jersey: Prentice hall, 1992), p.271].
- 11. T. Michael Ghiselin, *The Triumph of the Darwinian Method* (Berkley and Los Angeles: University of California Press, 1969); and L. David Hull, *Philosophy of Biological Science* (Englewood Cliffs, NJ: Prentice-Hall, 1974).
- 12. Quoted by James G. Lennox, "Philosophy of Biology", in *Introduction to the Philosophy of Science*, ed. Merrilee H. Salmon et al., (New Jersey: Prentice hall, 1992), p.299
- 13. See: Metz Thaddeus, "Recent Works on the Meaning of Life", in Ethics, Vol. 112, No. 4, pp. 781 814; and Kurt Baier, "The Meaning of Life", in E. D. Klemke, ed., The Meaning of Life, 2nd ed. (New York: Oxford University Press, 2000), pp. 101-132.14. See: Bernard William, "The Makropulos Case: Reflections on the Tedium of Immortality", Problems of the Self (Cambridge: Caridge University Press, 1973), pp. 82-100.15. See: Albert Camus, "The Myth of Sisyphus", in The Myth of Sisyphus and Other Essays, trans. Justin O'Brien (New York: Vintage, 1969), pp. 1-138.
- 16. Thomas Nagel, "Birth, Death and the Meaning of Life," *The View from Nowhere* (New York: Oxford University Press, 1986), pp. 208-231
- 17. Susan Wolf, "Happiness and Meaning: Two Aspects of Good Life", in Social Philosophy and Policy, vol. 14, pp. 207 225.1997.
- 18. Viktor E. Frankl, *Man's Search for Meaning* (Bombay: St. Paul's Publications, 1993), p.77-78.
- 20. I have discussed some of these ideas elsewhere to show the need of going beyond rationality to the level of reasonableness to experience

- 13. See: Metz Thaddeus, "Recent Works on the Meaning of Life", in Ethics, Vol. 112, No. 4, pp. 781 814; and Kurt Baier, "The Meaning of Life", in E. D. Klemke, ed., The Meaning of Life, 2nd ed. (New York: Oxford University Press, 2000), pp. 101-132.14. See: Bernard William, "The Makropulos Case: Reflections on the Tedium of Immortality", Problems of the Self (Cambridge: Caridge University Press, 1973), pp. 82-100.15. See: Albert Camus, "The Myth of Sisyphus", in The Myth of Sisyphus and Other Essays, trans. Justin O'Brien (New York: Vintage, 1969), pp. 1-138.
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- 21. Patrick Byrne, "Is the Universe on Our Side? Scientific Under standing and Religious Faith", in *The Lonergan Review*, III, 1, Nov 2011, 140-161, p. 149. Emphasis mine.
- 22. William Shakespeare' Macbeth, Act 5, Scene 5; See: http://everything2.com /title/A+tale+told+by+an+idiot%252C+full+of+sound+and+fury%252C+signifying+nothing; accessed on 15 July, 2015.
- 23. Kennan Malik, Man, Beast and Zombi: What Science Can and Cannot Tell Us about Human Nature, Rutgers University Press 2002, p. 54 [ISBN-10: 0813531225; ISBN-13: 978- 0813531229].
- 24. Life" by Carl Mitcham and Addam Briggle [in *Encyclopedia of Science, Technology and Ethics*, vol. 3, ed in chief: Carl Mitcham (MI, USA: Thomson Gale, 2005), pp. 1128-1131, p. 1130. *Note*: In addition to the sources referred to in the footnotes the has also been consulted for this paper: *The International Encyclopedia of Ethics*, ed. By Haugh LaFollete, Vol V (West Sussex, UK: Blackwell Publishing Ltd), 2013.