SCIENCE, MORALITY AND THE HUMAN CONDITION

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Joel L. Lebowitz

"Only morality in our actions can give beauty and dignity to life." (Albert Einstein)

I am honored and pleased to be with you here today. Your kind invitation was presented by Ms. Judy Williamson in a way which made me eager to accept. This has forced me to spend more time thinking about general, enduring human problems, rather than specific immediate ones, than I have done in a long time. It has also made me find out something about Unitarian beliefs and history of which I was entirely ignorant. While I am not sure about the consequences of my ruminations about human life in general, I am very glad to have found out about your beliefs in individual freedom and other matters, which I find very appealing.

I am also quite a bit scared to be here. Over the past years I have taught many courses and given many lectures based on my own work and on that of other scientists. This practice has greatly lessened the anxiety I used to feel before each lecture when I first started teaching over thirty years ago. But giving a sermon in a church is quite another matter. It is certainly not helped by my lack of scholarly qualification for the last two subjects in the title of my talk: morality and the human condition. I know very little of what has been thought and written on these matters by others - wiser than I am. My only qualification is that I have, like everyone else, had to live with the human condition and sometimes under rather extreme conditions at that. Outside of that I have no credentials. Let me however just try to tell you what I think I have learned so far.

As befits a novice, I shall resort quite a lot to quoting from authors who express better than I can myself some of the ideas I wish to communicate regarding the subjects in my title. The first of these comes from Erwin Schroedinger - one of the founders of modern physics. Schroedinger was born and lived in Austria until 1938 when that country joined Hitler's Germany. He then fled from there and spent the rest of his life in Dublin as Senior Professor at the Dublin Institute of Advanced Study. In the 40's and 50's he gave several series of public lectures and published a number of non-technical articles, some of which have been collected in a little volume called "What Is Life?". It is a beautiful book, for Schroedinger had a most lucid and creative mind, which illuminates his work. The value of natural science lay for him not in the practical usefulness of its applications but rather in its

efforts to answer the question raised long ago by the Greek philosophers: "and we, who are we?"

Schroedinger expresses it as follows: "I am born into an environment - I know not whence I came nor whither I go nor who I am. This is my situation as yours, every single one of you. The fact that everyone always was in this same situation, and always will be, tells me nothing. Our burning question as to the whence and whither - all we can ourselves observe about it is the present environment. That is why we are eager to find out about it as much as we can. That is science, learning, knowledge, that is the true source of every spiritual endeavour of man. We try to find out as much as we can about the spatial and temporal surrounding of the place in which we find ourselves put by birth. And as we try, we delight in it, we find it extremely interesting. (May that not be the end for which we are there?)"

I fully agree with Schroedinger that the search for knowledge, motivated by a desire to understand and, if possible, give meaning to our individual existence is the most noble aim of science as well as of other human endeavours. It is in fact not entirely unreasonable to judge the moral value of all human activities, including those aimed at providing food, shelter, medical care, clean air, police protection, political freedom, etc. by their ultimate contribution to expanding the scope of our potential to answer the question: who are we and what is this universe we find ourselves in?

These are really not two separate questions but only different aspects of the same question. Not only can we not know in a deep way who we are without reference to what the universe is, the reverse is equally true. The universe is known to us and in a very deep sense exists for us only through our individual consciousness. To quote Eugene Wigner, another great mind, who helped create modern physics and is still living amongst us: "There are two kinds of reality or existence: the existence of my consciousness and the reality or existence of everything else....only the first reality is absolute...the second is only relative....and its utility ranges over a wide spectrum...from those things which are absolutely necessary for life to those merely convenient."

Wigner has a lot more to say about this point of view which is both "obvious" and quite contradictory to our usual way of thinking - which is based on the necessity of dealing with the world around us. While I can logically deny the existence of this lectern...it would greatly hinder my dealing with it. Even more so if I denied the reality of an oncoming car when I was crossing a street... Nothing very dramatic would happen, however, if I denied the existence of two kinds of neutrinos - it

would merely make more difficult our explanation of how the sun produces the photons of light which fall on our retinas and are registered by our consciousness.

I do not want to go into more details about this right now. I do, however, want to bring and hold in focus the centrality of consciousness in science, morality and the human condition. To illuminate this object or concept called consciousness from a different angle, let me now quote, rather loosely, from Albert Camus' essay "The Myth of Sisyphus," which takes its title from the Greek legend of Sisyphus, condemned to an eternity of pushing a rock up a hill. It deals with an apparently intellectual problem, but one which has, in fact, many very practical consequences that are visible, if only one looks, everywhere in our world today. It is the problem, considered central by the existential philosophers and writers to whom Camus belonged, of the recognition of the "absurdity"- that is, the lack of meaning of human life. Camus starts his essay this way:

"The gods had condemned Sisyphus to ceaselessly rolling a rock to the top of a mountain, whence the stone would fall back of its own weight. They had thought with some reason that there is no more dreadful punishment than futile and hopeless labor."

Camus then discusses various legends concerning the reasons for Sisyphus' incurring the displeasure of the gods. The one he and I like best is that after his death Sisyphus obtained permission from Pluto to return to earth to take care of some unfinished business. "But when he had seen again the face of this world, enjoyed water and sun, warm stones and the sea, he no longer wanted to go back to the infernal darkness. Recalls, signs of anger, warnings were of no avail. Many years more he lived facing the curve of the gulf, the sparkling sea, and the smiles of earth. A decree of the gods was necessary. Mercury came and seized the impudent man by the collar and, snatching him from his joys, led him forcibly back to the underworld, where his rock was ready for him."

Sisyphus is the absurd hero who symbolizes our own fate - our passions as well as our pains. After the long hard struggle to push the rock up to the very top of the mountain...."Sisyphus watches the stone rush down in a few moments toward that lower world whence he will have to push it up again toward the summit. He goes back down to the plain.

"It is during that return, that pause, that Sisyphus interest me...! see that man going back down with a heavy yet measured step toward the torment of which he will never know the end. That hour like a breathing-space which returns as surely as his suffering, that is the hour of consciousness. At each of those moments when

he leaves the heights and gradually sinks toward the lairs of the gods, he is superior to his fate. He is stronger than his rock.

"If this myth is tragic, that is because its hero is conscious. Sisyphus knows the whole extent of his wretched condition: it is what he thinks of during his descent. The lucidity that was to constitute his torture at the same time crowns his victory " - for even a bitter truth, if acknowledged, loses its ability to crush the human spirit. Camus goes on to say:

"I leave Sisyphus at the foot of the mountain! One always finds one's burden again. But Sisyphus teaches the higher fidelity that negates the gods and raises rocks. He... concludes that all is well. This universe henceforth without a master seems to him neither sterile nor futile. Each atom of that stone, each mineral flake of the night-filled mountain, in itself forms a world. The struggle itself toward the heights is enough to fill a man's heart. One must imagine Sisyphus happy."

Consciousness, then, is both the cause of the human tragedy and the means of transcending it, even of elevating human existence to the level of the divine. Indeed, to quote Freeman Dyson, a distinguished scientist at the Institute for Advanced Study in Princeton, "I do not make a clear distinction between mind and God. God is what mind becomes when it has passed beyond our scale of comprehension. We are the chief inlets of God on this planet at the present stage of his development. We may later grow with him as he grows, or we may be left behind. As Bernal said, "That may be an end or a beginning, but from here it is out of sight." If we are left behind, it is an end. If we keep growing it is a beginning." This is from Dyson's recent book, "Infinite in all Directions." Dyson mentions there also that he was told that his belief in the evolution of God apparently coincides with that of the sixteenth century Italian Socinus, whose belief it was that "God is neither omniscient nor omnipotent. He learns and grows as the universe expands."

Unitarian Universalist" by Jack Mendelsohn, one of the books supplied to me by Ms. Williamson, that Faustus Socinus was one of the founders of the Unitarian Movement who organized liberal congregations in Poland,..."persuaded them to give up extreme positions and defended them in their controversies with both Catholic and Protestant opponents." The movement was soon suppressed in Poland with the usual harsh persecutions whose history stretches back to the earliest records of our species and continues unabated into the present. It is, of course, not always religious - it can be racial, national, regional or just plain "human nature." It is important to remember how close we are emotionally to our biological ancestors, a

situation not always improved by technological and cultural advances which give us an historical memory. On a recent visit to the Soviet Union I was told by my host of a conversation he had just had with an apparently reasonable man, a physicist, I believe, from one of the feuding republics - Armenia, Georgia or Azerbadjan, I forget which. My host was speaking about possible ways of accommodation between them, when the other man vehemently denied that possibility, citing heatedly the betrayal on the battlefield by the other group which had occurred about six hundred years ago!

No, we do not have any assurance that we will grow with God or even that we will survive. Our fate is in our own hands - it is we who shall determine the future of consciousness on this planet. Fortunately there are some very positive signs at the present time. The developments in Eastern Europe and to a lesser extent also in Asia and other parts of the world are beyond our dreams of just a few years ago - it really looks as if we will be spared nuclear destruction - at least, we have a reprieve. It behooves us and our government to give all possible support to these developments and to use the time thus gained to make this a better world for all. For instance, we should not tolerate a situation where millions of children, and I mean millions, die each year from malnutrition and easily preventable diseases - easily preventable, that is, if we cared enough to spend our money on them rather than on our weapons and luxuries. This is part, perhaps the greater part, of the morality Einstein speaks of when he says that "only morality in our actions can give beauty and dignity to life."

I do not believe in hell or heaven after death - I believe in them before death. We do not have control over many, or perhaps most of the important external circumstances of our lives. We, too, like Sisyphus, strive with all our might to push our rock up and up, but no matter how successful we may be, we are still destined to see it roll down into the unfathomable abyss like the rocks of all our fellow humans. As long as we have consciousness, however, we can live our inner life, which is by far the more important one, being in fact the only one which has absolute reality, with dignity and beauty if we indeed base our actions on morality and love. Liberating ourselves from some of the cruder dross of selfishness and fears which come with our inheritance from our biological ancestors, we may make room in our hearts and minds for a better appreciation of how fantastically lucky we are to be alive and conscious in a universe as rich and apparently inexhaustible as the one we inhabit.

We do not and may never know the answers to the twin questions of who are we and what is this universe of ours, but oh, how fortunate we are to have a chance to search for them! Let us make every effort to ensure that the opportunity to search, find and develop is available to everyone, from those closest to us to those we have never met and whose language we do not even understand. Only then will we be able to live at peace with ourselves and experience the holy joy of existence all the way to our inevitable end. As St. John said: "He that loveth not knoweth not God; for God is love...!f a man say, I love God, and hateth his brother, he is a liar: for he that loveth not his brother whom he hath seen, how can he love God whom he hath not seen?"

Let me end now by quoting Einstein once again. A correspondent wrote to Einstein asking him: "If on your death bed you looked back on your life, by what facts would you determine whether it was a success or failure? " Einstein replied as follows:

" Neither on my death bed nor before will I ask myself such a question. Nature is not an engineer or contractor, and I myself am a part of Nature."

Closing Words:

"...O Master grant that I may desire rather:

To console than to be consoled;

To understand rather than to be understood;

To love rather than to be loved...

Where there is hatred, let me sow love;
Where there is injury, pardon;
Where there is despair, hope;
Where there is darkness, light;
And where there is sadness, joy..."

(from the Prayer of St. Francis of Assisi)

Opening Words:

"One aspect of religious experience is the wondering, the marveling, the becoming aware of life and of one's own existence, and of the puzzling problem of one's relatedness to the world. Existence, one's own existence and that of one's fellow men, is not taken for granted but is felt as a problem, is not an answer but a question. Socrates' statement that wonder is the beginning of all wisdom is true not only for wisdom but for the religious experience. One who has never been bewildered, who has never looked upon life and his own existence as phenomena which require answers and yet, paradoxically, for which the only answers are new questions, can hardly understand what religious experience is."

(Erich Fromm)

Selected Readings:

"To me the most astounding fact in the universe, even more astounding than the flight of the Monarch butterfly, is the power of mind which drives my fingers as I write these words. Somehow, by natural processes still totally mysterious, a million butterfly brains working together in a human skull have the power to dream, to calculate, to see and to hear, to speak and to listen, to translate thoughts and feelings into marks on paper which other brains can interpret. Mind, through the long course of biological evolution, has established itself as a moving force in our little corner of the universe. Here on this small planet, mind has infiltrated matter and has taken control.

"It appears to me that the tendency of mind to infiltrate and control matter is a law of nature. Individual minds die and individual planets may be destroyed. But,...the infiltration of mind into the universe will not be permanently halted by any catastrophe or by any barrier that I can imagine. If our species does not choose to lead the way, others will do so, or may have already done so. If our species is extinguished, others will be wiser or luckier. Mind is patient. Mind has waited for 3 billion years on this planet before composing its first string quartet. It may have to wait for another 3 billion years before it spreads all over the galaxy. I do not expect that it will have to wait so long. But if necessary, it will wait. The universe is like

a fertile soil spread out all around us, ready for the seeds of mind to sprout and grow. Ultimately, late or soon, mind will come into its heritage.

"What will mind choose to do when it informs and controls the universe? That is a question which we cannot hope to answer. When mind has expanded its physical reach and its biological organization by many powers of ten beyond the human scale, we can no more expect to understand its thoughts and dreams than a Monarch butterfly can understand ours....In contemplating the future of mind in the universe, we have exhausted the resources of our puny human science. This is the point at which science ends and theology begins." (Freeman Dyson)

"....a doctrine which is able to maintain itself not in clear light but only in the dark, will of necessity lose its effect on mankind, with incalculable harm to human progress. In their struggle for the ethical good, teachers of religion must have the stature to give up the doctrine of a personal God, that is, give up that source of fear and hope which in the past placed such vast power in the hands of priests. In their labors they will have to avail themselves of those forces which are capable of cultivating the Good, the True, and the Beautiful in humanity itself. This is to be sure, a more difficult but an incomparable more worthy task. After religious teachers accomplish the refining process indicated they will surely recognize with joy that true religion has been ennobled and made more profound by scientific knowledge.

"If it is one of the goals of religion to liberate mankind as far as possible from the bondage of egocentric cravings, desires, and fears, scientific reasoning can aid religion in yet another sense. Although it is true that it is the goal of science to discover rules which permit the association and foretelling of facts, this is not its only aim. It also seeks to reduce the connections discovered to the smallest possible number of mutually independent conceptual elements. It is in this striving after the rational unification of the manifold that it encounters its greatest successes, even though it is precisely this attempt which causes it to run the greatest risk of falling a prey to illusions. But whoever has undergone the intense experience of successful advances made in this domain, is moved by profound reverence for the rationality made manifest in existence. By way of the understanding he achieves a far-reaching emancipation from the shackles of personal hopes and desires, and thereby attains that humble attitude of mind towards the grandeur of reason incarnate in existence, and which, in its profoundest

depths, is inaccessible to man. This attitude, however, appears to me to be religious, in the highest sense of the word. And so it seems to me that science not only purifies the religious impulse of the dross of its anthropomorphism but also contributes to a religious spiritualization of our understanding of life. " (Albert Einstein)

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