Mankind's Yearning for Space Travel

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Almost 60 years ago <u>Yuri</u>
<u>Gagarin</u> – the Russian cosmonaut became the first human being to leave the gravity field of earth and orbit it. He ushered in the age of space travel.

But Gagarin's feat was possible only because of

the brilliant inventions of <u>Professor Wernher von Braun</u> the German engineer who invented 80 years ago the liquid-fuel V2 rockets for Nazi regime. Though these rockets were used in warfare during World War II, they started the revolution of space age and later on when Professor von Braun went to U.S.A., he spearheaded in NASA the Apollo and other rocket programs which sent the man to the moon.

I had a great honor of meeting Professor von Braun in 1975 when <u>I was a student</u> at <u>University of Florida</u>. My professor <u>Dr. Erich Farber</u> was a friend of Dr. von Braun, who was visiting our department at that time, and introduced me to him. I had a pleasant chat with him for a short while.

This chance meeting with Professor von Braun kindled in me the fascination of space travel and led me to read and write about it. This essay is my small attempt to explain mankind's fascination with the stars.

Since time immemorial mankind has always dreamt of getting out of earth's gravity field and reaching the stars. In all cultures, gods have been depicted as shining beings descending from heaven in flying chariots and blazing machines. Even Shri Ramakrishna the Indian saint explained in great details how he and Swami Vivekananda came to earth from distant space.

Fascination with stars and space is somehow inbuilt in all of us. Astronauts who have gone in near-earth orbits and to the moon have always spoken about it as a spiritual experience. The space travel invariably changes them and has a profound positive impact on their thinking.

Part of the reason for our fascination with space and stars could be that some of <u>our ancestors might have come from distant planets</u> and hence it is somehow embedded in our genetic code. Another reason is that as our technology develops there is a desire to expand our horizons and vision field and <u>maximize our experience</u> and space travel is the next frontier to do so.

Yet another reason could be the desire to get away from the pains and miseries of this planet earth and go to other habitable planets which may provide better place to live. This could be the basis of <u>concept of heaven preached in almost all religions</u>.

Thus, leaving the gravity field of earth and flying into intergalactic space is somehow deeply ingrained in our brains.

But this travel requires huge amount of energy and resources and with the present level of our technology we have only been able to go into near-earth orbits and few times to the moon and Mars. Till we have a major breakthrough in jet propulsion and possibly anti-gravitational technologies and materials, we will remain earth-bound.

Nevertheless there is enough documentary evidence that we are continuously visited by <u>spaceships (UFOs) from distant planets</u>. Obviously, these advanced technological societies have mastered the science and art of intergalactic travel. Eventually as we make advancements in science and technology, we will also become a space-seeking civilization.

Presently, a simpler and energy wise cheaper method than spaceship travel is to go via the soul route! Advanced yogis have claimed that by willing one's death, one can use the gravity of sun and moon to help the transmigration of soul to other worlds. For example Bhishma Pitamah in Mahabharata stayed on the prickly arrow cot for about six months before he left his body by will at winter solstice - the time when earth is closest to the sun. Similarly Swami Vivekanand studied the almanac thoroughly before deciding when to leave his body. They obviously understood the effect of gravity on human thought and memory (soul).

Still others have written about space travel during out of body experience (OBE). Carl Jung - the famous psychologist had an OBE in which he traveled to outer space. His experience and vision of earth as seen from the space and written in early 1940s tallied very closely with what the astronauts reported in the late 1960s. Nevertheless OBE space travel is transitory in nature and lasts only for few hours.

So how is it possible to will one's soul out of the gravity field of earth? Quantum mechanics might provide a possible explanation.

Tunneling

In quantum mechanics there is a phenomenon called <u>tunneling</u> which says that there exists an exceedingly small probability that a tennis ball can tunnel or pass through a thick brick wall. Normally we do not see such a phenomenon because

of the mass of the ball and hence the probability is extremely small. **But it still** exists.

In fact the probability of passing (or tunneling as it is called) of a ball or an object is inversely proportional to the square root of mass of the particle and the drag by the environment on it (in this example it is the brick wall). Hence the smaller the mass and drag on it, the greater is the probability of it tunneling through a barrier.

Thus a small particle like an electron can easily tunnel through the wall as compared to the tennis ball. This tunneling effect is not science fiction and is used quite regularly in the design of various electronic devices and circuits.

If we extend this analogy to soul, then we can speculate that it can tunnel through the earth's gravity field provided its mass is exceedingly small. This can happen when it sheds all the extraneous memories and becomes a pure thought. Or as Patanjali in his Yoga sutras says, "When sanskars (memories) or gunas cease to mutate, the pure Atman remains, and ultimate liberation takes place". This might be the critical mass for tunneling and the ultimate liberation is to get out of the birth/death cycle on this planet earth.

The soul in this state can be speculated to <u>retain the basic information</u>. It is like the password and name ID. It can go to any planet or galaxy for rebirth and access its past information from the <u>knowledge space</u>.

Another interesting aspect of quantum tunneling is that it is independent of force or energy of electron but only depends upon the mass of the particle and drag encountered or the "thickness" of the drag wall. Thus a pure soul (Atman) can tunnel through the drag of the gravity field and spirit world which is made up of memories of departed souls.

Hence if we want to leave the gravity field, then we should try to remove the extraneous memories (equivalent to mass) attached to the pure thought and that is the whole basis of Yoga. It is these memories which are attached to our self at the time of our final exit which determine the drag on the ability of our soul to tunnel. I feel that the whole basis of liberation in Indian yogic system is to get away from the gravity field of earth!

This is easier said than done. After all, at the time of death, the <u>life-long</u> memories are difficult to forget and the soul clings to the body. Nevertheless if we follow the teachings of Gita, then all our actions should be carried out in the spirit of Karma with no attachment to them. If practiced continuously for a long time this detachment from the rewards of one's action may allow us to reduce the mass at the time of death and ultimately get out of the gravity field.

Similarly following <u>Patanjali's method of practicing Sanyam</u> of focusing on a single thought for a long time, one can also remove these memories and reduce the mass.

Alternatively we can all work together to make this earth a very nice and hospitable place to live where the lives of all its inhabitants are emotionally satisfying and sustainable. Then this planet earth will become heaven that we all dream of. So when we are born time and again on this planet then we will not have to spend energy and effort to get out of its gravity field.

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