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Preface

This book aims to understand the position of science and faith on questions of meaning in existence. Mutual understanding of original views of both camps is necessary for the mutual progress and co-existence of both empirical knowledge and values in a healthy, progressive and spiritual society.

Science should be dedicated to identifying natural cause and effect relationships. We hope to show that faith does not frustrate that purpose. Science should be universal and its established knowledge through evidence should benefit all mankind and should be developed by people from diverse backgrounds.

No religious text is a pure science book nor any religion claims as such. On the other hand, understanding and explaining the deeper meaning of life is beyond the domain of science. Science cannot be an arbiter in philosophical, moral, social and political matters.

It is hoped that this essay will clarify the epistemological boundaries. It makes a case for mutual co-existence of both empirical knowledge and values in the future of society.

Salman Ahmed Shaikh

May 04, 2018
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Chapter 1

Making Sense of our Existence

1.1: Complex Life on a Knife’s Edge

In his book, ‘A Brief History of Time’, Prof. Stephen Hawking writes:

“If the rate of expansion one second after the Big Bang had been smaller by even one part in a hundred thousand million million, it would have recollapsed before it reached its present size. On the other hand, if it had been greater by a part in a million, the universe would have expanded too rapidly for stars and planets to form.”

We also know now that the universe is expanding at an accelerating rate. Scientific estimates suggest that the age of the universe is estimated to be 13.7 billion years. As per scientific estimates, from Big Bang to origin of life, the numerous variables had to be accurately fine-tuned. By chance, it would take $10^{243}$ [billion years] to obtain even one protein molecule on earth!

Steven Weinberg argued that the cosmological constant must be zero to within one part in roughly $10^{120}$ (and yet be nonzero), or else the universe either would have dispersed too fast for stars and galaxies to have formed, or else would have recollapsed upon itself before the emergence of complex life-forms.

Astronomer Fred Hoyle once said that the probability of life arising on planet earth by purely natural means is less than the probability that a Boeing 747 should be assembled by a hurricane roaring through a junkyard. Thus, life exists on a knife’s edge on this tiny planet in Cosmos.

Add to that the variety, design and sustenance of millions of different forms of life. The advancements in modern science have
revealed how immaculately complex the material things and processes are in the universe. Thus, Fred Hoyle says that the universe is a ‘put-up job’. Allan Sandage finds it quite improbable that such order can come out of chaos. He asks the question which Leibniz posed earlier: “Why there is something rather than nothing”.ii

Nobel Laureate William D. Phillips shares his view as follows: “The observations about the orderliness of the physical universe and the apparently exceptional fine-tuning of the conditions of the universe for the development of life suggest that an intelligent Creator is responsible.”

Furthermore, Albert Einstein shares this view in one of his statements: “Everyone who is seriously committed to the cultivation of science becomes convinced that in all the laws of the universe, is manifest a spirit vastly superior to man, and to which we with our powers must feel humble.”

Prof. Lawrence Krauss attempts to answer existence alternatively by redefining his notion of something as ‘nothing’ through the use of quantum mechanics. David Albert rightly contests this position. He writes:

“Relativistic-quantum-field-theoretical vacuum states — no less than giraffes or refrigerators or solar systems — are particular arrangements of simple physical stuff. The true relativistic-quantum-field--theoretical equivalent to there not being any physical stuff at all isn’t this or that particular arrangement of the fields —it is just the absence of the fields!”iii

Our Sun could hold 1.3 million earths. There are around 200 billion suns in a galaxy like our own Milky Way. Now, scientists can see a great number of galaxies through powerful telescopes. We know from astrophysics that one light year equals roughly 10 trillion kilometers. The diameter of the observable universe is around 150 billion light-years. To explain this fine-tuning, a group of scientists also suggest that we might be living in just one of the infinite universes where life-supporting conditions just happen to be there in their most precise form for life to exist and evolve. In this context,
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Edward Robert Harrison presents a choice: “Chance that requires multitudes of universes or design that requires only one”.iv Even one of the seminal contributors to String Theory, Michio Kaku recently stated “We exist in a plan which is governed by rules that were created, shaped by a universal intelligence and not by chance.”

It is pertinent to ask what Prof. Stephen Hawking also finds perplexing:

“We find ourselves in a bewildering world. We want to make sense of what we see around us and to ask: What is the nature of the universe? What is our place in it and where did it and we come from? Why is it the way it is?”

1.2: Need for Meaning to Existence

The twentieth century can well and truly be regarded as the century of modern science. Science has made us understand the physical world better and to make the ever-more effective use of matter around us. The comforts of life that a common person takes for granted were not available to even the Kings and the Royals of the past.

Michio Kaku aptly cautions that we have to realize that science is a double-edged sword. One edge of the sword can cut against poverty, illness, disease and give us more democracies, and democracies never war with other democracies, but the other side of the sword could give us nuclear proliferation, bio germs and even forces of darkness.

Nonetheless, along with advancements in science and technology, over 200 million people died in the last century in wars. On average, if 5,500 people die on every day of a century, only then it will reach the figure of 200 million. Is extinction merely a rearrangement of molecules, even if it happens to humans via nuclear weapons? We need better humans, morality, values and a social contract that can make us live better, meaningful and fulfilling lives. The technological advancements do not make right as wrong or wrong as right. In fact, if values are undermined, then the same
technology can be used for more destruction rather than for social benefit.

Using free will, we can use the moral screening provided by conscience to act in good ways. But, if I believe that this life is the only life, then why shall I use my limited time, income and abilities to help others? How can absolute justice be provided in the crime of genocide? Even in other crimes, with perfect monitoring, prosecution and law enforcement, the suffering caused is irreversible.

Our outlook on the universe will be different based on the meaning we attach to our relationship with the universe. From Physics perspective, extinction is merely a rearrangement of atoms, even if it happens to millions of humans via nuclear weapons.

Prof. Stephen Hawking once said: “We are the product of quantum fluctuations in the very early universe.” Neil deGrasse Tyson also remarked that it is likely that our entire existence is a program on someone else’s hard drive and that everything in our lives is just a creation of some other entity for their entertainment. The physical appearance of life can be studied as biological and chemical processes, but is life just all that?

Humans live in society and exercise their free will in socio-economic relations. Unlike the dials in a well-functioning clock which do not intersect, humans have the potential to be compassionate or not to be. But, why should I part with my time to help some stranger I might never meet again or for someone who lives miles away from me? Why should I part with my wealth if it is scarce, legally belongs to me and so nobody could question what I would decide to do with it in life?

Science seeks cause-effect relations in physical realities. Mathematics is one of the tools to guide this search in complex relationships. Scientists exclusively focus on material processes. So, they only extract the deeper meaning as regularity and algorithm itself. Science can only help us thus far. The reflection on nature and its regularity around us requires a philosophical underpinning for deeper meaning.
Columbia University Professor, Prof. Brian Greene states: “Science is very good at answering the 'how' questions. How did the universe evolve to the form that we see? But it is woefully inadequate in addressing the 'why' questions. 'Why is there a universe at all?' These are the meaning questions, which many people think religion is particularly good at dealing with.”

Cooking is not chemistry and chemistry alone. When cooking starts, what ingredients are involved at the most indivisible level and how they mix together is part of reality. The second set of reality is who is cooking, why and for whom? The cook and hunger as part of reality are as much important as the knowledge of how the ingredients mix to become eventually a prepared ready-to-eat food. We drink so that we quench thirst. 'Why' in what happens is part of reality as much as 'how it happens'. If a person asks who made the computer, the answer is not sufficient if it only describes the material and processes through which it was created. Seyyed Hossein Nasr writes:

“The idea of reductionism which is innate to modern science could be described as the reduction of the spirit to the psyche, the psyche to biological activity, life to lifeless matter and lifeless matter to purely quantitative particles or bundles of energy whose movements can be measured and quantified.”

Science concerns with 'how it happens'. That is not the complete description of reality until we also know 'why it happens'. Albert Einstein in his essay ‘Science and Religion’ writes:

“Knowledge of what is does not open the door directly to what should be. One can have the clearest and most complete knowledge of what is, and yet not be able to deduct from that what should be the goal of our human aspirations. Objective knowledge provides us with powerful instruments for the achievements of certain ends, but the ultimate goal itself and the longing to reach it must come from another source.”
The intellect with which we discover knowledge about the matter in physical sciences to answer the question of ‘What is’ and ‘How it is’ and the conscience with which we differentiate between right and wrong, are neither our own creation nor have they appeared by themselves. Electrical appliances function in full compliance with the mechanical and electromagnetic principles, but their existence is not the natural result of such natural laws alone.

Prof. Lawrence Krauss once said: “We find ourselves on this remote planet in a remote corner of the universe, endowed with intelligence and self-awareness. We should not despair, but should humbly rejoice in making the most of these gifts, and celebrate our brief moment in the sun.” Scientists study the minute aspects of hospitality in our visit to the world and have reached the conclusion that life exists on a knife’s edge. But, should we not accept and thank the host? Should we just spend all the time and energy in looking at the facilities provided by the host and their immaculate discipline and order? The laws of nature that we study exist independent of us. As guests in this finely tuned earth which requires life-supporting systems, can we reject the host by knowing and enjoying all the facilities? All that we have done with science is to be able to use the matter existing in the universe to make our lives more useful.

Prof. Lawrence Krauss in his book ‘A Universe from Nothing’ suggests that the universe came about from nothing and which may one day return to nothing via processes that may not only be comprehensible but also processes that do not require any external control or direction vii. But, George F. R. Ellis aptly asks: “Why the laws of physics exist? Why they have the form they have?” Prof. Dr. Pervez Hoodbhoy’s in his Urdu book ‘Muslims and Science’ writes that Science does not have any explanation for the origins of these laws and it cannot reject the claim that these laws might have been decreed by a divine God. Even Prof. Stephen Hawking admits:

“Even if there is only one possible unified theory, it is just a set of rules and equations. What is it that breathes fire into the equations and makes a universe for them to describe? The usual approach of science of constructing a mathematical model cannot answer the
questions of why there should be a universe for the model to describe.\textsuperscript{viii}"

Modern science has not created anything that does not exist in the universe. Rather, it has made use of matter which already exists in the universe. The properties in matter exist not because humans have created them.

Science is knowledge established by observation and experimentation through an objective process. Scientific knowledge substantiates that the design, variety and balance found in the universe illustrate complexity, intricacy and detail. Science tries to disentangle useful knowledge about the matter so that this knowledge can be put to effective use. But, science cannot be an arbiter in moral matters or a guide in identifying the purpose of life.

Prof. Stephen Hawking once said: “I believe the universe is governed by the laws of science. The laws may have been decreed by God, but God does not intervene to break the laws.” What eludes us is to think about the meaning of our own lives. We would do research in distant galaxies, distant past of the universe and in the smallest particles of matter, but we remain ignorant about the meaning and purpose of our own existence. Cecil Boyce Hamann aptly summed up this: “Natures does not explain; it is in need of an explanation”.

Nature and natural laws do not explain the deeper meaning of life. They are in need of explanation themselves for their origin, purpose and designer. Descartes said: I think, therefore I am. It is also important to think ‘why I exist and where will I be when I am not (alive).'

When we take a taxi or boat or an airplane on a certain route, we do not question the existence of the car, for example. Rather, we might ask: Does it run by itself or is there a skillful driver behind the wheel?! If we look at a building, we will immediately believe that an architect has built it. How will it sound that some wood, steel, stones, and paint have gathered by themselves and on their own and in a certain fashion built that building for human beings to dwell therein. Those who do not believe in God apply this logic to a tiny object like a car, but not to a grand object like the universe and
all the complex life and support systems and processes within it which run to perfection day after day and centuries after centuries.

The ability to make machines can be used for more effective food production, distribution, clinical cures and better health. On the other hand, the same ability can be used to decimate species including human beings. The record of science taking a solo flight by discarding values in recent times has not impacted our technical progress, but it has resulted in the unprecedented loss of human lives in wars, extinction of species, ecological imbalances and irreversible damage to the environment.

Many scientists in the past did not regard scientific discoveries as a challenge to faith. They understood that what had been offered by modern science are better explanations of physical phenomena rather than finding a newer source of origin, creation and ‘will’ behind the physical phenomena. Isaac Newton aptly said that gravity explains the motions of the planets, but it cannot explain who sets the planets in motion.

Prof. Richard Dawkins once said: “Darwin explains how we got here.” Nonetheless, rediscovering regularity in physical realities is not the end-objective of existence. How we develop as adults from birth as an individual and how and when homo-sapiens as a whole came to exist in this form physically is all beside the point from the basic premise of faith. Albert Einstein in his essay ‘Science and Religion’ states:

“The knowledge of the truth as such is wonderful, but it is so little capable of acting as a guide that it cannot prove even the justification and the value of the aspiration toward that very knowledge of the truth. Here we face, therefore, the limits of the purely rational conception of our existence.”

Prof. Karl Popper explains that “In so far as a scientific statement speaks about reality, it must be falsifiable: and in so far as it is not falsifiable, it does not speak about reality.” Putting an ideology over a descriptive falsifiable theory is a different matter than just the scientific and physical aspects of the theory itself. Theory of
evolution attempts to describe the process through which life comes to exist. This theory does not concern with the question of the meaning of life itself. It is erroneous to use it as an evidence to support a godless philosophy of life. Michael Ruse, even though an atheist, aptly writes: “Evolution is promoted by its practitioners as more than mere science. Evolution is promulgated as an ideology, a secular religion.”\textsuperscript{xii} In this regard, Sir Arthur Keith stated: “Evolution is unproved and un-provable. We believe it only because the only alternative is the special creation and that is unthinkable”.

Animals wake up, find food, eat, sleep and wake up again. Are humans also supposed to have the same purpose only? Conscience may not err in helping to differentiate between right and wrong, but the right ethical choice may not be chosen if it conflicts with self-interest. If I believe that this life is the only life, then why shall I use my limited time, income, abilities and resources to help others? If I am just part of an evolutionary process, why should good and evil matter? Why should conscience and ethics in any way be different from dust and air?

Prof. Richard Dawkins in his book ‘God Delusion’ states that we do not need religion to be moral. If we assert that moral values have only evolved genetically and that we do moral behaviour instinctively for ensuring survival only, then, there is nothing good and bad essentially.

Sam Harris writes that “Most of what we currently hold sacred is not sacred for any reason other than that it was thought sacred yesterday.”\textsuperscript{xii} There are no objective morals then. Sam Harris is sceptical of free will. If that view is taken, then all judiciary and penal laws shall cease to exist. But, do they or would they? Seyyed Hossein Nasr aptly asks:

\begin{quote}
If the human being is nothing but the result of ‘blind forces’ acting upon the original cosmic soup of molecules, then is not the very statement of the sacredness of human life intellectually meaningless and nothing but a hollow sentimental expression? Is not human dignity nothing more than a conveniently contrived notion without basis in reality? And if we are nothing but highly
\end{quote}
organized inanimate particles, what is the basis for claims to ‘human rights’?xiii

Palley and Voltaire used the analogy of Watchmaker for their perception of god. Explaining evolution by natural selection, Prof. Richard Dawkins modifies the analogy as ‘blind watchmaker’ by saying that “the only watchmaker is the blind forces of physics”.xiv

Their perception of god is ‘god of the gaps’ which has to be invoked as an ad hoc presumption to bypass material explanations in certain instances where physical answers and explanations are absent for the time being. Their argument is that if a physical explanation can take us back to relying on some finite number of constant values related to forces and energy, then why to invoke god to fill the gap. Prof. Lawrence Krauss once said: “I can't prove that God doesn't exist, but I'd much rather live in a universe without one.” Problem with this argument is that it misplaces the real point of religion and faith. These analogies reflect thinking and mindset to evade responsibility and they add nothing in terms of answering the questions about the meaning of life.

Faith in God or in religion is not concerned essentially with the steps and ‘how it is’ of and behind things. The things which we are able to explain through science relate to the physical phenomena. The existence of a being as a whole and with its physical parts and processes still begs the question ‘why’ and ‘for what end’? Charles H. Townnes - well-known for his invention of laser - explains: “Purpose implies structure, and structure ought somehow to be interpretable in terms of purpose.”

Big Bang can explain what happened afterward, but not what was before it, who was behind it and why did we come to exist in this world in the first place. We can force the question of purpose out of sight, but not out of significance and importance to a thinking mind.
Chapter 2

Metaphysical View on Existence

2.1: Basic Premise of Metaphysical Faith

For validation of knowledge about something, seeing something is not necessary. Inference can be used to derive valid knowledge about unseen concepts whose physical manifestations can however be observed like gravity, for instance. We know that dark energy and dark matter, detectable only because of their effect on the visible matter around them, make up most of the universe.

Science has made us truly amazed at how we exist through fine-tuned balance in numerous variables. The natural question is for what purpose? Can aspiration of getting a due reward for right conduct is possible for everyone? Can absolute justice ever be established? Is everlasting happiness achievable? Can the outlaws responsible for genocide be brought to justice ever? Can the honest and truthful people who suffer unjust lives be duly compensated, if ever?

As per monotheistic religions, Allah, the Supreme Being, created all living and non-living things in the universe. This universe had a beginning and this is a fact which is endorsed by Physics. This universe cannot be its own creator since it began to exist at some point in time. It cannot create itself into existence while being in existence already at the same time. As part of the Cosmos, are we our own creators? James Clarke Maxwell who formulated the classical theory of electromagnetic radiation aptly stated: “Science is incompetent to reason upon the creation of matter itself out of nothing. We have reached the utmost limit of our thinking faculties when we have admitted that because matter cannot be eternal and self-existent, it must have been created.”

The question of who created the Ultimate Creator is not valid since the Ultimate Creator is not a creature and needs not be created. For
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someone to be an Ultimate Creator, He has to be someone beyond the constraint of this world and nature. If the premise is that an Ultimate Creator created everything and nothing exists independent of His will, then, the logical conclusion would be that He has to be an independent personality outside of the universe and have no constraints of nature.

As per the faith of Islam, human beings are created for a test by Allah and we live in His universe under finely tuned life-supporting systems. Our success in this test depends on moral excellence in matters involving free will. The nature of test examines human actions made with free will. The wish to see absolute justice around us and to achieve everlasting happiness would be possible in afterlife provided we use our free will in choosing moral actions in this life. Success in this test is possible even for those who suffered injustice throughout their lives. Failure is also possible for the richest, powerful and outlaws who evade law enforcement all their lives.

This world is not fair in all respects. A morally upright man is not necessarily the most honourable man in the world. A morally upright trader is not necessarily the richest in the world. Not all murderers have been or will be convicted in this world. Even if all murderers could have been convicted, it will not be 'naturally' possible to give equitable punishment to the murderers who have killed more than one human being. Furthermore, it will not be possible to reverse the immoral actions and their already occurred consequences.

Religion promises absolute justice and deterministic rewards in the life hereafter. This fulfils the aspiration to have perfect justice to lives spent by pious and impious, poor and rich and just and unjust people. The promise that every action and even intention will be given due justice by the Creator makes the 'static conscience' created by Allah a 'self-regulated functioning conscience.'

Science can inform and identify moral dilemmas by highlighting the consequences of actions and inactions, but it cannot compel us to do the morally right things as influenced by some objective values and morality. Given the opportunity cost of every economic activity,
we buy more luxuries despite there being one in nine people going to bed hungry and hundreds of thousands of people dying from curable diseases which can be prevented for an individual in less than the cost of a hamburger.

Some people suggest that being not religious does not mean that we are or will become immoral. However, faith does not argue that moral values originate principally from scriptures. There is an innate ability in our consciousness to differentiate right from wrong actions. The different approaches to life and its meaning can result in different ways of responding to moral calling. Faith not only compels and elicits pro-social behaviour, but provides meaningful consequences for good and bad actions. Else, altruism while in poverty, anonymous charitable giving, and sacrificing one's life in the service of humanity would seem irrational if we are just going to die after some moments in the Cosmos without any absolute justice. Inaction to not help change matters is also immoral, even if not illegal. If one possesses the means and finds an opportunity to help causes by way of spending wealth, volunteering and engaging in socio-political and democratic struggle, then one should undertake every feasible effort to contribute in social well-being by looking beyond one's self-interest.

Religion gives meaning to actions and moral choices; else both mass murderers and honest go through the same biological decay of their skulls after they die. One can decide to do an act morally as an end in itself and not merely as means to a material end with the knowledge that there are deterministic rewards beyond the interpersonal relations in the world.

If one believes in this life only; then that person will be more selfish to get everything in this life. If we restrict our existence confined to this world alone with no accountability in the afterlife; then, I am "just" as long as I am "just" in front of the society even though there could be crimes that the society could never have seen me doing. Contrarily, I could be regarded as "unjust" by the society if it convicts me based on evidence which could have been untrue. Life hereafter gives meaning to all our actions by promising each and every soul a just reward.
Religion concerns primarily with the moral sphere of life. It concerns with the moral conscience and strengthening it to elicit positive actions and behaviour. The developments in technology through modern science are in no way a replacement of moral values. Just like we can survive without sun neither in ancient times nor to this day, the same way religion is also a fundamental part of human society by giving it values and meaningfulness.

If the precious moments of life are pursued in following the commands of the Creator with regards to moral behaviour and fulfilling responsibilities, then death will be followed by a life of everlasting happiness and that will begin for never-ending again. The concept of afterlife accountability promises absolute justice for any tiny act of evil or kindness in this life.

Kant once said: “In law, a man is guilty when he violates the rights of others. In ethics, he is guilty if he only thinks of doing so.” The question is who knows the intentions and who can provide absolute justice. Even if we could know intentions and start enforcing punishment, the suffering is irreversible as the punishment can only take the life of the murderer at best. Criminals responsible for genocide and unjust wars cannot be accorded with absolute justice even if they accept all their crimes. Belief in afterlife accountability promises absolute justice for any tiny act of evil or kindness in this life. It enlightens human’s life and makes every act of everyone relevant. Belief in afterlife accountability actualizes the cause and effect in moral matters.

Islamic worldview says that humans are one of the creatures of Allah along with other living and non-living things created by Allah. As creatures, not as fittest survivors, we owe thankfulness to Allah for our existence, which is made possible through all suitable life-supporting systems on this earth. This worldview engenders a spirit of compassion, humility, kindness, care, sacrifice and humbleness.

Have we created ourselves? If not and if we have been created, then the intellect with which we discover knowledge about the matter in physical sciences to answer the question of 'What is' and the conscience with which we differentiate between right and wrong, are both created and bestowed by Allah.
Some people often ask that why would people who do not belong to any faith, but who do pro-social acts not get anything in the afterlife from Allah. If a person does not believe in Allah and afterlife, then, it is important to understand what will have been the motive of that person for good actions. It may be one of these things: 1) helping others and see their lives improve in this world, 2) getting a good name and die in good records till this world ends and 3) gain self-satisfaction till the life ends. These can be some of the broad objectives for a person who does good acts and who knowingly does not believe in Allah and afterlife. As far as this world can provide justice, all of these objectives will be achieved to a certain extent. If not achieved or if a person anticipates that the world will not be just enough to reward good actions and right intentions; then, one has to question how the 'aspiration of absolute justice' can be fulfilled. Religion promises absolute justice for every wilful action and intention in the afterlife for everyone.

Is faith just a human conception coming out of fear? As a matter of fact, the faithful have lived in the most primitive civilizations as well as in the most recent times. Despite racism, bias, discrimination, genocide and even decimation of their native lands in some cases, the faithful population would almost reach 86.2% of the global population by 2050 as per Pew Research Center. In only two countries, USA and UK, about 30,000 people convert to Islam every year. So, it is inappropriate to undermine conscious faithfulness by people who adopt faith even when it could result in bias, discrimination and racism.

The Creator introduces Himself rather than some people filling the gap with an assumed Deity. Qur’an, the most authentic religious book provides evidence of its divinity since its descriptive accuracy of nature (even though mentioned only as a supplement to its core message) is not contradicted by established facts of modern science. The unity of origin (Tawheed) is also consistent with the order and design manifested in the universe.

Every civilized society with laws accepts freedom only with responsibility. When that responsibility is determined and guided by the Creator Himself, belief in Tawheed enables a person to be
free from being subservient to anyone else except the Creator. Belief in *Tawheed* ensures equality since every human being is the creature of *Allah* like everyone else.

Religion does not argue for ‘Creation’ doctrine alone. It gives a worldview which explains the meaning and purpose of life, i.e. submission to *Allah* and ethical purification of actions and which will bring deterministic rewards with absolute justice in the afterlife.

Conscience is a powerful source to guide towards the straight path. Having knowledge of the right path, what will encourage righteous action? What makes the conscience functioning? Religion is not just a source of information to know right and wrong. Religion gives a worldview that explains the purpose of life. The objective of religious guidance is submission to *Allah* alone and ethical purification of one’s actions. This belief should be reflected in one’s duties to the Creator and the environment which includes other humans and animals of present and future generations. Belief in divine appraisal can limit mischief of those in authority, can motivate selfless behaviour and is a source of contentment to those with unfair lives and deaths since every tiny act of goodness and evil would be subject to deterministic rewards in the life hereafter.

The human mind wants absolute justice, but it is not possible for natural reasons like an army general cannot be given equivalent punishment for committing genocide and in cases where the oppressed are in a weak position legally, diplomatically, politically and militarily. Raymond Davis killed two human beings in Pakistan, but went free from Pakistan. Later on, he was charged in the USA for a minor traffic violation. Chilcot report is most critical to the loss of 150 British soldiers while more than a million Iraqi civilians also died in the unjust Iraq war.

Human conscience wants justice for oppressed and for all events where there is an injustice. Belief in afterlife accountability gives meaning to life and what we and others do in it. Else, in a godless paradigm, it is just a game of survival of the fittest. Animals play it as well as humans with no difference between the two in the godless view of life.
Some people argue that why *Allah* despite being most merciful, does not end suffering and evil. We know *Allah* by His attributes, which are informed to us by the divine scriptures. Even if one does not believe in the divine scriptures, one has to refer to the scriptures to understand the religious viewpoint. *Allah* is merciful as well as just and He is consistent in His attributes. The hardships people go through in this world are not necessarily a punishment in response to disobedience. The blessings that we enjoy in this world are also not necessarily in response to virtuous actions. The endowment inequality in this world is a way to test thankfulness and patience in us. The test concerns the choices we make with free will and *Allah* will reward the quality of actions and sincerity of intentions.

The sufferings which some people go through in this world are in some cases a result of morally indifferent behaviour. Lack of social justice, unequal opportunities, extractive socio-economic institutions, socio-political injustice and outright wars have resulted in millions and millions of loss of lives in the scientific age. Religion compels pro-social behaviour to avoid sufferings as far as possible and even if the sufferings do occur without human interventions, then religion urges moral action to help the needy and exemplify self-less spirit in dealing with catastrophes. If we leave the faith altogether, then science alone cannot provide any solace and meaning to the people who live their lives in unfair circumstances and who die in vain unjustly.

Furthermore, it is often asked that sometimes we see people dying in accidents even in holy places. In addition to that, people including children often do not have normal capabilities to enjoy life to the fullest and even to exercise free will. The answer from the faith viewpoint is that those who are not able to exercise free will are not going to be held accountable for something in which they did not have an opportunity to exercise free will. Approximately, more than 150,000 human beings die every day. Natural catastrophes just bring isolated human sufferings and misery together at one point in time and space. These events act as a reminder of death and fragility of life. It provides a chance for reflection and introspection. These circumstances sometimes test the compassion in those who remain unscathed. If life in this Cosmos happened by chance and will end for no other
consequences beyond this life, then this life ends both for the rich and for the poor, for the outlaws and for the victims of injustice and for the honest as well as the dishonest. Faith-based worldview which has been outlined above makes the life of everyone meaningful as well as accord due justice for everyone.

In addition to that, a question is sometimes raised that if Allah knows and has power over all things, then why He does not stop the evil actions before they cause suffering. In reflecting on this, it is important to understand how the faith-based worldview explains life in this world. Human life in this world is a trial in which if we remain faithful and morally conscious individuals in carrying out all normal duties of life, then we will be rewarded. If we do otherwise and live immoral lives, then we will not escape divine justice in the afterlife. Since the trial nature of this life requires the exercise of free will, that is why, Allah does not intervene to provide absolute justice in this world. However, faith-based teachings in Qur’an urge and compel moral and pro-social behaviour. The knowledge of perfect accountability boosts hope and aspiration and reduces despair of worldly misfortunes and temptation towards unrestrained material pleasures.

2.2: The Scientific Method & Faith-Based Worldview

In simple words, science is knowledge established by observation and experimentation through an objective process. Science tries to disentangle useful knowledge about the matter so that this knowledge can be put to effective use. For the physical world, this effective use encompasses understanding the nature of physical phenomena and using that understanding in applications of matter in developing and advancing technology.

As far as understanding the properties of matter is concerned with the objective of making our lives useful, religion does not oppose science at all. There is no inherent conflict between science and religion if the scope of both science and faith are duly understood and acknowledged. Islamic worldview does not oppose the use of various tools for obtaining useful knowledge and then using that knowledge for material ends both at an individual and at the societal level.
When one reads Qur’an, Allah is again and again inviting people to ponder over their creation, environment, ecology, design, variety and balance in the organization of matter in the universe in order to decipher the meaning of life amidst all these manifestations.

There is no restriction on planning or in using material resources provided to us by the Creator. In fact, Islam disapproves monasticism, encourages economic pursuits and asks us to choose the easier of available alternatives to provide comfort in our lives as well as for others. Both the intellect and the matter to which we apply our intellect are created by Allah.

The question of ‘why we exist’ is the focus of religion. The question of ‘what exists and how’ is the focus of science. The drive for mutual help, engendering compassion, respecting biodiversity, intergenerational resource equity and sustainability requires upholding values which are strengthened by religion.

Prof. Lawrence Krauss explained that “Why' implicitly suggests purpose, and when we try to understand the solar system in scientific terms, we do not generally ascribe purpose to it.” The conflict between science and religion appears when a descriptive falsifiable scientific theory is presented as a substitute and evidence to support a godless philosophy of life. Theory of evolution attempts to describe the process through which life comes to exist in different varieties. All this theory can support is that different forms of complex life did not come to exist all of a sudden and at the same time. It merely identifies and explains intermediate steps in the long chain of events. The theory does not concern with the question of the meaning of life itself.

Prof. Karl Popper writes:

“The belief that we can start with pure observation alone, without anything in the nature of a theory is absurd. Observation is always selective. It needs a chosen object, a definite task, an interest, a point of view, a problem. And its description presupposes a descriptive language, with property words; it presupposes similarity and
classification, which in their turn presuppose interests, points of view, and problems.”

A descriptive theory might or might not adequately describe the physical process, but if it transcends boundaries of physical explanations and starts giving the philosophical meaning of the reality, then the latter endeavour is not within the scope of science. Theory of evolution might be an admissible scientific explanation of physical process if the evidence supports it, but the Darwinian View of Life is a philosophical conjecture. Prof. Richard Dawkins sums up the Darwinian of Life as follows:

“In a universe of electrons and selfish genes, blind physical forces and genetic replication, some people are going to get hurt, other people are going to get lucky, and you won't find any rhyme or reason in it, nor any justice. The universe that we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil, no good, nothing but pitiless indifference.”

Elisabet Sahtouris in her address at International Institute of Advanced Islamic Studies in Malaysia stated:

“Western secular scientific cosmology gave us a creation story in which you have a non-living universe starting with a big bang running down forever afterwards through entropy and then life evolving as an endless uphill struggle against this entropic destruction in which you have to compete to succeed. Unfortunately, eventually, the whole universe washes away because entropy overpowers life. Now to me, that is the most depressing creation story that any culture has ever told. There is no life in it except a losing battle in competition.”

The aversion to science emanates from misplacing the scope of both religion and science in society. The disservice to promoting science comes from scientists who mix their personal views with Science. One well known Physics Professor in Pakistan wrote: “If Muslim societies are to develop technology instead of just using it, the
ruthlessly competitive global marketplace will insist on not only high skill levels but also intense social work habits. The latter are not easily reconcilable with religious demands made on a fully observant Muslim’s time, energy, and mental concentration: The faithful must participate in five daily congregational prayers, endure a month of fasting that taxes the body, recite daily from the Qur’an, and more.\(^{xvii}\)

Thus, it is important for the torchbearers of science to know their scope and highlight what they can offer to society in terms of curing diseases, improving food production and easing transport and communication systems, for instance.

### 2.3: Is Contribution to Science Only a Western Enterprise

Ehsan Masood in his book ‘Science and Islam: A History’ writes that Muslim contribution to science is largely forgotten or at least neglected, except by a few diligent specialists\(^{xviii}\). Science is universal and is not just a Western enterprise. If we are to ignore all science produced by religious people, then we would have hardly anything completely unique and new to say. Muslim scientists pioneered many works in science, followed by people of contemporary times who were also not averse to religion. Nobel Laureate and seminal contributor in Quantum Physics, Max Planck once stated “It was not by accident that the greatest thinkers of all ages were deeply religious souls.”

Quite a significant number of Nobel Prize-winning scientists in the last century alone believed in religion and God and have also done pioneer work in modern branches of science. Despite the spread of misinformation about religion, a survey conducted by the Pew Research Center in 2009 found that just over half of the scientists (51%) believe in some form of deity or higher power.

As a matter of fact, Islam does not negate critical inquiry. Muslim scholars who understand this viewpoint are supportive of stem cell research, genetic engineering and robotics within ethical bounds. Even traditional Muslim scholarship in early-twentieth century was not sceptical of evolution as a scientific explanation, which can be
seen in the writings of Syed Qutb\textsuperscript{xix} and Maulana Syed Abul-Ala Maududi\textsuperscript{xx}.

In history, we find that Muslim scientists were the first to break free from the axiomatic approach and introduced an observational approach to science. The paradigm shift with an observational approach which brought impetus to science has origins in early Muslim scientific work rather than in post-renaissance. Robert Briffault, in his book ‘The Making of Humanity’, asserts that the very existence of science, as it is understood in the modern sense, is rooted in the scientific thought and knowledge that emerged from Muslim Middle East. He also writes: “What we call sciences arose in Europe as a result of a new spirit of inquiry; of new methods of investigation, of the method of experiment, observation, measurement, of the development of Mathematics in a form unknown to the Greeks. That spirit and those methods were introduced into the European world by the Arabs.”\textsuperscript{xxi}

Muslims took the Greek works, updated them and translated them for wider use in both the East and the West. In 763, The House of Wisdom was founded in Baghdad. For every translated book, the state used to pay quantity of gold equal to the weight of the book so as to provide state patronage and incentives. Two Muslim women, Fatima and Miriam al-Firhi, created the world’s first university, Al-Qarawiyyin in Fez, Morocco, in 859 AD. The Al-Azhar mosque library contained 200,000 volumes. In addition to that, there were hundreds of such libraries spread in the Muslim world. The first medical center was the Ahmad ibn Tulun Hospital, founded in 872 in Cairo. This hospital provided free medical assistance to anyone who needed it without any religious, ethnic or other differences.

In those times, Muslims as well as people from around the globe with diverse religious backgrounds could carry out research under the patronage of Muslim civilization. Donald Campbell writes:

“In Europe, the unsettled conditions led to the discouragement of scholarship, while the Caliphs of Baghdad, on the other hand, afforded protection and encouragement to the scholars of all religions.”\textsuperscript{xxii}
Francis Ghiles in his essay writes: “At its peak about one thousand years ago, the Muslim world made a remarkable contribution to science, notably mathematics and medicine. Baghdad in its heyday and southern Spain built universities to which thousands flocked. Rulers surrounded themselves with scientists and artists.”

In astronomy, Muslim scientists did pioneer work which connects them with the modern scientific age, both in terms of the substance of their research and most importantly because of their commitment to evidence based scientific inquiry. Omar Khayyam and also Al Battani determined the length of the solar year with only a minute error and they did not even have the modern equipment to work with. These scientists used an astrolabe, which was built by the Muslim mathematician, Ibrahim Al-Fazari.

Copernicus benefited from the observations and geometric models of Al Battani, Al-Tusi and Ibn Al-Shatir for his monumental breakthroughs. The criticism of Ptolemy’s models appeared in the work of Muslim scientists. Copernicus built upon that critical work. Al-Battani raised trigonometry to higher levels and computed the first table of cotangents. Al-Biruni laid the foundation for modern trigonometry. Al-Biruni discussed the theory of the earth rotating about its own axis. He determined earth's circumference without modern telescopes.

UNESCO declared 2015 as the International Year of Light to celebrate amongst others Ibn Al-Haytham’s achievements in optics, mathematics and astronomy. He explained refraction and discussed gravity. He provided scores of experiments to verify his scientific work as well as performed the foundational work on building a modern camera. In essence, he promoted an experimental and evidence based approach to study the physical realities. Will Durant in his book ‘The Story of Civilization’ writes: “Muslim scholars introduced precise observation, controlled experiment and careful records.”

In describing the right attitude to science, Ibn Al-Haytham wrote:

“The duty of the man, who investigates the writings of scientists, if learning the truth is his goal, is to make
himself an enemy of all that he reads, and, applying his mind to the core and margins of its content and attack it from every side. He should also suspect himself as he performs his critical examination of it, so that he may avoid falling into either prejudice or leniency.

Thus, the spirit of objective inquiry in understanding physical realities was very much there in the works of these Muslim scientists.

The seminal work on Algebra comes from Al-Khwārizmī and Fibonacci (Leonardo of Pisa) has quoted him. Al-Khwārizmī, the pioneer of Algebra, wrote that given an equation, collecting the unknowns on one side of the equation is called ‘al-Jabr’. The word Algebra comes from that. He developed sine, cosine and trigonometric tables, which were later translated in the West. He developed algorithms, which are the building blocks of modern computers. In mathematics, several Muslim scientists like Al-Battani, Al-Beruni and Abul-Wafa contributed to trigonometry. Furthermore, Omar Khayyam worked on Binomial Theorem. He found geometric solutions to all 13 forms of cubic equations.

In biology and medicine, there were several noteworthy contributions by Muslims. Al-Razi wrote the first book on smallpox, called, ‘Al-Judrī wa al-Hasba’. Ibn-e-Sina’s Canon of Medicine was used as a standard medical text in even as late as the 17th century in Europe. Al-Zahravi was one of the pioneer surgeons and he developed various surgical instruments and methods, which were state of the art at that time and some are still used today. He is also reported to have performed the first cesarean operation. Ibn al-Nafis described the pulmonary circulation of the blood quite a few centuries before William Harvey.

In chemistry, Muslim scientists carried out perfume distillation, glass making, minting of coins and grouping chemicals based on chemical characteristics, which later on led to the modern periodic tables. In 780, Jabir ibn Hayyan, a Muslim chemist who is considered by many to be the father of chemistry, introduced the experimental scientific method for chemistry, as well as laboratory apparatus such as the alembic, still and retort, and chemical
processes such as sublimation, distillation, liquefaction, crystallisation, and filtration. Ibn Hayyan also identified many substances including sulphuric and nitric acids. Al-Jazari developed mechanical devices like watermills and water wheels to ease water management.

Even in social sciences, Muslims were modern and advanced compared to their age. The birth of capitalism as per Max Weber in “The Protestant Ethic and the Spirit of Capitalism” began in Western Europe and spread to North America xxvi. Benedict Koehler in his recent book “Early Islam and the Birth of Capitalism” argues that it is Islam, rather than Christianity that provided the organizational and ideological elements that combined and gave rise to some positive features of Capitalism xxvii.

The author explains that Prophet Muhammad (PBUH) was Himself an established entrepreneur. The author further emphasizes that Mecca was not only a Holy place, but also a very significant trading centre at that time. The author contends that Islamic teachings provided extensive guidelines on fair trade. Islamic teachings also gave due importance to writing business contracts and honouring them, both as a religious and a civic duty.

Islamic venture capitalism based on Mudarabah and Musharakah was conducive to long distance trade and to match the skills and endowments of labour and capitalists respectively. The currency system based on commodities like gold and silver was also advanced enough at that time to avoid the problems of barter trade, such as indivisibility of tradable commodities and having to match double coincidence of wants. Benedikt Koehler writes:

“In Baghdad, by the early tenth century, a full-fledged banking sector had come into being: exchanging gold and silver coins and lending money to the government and to merchants who were able to pay money into accounts in one city and draw money in another. These drafts had several names – one of them was the Persian word ‘cak’ that has come down to us as a check.”
The right to private property for men as well as women has also been duly recognized in Islamic law since fourteen centuries ago. Islamic institutions and business practices were later on adopted in Venice and Genoa. There were other Islamic institutions assimilated in Europe like Charities, Waqf and institutions of higher learning, like the Madrasah. The author argues that these higher learning institutions were models for the oldest colleges of Oxford and Cambridge.

Among the Muslim contributions to social sciences, Imam Ghazali and Ibn-e-Khuldun discussed the concept of the labour theory of value and division of labour in economics several centuries earlier than Adam Smith. The famous Laffer curve in economics was first discovered by Ibn-e-Khuldun.

In ancient history, people had regarded rivers, springs, and the sea as gods and worthy of worship. They held them to be objects of reverence rather than of conquest. Imbued with the philosophy of Monotheism, Muslims saw these phenomena of nature as God’s creations. Belief in Monotheism freed inquiry and made it possible to use materials as creatures rather than regarding them as objects of worship.

Muslims did not force Galileo to let go of his discovery. In fact, most scientific discoveries found their way into Muslim areas without much opposition. When Mongols made Tigris River black with ink of thousands of books in the siege of Baghdad, it was not Islam holding back science.

Even after the Islamic Golden Age, the majority of scientists who did the ground-breaking work in major fields of modern science were religious. Doing science does not require faith. However, it would be a strange idea that one cannot believe in religion while simultaneously contributing to science.

2.4. Non-Contradiction between Faith & Science

Qur’an is not a book of science. But, to present its basic message, it focuses our attention on different realities, both within our consciousness and in the outside natural phenomena. Modern
science has not found any error in Qur’an’s descriptive statements about nature.

As a matter of fact, Islamic texts fourteen centuries back do not say that the earth was created a few thousand years ago. In fact, Qur’an mentions that at different places in the universe, the length of the day could be hugely different as compared to earth. When Qur’an discusses the material world, its descriptions are found to be consistent with established facts of modern science. In 650 A.D., those things could not have been conceived, observed and communicated by a person who did not receive any formal scientific education.

When Qur’an focuses our attention to nature, some of its descriptive statements about the state of early universe (Qur’an, 41:11), movement of mountains and continents (Qur’an, 27:88), human development in a mother’s womb (Qur’an, 39:6), non-mingling nature of seas (Qur’an, 55:19-20), rotation of planets, stars and celestial bodies (Qur’an, 39:5), expansion of the universe (Qur’an, 51:47), relative nature of time in the universe (Qur’an, 32:5), shining of moon by reflected sunlight (25:61) and determination of sex (Qur’an, 53:45-46) are not contradictory to what we now know through established scientific knowledge.

It is inconceivable to many modern scientists who have also studied Qur’an that how can a person without extensive travel, writing ability and attending modern universities of knowledge, could explain things about history, nature and make socio-political predictions that would appear perfectly correct afterwards.

Dr. Moore, former President of the Canadian Association of Anatomists and of the American Association of Clinical Anatomists remarked at a conference in Cairo:

“It is clear to me that these statements must have come to Muhammad from God, or Allah, because most of this knowledge was not discovered until many centuries later. This proves to me that Muhammad must have been a messenger of God, or Allah.”
The historical accuracy of Qur’an’s socio-political predictions, perfect transmission through ages of its text, the unique eloquent language it carries and its accurate description of humans and nature should compel one to give it a sincere reading and reflect on its basic message. The basic message for us is that we are not created without any purpose. As per Islam, the purpose is to excel in our duties to Allah with a thankful attitude and be kind to all of His creations including humans, plants and animals we interact and live with.

If a religious text is transmitted generations after generations with perfect historical accuracy and consistency and whose descriptive statements about history and future are verified perfectly and whose descriptive statements about what we see across nature and within ourselves is accurate and verified by established discoveries of modern science, then it is certainly a very serious candidate for us to consult in exploring the question of why life and for what purpose? As a matter of fact, Qur’an is such a book which comes true on all the above mentioned characteristics.

2.5. Does Faith Constrain Progress and Use of Science

Does faith require abandoning reason, reflecting on the matter, searching for physical answers and finding physical solutions? As per religion, using material means, experimentally proven knowledge and medication is not problematic. For instance, in psychological disorders and problems, the cure needs to be searched in medication rather than spiritual exercises alone.

Religion is not just concerned with psychological and spiritual medication and meditation. It is concerned essentially with the question of why life and for what purpose. The religious answer based on historically transmitted knowledge is that we are created by the Creator and Who will reward us justly in the afterlife. The afterlife will actualize the cause and effect in ethical matters and establish absolute justice which we desire for every action and intention. Qur’an repeatedly reminds of the blessings of Allah in the form of matter and mind which we use for our comforts and cures. After using the matter and mind which exists not because of our
efforts, how rational and ethical it is that we remain not only thankless, but negate the one Who is to be thanked altogether.

The sole purpose of religion is not to be a psychological panacea or just a little bit more numerous, better and different social set of norms. It is concerned with questions of why life and for what purpose. Both matter and mind exist without us creating them. We merely use them without being the original creators of those things.

Internal to us, we have an urge to find meaning to life and our existence. Our consciousness asks for a suitable explanation. Have we come to exist by chance? It is highly unlikely given the extremely accurate conditions required in numerous factors for the life to exist. The human mind suggests that there should be a Creator for everything which is not its own creator. Therefore, faith in God is not based on speculative conjecture of 'god of the gaps'. Taking a position that there must be a Creator of this universe is a logical answer instead of believing in existence due to blind random forces.

To complement our internal urge to believe in a Creator, we are also provided guidance external to us. Allah has introduced Himself through His books and messengers (pbut). Qur’an, the most authentic and the last divine book in presenting basic premise of Islam focuses our attention on some aspects of nature. Modern science instead of undermining faith has actually found nothing inconsistent about these statements with established facts of science.

Nowhere in Islam, is it said that one should replace physical efforts with mere supplication. Islam urges Muslims to explore and use nature for societal well-being and pursue economic sustenance. Tremendous advances in science happened in the heyday of Muslim civilization which stopped partly due to genocide and massacre carried out in Crusades and in the invasion of Baghdad by Mongols. Those who took science further in West were also mostly religious people for a long period of time.

Pervez Hoodbhoy, a noted Physicist, asks that if Salat-e-Istasqa is performed, then why it does not rain often? He wrote: “The equations of fluid flow, not the number of earnest supplicants or
quality of their prayers, determine weather outcomes.” The answer is that Salat-e-Istisqa is a voluntary prayer to ask Allah’s blessings. Collective performance of this prayer is not the replacement of physical efforts or understanding of physical phenomena. It only serves as a moment of reflection and reminder for the people who pray. For instance, when Qur’an says that Allah provides sustenance, it does not imply that we sit idle and do not engage in Kasb-e-Halal (legitimate economic enterprise). Likewise, if physical efforts or physical understanding can help in dealing with physical problems, then all efforts towards these ends shall be undertaken.

The real and fruitful jurisdiction of science is to understand matter for its effective use by developing working and functional hypotheses, testing them and refining them to achieve this objective. Prof. Stephen Hawking explains:

“Any physical theory is always provisional, in the sense that it is only a hypothesis: you can never prove it. No matter how many times the results of experiments agree with some theory, you can never be sure that the next time the result will not contradict the theory.”

Prof. Karl R. Popper in his book ‘The Logic of Scientific Discovery’ wrote: “The game of science is, in principle is without end. He, who decides one day that scientific statements do not call for any further test, and that they can be regarded as finally verified, retires from the game.” He further writes that: “Our aim as scientists is objective truth; more truth, more interesting truth, more intelligible truth. We cannot reasonably aim at certainty. Once we realize that human knowledge is fallible, we realize also that we can never be completely certain that we have not made a mistake.”

In explaining this important point, Prof. Karl Popper gives an analogy. He writes:

“What we aim at is truth: we test our theories in the hope of eliminating those which are not true. In this way we may succeed in improving our theories—even as instruments: in making nets which are better and better adapted to catch our fish, the real world. Yet they will
never be perfect instruments for this purpose. They are rational nets of our own making, and should not be mistaken for a complete representation of the real world in all its aspects; not even if they are highly successful; not even if they appear to yield excellent approximations to reality.”

Norman Campbell in his book “What is Science” writes that at no time, can it be claimed that science has reached the final and conclusive stage of reality in the analysis. This is not even claimed in the most contemporary sciences. It is accepted that for any law, which seems plausible currently, it is still possible that the causal relation it explains is subject to change in future. He further writes that there certainly are problems and even practical ones where science cannot help us decide one way or the other. In serving people’s needs, one of the biggest hurdles is that these limitations of science are not well understood. When sometimes science has been undermined or overlooked, it has happened because the scope of science has been unduly broadened to areas where it does not belong to and this has caused damage to the cause of science.

Albert Einstein in his essay ‘Religion and Science: Irreconcilable?’ writes: “The function of setting up goals and passing statements of value transcends its domain”. He further writes: “The independent and fundamental definitions regarding goals and values remain beyond science’s reach.” Also, Norman Campbell in his book ‘What is Science’ states that like all bodies of knowledge, science has it limits and there are some external problems, whose nature is such that science cannot help in resolving them. This should never be overlooked. Despite helping us to understand the external world, science cannot give us even a clue as to what end we should use a particular force or energy.

Prof. Stephen Hawking once said: “I have noticed even people who claim everything is predestined, and that we can do nothing to change it, look around carefully before they cross the road.” Religious faith does not mean that after accepting faith, one can walk on water, fly in the air or defy physical limits in any other sense. Religion concerns moral content in choices made with free will. Repeatedly, Qur’an asks people to strive for knowledge, discovery,
exploration and virtuous livelihood. Nowhere there is a restriction on planning or in using material resources bestowed by the Creator.

Islam and science are not at odds as commonly perceived. According to World Values Survey Sixth Wave results, 32.73% Muslim respondents completely agreed that science and technology are making our lives healthier, easier, and more comfortable as compared to 24.89% non-Muslims citing the same opinion. The opinion was asked of respondents on a 10-point rating scale where 1 represented completely disagreed and 10 represented completely agreed. It is interesting to note that 80.13% Muslim respondents chose response between 6 to 10 on the scale as compared to 78.25% non-Muslims choosing the similar response.
Chapter 3

Role of Faith in Modern Society

3.1. Sustainability Challenges in Age of Science

According to World Values Survey sixth wave (2010-2014) data for 60 countries, 27.7% Muslim respondents stated that ‘looking after the environment and to care for nature and save life resources’ best describes their view and attitude towards the environment as compared to 22.5% non-Muslims stating the same view. It is interesting to note that top 5 countries with largest carbon emissions are: China, United States, India, Russia and Japan and none of them is a Muslim majority country.

Species extinction, global warming, climate change, depletion of ozone layer and massive carbon emissions are contemporary problems that we face. In a post-industrial society, humans have pushed planetary boundaries by unprecedented carbon emissions, deforestation and sea contamination, all of which is accelerating global warming. The sustainable existence of life and life-supporting systems requires responsibility, humility, contentment and commitment in place of the self-centric pursuit of instinctive pleasures. We have pushed planetary boundaries through the unprecedented burning of fossil fuels, rapid deforestation, contamination of seas and which has caused a rise in temperature, frequent heat waves, floods, melting of glaciers and enormous loss of marine and tropical forest species.

Some three centuries after the onset of the industrial revolution, we have achieved phenomenal economic growth. Gross World Product has risen from a mere $100 billion in 1700 to $78 trillion in 2014. During the 20th century, the world population increased by a factor of 4, whereas the industrial output grew by a factor of 40. However, the intensity with which environmental resources are used increased sharply. The last two generations in the twentieth century
alone brought an increase in energy consumption by a factor of 16. Fish harvesting increased by a multiple of 35 and carbon and sulphur emissions grew 10 times \(^{xxxiv}\).

It is estimated that continued use of fossil energy will lead to an increase of the average global temperature by 1.0–3.5 degree Celsius in the coming 50–100 years \(^{xxxv}\). Remarkably, 97.1% of scientists endorsed the consensus position that humans are causing global warming \(^{xxxvi}\). The recently concluded COP21 conference in Paris in 2015 on climate change put forward an agreement to reduce greenhouse emissions and control global warming. However, the agreement will become legally binding if joined by at least 55 countries which together represent at least 55% of the global greenhouse emissions. Recently, USA has withdrawn itself from the Paris agreement.

In addition to the above anthropogenic disruptions, the global sea levels have risen by about 8 inches since 1870, according to World Research Institute. Ironically, we have a garbage island of the size of India, Europe and Mexico combined floating in our oceans. On the other hand, we also waste almost half of the food that we produce \(^{xxxvii}\).

Thus, the enormous economic growth that we have achieved has come at a significant cost to the environment and life supporting systems on the planet \(^{xxxviii}\). Even the benefits of the economic growth have not been shared equitably among the last five human generations. According to Oxfam, the 8 richest billionaires own as much wealth as the poorer half of the world’s population \(^{xxxix}\). Their combined wealth is $426.2 billion as of end-2016. As per World Bank, there are 767 million people below the poverty line of $1.90/day. It means that poverty gap is $531.9 billion (1.90 x 767,000,000 x 365) per year. Comparing the wealth owned by only the richest 8 persons ($426.2 billion) and the total global poverty gap funding requirement ($531.9 billion), one can see how redistribution of wealth can help in pooling poverty alleviation funds. Oxfam reports that global wealth has reached $255 trillion. It is enough to give $1 a day to 767 million poor people for 910 years.
In contrast, one in every four people in Africa goes to bed hungry every night, according to Food and Agriculture Organization. Hunger kills more people each year than AIDS, malaria and tuberculosis combined. Do we really have a scarcity of resources due to which we cannot end poverty, hunger and famine? Nobel Laureate, Amartya Sen did research on famine in Bengal and he argued that the famine was not caused by the lack of resources\textsuperscript{xii}. Strikingly, according to the Food and Agricultural Organization, for the world as a whole, per capita food supply rose from about 2,200 kcal a day in the early 1960s to more than 2,800 kcal a day by 2009\textsuperscript{xli}.

Deep within, this state of affairs represents an enormous moral crisis\textsuperscript{xlii}. The rapid deterioration of human environment is nothing but a crisis of values\textsuperscript{xliii}. This position is not a default outcome of random interactions of matter. We have reached this point as a result of conscious human actions, even if they represent a minority of affluent human beings. The views about life affect our preferences and choices. Thus, the sustainable existence of life and life supporting systems hinges upon a social contract and worldview which can inculcate the notion of responsibility, humility, contentment and commitment in place of the self-centric pursuit of instinctive pleasures with envy and carelessness in our minds.

Even if the fiat money is printed excessively, it cannot substitute and exchange nature beyond capacity. Estimates suggest that the minimum annual average value of ecosystem services is 1.8 times the global Gross National Product (GNP)\textsuperscript{xliv}. Hence, the replacement cost is more than the economic output that we produce annually. On the other hand, many ecosystem services are literally irreplaceable. Nature is irreducible to its purely quantitative aspect, just as a book is irreducible to its weight or dimensions.

\textbf{3.2. How Much Faith Matters for Future of Society}

The theistic concepts of \textit{Tawheed}, \textit{Khilafah} and \textit{Akhirah} govern the Islamic way of life. Belief in the single source of creation defies racial, ethnic or gender basis of biases. According to Islam, all creations belong to \textit{Allah}. \textit{Tawheed} also implies interrelatedness of all things in nature due to common status as creatures originating
from a single source, i.e. the will of a Supreme Being. Animals and plants are partners to man in the universe\textsuperscript{xliv}. Simultaneously, the concept of \textit{Khilafah} raises the stature of human beings as moral beings with an inbuilt and active conscience, which provides the ability to differentiate moral from immoral acts. The concept of \textit{Khilafah} inculcates the responsibility of custodianship, trusteeship and stewardship in human beings with regards to the use and ownership of physical property and environmental resources. The two worldly view of life in Islam extends the decision horizon of economic agents, be they firms or consumers.

While the concept of \textit{Tawheed} creates an equal basis for humans to use what is bestowed in nature, the concept of \textit{Khilafah} instils stewardship towards the responsible use of natural and environmental resources without pushing planetary boundaries and causing precious loss of biodiversity. Hope and Jones investigated the link between faith and attitudes to environmental issues. As per the findings, the Muslim participants argued that the continued burning of fossil fuels would be immoral because it could disrupt the balance of nature, leave a dubious inheritance for future generations, and would constitute poor stewardship of \textit{Allah’s} creation, for which humans would be judged\textsuperscript{xlvi}. Ansary gives an account of how religious motives in practice prove to be strong motivators for environment friendly actions like conservation and tree plantation than just the laws of the land\textsuperscript{xlvii}.

Environmental stewardship requires that we use natural resources ethically so as to equally improve the welfare of society, other living organisms, and future generations\textsuperscript{xlviii}. In the Islamic worldview, the relationship between humans and nature is one of custodianship or guardianship, and not of dominance\textsuperscript{xlix}. The earth’s resources are available for humanity’s use, but these gifts come from God with certain ethical restraints. We may use the resources to meet our needs, but only in a way that does not upset ecological balance and that does not compromise the ability of future generations to meet their needs\textsuperscript{l}.

The Islamic moral injunctions influence preferences through moral filtering of the consumption set by identifying the moral ‘bads’. The moral philosophy imbued with socio-ethical spirit extends the
decision horizon of consumers. It encourages the transformation of self-centric self-interest into self-cum-social centric self-interest. The moral injunctions explicitly extol virtuous philanthropy. Finally, by flattening all other basis of distinction except on piety, Islamic values garner contentment whereby, the consumer is asked to avoid envious and conspicuous consumption of luxuries.

Islamic philosophy of life prioritizes equitable distribution over Pareto efficiency. Overreliance on Pareto efficiency paralyses the equity and ethical concerns of development policy change. As per Pareto efficiency, it is inefficient to help millions of poor to make them better off while making any single rich person worse off. While Islamic principles allow freedom and liberty in lawful consumption within the moral boundaries, they induce affirmative action to promote well-being when people possess the means. In contrast, according to consumer sovereignty, as long as people can put up dollar votes for their preferences, resources will be allocated on producing, marketing and distributing inessential goods even if a quarter of the world population lives in poverty and suffers from hunger, malnourishment and curable diseases.

Rather than complimenting humans in their animalistic instincts to keep having a one-eyed focus on material well-being only, Islam inculcates piousness, kindness, cooperation and communal responsibility in humans. In some instances, Islam guides explicitly to avoid extravagance, lavishness and using certain products and services which harm a human’s ethical existence and well-being either individually and/or harm the society in the process. Islamic economics incorporates ethical values and excludes from the consumption bundle various goods which bring either private loss or welfare loss to the society.

Islamic philosophy of life brings a long-term perspective to the pursuit of self-interest by informing humans about the positive and negative consequences of their actions and choices in the life hereafter. In the Godless worldview, due to the absence of afterlife accountability, the rich people with absolute and inviolable property rights can command natural and environmental resources whose potential lifespan is much more than the lives of their owners. But, if the rich people believe in no afterlife accountability, they can
extract and exploit these resources quickly and deprive future generations of their use.

Climate change is slow, but a cumulative process. Individual human lifespan is only an infinitesimally small fraction of the life of environmental resources and ecosystem services. Hence, the self-centric and this-worldly view of life is incompatible with the concerns of sustainability and socially responsible behaviour. Rather, the dogmatic commitment to self-centric worldview results in inevitable proliferation of pollution as a right and product to be bought and sold in the market economy. It is ironic, but inevitable to see measures such as ‘statistical value of life’. On the action and policy front in capitalistic democracies, voter ignorance as well as the public-good nature of any results of political activity tends to create a situation in which maximizing an individual’s private surplus through rent seeking can be at the expense of a lower economic surplus for all consumers and producers.

Mortazvi contends that Western economics has become a discipline devoid of values. Exploitation of the natural environment can be abated when individuals consider intergenerational welfare and justice to be important factors in their economic decisions. Na’iya suggests that the effective solution to the environmental problems depends on the overall worldview which spells out the relationship between man, nature and his Creator. Religion provides such meaningful conditioning which enables bringing the right balance between human aspirations and the physical limits of nature. Religion also promises salvage from the limitedness of this worldly life in heaven which will be awarded to the most righteous people. This, in turn, provides a permanent incentive to choose righteous behaviour as an end in this world with the hope and fear of deterministic results in the life hereafter.

3.3. Values Based Reinforced Learning to Foster Commitment

The Sustainable Development Goals (SDGs) as successor to Millennium Development Goals (MDGs) represent a broader intergovernmental agreement to foster action on broad-based development encompassing economic development, human development and environmental sustainability. There are at least 6
out of 17 goals which are closely related to the environment. The Goal 6 on water and sanitation aims to ensure availability and sustainable management of water and sanitation for all. The Goal 7 on energy aspires to ensure access to affordable, reliable, sustainable and modern energy for all. Goal 12 on consumption targets sustainable consumption and production patterns. Goal 13, on climate urges action to combat climate change and its impacts. Goal 14 on marine-ecosystems emphasizes conservation and sustainable use of the oceans, seas and marine resources for sustainable development. Finally, the Goal 15 on ecosystems vows to restore and promote sustainable use of terrestrial ecosystems, sustainable management of forests, combating desertification and check land degradation and biodiversity loss.

When we look at Islamic environmental ethics encapsulated in Islamic principles, we find that they complement these SDGs and can act as a catalyst to foster commitment, responsibility and affirmative action for sustainable and congenial co-existence with the environment. With the concept of afterlife accountability, Islam immensely influences intertemporal choice and behaviour. It helps in private economic agents (consumers and producers) to modify their actions in such a way that takes externalities into consideration and also their own welfare, both in this world and afterwards. The discussion of ‘protection of progeny’ as Maqasid-e-Shari’ah by Imam Ghazali shows the ethical commitment to sustainable existence in an Islamic paradigm much well before the reactionary focus in the West about sustainable development. Below, we mention some verses from Qur’an and sayings of Prophet Muhammad (PBUH) which discuss the responsibilities to the environment.

It is pertinent that humans incorporate social costs in their private actions for achieving environment related SDGs. If we want clean air, fresh water and proper sanitation for ourselves, then we must also like these things for others living in the present age as well as those who are to come in this world in the next generations. Prophet Muhammad (PBUH) said that a Muslim is one who avoids harming Muslims with his tongue and hands. (Source: Sahih al-Bukhari, Vol 1, Book 2, Hadith No. 9).
The realization of the enormous value of nature and environment even if it is in no one’s private ownership is vital for fostering a culture of care and responsibility towards the environment. Qur’an refers to nature as ‘Ayat’ (signs). Affirmative actions towards preserving and conserving environment are needed as a culture for achieving environmental sustainability. Islamic philosophy of life provides the necessary impetus and deterministic rewards for affirmative action towards promoting positive externalities in the environment. Prophet Muhammad (PBUH) said: “Whoever plants trees, God will give him reward to the extent of their fruit.” (Source: Musnad, Vol 5, Hadith No. 415).

Climate change and environmental degradation is a slow and cumulative process. To resurrect environment, the efforts also need to be cumulative and consistent. A self-centric secular worldview encourages the self-centric use of private property resources. However, even small things done collectively and consistently can have a compounding effect. The two-worldly view of life in Islam encourages socially responsible behaviour as one of the prime determinants of salvage in the life hereafter. Prophet Muhammad (PBUH) said: “If the Resurrection were established upon one of you while he has in his hand a sapling, then let him plant it.” (Source: Musnad Ahmad, Hadith No. 12491).

Qur’an informs that other species also praise and thank the Creator for the blessings. Qur’an says: “Do you not see that to Allah bow down in worship all things that are in the heavens and on earth - the sun, the moon, the stars; the hills, the trees, the animals; and a great number among mankind?” (Qur’an, 22:18). The single source of creation as encapsulated in the concept of Tawheed undermines the tendency to feel ‘fittest survivors’. It brings humility, congeniality and peaceful co-existence with other life in the environment. Prophet Muhammad (PBUH) said: “A good deed done to a beast is as good as doing good to a human being; while an act of cruelty to a beast is as bad as an act of cruelty to human beings”, and that: “Kindness to animals was promised rewards in life hereafter.” (Source: Mishkat al-Masabih; Book 6; Chapter 7, 8:178).

In another narrative, the Prophet (PBUH) was asked whether acts of charity even to the animals were rewarded by Allah or not. He
replied: ‘yes, there is a reward for acts of charity to every beast alive.’ (Source: Sahih Muslim, Book 26; Hadith No. 5577).

Killing animals for fun or mere sport is strictly disallowed in Islam. In order to protect land, forests and wildlife, the Prophet Muhammad (PBUH) created inviolable zones known as hima and haram, in which resources were to be left untouched. Hima applies particularly to wildlife and forestry and usually designates an area of land where grazing and woodcutting are restricted, or where certain animal species are protected.

As mentioned earlier, almost half of food goes wasted while on the other hand, one out of every nine people in the world suffers from hunger, according to Food and Agriculture Organization. Islamic principles discourage conspicuous consumption on luxuries. The Qur’an says: “But waste not by excess: for Allah loveth not the wasters.” (Qur’an, 6:141) When Prophet Muhammad (PBUH) saw Sa’d performing wudu, He (PBUH) said: “What is this? You are wasting water.” Sa’d replied: “Can there be wastefulness while performing ablution?” Prophet Muhammad (PBUH) replied: “Yes even if you perform it in a flowing river.” (Source: Ibn-e-Maja, VI, Hadith No. 425).

Even with finite resources, we can still do much better in reducing hunger, malnourishment, child mortality and deaths from easily curable diseases. This requires a transformation of self-centric self-interest view of life into self-cum-social-centric one. Prophet Muhammad (PBUH) said: “Among the three types of people with whom God, on the Day of Resurrection, will exchange neither words nor look at is the one who possesses an excess of water but withholds it from others. God will say to him: Today, I shall withhold from you my grace as you withheld from others, the excess of what you had, but which you did not create.” (Source: Sahih Al-Bukhari, Vol 3, Book 40, Hadith No. 557).

The drive for mutual help, engendering compassion, respecting biodiversity, equity and sustainability require upholding values which are strengthened by religion. Else, the same scientific advances can be used to drop atomic bombs, use chemical weapons and spend on military more than on hunger. Godless perspective
promotes individualism and selfishness. Environmentalists call the post-industrial age as 'Anthropocene' (Human Age) since humans have pushed planetary boundaries which have put the life at risk for various species including for homo-sapiens themselves.
Chapter 4

Response to Misconceptions on Faith

People can take justice into their own hands if they are allowed absolute freedom. We need institutions which can impose certain restrictions on all of us so that we can enjoy our freedom without denying freedom to others. Establishing state, enacting laws through legislation and implementing these laws through police and courts is part and parcel of even the most liberal social doctrines and actual contemporary liberal societies.

Islam is also such an institution which though put restrictions on one’s absolute freedom (as do all other systems) in some aspects, but Islam not only safeguards the rights of the people, but, more importantly and fundamentally, it gives meaning to the life and to our own existence. This chapter attempts to clarify the misconceptions people have about the faith of Islam.

4.1. Women Rights

Hammami argues that the desire for equality with recognition of difference is a basic dilemma in the discussion on Islam and rights of women. Islam grants equal rights to all humans in almost all matters irrespective of gender. On the other hand, Islam identifies certain natural differences which entail that there can be effective institutionalization of the family system by having specialization of roles. It does not mean that the roles remain completely non-overlapping.

Muslim countries are not a homogeneous group. Muslim countries show tremendous political, economic and cultural heterogeneity. It is not entirely true that Muslim women in Muslim majority communities are challenged by religious norms. Rather, women embrace, preach and lead Islamic discourses and movements in countries, such as Indonesia.
Hashim contends that Islam provides generous rights to women in many matters and Muslim societies do not need to look beyond their faith towards providing women human, civil and socioeconomic freedoms. Warren opines that distinctions between religion and culture will provide a flexible basis of legal and cultural changes in the Muslim society.

For OIC countries where data is available, there are 16 out of 52 OIC countries whose proportion of women parliamentarians exceeds the average of middle-income countries. In 17 Muslim majority countries, legislation for ensuring equal remuneration has been made. In 16 Muslim majority countries, legislation for ensuring non-discrimination in hiring has been made. Furthermore, except in Suriname, there has been legislation to provide maternity leave in all OIC countries. Such legislation can ensure a long-term stay in labour force as well as re-entry into the labour force. In 38 Muslim majority countries, legislation for ensuring no child marriage has been made. Nonetheless, in other countries where such legislation is yet to be made, it is not due to Islam. Rather, Islamic principles are favourable to equal remuneration to same quantity and quality of work, non-discrimination on hiring and providing personal and social freedoms to women in planning their families.

The institution of family is highly respected in Islam. Women are an indispensable part of this institution. As per Islamic worldview, mental and physical capabilities that we enjoy are the blessings of Allah and we hold them as a trust. Therefore, based on the differences in these mental and physical capabilities alone, no one is superior and powerful in the eyes of Allah.

As per Islam, the following is a brief summary of women rights.

- Muslim women must educate themselves like men. Education is not only allowed, it is compulsory for women like for men (Source: Sunan Ibn-e-Majah, Book of Sunnah: Hadith No. 224).

- Women can choose an occupation and earn their livelihood. They are allowed to do that. But, they are not made
responsible for it. Men are made responsible for it in the Islamic family system.

- Women have the right to own property and engage in trade. The first wife of Holy Prophet (PBUH) was a businesswoman. It was not until the late 1870s onwards in Europe that married women achieved the right to enter into contracts and to own property. In France, this right was not recognized until 1938. Also, women got the right to vote in the USA less than 100 years ago only.

- Women have the right to choose their husbands and the right to separate from their husbands.

- Married women are entitled to ‘Mehr’ (wealth at the start of marriage) as well as ‘Wirasat’ (prescribed share in wealth at the death of husband, children and parents).

- Mother must be respected three times more than the father according to a Hadith (Source: Sahih Al-Bukhari, Book of Manners, Hadith No. 5971).

- In another Hadith, it is said that ‘paradise lies beneath mother’s feet’ as a symbolic representation to highlight the importance of how critical one’s attitude towards mother really is for having eternal success in the life hereafter. (Source: Sunan Al-Nisai, Book of Jihad, Hadith No. 3106)

- As per a Hadith, best men are considered those who are best to their wives. (Source: Jam-et-Tirmizi, Chapters on Suckling, Hadith No. 1162)

- No man is allowed to have extra-marital relationships with any other woman.

- Adultery and prostitution is a severe crime in Islam and can lead to capital punishment.

In fact, one of the arguments of non-believers in Arab was to say that how can we accept this religion which gives such rights to
women. Prophet Muhammad (PBUH) Himself married an old widow to set an example. Several non-Muslim historians for this reason hold the view that Islam modernized the Arab world at that time in terms of human rights and especially the women rights. Gustave Le Bon says in his book Arab Civilization:

“The principles of inheritance which have been determined in the Qur'an have a great deal of justice and fairness. The person who reads the Qur'an can perceive these concepts of justice and fairness in terms of inheritance through the verses I quoted. I should also point out the great level of efficiency in terms of general laws and rules derived from these verses. I have compared British, French and Islamic Laws of inheritance and found that Islam grants the wives the right of inheritance, which our laws are lacking while Westerners consider them to be ill-treated by the Muslim men.”

But, in reality, we also see things like honour killing and discouragement of education and social mobility of women in some parts of the Muslim world. Moreover, we also see strong encouragement for complete body covering in some Muslim societies. Briefly, we give an answer to these issues. Honour killing has nothing to do with Islam. It is to do with ignorance and especially about Islam. Education is a religious responsibility for all Muslims, men and women included. Regarding social mobility, there is no strict restriction, but a set of etiquette. The etiquette is also prescribed for men (Qur’an, 24:29). Women are also prescribed to cover themselves modestly in public (Qur’an, 24:29). With this modesty, they play socio-economic and even political roles as well in most part of the Muslim world. Regardless of how much the Muslim societies conform or do not conform to the Islamic ideals, the Islamic standpoint does not negate socio-economic mobility of women. Islam asks both men and women to lead their lives virtuously and it is only God-consciousness and good actions which make one person more successful than the other in the grand purpose of this life in the Islamic worldview.
The Islamic family system makes husbands responsible as head of the family. This also means that they have an additional responsibility since husbands are made primarily responsible for their family’s financial sustainability. In Muslim societies, low labour force participation by women is not because of strict prohibitions by Islam. The economic and social role of women had remained important, especially in building the social capital. The primary contribution and expected responsibility of women as mothers is to inculcate right values as first nursery and learning institution for their children. Undocumented labour that women provide in agrarian economies understates their economic role in some Muslim countries where agriculture is still a significant contributor to the national income. As Muslim economies become more knowledge-based and industrialized in future, the labour force participation of women will further increase.

The institution of family brings social capital into existence. It ensures empathy and responsibility. It brings a very lasting and durable social safety net. Islamic injunctions about how to treat orphans foster social security for individuals with special circumstances. Furthermore, the Islamic inheritance laws ensure that the wealth of the deceased is distributed widely among the members of the family of the deceased and this permanently and systematically ensures reducing the concentration of wealth in every generation.

Empirical evidence shows that more crimes happen against women in societies where the family institution had been ignored or established with different norms. An international report from the Social Trends Institute highlights that the frequency of unwed mothers is much less in OIC countries of Asia & Africa as compared to non-OIC countries, especially Europe. In addition to that, divorce rates are considerably higher in non-OIC countries as compared to OIC countries (UNSTAT, 2011). Also, reported crimes against women are more in numbers in regions with less Muslim population. According to FIA, around 100,000 women suffered from rape crime in the USA alone in 2016. Most definitely, these societies can have a market for day-care, old homes, free and paid sex experiences, but they may lack a strong family system, social
capital and ethical standards which can make a human society any different from non-human ones.

4.2. Democratic Values

Samuel Huntington in his book raised the debate of clash of civilizations and argued that Islam has ‘bloody borders’\textsuperscript{53}. Let us look at the defence budget of two major world economies. United States ($596 billion) and China ($215 billion) together spend $811 billion on the military. How is this related to economics is not difficult to understand as development expenditure is compromised to spend on the military. As per World Bank, there are 767 million people below the poverty line of $1.90/day. It means that crude poverty gap is $531.9 billion (1.90 x 767,000,000 x 365) per year. The annual defence spending of the USA alone is more than what is required to pay $1.90 a day to each and every poor person in the world.

Huntington may classify democracy as an exclusive feature of western civilization. However, Islam, instead of discouraging democratic culture, instructed Muslims to instigate consultative decision making (\textit{Shura}) as a recurrent process and guiding principle for collective decision making in their socio-political systems [\textit{Qur’an, 42:38}].

Instead of autocracy and exploitation, Islamic principles engender strong accountability (\textit{hisbah}), limit the government’s power of levying exorbitant taxes and ensure socio-economic justice and civil equality. Islam directs Muslims to uphold justice and instructs that even enmity of a nation must not make them leave the path of justice. [\textit{Qur’an, 5:8}]. Injustice is one of the main hurdles in bringing about peace in this world. Injustice in politics, in economics and in every sphere of life must be avoided as per Islam.

On the other hand, Secularism as a philosophy or comprehensive doctrine is not entirely democratic if it does not allow religion to prevail in public sphere of life even democratically. Islam permits individual freedom in choice and practice of one’s religion or comprehensive doctrine. Muslim countries may not present the best
examples of this commitment and they should correct themselves based on Islamic injunctions.

Secularism claims to be 'neutral' about religion, but in effect, it could turn out to be 'insensitive' to religion in several practical instances. Can we say there is a discrepancy between philosophy and practice? However, in the case of ideologies like Secularism, nothing is divine. Both its philosophy and practice is a result of human conception and attitudes. In its worst examples, the 'public' sphere of life can result in laws and policies which ban Hijab, beard, modest dress and in the case of a recent event, the ban of particular names for babies in some places in East Asia. 'Private' sphere of life then reduces to home alone. That is one's private sphere since ancient times anyways.

Those who suggest that Muslims should blindly follow the Western countries for higher morals, they must note that some of the Western countries who claim to be secular deprive Muslims and people from other religions to practice their religion and uphold their values and cultural symbols. For instance, European countries where there is full-scale or limited-scale ban on Hijab include: France, Belgium, Latvia, Netherlands, Spain, Italy, Denmark and Germany. But, European countries where prostitution is legal include: Armenia, Austria, Belgium, Czech Republic, Denmark, Estonia, Germany, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, Monaco, Netherlands, Poland, Portugal, Slovakia and Switzerland.

4.3. Terrorism and Violence

Jihad is a broad term and it encompasses academic, diplomatic and moral support and contribution to the righteous cause. In the specific meaning of armed struggle, Qur’an says that Jihad in the meaning of armed struggle can only be undertaken for the sake of eliminating injustice and persecution (Qur’an, 22: 39).

It is not a fight against non-Muslims. It is a fight against injustice. It can only be undertaken as a last resort to eliminate injustice and persecution. It can only be undertaken by the government and cannot be done privately. Jihad cannot be undertaken for the
expansion of the state, against innocents, against non-combatants and against the contract of peace if it has been signed.

According to Islamic worldview, Allah sent His messengers who invited mankind towards Tawheed (belief in no Creator except one), belief in afterlife accountability and to adopt righteous conduct in all spheres of life. Some of these messengers were sent as Rasool, who could not be subjugated or denied without consequences (Qur’an, 58:21). The struggle of these Rasool goes through propagation and the conclusive establishment of truth (Itmam-e-Hujjat) followed by a divine appraisal. Itmam-e-Hujjat refers to the situation where truth is explained in its complete sense and whereby, further denial of the truth could only remain due to prejudice, pride or communal interests. After Itmam-e-Hujjat, the direct recipients have to accept the message received. If they refuse the truth, then they have to face divine appraisal in this world.

According to the Islamic worldview, this world is a place for a test where the objective of creation of man is obedience to Allah. Those who disbelieve without any reason and remain disobedient and thankless to their Creator, they will not be successful in the afterlife. Those who will be obedient, steadfast and morally upright, they will be successful and rewarded in the afterlife.

The direct recipients get the message of truth firsthand, so if they deny the truth after Itmam-e-Hujjat, they get the divine appraisal in this very world as well. Establishment of this divine justice becomes a way of remembrance for all human beings who are to come in this world that they have to face accountability in the afterlife for all their actions. This scheme of providing divine appraisal in this world as an experimental proof was not just specific with Ishmaelite, but also happened consistently with nation of Noah, nation of Aad, nation of Samoud, nation of Lot, nation of Shuaib nation of Younus, nation of Musa and nation of Jesus before Prophet Muhammad (PBUH).

Non-believers of Prophet Muhammad (PBUH) were also dealt in the same way by Allah. The only difference was that in the case of Prophet Muhammad (PBUH), this divine punishment came in the form of the defeat of non-believers in the armed struggles with the
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believers. It is because in the case of Prophet Muhammad (PBUH), there were enough followers and these armed battles also became a way to distinguish between true believers and Munafiqun (hypocrites) (Qur’an, 8:17).

As a matter of fact, less than 800 non-believer combatants died who fought in actual wars with the believers in the life of Prophet Muhammad (PBUH). In only the twentieth century, more than 200 million people lost their lives in wars. So, 5,500 humans lost their lives each day on average in the twentieth century in wars. At the time of entering Makkah as the victor, Prophet Muhammad (PBUH) forgave all those who persecuted Muslims and who banished Muslims from their native lands.

In various time periods, messengers of Allah came with undeniable signs to their nations. When their nation decided to not accept the message which was received directly and conclusively with undeniable signs, then the non-believers were punished by Allah in the form of natural calamities if the believers were fewer in number or through the triumph of the believers over the non-believers as in the case of Prophet Muhammad (PBUH). The specific verses in Qur’an describing Jihad in the meaning of armed struggle against non-believers of those times are clear from the context that they refer to this scheme of divine justice as explained above.

This history is the common heritage of all Abrahamic religions which represents two-thirds of all human population. Qur’anic verses about Jihad specifically with non-believers are often misunderstood by West and also misunderstood by some minority Muslims as well when they generalize them out of context.

From a community of 1.6 billion people spreading in 7 continents of the world, individual instances from a small minority of deviants are picked in an effort to embarrass and tease peaceful mainstream Muslims. Close to 100 million Muslims live in developed countries alone. There has to be acknowledgement and understanding of this fact that Islam and Muslims are two different things.

There can be a difference of opinion, but selectively picking particular types of arguments, people and actions and generalizing
it over 1.6 billion people is unjustified. The primary objective of the religion of Islam is not its political enforcement. The basic thesis of religion is to inform people about their role and relation with the Creator and what moral attitudes, behaviour and actions can lead them to success in the life hereafter.

A faith must never be studied from the followers’ actions. Christianity is not to be studied in the light of holocaust, colonization, slavery in Africa and crusades. In the light of teachings of Jesus (PBUH), these events were wrong and in contradiction with the true teachings of Jesus (PBUH).

Likewise, we shall not judge liberal democracy or secular humanism based on World Wars, invasions, transnational wars, undue sanctions, embargoes, political interference to topple democratic governments, advancement in race to produce ever more destructive weapons of mass destruction, and paying lip service to thousands and thousands of people suffering from persecution in Myanmar, Gaza, Kashmir and at other places. Indeed, these actions by the particular authorities do not represent the aspirations, values and views of a common man in the West.

Qur’an says that there is no compulsion in religion (Qur’an, 2:256). This is the universal stance of Islam in the contemporary world. Islam does not teach hate and violence. It is a source of spiritual contentment and fulfilment for a quarter of the world’s population. It is what teaches a believer in Islam to never tease, hurt or inflict any harm with hands or tongue no matter whether there is any law about it and whether it is being enforced or not. As per Islamic worldview, all people will be accountable on the Day of Judgment for all their intentions and actions.

There are also several misconceptions about the rights of non-Muslims in an Islamic socio-political framework. Non-Muslims can worship at their worship places. Furthermore, the government is responsible to safeguard their worship places. No non-Muslim can ever be forcibly converted to Islam. In Islam, Muslims believe in all Prophets sent by Allah including Ibrahim (PBUH), Moses (PBUH) and Jesus (PBUH).
In Muslim Spain, Christians and Jews lived together. With the advent of Islam, it became possible that people could choose to hold on to their beliefs which could be different from the state religion. Thus, Islam is against all forms of religious and socio-political persecution. In the early Islamic period, non-Muslims in routine socio-economic milieu owned property and engaged in businesses. Non-Muslims who could not earn their livelihood received assistance from Bait-ul-Maal as well as enjoyed access to services of Islamic public endowments.

In routine engagement and relation with people of different ideologies, Qur’an describes the manner of presenting its message as follows: “Call men to the path of your Lord with wisdom and kindly exhortation and debate with them in the most befitting manner...” (Qur’an, 16:126)

4.4. Civil Rights

Islam grants equal human rights to all people. Qur’an says:

“O mankind! We have created you from a male and a female, and made you into nations and tribes, that you may know one another. Verily, the most honourable of you with Allah is the most pious. Verily, Allah is All-Knowing, All-Aware.” (Qur’an, 49:13)

Often, some people have this misunderstanding that Islam promotes slavery and hence, it is against human dignity. It is to be understood that fourteen centuries ago, slavery was common in Arabs and when Islam spread, Islam took measures to get rid of slavery in a gradual process. Islam did not invent slavery; rather it took every feasible measure to get rid of slavery through a gradual process.

Qur’an says: “And what can make you know what is [breaking through] the difficult pass? It is the freeing of a slave.” (Qur’an, 90: 12-13). Qur’an is very clear on freeing slaves when the society matured and when it became possible that ending slavery would not kick-start commercial prostitution and massive unemployment. Qur’an says: “And such of your slaves as seek a writing (of
emancipation), give them such writing...” (Qur’an, 24:33). Therefore, the correct standpoint on this issue is that Islam abolished slavery through a gradual process.

In *Zakat* rules, there was a fiscal head allocation for freeing slaves. Even in the transition period, Qur’anic verses and teachings in *Ahadith* ensured that the subordinates were to be dealt humanely. For instance, a hadith says that one should forgive the mistakes of one’s subordinates as much as seventy times in a single day (Source: Jam-et-Tirmizi, Book of Righteousness, *Hadith* No. 1949).

William Muir (a non-Muslim) in his biography about Prophet Muhammad (PBUH) writes: “Zaid, the freedman, was so strongly attached by the kindness of the Prophet, that he preferred to remain at Makkah rather than return home with his own father. ‘I will not leave thee,’ he said, clinging to his patron, ‘for thou hast been a father and mother to me.”

In Muslim world later on, slavery was abolished late. However, the sources of Islam, i.e. Qur’an and *Hadith* are very clear in their principle stand on slavery and took steps to get rid of slavery in a gradual process. The gradual process was adopted as an economic need of transition so that an abrupt change should not have caused the massive level of economic hardships for slaves and proliferation of commercial prostitution.

In the transition period, imbued with the spirit of kindness, compassion and submissiveness, the pious Muslims treated their subordinates in a kind way. This inspired many of the subordinates to accept Islam. In fact, one of the arguments of non-believers was that how can Islam give such generous rights to slaves. It was during the colonization and post-colonization period when Western powers treated slaves like animals with brutal torture and adopted un-human ways at a massive level which had no precedence in the entire history of the world. David Stannard suggests that as many as 60 million Africans were killed while being enslaved.

As per Islam, all humans are equal. No white has superiority over a black. Only piety and righteousness are the attributes that will distinguish us before *Allah* in life hereafter (Qur’an, 49:13). No rich
has superiority over a poor. Islam regards sacredness of a human life as more worthy than the Holy Ka’aba according to a Hadith. Qur’an categorically declares that killing a human being is like killing all of humanity (Qur’an, 5:32). In the light of this, one can understand the Islamic viewpoint on civil rights.
References


xxix Popper, K. (2005), op. cit.


